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**THE INFLUENCE OF LEADERSHIP POWER
ON TRUST BETWEEN SUPERVISORS AND SUBORDINATES
IN PROFIT-ORIENTED ORGANIZATIONS IN GERMAN
SPEAKING COUNTRIES**

DOCTORAL THESIS

Submitted for the Scientific Doctor's Degree (*Ph.D.*) in Economics and Business

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Riga, 2021

ANNOTATION

This doctoral thesis investigates the influence of leadership power on the trust behavior of subordinates, same as supervisors and its effect on the fluctuation rate of subordinates and the importance of trust as a leadership tool. Based on a comprehensive literature research which combines the former studies of leadership style, leadership power and trust in a profit-oriented organization between two employees with different hierarchy level and adding own qualitative and quantitative research, the main hypothesis was developed, that a defined use of different leadership powers can create a high trust level of employees to reduce the complexity of management tasks.

To define trust as a relevant factor for the economic leaders of today, the literature is fundamentally analyzed and complemented by the views of specialists and subordinates to get a reflection of the importance of trust in leadership. Beside this, the correlation of leadership power and trust based on well-known categories was prepared in the same way, and supplemented by own adaptations for visualizing the importance of trust in this economic relationship with its borders to other research fields. Due to the situation, that leadership styles are not a good predictor to create trust, a research model for the basis leadership power and trust was developed to evaluate with qualitative and quantitative background. For this, survey method with a quantitative questionnaire (242 respondents), a pre-study with 106 employees, as well as interviews with 12 specialists is done. This survey is placed in German speaking countries with respondents from companies with a high share in the automotive and manufacturing industry. The questionnaires were personally forwarded and differentiated between supervisors and subordinates in order to obtain more information from teams rather than individuals. The results of this empirical survey, which is based on well-known and earlier validated questionnaires support the main hypothesis in the direction, that the common increase of expert, legitimate, referent and reward power, while simultaneous decrease of the coercive power, creates an increase of the trust level of the subordinates. Beside others, one of the most important observed correlations is, that the former observation is specific for the coercive power. This is interesting, because it has not been observed, that the coercive power has to disappear for a maximum trust level. It just has to decrease to a defined level, which is highly interesting.

The thesis is limited to two persons with different hierarchy levels in economic cultures of profit-oriented organizations, similar to the researched German speaking ones.

Key words: leadership, power, trust, confidence, employee

JEL code: M12, M54

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ABBREVIATIONS

BE	Benevolence (Trust)
CE	Coercive Power
CO	Competence (Trust)
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortization
EX	Expert Power
IN	Integrity (Trust)
LE	Legitimate Power
LSP	Leadership Power
LSS	Leadership Style
PR	Predictability (Trust)
RF	Referent Power
RW	Reward Power
TL	Trust Level

INTRODUCTION

Topicality

One of the most influencing management problem at present is not the change of something itself, it is the speed, the complexity and the impact of the change on other, often global, strategies, areas and last but not least human resources. Today the supervisor has to collect information from different time zones around the world, different meetings and items in a constant way. Due to the huge amount of knowledge fields, it is understandable, that the supervisor often has just a limited understanding. Aspects, such as management of finance, human resources, innovation, marketing or politics are getting a higher importance the higher the management level is.^{1 2} These are for sure only a small part of influencing factors a supervisor has to handle and they can be increased with the help of other aspects of a global way of leadership, which are expected from supervisors today more than ever. Organizational, strategic or political management, internationalization, globalization and cooperation are equally important and are used as standards in the job descriptions of supervisors. In the best case, after a while the supervisor receives only information overflow, but normally the supervisor will also not understand all the things due to the high complexity and the short time period to understand it. One reason, why the present-day supervisor is more dependent than ever of his/her subordinates, is handling of this huge amount of different and complex items in the networked business world. In a global world with complex problems, to make fast decisions based on comprehensive background information, the involvement of the subordinates is needed as one important key factor to reduce the steady increase of complexity. To work on this task, supervisors may find different kind of leadership styles, which support the involvement of subordinates in different ways with different outputs in literature. As a major desired output of the leadership style (LSS), the property trust is very promising to create an environment or circumstance, where decisions can be made faster and which reduces the management complexity.

The relevance of trust increases as the system becomes more complex. Trust based processes contribute to simplify and stabilize systems by generalizing expectations, experiences and constructing symbols of trustworthiness.³ Trust is also often seen as the key coordinating

¹ Borrmann, W. A. (2013). Managementprobleme internationaler Unternehmungen. Springer-Verlag. pp.128ff

² Perlitz, M. (2004). Internationales management. utb. pp.19ff

³ Luhmann, N. (2009): Vertrauen. Ein Mechanismus der Reduktion sozialer Komplexität. Nachdruck der 4. Auflage, Stuttgart: Lucius & Lucius. pp.5-36

mechanism in the community form,⁴ which importance can be seen in yearly surveys, where trust is indicated as the most important core value for leaders since years.⁵ Also inside profit-oriented organizations and networks it is an important factor for success.⁶ The meaning of trust can be also visualized by the management concept of Fayol⁷, who formulated as one of the first the functions of management with preview and planning, organization, instruction, coordination and control. Depending of the level of trust, the last two to four steps can be replaced by trust and complexity can be reduced. The importance of interpersonal trust to increase team and organization performance effective had been recognized by Dirks & Ferrin and others^{8 9} as a category same as improving problem solving, quality of communication, team performance, sales levels and net profits. Based on this expected positive influence of trust onto the leadership output, it has been researched in the past if a special kind of leadership correlates with trust. Unfortunately the transformational, the transactional and the consultative leadership practices were all positively correlated with the team members' trust in the leader. Passive corrective and laissez-faire styles had negative relationship and active corrective leadership had no correlation with trust in the leader.¹⁰

The kind of leadership style, which is clearly concentrated and correlated to the desired outcome "trust" does not exist at all. There are the same trust correlations to totally different leadership styles. Transformational and transactional leadership is able to create trust in the same way. Due to this reason the research level of this thesis is placed one step before and leadership power (LSP), which is the input to create a defined leadership style, is placed in the spot of research.

⁴ Adler, P. S. (2001). Market, hierarchy, and trust: The knowledge economy and the future of capitalism. *Organization science*, 12(2), p.217.

⁵ Heidbrink, L., Hartung, M.J., (2020). Führungskräftebefragung 2020, Wertekommission Technische Universität München, PWC, (p.13) https://www.wertekommission.de/wp-content/uploads/2020/09/Wertekommission_FKB_2020.pdf (06.11.2020)

⁶ Köszegi, S. (2001). *Vertrauen in virtuellen Unternehmen*. Wiesbaden: DVU, pp.30-60

⁷ Fayol, H. (1929), *Allgemeine und industrielle Verwaltung*, Berlin in Schreyögg, G., & Koch, J. (2019). *Management: Grundlagen der Unternehmensführung*. Springer-Verlag. p.7

⁸ Davis, J. H., Schoorman, F. D., Mayer, R. C., & Tan, H. H. (2000). The trusted general manager and business unit performance: Empirical evidence of a competitive advantage. *Strategic management journal*, 21(5), pp.563-576.

⁹ Rich, G. A. (1997). The sales manager as a role model: Effects on trust, job satisfaction, and performance of salespeople. *Journal of the Academy of Marketing Science*, 25(4), pp.319-328.

¹⁰ Gillespie, N. A., & Mann, L. (2004). Transformational leadership and shared values: The building blocks of trust. *Journal of managerial psychology*. p.599

As a general definition of the leadership powers it can be said, that it is the capability of the leader to control and/or influence the approach and/or behavior of the subordinates.^{11 12} From this institutional perspective of management, leadership power is the basic factor of management. It describes the persons inside organizations, who are authorized with powers above others.¹³ While comparing on the one side the leadership powers with the leadership styles, even here a clear indication is just given partially. In case of referent and reward power, there is a strong correlation to the transformational leadership style only, but for the expert power, there is a strong correlation to transformational and transactional power.

So similarly to the mentioned before, where no clear differences between trust and transformational leadership style and trust and transactional leadership style could be seen, here as well the difference between leadership power and transformational leadership style is just slightly different to the transactional leadership style in case of referent and reward power. In case of a laissez-faire leadership style the expert power has just a strong negative correlation and referent same as reward power cannot be used as a predictor leadership power¹⁴ On the one side, it could be investigated, that transactional compared to transformational leaders, use harsh power strategies (reward and punishment) more frequently.¹⁵ On the other side, the definition of soft and harsh powers is not widely separated and therefore different legitimate, reward and coercive power types can be also defined as harsh power.¹⁶ Therefore, in the best case, a defined combination of different leadership powers defines a leadership style, but different leadership styles can create trust. That is the reason, why a research bridge above the leadership style does not seem to be the right way to predict trust as an outcome of leadership. To reduce the complexity and to get a predictable basis of leadership for the trust situation, the single leadership power and different trust bases have been connected directly inside this research. This simplifies the regulation of the behavior of the leader just by observing and adapting the basic inputs of leadership powers and not the complete leadership styles at all.

¹¹ Scott, J. (2007) Power, Domination and Stratification: Towards a conceptual synthesis. *Sociologia, Problemas e Practicas*, n.º 55, 2007, Doctoral Conferences at ISCTE, Lisbon, Portugal on September 28th 2007 and at the Sosiologisk Institutt, Bergen University, Norway on 19th-20th September 2007, p. 25

¹² Scovetta, V. (2013), The impact of Leadership Social Power on Knowledge Management Success, *Pro Quest LLV UMI Number 3563506*, p. 14

¹³ Schreyögg, G., & Koch, J. (2019). *Management: Grundlagen der Unternehmensführung*. Springer-Verlag. p.5

¹⁴ Ojo, A. (2015). Leadership and Power: A Study of the constructs of follower-perceived leadership style and leadership power, *Journal of Behavioral Studies in Business*, Volume 8, AABRI, pp.1,8

¹⁵ Koslowsky, M., & Stashevsky, S. (2005). Organizational values and social power. *International Journal of Manpower*. p.27

¹⁶ Mittal, R., & Elias, S. M. (2016). Social power and leadership in cross-cultural context. *Journal of Management Development*. p.60

Nevertheless, the relationship between trust and power seems to be asymmetric,^{17 18} in that trust and power are not able to reach their maximum at the same time. So trust and power in profit-oriented organizations have been researched before and can be seen in the case of trust as a factor to create easier cooperation and to reduce uncertainty, but on the other hand power is described as a similar factor, that in most cases also reduces complexity and uncertainty, to manage a profit-oriented organization. With trust, same as power the person can be influenced to do what another person wants¹⁹. Just the perspective of expectations is a different one. In the case of trust it is the version of a good outcome. In the case of power the outcome, in eyes of the subordinate can be either good, neutral or bad. So trust seems to be every time the better option for the subordinate. Power and trust especially for the supervisor can sometimes be a problem, Lammers et al.²⁰ stated that persons with high power are more immoral than persons with less power, which is based on the corruption of power of the powerful persons. The correlation between trust and power, and the influence of power to create a high trust level between supervisor and subordinate is surely highly interesting for the supervisors of today and this is what has been primary researched in this thesis. In addition it has to be remarked, that leadership and trust is researched here between a supervisor and a subordinate. It is not researched between a supervisor and a whole company or organization. Trust should be no longer only a second priority outcome of a long lasting relationship. Trust should be a predictable outcome of a defined use of the leadership power.

Research object

Management of subordinates in profit-oriented organizations in German speaking countries.

Research subject

Leadership power as a direct factor to improve the trust situation between supervisor and subordinate in profit-oriented organizations in German speaking countries.

¹⁷ Hardy, C., Phillips, N., & Lawrence, T. (1998). Distinguishing trust and power in interorganizational relations: Forms and facades of trust. *Trust within and between organizations*, pp.64-87

¹⁸ Neubauer, W. & Rosemann, B. (2006) *Führung, Macht und Vertrauen in Organisationen*, W. Kohlhammer Druckerei, Stuttgart, p.125

¹⁹ Bachmann, R. (2001). The role of trust and power in the institutional regulation of territorial business systems. University of Groningen. p.11

²⁰ Lammers, J., Galinsky, A. D., Dubois, D., & Rucker, D. D. (2015). Power and morality. *Current Opinion in Psychology*, 6, pp.15-19.

Research aim

The aim of this thesis is to evaluate the leadership power of supervisors as a predictor of trust of their subordinates and elaborate suggestions to improve the trust behavior in profit-oriented organizations.

Research objective

Based on empirical data and interviews with specialists a research model of leadership power and trust has been developed and quantitatively researched, to confirm the correlation and to define the value of trust inside profit-oriented companies in German speaking countries. With these results, recommendations to improve their leadership output and to handle complex challenges by optimizing trust as a controlled outcome of leadership have been made for managers inside profit-oriented organizations.

Tasks to achieve the research objective

1. Explore the theoretical background of leadership style (LSS) and leadership power (LSP) in general and identify their relevant inputs to create trust.
2. Analyze the theoretical background of leadership, with special view and its relation to the factor trust in a profit-oriented organization.
3. Identify the different views about trust for a profit-oriented organization. How trust works and how it can be created; definition of trust.
4. Define a direct or most independent factor of Leadership, which has a correlation to the trust situation between supervisor and subordinate.
5. Combine most relevant Leadership and trust factors to one new research model.
6. Compare the model with insights from international leadership experts for different kind of views. Understand the correlation between and the importance of trust between supervisor and subordinate.
7. Create data to research empirically the impact of Leadership onto the trust level.
8. Derive leadership behavior of leaders and supervisors to improve the performance and reactions of their subordinates in business life.
9. Develop recommendations for future research aims.

Hypotheses

The hypotheses of this dissertation are:

(H0) The kind of leadership is a predictor for the trust level of a subordinate in a profit-oriented organization between supervisor and subordinate.

(H1) Trust as a result of leadership in a profit-oriented organization has the same level for supervisor and subordinate, in real and in desired situation.

(H2) Predictability influences the leadership situation in a profit-oriented organization between supervisor and subordinate more, than benevolence, integrity and competence.

(H3) A high trust level of an employee has a positive impact on a higher binding to the company.

(H4) Referent and expert leadership powers have positive impact on the trust level of the subordinate in a profit-oriented organization between subordinate and supervisor.

(H5) Coercive and legitimate leadership powers have negative impact on the trust level of the subordinate in a profit-oriented organization between subordinate and supervisor.

Research questions

The main research questions are:

1. What is the role of trust inside the leadership of employees?
2. What trust level exists inside profit-oriented organizations?
3. What kind of leadership can be used as a predictor to increase the trust level of the employees?

Theses for defense

Suitable to the structure of the research questions, the theses are:

1. Trust is very important and belongs to the leadership of today. Between leadership power and trust variables are existing significant correlations on subordinate side.
2. Inside profit-oriented organizations exists a mid-trust-level, which is minor depending on the kind of profit-oriented organization, the kind of trust variable, nor of the view of supervisor or subordinate.
3. The use of a defined share of the leadership powers can predict an increase of the employee's trust level. Balanced share is desired from subordinates', same as supervisors' to create a high trust level between both.

Novelty

- Development of a research model of the Leadership Style factor Leadership Power towards the trust situation between supervisor and subordinate.

- Defining the impact of Leadership Power as a direct predictor for supervisors of the trust-level of their subordinates in a profit-oriented organization.
- Identification of Coercive Leadership Power as a kind of Leadership Power which positive influences a high trust level between supervisor and subordinate.

Structure of the thesis

The thesis is separated into three chapters. The first chapter researches the actual theoretical situation and former research about the leadership style, leadership power and trust. After the first separation from boundary items, their correlation and influence on the economic research field are investigated to adopt the results as a starting point for further research.

Chapter two starts with the positioning of leadership style, leadership power and trust inside leadership, reflects the importance of the direct correlation between leadership power and trust instead of leadership style and trust. With the combination of the theoretical background and own experience the research hypotheses for the next stage of evaluation are created. In the last chapter, the research model is defined and subdivided for supervisors and subordinates, for a real and a desired situation, based on qualitative information out of a pre-study with 106 employees, as well as an interview with 12 specialists. This is the basis for a survey method with a quantitative questionnaire with 242 respondents. It has been researched if subordinates feel the the supervisors' leadership power and trust situation or if there are differences between. It has also been researched what a best case situation for trust and leadership power between supervisor and subordinate would look like and how leadership power influences trust. Differences between the both parties but also between the actual status and literature, same as differences to the former pre-research and specialist interview have been discussed and interpreted in this quantitative research. Finally, conclusions and suggestions to supervisors and scientists are presented in accordance with the hypotheses and the research questions.

Limitation of the study

This research is limited to a profit-oriented organization between a supervisor and one or more subordinates, a difference in the hierarchy level between both is a must. It is not related to the trust of a whole organization. The respondent companies were all profit-oriented. In case of non-profit organizations, it is possible, that especially the reward power, probably also others, would have a different influence from the one researched inside this thesis. That is why non-profit organizations are excluded, but also in other industries the result can deviate from the main figures, as the research has shown. Independently from the main researched groups in automotive and manufacturing companies, the result should just differ in percentage and not in direction, as assumed for non-profit organizations. The specialist interview also provided

references, that the cultural aspect would create different behavior of both parties, therefore the quantitative research has been done in German speaking countries only, since in countries with different general attitudes different results could be obtained. In Japan, as an example of a harmonic culture²¹, conflict of interest can be handled in other ways, therefore also the use of leadership power could be different. Further limitations have to be made onto the detailed results of leadership power and trust. While speaking about trust, just future oriented situations and decisions are meant, therefore especially borderline research with the meaning of confidence could create confusion while comparing results.

Approbation of research results

Different steps of research results of the research theme were presented and discussed in different conferences, same as in publications:

Conferences

1. Menk, Oliver, THE QUANTITATIVE VALUE OF CONFIDENCE FOR THE LEADERSHIP OF KEY-EMPLOYEES, 4th International Multidisciplinary Scientific Conference on Social Sciences and Arts SGEM 2017, March 28-31, 2017, Hofburg Congress Centre, Vienna, Austria
2. Menk, Oliver, THE CORRELATION OF THE FORCES OF LEADERSHIP AND THE LEVEL OF MANAGEMENT, ABRM 7th International Conference on Restructuring of the Global Economy (ROGE), July 3-4, 2017, Said Business School, Oxford, UK
3. Menk, Oliver, CONFIDENCE IS THE NEW BASIS FOR MODERN LEADERSHIP, International Academic Conference: Economic, Management and Marketing (AC-EMM), August 11-14, 2017, Prague, Czech Republic
4. Menk, Oliver, THE FORCES OF LEADERSHIP IN THE ERA OF SOCIAL MEDIA, International Conference on social Media Marketing, August 21-22, 2017, University of Enschede, Netherlands
5. Menk, Oliver, THE ROLE OF CONFIDENCE IN AN EFFICIENT HUMAN LEADERSHIP, The 11th international scientific conference "New Challenges of Economic and Business Development – 2019: Incentives for Sustainable Economic Growth": Riga, Latvia, May 16-18, 2019. Proceedings. Riga: University of Latvia, 2019
6. Menk, Oliver, THEORETICAL EXAMINATION OF TRUST AND SOCIAL POWER AS A COMMON VALUE OF LEADERSHIP FOR SUPERVISOR AND SUBORDINATE, 14th

²¹ Dorow, W. (2007) Konfliktverhalten: Eine interkulturelle Spannungsquelle. In: Unternehmenskulturen in globaler Interaktion. Gabler, p.133

International Scientific Conference for PhD students of EU countries, Online conference CER 2020 - Comparative European Research, October 26-28, 2020, London United Kingdom,
7. Menk, Oliver, LEADERSHIP AND THE FLUCTUATION RATE INSIDE PROFIT ORIENTATED COMPANIES, 10th International Academic Conference: Economic, Management and Marketing (AC-EMM), Dec. 6, 2020, Prague, Czech Republic

Publications

1. Menk, Oliver (2017), The Quantitative Value of Confidence for the Leadership of Key-Employees, in: 4th International Multidisciplinary Scientific Conference on Social Sciences and Arts SGEM 2017, Book 2, Volume 1, Vienna, Austria, pp. 387-394.
ISBN 978-619-7105-94-0, ISSN 2367-5659
2. Menk, Oliver (2017), The Correlation of the Forces of Leadership and the Level of Management, in: ABRM 7th International Conference on Restructuring of the Global Economy (ROGE), July 3-4, 2017, Said Business School, Oxford, UK, Volume 9, Number 1, pp. 293-298. ISSN 2047-2854
3. Menk, Oliver (2017), Confidence is the new basis for modern leadership, in: International Academic Conference: Economic, Management and Marketing (AC-EMM), August 11-14, 2017, Prague, Czech Republic, "Proceedings of AC2017 in Prague", pp.161-168. ISBN 978-80-88085-15-7
4. Menk, Oliver (2019), The role of confidence in an efficient human Leadership, The 11th international scientific conference "New Challenges of Economic and Business Development – 2019: Incentives for Sustainable Economic Growth": Riga, Latvia, May 16-18, 2019. Proceedings. Riga: University of Latvia, 2019, p. 587-597, ISBN 978-9934-18-428-4 **Web of Science**
5. Menk, Oliver (2020), Theoretical Examination of trust and social power as a common value of leadership for supervisor and subordinate, Proceedings of the 14th CER Comparative European Research Conference - International Scientific Conference for Ph.D. Students of EU Countries, London, p.9, ISBN 978-1-9993071-6-5,
6. Menk, Oliver (2020), Leadership and the fluctuation rate inside profit-oriented companies, in: International Academic Conference: Economic, Management and Marketing (AC-EMM), Dec 6, 2020, Prague, Czech Republic, "Proceedings of AC2020 in Prague", p.1 ISBN 978-80-88085-31-7
7. Menk, Oliver (2021), Leadership and the fluctuation rate inside profit-orientated companies, in: Academic Journal of International Economics and Management Research (Journal AJIEMR), 2nd issue, Volume 1., p.28, ISSN 2694-7897

Acknowledgements

I would like to take advantage of the opportunity to express my gratitude to the University of Latvia for the opportunity this well-structured doctoral program offers. Beside this essential framework, the completion of this research would not have been possible without the support of a few key persons. In particular, I would like to thank Prof. Dr. Baiba Šavriņa and Prof. Dr. Dr. Josef Neuert, for their excellent work on the program. Independently of that, my biggest gratitude goes to Prof. Dr. Dr. Andrejs Cekuls, who supported me every time on short notice, even on weekends, with uncomplicated very friendly and honest words. Thank you once again. Further I would also like to thank the professors, reviewers and academic staff of the University of Latvia for their work, their valuable input and their time. Last and never least, I thank my best friend Ela for still trying to understand me and supporting me during all the years.

1 THEORETICAL FOUNDATIONS OF THE INFLUENCE AND IMPORTANCE OF LEADERSHIP AND TRUST FOR PROFIT-ORIENTED ORGANIZATIONS

While talking about management problems of today, one of the most interesting factors is the behavior of the leader and how she/he can optimize the output of the responsible area, department, company and so on. This is the more interesting, because the supervisor can do this with other persons, she/he is responsible for. In general, the supervisor or leader has a higher hierarchy level and so this difference between the supervisor and subordinate creates the situation that the supervisor has several kinds of powers above the subordinates. The use of these powers and the personal behavior of the leader create a leadership style people will follow or not follow.

1.1 Leadership styles and their environment in profit-oriented organizations

The central target of leadership is to accomplish a common and organizational goal²², independently if leadership is seen as a characteristic, which comes from the leader or determined by processes, different persons are involved.²³ Based on Burns, Bass and Avolio made a differentiation on the three most known LSSs of today. They made the separation between transformational, transactional and passively avoidant LSSs. As regards the last one (e.g. laissez-faire style) they also stated, that this is not leadership, this is the absence of leadership.²⁴

With this kind of simplifying, it is obvious, that the further research in relation to trust will be based only on the transformational and transactional LSSs, which are often described as opposite LSSs. Gardner points out, that independently of the style, leadership has always a measure of power²⁵ and leaders use a variety of approaches to influence the subordinates,

²² Ojo, A. (2015) Leadership and power: A study of the constructs of follower perceived leadership style and leadership power, *Journal of Behavioral Studies in Business*, Volume 8, pp.7-8

²³ Bass, B. M., & Avolio, B. J. (1990). The implication of transactional and transformational leadership for individual, team, and organizational development. *Research in Organizational Change and Development*, 4, pp.231-272.

²⁴ Ojo, A., Ree, M. J., & Carretta, T. R. (2016). The Correlation between Leadership Style and Leader Power. Air Force Research Lab Wright-Patterson AFB OH 45433, 711 Human-Performance Wing, Human Effectiveness Directorate, Warfighter Interface Division. p.1

²⁵ Ojo, A. (2015) Leadership and power: A study of the constructs of follower perceived leadership style and leadership power, *Journal of Behavioral Studies in Business*, Volume 8, p.3

including leadership power.²⁶ Independently of the kind of style, Northouse²⁷ also found out that power and leadership would not exist one without the other.

Transformational leadership style as a predictor to create trust

The relevance of trust is partly described in the introduction part and a comprehensive research about this item will follow in the later subchapters. At this stage just a short reflection will be done, that trust is able to reduce complexity in systems same as in profit-oriented organizations or between supervisor and subordinate. Due to this a predictor to create trust is searched in a kind of LSS.

Studying the literature about LSS and trust, the transformational LSS seems to be the most important one for the advanced research of the item trust. Transformational leaders get respect and trust of their subordinates, by formulating visions, setting goals, intellectual stimulation, asking for and being innovative and giving individual attention. Transformational LSS is also often linked with notions of virtue and morality.²⁸ These are aspects, which are crossing with the bases of trust same as benevolence, integrity and competence, which are three of four trust bases of Adams & Sartori²⁹.

Based on these matching aspects of transformational leadership with trust, it is the more surprising, that also the opposite LSS, the transactional style has same positive correlation with the team members' trust in the leader as the transformational style.³⁰ So, both kind of styles, as different they are, can create trust.

This result makes it not desirable to carry out deeper research of LSS only in correlation to the level of trust inside profit-oriented organizations. The before mentioned leadership power (LSP) as an input of LSS has to be researched more deeply to use it as a potential and direct leadership predictor for the trust between supervisor and subordinate.

²⁶ Yukl, G., Guinan, P. J., & Sottolano, D. (1995). Influence tactics used for different objectives with subordinates peers and superior. *Group and Organization Management*, 20(3), pp.272-296

²⁷ Northouse, P. G. (2004) *Leadership: Theory and practices*. Thousand Oaks, CA: Sage. In Ojo, A. (2015) *Leadership and power: A study of the constructs of follower perceived leadership style and leadership power*, *Journal of Behavioral Studies in Business*, Volume 8, p.4

²⁸ Ojo, A. (2015) *Leadership and power: A study of the constructs of follower perceived leadership style and leadership power*, *Journal of Behavioral Studies in Business*, Volume 8, pp.3-4

²⁹ Adams, B.D., & Sartori, J.A. (2006) *Validating the Trust in teams and Trust in Leaders Scales*. DRDC Report No. CR-2006-008 Report to Department of National Defence Canada, Toronto, Ontario, pp.25ff

³⁰ Gillespie, N. A., & Mann, L. (2004). Transformational leadership and shared values: The building blocks of trust. *Journal of managerial psychology*. pp.599

1.2 Leadership power and its impact on trust in profit-oriented organizations

The interplay of Leadership Power (LSP) and trust has its high relevance for strategic choices, not only in the interpersonal relations researched here, but also for changes within organizations (intra-organizational), between organizations (inter-organizational) and changes in institutional structure or global policy (institutional)³¹, which should also underline the importance in other adjacent research fields of business leadership.

To give a full and comprehensive overview about the item power seems to be not possible, when the literature of the past had been studied. Everywhere are gaps or one-sided researches. The reason for that could be the problem, that there are different scientific subjects with its own specific questions, which are not only coming from human leadership, also the animal kingdom is part and example of investigations.³² Witte³³ said, that the item power is certainly exhaustless.

Max Weber's early definition of power in the beginning of the 20th century is the fundament of many researches. He defines power by the following words: "Power is the chance, inside a social relationship, to enforce the own willing, also against reluctance, independent on what this chance is based on."³⁴

The general definition of power is that a person with power can influence another one (or group) by refraining resources, which can be objects, information or behaviors.^{35 36}

Another spread definition is that LSP is a leader's social competence to change the behavior of followers so that they do things they are not planned to do before.³⁷ But this view is only a one directional view. French & Raven defined in their basis of LSP, it is also necessary that the person or group, who shall be influenced, should have a need or wish to obtain or decline the

³¹ Patnaik, S., Pereira, V., Temouri, Y., Malik, A., & Roohanifar, M. (2020). The dance of power and trust- exploring micro-foundational dimensions in the development of global health partnership. *Technological Forecasting and Social Change*, 156, 120036. p.13

³² Neubauer, W. & Rosemann, B. (2006) *Führung, Macht und Vertrauen in Organisationen*, W. Kohlhammer Druckerei, Stuttgart, p.41

³³ Witte, E.H. (1985) *Theorien zur sozialen Macht*, in Frey, D./ Irle, M. (Hrsg.) *Theorien der Sozialpsychologie*, Bd.2: Gruppen und Lerntheorien, Bern, Stuttgart, Toronto, p.123

³⁴ Weber, M. (1976). *Wirtschaft und Gesellschaft: Grundriss der verstehenden Soziologie*. 5. Auflage, Mohr Siebeck (erste Auflage 1921), p.28

³⁵ Galinsky, A. D., Magee, J. C., Inesi, M. E., & Gruenfeld, D. H. (2006). Power and perspectives not taken. *Psychological science*, 17(12), pp.1068-1074.

³⁶ Anderson, C., John, O. P., & Keltner, D. (2012). The personal sense of power. *Journal of personality*, 80(2), pp.313-344

³⁷ French, J. R. P., & Raven, B. (1958). Legitimate Power, Coercive Power, and Observability in Social Influence. *Sociometry*, 21(2), pp.83-97

resource that the person with power has.³⁸ Power is necessary to get or hold stable systems or organizations, but getting power has also a direct link to obtaining a better self-esteem³⁹, which can be highly difficult and alter the behavior of the people, who have power.

1.2.1 Theoretical and experimental background of Leadership Powers

Luhmann⁴⁰ defines power as a medium of communication and therefore he is able to make a comparison with other mediums of communication, same as money or the truth. To compare this with leadership, it can be seen that also money or truth are possibilities, beside power, with which people can be led, but on the other hand, money and truth can be also powers, when people are led on their basis. Adeniyi⁴¹ inside his leadership model has all well-known LSPs of French and Raven, same as coercive, reward, legitimate, expert, and referent power, just partly described in other terms, but Adeniyi also has components of trust, same as integrity, honesty and transparency in his leadership model.

According Hede⁴² power is an essential component of all leaderships. He investigated the correlation of the Total Behavior Leadership model with the five LSPs: coercive, reward, position, expert and referent, which are in line with the 5-power model of French and Raven. He clustered different kind of power types, that supervisors use, because in common case not only one power is used alone. One finding was that the two most often used power variants or clusters just uses low variants of all power or at a maximum a high share of the referent power. This result is different from the author's findings out of the pre-test or the specialist interviews, which will be shown later on.

Hede used, as many others too, the original model of the 5 LSPs of French and Raven from 1959. This basic study had been developed over the years to many variants, because this model was disputed to be not complete. Raven himself added 1965⁴³ the sixth LSP: informational power himself and researched this in addition together with Kruglanski⁴⁴ five years later. This

³⁸ French, J.R.P./ Raven, B. (1959): The bases of social power, in: Cartwright, D. (Hrsg.): Studies in Social power, Ann Arbor, p.151

³⁹ Wojciszke, B., & Struzynska-Kujalowicz, A. (2007). Power influences self-esteem. *Social Cognition*, 25(4), p.472

⁴⁰ Luhmann, N. (2012). Macht, 4. Auflage, UVK Konstanz und München., p.8

⁴¹ Adeniyi, M. A. (2007). Effective leadership management: An integration of styles, skills & character for today's CEOs. AuthorHouse. p.3

⁴² Hede, A.(2005), Patterns of Power and Leadership: Understanding Total Behaviour Leadership, Australian Institute of Management, University of the Sunshine Coast, Queensland Australia, p.9

⁴³ Raven, B. H. (1965) in I.D. Steiner & M. Fishbein (Eds.), *Current Studies in Social Psychology*, New York: Holt, Rinehart & Winston, pp.371-382

⁴⁴ Raven, B. H., & Kruglanski, A. W. (1970). Conflict and power. The structure of conflict, pp.69-109.

intermediate step from Raven was e.g. used from Kotter in 1990. But Raven's own maximum was reached 1998 together with Schwarzwald and Koslowski with 11 different LSPs⁴⁵: referent, expert, information, reward (personal, impersonal), coercive (personal, impersonal) and legitimate power (position, reciprocity, equity, dependence).

Unfortunately also these 11 LSPs, which are created to include further empirical data into the model is not based on an overall theoretical systematic⁴⁶. Probably this or just the circumstance, that the primal model is much more easier to handle is the reason, why also in today's researches e.g. Scovetta (2013)⁴⁷, used the 5 LSP model and not the later ones. Jäckel (2018)⁴⁸ e.g. uses from Raven et al. (1998) just four items from supervisor view and three items from subordinate view but all based just on superiority or pressure which ends in each case on stress. She uses just some powers to create a counter rotating concept to trust. The remaining powers she indicated due to some specialist based interviews as neutral or positive powers to trust, but just on a specialist interview and not on a quantitative research.

Definition of Leadership Powers

For the later research LSPs will be defined first, to get a comprehensive picture of the five bases of powers⁴⁹:

Reward power: The requirement for this power is the possibility of the supervisor to reward the subordinate. This can be an increase of salary, incentives, a better position or job inside the company, further education or anything else, which seems to be interesting or important in the eyes of the other person, in this case the subordinate.

Coercive power: A non-conform behavior will be punished, e.g. by reducing the salary, another or lower position in a hierarchy, to preclude somebody etc. But it is not only the punishment act, the effect of threat is the real power, which is used. For sure this

⁴⁵ Raven, B. H., Schwarzwald, J., & Koslowski, M. (1998). Conceptualizing and measuring a power/interaction model of interpersonal influence 1. *Journal of applied social psychology*, 28(4), pp.307-332

⁴⁶ Higgins, C. A., Judge, T. A., & Ferris, G. R. (2003). Influence tactics and work outcomes: A meta-analysis. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 24(1), pp.89-106

⁴⁷ Scovetta, V. (2013), The impact of Leadership Social Power on Knowledge Management Success, Pro Quest LLV UMI Number 3563506, pp. 217-219

⁴⁸ Jäckel, A.(2018), *Gesundes Vertrauen in Organisationen*. Wiesbaden : Springer, pp.209, 263

⁴⁹ French, J. R., & Raven, B. (1959). The bases of social power. *Studies in social power, Leadership as a social power*, 16, pp.150-157

determent is based on the probability, that the supervisor will make a real punishment out of the threat. On the other side, it's same than the reward power. The person, who shall be led by this power must feel the power deterrent, otherwise this power will not work.

The reward power and coercive power can go into one, if the not given reward will be seen as a punishment.⁵⁰ French and Raven itself had the hypotheses that “Coercion results in decreased attraction of P (*subordinate*) toward O (*supervisor*) and high resistance; reward power results in increased attraction and low resistance.”

Legitimate Power: The supervisor gets his social (legitimate) power out of its position and this is documented in its employment contract. This legitimate power is based on organizational hierarchies. The subordinate sees the power of the supervisor as the result and rule, which the subordinate supports by its own employment contract. So as long the subordinate respects the hierarchy and its own contract this power will work, because the subordinate responds the position of the supervisor. The legitimation power can also be based on cultural values same as e.g. age or physical characteristics – in different cultures it is the situation that people will follow the words of older or stronger person. Weber said, this “authority of the eternal yesterday” is the same effect, than a different gender or color of the skin gives in some former cultures one person the power about another one.

Referent Power: The basis for this power is that the subordinate identifies the supervisor with himself or the supervisor is seen in any way attractive for the subordinate, so that the subordinate wants to become closer to the supervisor. So the subordinate is like, want to be like or will be more like the supervisor. The supervisor is an example or ideal for the subordinate. That the effect of attractive is in direct relation to referent power demonstrates French & Raven with different earlier references same as Festinger, Back, Lippit et al., Festinger et al. and Gerard.

Expert Power: This power is depending how much the subordinate thinks the supervisor has knowledge in a special field. This scale can be relative in comparison to the skills of the subordinate or absolute against a standard. The existing proof of expert power

⁵⁰ Steinmann, H., Schreyögg, G. (2005). Management: Grundlagen der Unternehmensführung: Konzepte–Funktionen–Fallstudien. 6.Auflage. Wiesbaden: Gabler. (p.690)

had been demonstrated by Festinger et al. and Lippit et al.. In every case of expert power it is necessary, that the subordinate trusts the supervisor, that the supervisor is telling the truth. This is very interesting, for the later research of the trust relevant powers. French & Raven already mentioned the "informational" power 1959 as a part of the expert power.

The sixth power, the *informational power*, which French & Raven already defined 1959 as a part of the expert power, was originally defined by Deutsch and Gerard and is based on information the supervisor has outside the core of the knowledge part. Here the influence of communication is meant, which the supervisor has, because he gets information from his supervisor, which the subordinate didn't know. 20 years later this kind of power had been split out of the expert power, but the knowledge advantage of the supervisor, independent if it comes from education or from secret or hidden information, will be in the later research not deeper differentiated, because it's the more important, if the subordinate thinks that the supervisor has such information, so that the supervisor can use this expert/informational power. Raven⁵¹ described later with informational power the feasibility how a person argues something. In general it is necessary for a good argumentation, to have a good knowledge, too. So these powers are very near beside and perhaps surely this is one reason, why often the original five and not six or eleven bases of LSP are used for researches.

Based on this and a look at other potential leadership powers, the primal five leadership powers will be used for the further research.

1.2.2 The negative side of leadership power and its economic side-effects

The correlation between power and self-esteem persons has also the side-effect that self-esteem persons in comparison to lower self-esteem persons, are more aggressive⁵². So probably these persons will use powers, which can be used directly and which are based on a short time period. Persons, who have power will use its power to manipulate others, or as Kipnis said "power increases the likelihood that the individual will attempt to influence and manipulate others"⁵³. This statement is based on a negative meaning, because he defines power, same as others as a

⁵¹ Raven, B. H. (1993) The Bases of Power: Origins and Recent Developments, in: Journal of Social Issues, 49, p.233

⁵² Anderson, C. A., & Bushman, B. J. (2002). Human aggression. Annual review of psychology, 53(1), pp.27-51

⁵³ Kipnis, D. (1972). Does power corrupt? Journal of personality and social psychology, 24(1), p.39

corruptive element. Lammers et al.^{54 55} stated that persons with high power are more immoral than persons with less power, which is based on the corruptness of power of the powerful persons. This is argued, that these people have a high self-esteem and follow a personal target. In addition the high level of power give powerful people another view on things, than people have on lower stages. The power prevents them for negative results. Mitchel et al.⁵⁶ found this whole range of negative side effects, same as self-esteem, getting another position of view, upgrading theirselves against the others and corruption. As most popular reason for that is mentioned that the powerful people often are less controlled, than others. Especially the wrong view, that the position and meaning of the powerful person is more correct, has the effect that the communication level between these persons drops down and the powerful people take more distance and learn less from the basis.^{57 58} Woudenberg didn't confirm this with the use of a brain data analyze. On the one side persons with power showed beside extroversion, emotional stability and a high self-esteem, but she didn't find a correlation between persons with high power and corruptness. This she arguments, that persons with high power feel less uncertainty and so they will less react with egoism.⁵⁹ This is not in line with the pursuit of the people with power, to get more power. Power is limited in a company, so there are mostly more than one person, who wants to get one hierarchy level higher and so it comes to so called "power games"⁶⁰ where people want to reach their target due to egoism or just by the thought that they can do the job better than the others. This own thought of a person with power can be seen also from the outside meaning, that a supervisor can create better results than a subordinate. So results from subordinates are rated lower than results from supervisors, who made changed processes with their leadership power. This effect is even stronger from the leaders itself, who

⁵⁴ Lammers, J., Galinsky, A. D., Dubois, D., & Rucker, D. D. (2015). Power and morality. *Current Opinion in Psychology*, 6, pp.15-19.

⁵⁵ Lammers, J., Stapel, D. A., & Galinsky, A. D. (2010). Power increases hypocrisy: Moralizing in reasoning, immorality in behavior. *Psychological Science*, 21(5), pp.737-744.

⁵⁶ Mitchell, T. R., Hopper, H., Daniels, D., Falvy, J. G., & Ferris, G. R. (1998). Power, account-ability, and inappropriate actions. *Applied Psychology: An International Review*, 47, pp.497–517.

⁵⁷ Scholl, W. (2014), *Führung und Macht: Warum Einflussnahme erfolgreicher ist*, artoop, Institut an der Humboldt-Universität Berlin, p.4

⁵⁸ Scholl, W., & Riedel, E. (2010). Using high or low power as promotive or restrictive control—differential effects on learning and performance. *Social Influence*, 5, pp.40-58

⁵⁹ Woudenberg, R.(2017) *When Does Power Corrupt? Reactions to Uncertainty and Moral Decisions*, Masterthesis of Science in Psychology, Department of Psychology, University of Canterbury, pp.29-36

⁶⁰ Gandz, J. & Murray, V. V. (1980). The experience of workplace politics. *Academy of Management Journal*, 23, pp.237-251

judged their results even better than the other ones.⁶¹ This can depend on the higher self-esteem level, as described before. Beside these negative effects, that power seems to have, it is interesting, that Scholl et al. analyses a leader as a powerful low and light menacing person, who ask for performance and contradicts the meanings of the subordinates.⁶² Further he stated, that the expectation is, the more power the leader has, the more negative the leader is. With negative he means, to get excited about the subordinates, to stress and to get in conflict with them. On the opposite side this is just the awaited reaction of the leader to the subordinates, the awaited reaction of the powerful leader to another powerful leader is just same as debating, negotiating, etc.,⁶³ with other words, just much more positive expectations. It seems to be, that the negative side of power is connected and will be just used in vertical leadership. In the moment of discussion between two leaders with same power level (horizontal), the negative powers or its side effects are not used or are useless.

The definition of positive and negative leadership powers

The different LSP bases are often divided in good and bad, negative and positive or soft and harsh powers, which are useful for each single research, but due to the different research areas, the meaning and the outcome is not the same.

Rahim⁶⁴ researched the correlation between the five LSPs and compliance, same as satisfaction and found out, that coercive power has no significant influence on compliance or satisfaction. In case of compliance, this finding is in line with previous literature about power bases^{65 66} on the one side. The findings about coercive power and satisfaction is not in line with earlier literature about power bases^{67 68}. As a possibility for that difference, Rahim mentioned the

⁶¹ Pfeffer, J., Cialdini, R. B., Hanna, B., & Knopoff, K. (1998). Faith in supervision and the self-enhancement bias: Two psychological reasons why managers don't empower workers. *Basic and Applied Social Psychology*, 20, pp.313-321.

⁶² Scholl, W. (2012). Machtausübung oder Einflussnahme: Die zwei Gesichter der Machtnutzung. In B. Knoblach, T. Oltmanns, I. Hajnal & D. Fink (Hrsg.), *Macht in Unternehmen – Der vergessene Faktor*, Wiesbaden: Gabler. pp.203-221

⁶³ Scholl, W. (2014), *Führung und Macht: Warum Einflussnahme erfolgreicher ist*, artoop, Institut an der Humboldt-Universität Berlin, p.4

⁶⁴ Rahim, M. A. (1989). Relationships of Leader Power to Compliance and Satisfaction: Evidence from a National Sample of Managers. *Journal of Management*, 15(4), pp.553-555

⁶⁵ Dunne, E.J., Jr., Stahl, M.J., & Melhart, L.J. Jr. (1978) Influence sources of project and functional managers in matrix organizations. *Academy of Management Journal*, 21, pp.135-140

⁶⁶ Thamhain, H.J., & Gemmill, G.R. (1974) Influence styles of project managers: Some project performance correlates. *Academy of Management Journal*, 17, pp.216-224

⁶⁷ Burke, R.J., & Wilcox, D.S. (1971). Bases of supervisory power and subordinate job satisfaction. *Canadian Journal of Behavioral Science*, 3, pp.183-193

⁶⁸ Busch, P.(1980), The sales Manager's basesof social power and influence upon the sales force, *Journal of Marketing*, 44 (4), pp.91-101

missing distinguish of a performance-contingent base of coercive leader power. Also no correlation between reward power and compliance or satisfaction had been found, but the legitimate, expert and referent power are positive powers to influence significant compliance. Surprising here is that legitimate power has the highest rate of all the five powers, because the subordinates think that leaders have the right to influence on that way. The more legitimate power the supervisor uses, the more compliance the subordinate gives, is also in line with earlier findings of Dunne et al.⁶⁹, Thamhain & Gemmill⁷⁰ and Warren⁷¹. On the other side legitimate power has a negative significant correlation against satisfaction. When the supervisor increases this power, the satisfaction of the subordinate decreased. Nevertheless, in a later research together with Magner⁷², he stated same as Yukl & Falbe⁷³ the five LSPs as independent and with no correlation to each other. Barbuto et al.⁷⁴ used the Hinkin and Schriesheim questionnaire⁷⁵ of the LSPs to investigate the relation between leader power and resistance to forecast transactional and transformational LSSs. One general finding is the relation between leader power and resistance with the transformational and transactional LSSs. In detail the finding was that reward power is negative correlating to create a direct relationship binding between supervisor and subordinate. Further referent power has also a negative correlation to a transactional LSS, which is based on reward and punishment. Politis⁷⁶ researched the correlation between power, credibility and knowledge acquisition, also using the same Hinkin and Schriesheim questionnaire in an own modified version. Here coercive power has a negative, significant correlation to knowledge. The more a supervisor uses coercive power, the less a subordinate will share information. Expert power has a positive, significant correlation on negotiations, which is an indicator to use this power on leader side to share and create

⁶⁹ Dunne, E.J., Jr., Stahl, M.J., & Melhart, L.J. Jr. (1978) Influence sources of project and functional managers in matrix organizations. *Academy of Management Journal*, 21, pp.135-140

⁷⁰ Thamhain, H.J., & Gemmill, G.R. (1974) Influence styles of project managers: Some project performance correlates. *Academy of Management Journal*, 17, pp.216-224

⁷¹ Warren, D.I. (1968) Power, visibility and conformity in formal organizations. *American Sociological Review*, 33, pp.951-970

⁷² Rahim, M. A., & Magner, N. R. (1996) Confirmatory factor analysis of the bases of leader power: First-order factor model and its invariance across groups, *Multivariate Behavioral Research*, 31, pp.495-516.

⁷³ Yukl, G. A., & Falbe, C. M. (1991). Importance of different power sources in downward and lateral relations. *Journal of Applied Psychology*, 76, pp.416-423

⁷⁴ Barbuto, J. E., Fritz, S. M., & Matkin, G. S. (2001). Leaders' Bases of Social Power and Anticipation of Targets' Resistance as Predictors of Transactional and Transformational Leadership. *Psychological Reports*, 89(3), pp.663-666

⁷⁵ Hinkin, T. R., & Schriesheim, C. A. (1989). Development and Application of New Scales to Measure the French and Raven (1959) Bases of Social Power. *Journal of Applied Psychology*, 74(4), pp.561-561

⁷⁶ Politis, J. D. (2005). The Influence of Managerial Power and Credibility on Knowledge Acquisition Attributes. [Research Paper]. *Leadership & Organization Development Journal*, 26(3), p.21

knowledge inside groups. If leaders use their own referent power, the share of knowledge will be less supported. Jayasingam et al.⁷⁷ investigated also the relation of the five power bases on knowledge acquisition in Malaysian companies and found that legitimate power has a negative correlation to knowledge acquisition and is not significant to knowledge distribution. Expert power has a positive, significant correlation to knowledge acquisition and distribution. Referent, reward and coercive power were not significant on knowledge acquisition or distribution. Scovetta⁷⁸ researched the relation between the use of the five LSPs and knowledge use and found a positive and significant effect in the expert and reward power. Referent power had a negative significant influence on the use of knowledge and coercive and legitimate powers are not relevant. Ojo⁷⁹ found correlations between the five LSPs by using the Rahim Power Inventory and follower perceived LSS inside a military organization. So the use of expert, referent and reward power have a positive correlation to a transformational LSS. For the transactional LSS, just a positive correlation to expert power was found and the less expert power is used, the more passive the leader is seen from the subordinate. Ojo et al.⁸⁰ also found in his research with military members, that expert power is the highest leader power, followed by legitimation, reward and referent power. The weakest power is coercive. Lo et.al.⁸¹ used the Hinkin and Schriesheim questionnaire with the five LSPs and added the informational^{82 83} and connection^{84 85} power, to explain how power is gained or lost by the usage of influence tactics inside Malaysian companies. The result was, that supervisor power, same as the power of the subordinates, influences the use of influence tactics. According Ansari, especially supervisors

⁷⁷ Jayasingam, S., Ansari, M. A., & Jantan, M. (2010). Influencing Knowledge Workers: The Power of Top Management. *Industrial Management + Data Systems*, 110(1), p.134

⁷⁸ Scovetta, V. (2013), The impact of Leadership Social Power on Knowledge Management Success, *Pro Ques t LLV UMI Number 3563506*, p.189

⁷⁹ Ojo, A. (2015) Leadership and power: A study of the constructs of followerperceived leadership style and leadership power, *Journal of Behavioral Studies in Business*, Volume 8, pp.1,7

⁸⁰ Ojo, A., Ree, M. J., & Carretta, T. R. (2016). The Correlation between Leadership Style and Leader Power. *Air Force Research Lab Wright-Patterson AFB OH 45433, 711 Human-Performance Wing, Human Effectiveness Directorate, Warfighter Interface Division*. pp.5-6

⁸¹ Lo, M. C., Thurasamy, R., Wang, Y.C., (2015) Sustainable leadership: power of influence in MNCS in Malaysia, *Applied Economics*, Vol. 47, No. 30, pp.3198-3215

⁸² Raven, B. H. (1965) Social influence and power, in *Current Studies in Social Psychology*, Steiner, I. D. and Fishbein, M. (Eds), Wiley, New York, pp.339-444

⁸³ Tjosvold, D., Coleman, P. T. and Sun, H. (2003) Effects of organizational values on leaders' use of informational power to affect performance in China, *Group Dynamics: Theory, Research, and Practice*, 7, pp.152-167

⁸⁴ Hersey, P., Blanchard, K. H. and Natemeyer, W. E. (1979) Situational leadership, perception and the impact of power, *Group and Organization Management*, 4, pp.418-28.

⁸⁵ Ansari, M. A. (1989) Effects of leader sex, subordinate sex, and subordinate performance on the use of influence strategies, *Sex Roles*, 20, pp.283-293.

use more often expert and reward power toward their subordinates and if subordinates have position power, same as legitimate and reward, supervisors act more soft and rational. The connection power is in eyes of the author nearly located at informational power, because informational power is defined as the personal ability to gain friendships or networks, to get information, that are valuable to use as a power above others. According Raven the only power that a subordinate can gain by its own and is independent from the supervisor.⁸⁶ The so called connection power is defined as the existing connections to third, important people, that have same, similar or more power as the supervisor. Also these two powers are organizational based in the eyes of the author, the only difference is that these similar powers are different than legitimate power not official, they are unofficial existing in companies.

The separation into soft and harsh powers is also often seen in the connection to LSSs. The classification of Erchul et al.⁸⁷ separates harsh bases into legitimate equity, legitimate reciprocity, legitimate position, impersonal reward, impersonal coercion and personal coercion power. Soft power bases are expert, referent, informational, legitimate dependence and personal reward power. Mittal and Elias⁸⁸ used this division and found a correlation between soft powers and supervisors in long-term oriented cultures and harsh powers with supervisors in short-term oriented cultures. Koslowsky and Stashevsky⁸⁹ used information and expertise power as soft bases and reward and punishment as harsh powers. They found out that supervisors prefer to use soft instead of harsh powers and that transactional leaders, compared to transformational leaders use harsh powers more frequently.

This research shows a big variance of different kind of outcomes and good and bad, negative and positive or soft and harsh powers definitions, so that a use of this definition should be done with extreme caution, independent if the wording is in correlation to leadership or trust in any way.

In the next step it is needed to understand the word trust, its worth for a profit-oriented organization and its impact to leadership.

⁸⁶ Raven, B. H. (1992) A power interaction model of interpersonal influence: French & Raven thirty years later, *Journal of Social Behavior and Personality*, 7, pp.217–244.

⁸⁷ Erchul, W. P., Raven, B. H., & Ray, A. G. (2001). School psychologists' perceptions of social power bases in teacher consultation. *Journal of Educational and Psychological Consultation*, 12(1), pp.1-23

⁸⁸ Mittal, R., & Elias, S. M. (2016). Social power and leadership in cross-cultural context. *Journal of Management Development*. p.60

⁸⁹ Koslowsky, M., & Stashevsky, S. (2005). Organizational values and social power. *International Journal of Manpower*. p.27

1.3 Theoretical reflection of trust as a relevant factor for leadership inside profit-oriented organizations

Trust is a general statement between two or more parties. It has existed for many years before management science was created and has been used in different kinds of daily situations and areas, in private and in business life. This should be a first indicator for the importance of trust in profit-oriented organizations, mostly based on different powers and a standard in the majority of leadership models. But before getting deeper into the definition of the term trust inside this document, other similar terms have to be separated and defined.

Definition of important boundary terms

While talking about the item trust, contiguous elements are researched as well, to get a clear statement and border for this thesis, not to be affected by potentially wrong interpretations. Depending of the use of language and nationality of the author, the terms confidence, familiarity, cooperation and predictability often cannot be partly isolated from the trust term itself.^{90 91} This can also be the reason that the meaning of trust has so many definitions and more definitions than other terms⁹². The most interesting variance of definition is the difference between trust and confidence. In the time of this research, the author had many personal discussions with people internationally about the item trust. The result is, that no interview partner asked the question, if confidence or trust is meant. In all languages trust and confidence have different meanings but also often used for the same. But also, the borders to familiarity, loyalty and predictability are sometimes blurring, so that the exact definition of these boundary items (see appendix) should be also taken into account.

1.3.1 General Trust models with influence in economic management systems

If trust is missing, deals will not become reality, because without having trust on the one side, a product will not be bought by the other side (e.g. the purchase of a second-hand-car, a house, food...). Also, people will not follow the leader without trust, neither in social nor in business

⁹⁰ Luhmann, N., (1998) Familiarity, confidence, trust: problems and alternatives In D.G. Gambetta (Ed.), *Trust: Making and Breaking Co-Operative Relations*, New York, NY: Basil Blackwell, pp.94-107

⁹¹ Mayer, R.C., Davis, J.H., Schoorman, F.D. (1995) An integrative model of organizational trust. *Academy of management review*, 20(3), pp.712-714

⁹² McKnight, D.H., Chervany, N.L. (2006), Reflections on an initial trust building model. In R. Bachmann, & A. Zaheer (Eds.). (2006), *Trust research*, Cheltenham, Northampton: Edward Elgar Publishing, pp. 29-51

life. Trust is the anticipating of the occurrence of a specific future.⁹³ ⁹⁴ More than 100 years ago George Simmel (1858-1918) concerned beside Durkheim and Weber as one of the first philosopher, who researched the item trust most intensive⁹⁵. In one of his essay he said, that trust describes the area between knowledge and non-knowledge. The person who knows everything about something doesn't need trust and the person who doesn't know anything about something, can't reasonably have trust.⁹⁶ (see Figure 1) Risk and interdependence, can be later also found at Nauendorf⁹⁷, who said, that theses are the two main elements of trust.

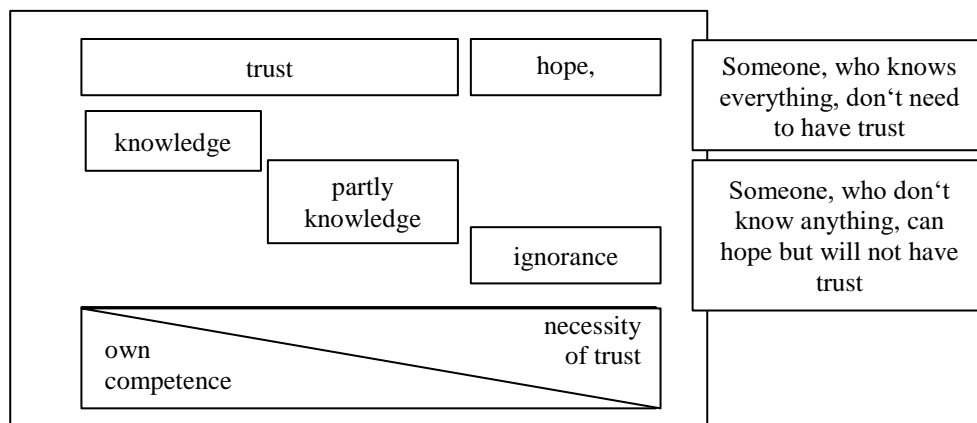


Figure 1: Scheme of trust

Source: Simmel (1992)

The situation, that a supervisor does not know everything and has to trust the subordinate occurs as often in business life, as the other way around, when the subordinate does not know everything and has to trust the leader.

⁹³ Luhmann, N. (2001). Vertrautheit, Zuversicht, Vertrauen. In M. Hartmann & C. Offe (Hrsg.), *Vertrauen. Die Grundlage des sozialen Zusammenhalts*, Campus. p.149

⁹⁴ Schaal, G. S. (2004). *Vertrauen, Verfassung und Demokratie: Über den Einfluss konstitutioneller Prozesse und Prozeduren auf die Genese von Vertrauensbeziehungen in modernen Demokratien* (1. Aufl.). Wiesbaden: VS Verl. für Sozialwiss., p.17

⁹⁵ Endress, M. (2002). *Vertrauen. Einsichten*, Bielefeld: Transcript-Verl. p.13

⁹⁶ Simmel, G. (1992). *Soziologie: Untersuchungen über die Formen der Vergesellschaftung* (1. Aufl.) Gesamtausgabe / Georg Simmel: Bd. 11. Frankfurt am Main. Suhrkamp. pp.393-394

⁹⁷ Nauendorf, W., (2004) *Total Quality Management als Vertrauensmanagement*. München und Mering: Rainer Hampp Verlag. p.197

The deeper research of trust has increased in the beginning of this millennium. Trust became more and more an important factor in profit-oriented organizations, because it was recognized as a factor for success in business life.⁹⁸ So also the interest of this research item increased.

In the meaning of Luhmann, the human is only capable of acting, when it is possible for him/her to develop algorithm to reduce the numbers of information. Trust reduces such information and gives the possibility to work with more information. So external information will be reduced by trust, the person can react faster, because (s)he can work faster than a person, who is working with all the information. On the other side with this reduction the risk occurs and increases, because this type of information cannot be verified. So to have trust means also to risk something. To give trust is always an advance payment of risk. Luhmann just sees in addition that trust between persons (interpersonal trust) is based on personal experiences and interaction⁹⁹, as it is a daily situation in private or in business life.

This is a very similar meaning than Coleman, who said, that „treat trust as a phenomenon that parallels risk-taking behavior“. Coleman has the same understanding of the Simon view of the Rational Choice Theory concerning the item trust. This theory describes, that everybody is making decisions without knowing the complete information, because the actor just has own specific standpoint or situation. So every decision has a risk, because the actor isn't able to know everything. The actor must have trust in his own decision, based on the experiences he made. The result of this theory is that it's impossible, to act just on hard facts.^{100 101}

Based on this needed behavior, Shapiro, Sheppard und Charskin¹⁰² separated three different kind of trust situations, which occur between supervisor and subordinate, also the three steps of creating trust in a profit-oriented organization.

1.) Calculated trust, which is same than the cost-value analyze. The value to give trust is higher than the value to mistrust.

2.) Transformative trust, two persons indicate each other, that they are working on the same item and have same interest (win-win situation).

⁹⁸ Schweer, M. K. W. (1997). Interpersonales Vertrauen im Spiegel der aktuellen Forschung. In M. K. W. Schweer (Hrsg.), *Interpersonales Vertrauen*. Opladen [u.a.]: Westdt. Verl. pp.9-12

⁹⁹ Luhmann, N. (2000). *Vertrauen*. UTB für Wissenschaft, Soziologie fachübergreifend: Bd. 2185. Stuttgart: Lucius und Lucius. pp.1-2

¹⁰⁰ Coleman, J. S. (1990). *Foundations of social theory*. Cambridge, Mass.: Belknap Press of Harvard Univ. Press, pp. 91-115, 175-196

¹⁰¹ Schaal, G. S. (2004). *Vertrauen, Verfassung und Demokratie: Über den Einfluss konstitutioneller Prozesse und Prozeduren auf die Genese von Vertrauensbeziehungen in modernen Demokratien* (1. Aufl.). Wiesbaden: VS Verl. für Sozialwiss., p.43

¹⁰² Shapiro, D., Sheppard, B. H. & Charskin, L. (1992). Business on handshake. *Negotiation Journal*, 8, pp.365-377.

3.) Knowledge based trust, occurs to often meetings and an acceptance is the result out of experiences (knowledge).

Regarding the gender question and based on empirical evidence of Jones and Kavanaugh¹⁰³ it is expected, that female employees are more trustful than male employees. On the other hand Omodei and Mc Lennan¹⁰⁴ found out that male persons trust more a male person than a female person.

This essence of general trust models with direct influence to management systems is the basis for the further research about trust.

Models of trust for supervisor and subordinate

It seems to be logic, that the status between supervisor and subordinate in a profit-oriented organization is very important to research, because it is directly linked to the success of a company. So the level of trust between these persons becomes very interesting as a research item.^{105 106} Nevertheless this trust level between supervisor and subordinate seems to have a direct link to the effective of employees, which is also connected to the costs of a company.

According Jäckel¹⁰⁷ models of trust attend to the definition of trust, how trust arises, the development of trust and its consequences. For those she values highly the older general trust models of Mayer et al. (1995)¹⁰⁸, Lewicki & Bunker (1996)¹⁰⁹ and Rousseau (1998)¹¹⁰, but for the specific trust between a supervisor and a subordinate profit-oriented organization, she just saw a few over all and mentioned here the models of Dirks & Ferrin (2002)¹¹¹, Willemyns et

¹⁰³ Jones, G.E. & Kavanagh, M.J. J (1996) Bus Ethics cited in Spector, M.D., & Jones, G.E. (2004). Trust in the workplace: Factors affecting trust formation between team members. *Journal of Social Psychology*, 144, pp.311-321

¹⁰⁴ Omodei, M., & McLennan, J. (2000). Conceptualizing and measuring global interpersonal mistrust. *Journal of Social Psychology*, 140, pp.279-294

¹⁰⁵ Dirks, K.T. (2006) Three fundamental questions regarding trust in leaders. In R. Bachmann & A. Zaher (EDS.), *Trust research*, Cheltenham, Northampton: Edward Elgar Publishing. pp.15-28

¹⁰⁶ Dirks, K.T., & Ferrin, d.L. (2002), *Trust in Leadership: meta-analytic findings and implications for research and practice*. *Journal of applied psychology*, 87 (4), p.611

¹⁰⁷ Jäckel, A. (2018), *Gesundes Vertrauen in Organisationen*. Wiesbaden : Springer, pp.15-32

¹⁰⁸ Mayer, R.C., Davis, J.H., Schoorman, F.D. (1995) An integrative model of organizational trust. *Academy of management review*, 20(3), pp.709-734

¹⁰⁹ Lewicki, R.J., Bunker, B.B. (1996), Developing and maintaining trust in work relationships, in R.M. Kramer, & T.R. Tyler (Eds.) *Trust in Organizations. Frontiers of Theory and Research*, Thousand Oaks: Sage Publications, pp.114-139

¹¹⁰ Rousseau, D.M., Sitkin, S.B., Burt, R.S., & Camerer, C., (1998) Not so different at all: a cross-discipline view of trust. *Academy of management review*, 23(3), pp.393-404

¹¹¹ Dirks, K.T., & Ferrin, d.L. (2002), *Trust in Leadership: meta-analytic findings and implications for research and practice*. *Journal of applied psychology*, 87 (4), p.611

al. (2003)¹¹², Burke et. al. (2007)¹¹³ Gordon and Gilley (2012)¹¹⁴, Klaussner (2012)¹¹⁵ and Hernandez et al. (2014)¹¹⁶. From authors point of view this list should be completed with the model of Bartelt (2011)¹¹⁷.

Based on these and other results Jäckel created an overview, which visualizes the different aspects of the general trust research and which is adapted by the author in chapter 2.

The previous literature research round about the item trust shows, that a supervisor and/or subordinate is willing to give trust in a short term period but that this is something absolutely different than trust based on a long lasting relationship. Both kind of trust can have the same result for the moment, e.g. to raise the self-responsibility, to work faster and to reduce the costs. But for leading or binding employees only the general trust model is the important one, because here a longer time period will be considered, which is same than the use of the different powers of leadership, which will also not change every week and on which the status is based between supervisor and subordinate.

1.3.2 Trust between a supervisor and subordinate

Malik said in 2001 about trust, “strange to say (...) there is nearly nothing written or researched about trust in organizations or anyhow only a low content, a multiple less than about all the other aspects of business culture, which have in general a much more less significance.”¹¹⁸ As an exception, he mentioned Zand¹¹⁹, all others are too confused and not usable for his practice, he mentioned. Also in the revised version, five years later, he has the same meaning and said, that it is important, but he self just writes 17 of nearly 400 pages, about trust and adjoining

¹¹² Wilemyns, M., Gallois, C., & Callan, V. (2003) Trust me I'm your boss: Trust and power in supervisor-supervisee communication. *International Journal of Human Resource Management*, 14(1), pp.117-127

¹¹³ Burke, C. S., Sims, D.E., Lazzara, E.H., & Salas, E. (2007), Trust in leadership: A multi-level review and integration [editor] *Department of Psychologie. The Leadership Quarterly*. 18 (6) pp.606-632

¹¹⁴ Gordon, G., & Gilley, J.W. (2012) A Trust-leadership model. *Performance improvement*, 51(7), pp.28-35

¹¹⁵ Klaussner, S. (2012). Trust and leadership: Toward an interactive perspective, *Journal of change Management*, 12(4), pp.417-439

¹¹⁶ Hernandez, M., Long, C.P., & Sitkin, S.B. (2014) Cultivating Follower Trust: Are all Leader Behaviours Equally Influential?, *Organization studies*, 35(12), pp.1867-1892

¹¹⁷ Bartelt, D. (2011). *Wertschätzende, kompetente und ethische Führung – Das Vertrauen der Mitarbeiter in Ihre Führungskräfte* Dissertation, Universität Duisburg-Essen, pp.117-216

¹¹⁸ Malik, F. (2001) *Grundsätze wirksamer Führung, Führen, Leisten, Leben. Wirksames Management für eine neue Zeit* (13. Aufl., Taschenbuckerstausg), Heyne-Bücher, 22, Heyne Business: Bd. 1078. München: Heyne. p.136

¹¹⁹ Zand, D. E. (1983). *Vertrauen und der Entscheidungsprozeß*. In D. E. Zand & U. Reineke (Hrsg.), *Wissen, Führen, Überzeugen* (Heidelberger Fachbücher für Praxis und Studium). Heidelberg: Sauer. , pp.46–67

items between supervisor and subordinate. Malik is the meaning that mistrust prohibits motivation and that trust generates a robust leadership position against management failures of the daily work. Also he sees the necessity that independent of supervisor or subordinate, people have to be predictable to build trust.¹²⁰ Malik, who is business man, same as scientist comes at the end to the conclusion, that a supervisor should trust much as possible, but on the same side (s)he has to make sure, that the supervisor knows when its trust will be misused by different variants. This is something more in the direction what Lenin should have said, but what is never confirmed¹²¹: Trust is good, but control is better. Achleitner¹²² says to control and trust in a profit-oriented organization, that control doesn't supplement trust, control replaces and chokes trustful behavior partly.

Neubauer¹²³ argues with the positive impact of trust supervisor and subordinate. Beside other aspects, trust supports the behavior to forward information without filtering as well as to accept suggestions of others. This is in line with the study of Seifert¹²⁴, who defines trust as social glue and that in companies with trust between supervisor and subordinates the climatic would be humorous. They would like to work for their company.

Büssing and Moranz came to the result that a decoupling of trust out of staff is not recommendable.¹²⁵ Clases, Bachmann and Wehner see that a pro-active behavior in common project activities is the central source of getting trust in virtual organizations.¹²⁶ Nevertheless, also others came in the same time period to a similar conclusion, that the general trust models do not respect the special behavior between supervisor and subordinate in business life. Burke et al.¹²⁷ sees no comprehensive model, which systematically examines the factors and which support the trust between supervisor and subordinate.

¹²⁰ Malik, F.(2006) Führen, Leisten, Leben. Wirksames Management für eine neue Zeit, Campus Verlag, Frankfurt / New York, pp.141ff

¹²¹ Neumaier, M. (2010). Vertrauen im Entscheidungsprozess: der Einfluss unbewusster Prozesse im Konsumentenverhalten, Habilitationsschrift Universität Wuppertal, 2008, Springer-Verlag, p.V

¹²² Achleitner, A. K. (2013). Kontrolle ist gut, Vertrauen besser. Handelsblatt, 236, 58-89.

¹²³ Neubauer, W. (1999) Zur Entwicklung interpersonalen, interorganisationalen und interkulturellen Vertrauens durch Führung – Empirische Ergebnisse der sozialpsychologischen Verhaltensforschung., in Schreyögg, G. & Sydow, J. (Eds.): Führung neu gesehen, Berlin pp.89-116

¹²⁴ Seifert, M. (2001) Vertrauensmanagement in Unternehmen, München, Mering, p.303

¹²⁵ Büssing, A. & Moranz, C. (2003). Die Rolle von Face-to-Face Kommunikation beim Aufbau von Vertrauen in telekooperativen Geschäftsbeziehungen. Zeitschrift für Arbeitswissenschaft, 57, pp.27-34

¹²⁶ Clases, C., Bachmann, R. & Wehner, T. (2003). Studying Trust in Virtual Organizations. International Studies of Management and Organization, 33, pp.7-21

¹²⁷ Burke, C. S., et al. (2007), Trust in leadership: A multi-level review and integration [editor] Department of Psychologie. The Leadership Quarterly. 18 (6), p.607

Laufer¹²⁸ argues, that employees reduce their trust over time. In earlier days, they trusted a big company and they were proud to work there. There was a long-term status, that had a duration over generations. People felt safe to work in established companies. In Germany, this was pushed by economic miracle after the Second World War and the need of employees. In addition the job protection by government supported this way of thinking and so it became nearly unthinkable, that somebody loses its job and beside the salary increased permanently. Today employees know that these things can change and they can be every time part of a discharge, also through no fault of themselves. Other losses of trust occurred through to permanent changes and missing consequences. At last Laufer also mentioned the loss of trust due to management failures which occurs often not out of the action itself, it is more the kind how changes will be done, e.g. employees will be not informed in front of the change or the employee feels only cheated by the company or management. Independent if the change or the behavior of the supervisor is in line with the view of the subordinate, trust can occur, if the supervisor is authentic and consequent.

Supervisors¹²⁹ stated, that they left a company because they have had a bad trust status and that it takes a long time, until they trust another person. Their given trust had been misused or they think, that trust will be misused. But the most interesting statement was, that nearly all of them have the meaning, that their own uncertainty is a factor, that the subordinates do not trust them. Unfortunately two of three supervisors had the meaning, that supervisors do not trust, because they would lose its LSP. This is not an aspect, which promotes trust. It is more the opposite side.

Zahra et. al.¹³⁰ found out that especially senior supervisors rely on intuition and experiences, than on rational processes. Also an indicator, that trust is more important for those, than for new persons, because also Czernek & Czakon¹³¹ found out that new and not known persons or organizations were often rejected from these persons.

¹²⁸ Laufer, H. (2006) *Vertrauen und Führung - Vertrauen als Schlüssel zum Führungserfolg*. Gabal Verlag, Offenbach, pp.16-19, 40

¹²⁹ Akademie Studie (2006) *Auf gut Glück oder alles unter Kontrolle: Wie Vertrauen deutsch Manager? Befragung von 350 Führungskräften der Wirtschaft*, p.9-24 <https://akademie-web.s3.amazonaws.com/akademie/studien/AkademieStudie-2006.pdf> (15.01.19)

¹³⁰ Zahra, S. A., Yavuz, R. I., & Ucbasaran, D. (2006). How much do you trust me? The dark side of relational trust in new business creation in established companies. *Entrepreneurship Theory and Practice*, 30(4), pp.541-559)

¹³¹ Czernek, K., & Czakon, W. (2016). Trust-building processes in tourist cooperation: The case of a Polish region. *Tourism Management*, 52, pp.380-394

In a research of Votteler & Zatrochova¹³² they stated, that employees waste parts of their working time on activities, that came from distrust. Further they show a duplication of a potential longer employment in the companies of the employee, if the consulted person would really trust their employer. Duplicated based on the time they already employed in company, same as duplicated based on the time they think they will stay in company – the results show a similar behavior. This is the more interesting, with the information that often German employees often plan to change its job in a short time period¹³³.

Trust, which is based on a positive expectation of the future, is very interesting from the Wimmer's¹³⁴ economic point of view, who researched the trust behavior into the supervisor. She advised, to reduce trust to a minimum, if there is no positive perspective in future, same as incentives, safe job etc. or only an one sided trust situation.

The behavior of trust over time in view of economic application

Bartelt¹³⁵ shows direct correlation of trust to the success of the company, based on the three factors employee valuation, competence and ethic of the person that should get the trust. On the other hand he shows, that the trust in a supervisor decreases, independent of the age, but in direct correlation to the staff membership in a company. He also shows that the trust of an subordinate to the supervisor increases with management level. E.g. a worker hasn't so much trust in his direct supervisor, than a department leader to its supervisor or managing director. The trust level itself is decreasing after a while and this is comparable with the general model of socialization of Moreland and Levine¹³⁶. This model shows a standard life-cycle curve with commitment on the y-axis and the status from "new-member" to "ex-member" on the time- or x-axis.

Regarding the relation of trust and the age of people, different researches with the full range of results had been done in the past. Alesina & la Ferrara¹³⁷ found out that trust increases the older the person is. Fehr et al. researched by questionnaire and experiment, that "people above the

¹³² Votteler, A., Zatrochova, M. (2018) Negative outcoms of trust. Monetary quantification of the costs of distrust in companies. - in publication, pp.7-8

¹³³ Avantgarde Experts (2018) Quo Vadis "Arbeiten in Deutschland"? Eine Studie von AVANTGARDE Experts zur Arbeitszufriedenheit und Digitalisierung in Deutschland, p.6 https://www.avantgarde-experts.de/sites/default/files/ae-studie-arbeitszufriedenheit-2018_0.pdf (13.01.2019)

¹³⁴ Wimmer, H., Initiales Vertrauen in die Führungskraft: Eine quantitative Analyse der Werthaltungen in Deutschland, Indien, USA. Wiesbaden : Springer Gabler, 2016. pp.46ff

¹³⁵ Bartelt, D. (2011). Wertschätzende, kompetente und ethische Führung – Das Vertrauen der Mitarbeiter in Ihre Führungskräfte Dissertation, Universität Duisburg-Essen, pp.211-224

¹³⁶ Moreland, R.L., & Levine, J.M. (2002). Socialization and trust in workgroups. *Group Processes & Intergroup Relations*, 5, pp.185-201

¹³⁷ Alesina, A., & La Ferrara, E. (2002) Who trusts others? *Journal of public economics*, 85(2), pp.207-234

age of 65, highly skilled workers and people living in bigger households exhibit a less trusting behavior”¹³⁸ and found the peak of trust at people in the middle age. Holm & Nystedt¹³⁹ found out that the younger persons, of around 20 years, trust more than the older group with more than 50 years. Bellemare & Kröger¹⁴⁰ researched by experiment, took external data from the World Value Survey and found an inverted U-pattern, so that persons in the middle age trust the most and that younger and older persons trust less.

Sutter & Kocher made an experiment and found out, that “trust increases almost linearly from early childhood to early adulthood, but stays rather constant within different adult age groups.”¹⁴¹ They also confirmed the effect of Fehr et al. that in the years of 30-40 seems to be the peak of trust. Bartelt¹⁴² made a secondary research and came to the result, that young people have higher trust into their supervisor than the old subordinates, but that the lowest level of trust is inside the group of around 30-40 year old persons and is then light increasing the older the subordinates are. Li & Fung made a secondary research, out of the World Value Survey and found a universal pattern that an older age was positively related to a higher level of trust across countries around the world.”¹⁴³ Spector and Jones¹⁴⁴ showed that new internal employees would have and get more trust than external employees, because the new internals are more similar to a company than new ones. Castle et al.¹⁴⁵ investigated trust by neuronal measurements with pictures that the participants had been shown. They found out, that older people perceived more faces with cues of untrustworthiness to be trustful than younger people. Jäckel¹⁴⁶ found no relation between the age of the supervisor and its willingness to trust same as she didn’t found a direct relation of the age of the subordinate and its willingness to trust.

¹³⁸ Fehr, E., Fischbacher, U., Von Rosenblatt, B., Schupp, J., & Wagner, G. (2003) A nationwide laboratory examining trust and trustworthiness by integrating behavioural experiments into representative surveys. CESifo, Working paper No. 866, p.2

¹³⁹ Holm, H. & Nystedt, P. (2005) Intra generational trust – a semi experimental study of trust among different generations. *Journal of Economic Behaviour & Organization*, 58(3), pp.403-419

¹⁴⁰ Bellemare, C., & Kröger, S. (2007). On representative social capital. *European Economic Review*, 51(1), pp.183-202

¹⁴¹ Sutter, M., & Kocher, M. G. (2007). Trust and trustworthiness across different age groups. *Games and Economic Behavior*, 59(2), pp.364, 364-382

¹⁴² Bartelt, D. (2011). *Wertschätzende, kompetente und ethische Führung – Das Vertrauen der Mitarbeiter in Ihre Führungskräfte* Dissertation, Universität Duisburg-Essen, p.165

¹⁴³ Li, T., & Fung, H. H. (2012). Age differences in trust: An investigation across 38 countries. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 68(3), p.353

¹⁴⁴ Spector, M.D., & Jones, G.E. (2004). Trust in the workplace: Factors affecting trust formation between team members. *Journal of Social Psychology*, 144, pp.311-321

¹⁴⁵ Castle, E., Eisenberger, N. I., Seeman, T. E., Moons, W. G., Boggero, I. A., Grinblatt, M. S., & Taylor, S. E. (2012). Neural and behavioral bases of age differences in perceptions of trust. *Proceedings of the National Academy of Sciences*, 109(51), pp.20848-20852

¹⁴⁶ Jäckel, A. (2018), *Gesundes Vertrauen in Organisationen*. Wiesbaden : Springer, p.288

Van der Kloet¹⁴⁷ argued, that trust is time dependent and she wanted to show this in six soldier teams, who are sent out over a period of three month. She expected to get a U-pattern of trust over time. The result was totally different, there was no significant different over time. So a flat line of trust instead of a U-pattern was the result. People who had a high trust level at the beginning, had a high trust level over the whole time, same result for people, who started with a low trust level. So trust can be time dependent, but in the 3-month research of van der Kloet no influence was seen.

So it can be said, that there seems to be not an overall view about the relation of age and trust of people.

The reciprocity effect of trust in research fields of profit-oriented organization

Differences in the number of the researched people create different views on the item trust, too. In very big groups, same as social networks, trust is defined in the meaning of correctness and reliability of the counterperson or group¹⁴⁸. Also the size of the company has in the research of Bartelt¹⁴⁹ a high importance. So he came to the result, that the level of trust increases the smaller the company is. The reason for this is the communication and needed contact between the two parties. Hurley¹⁵⁰ stated in addition to this, that the non-verbal communication is seen as more trustful than the verbal communication, which is also something general in the daily confrontation between supervisor and subordinate.

The problem, which occurs out of the company size was also detected by Sprenger, who is the meaning, that the bigger the company is, the more the trust is needed, but the more difficult it is to fulfill this.¹⁵¹ Drucker sees trust inside organizations with the following importance: “You cannot prevent a major catastrophe, but you can build an organization that is battle-ready, that has high morale, that knows to behave, that trusts itself and where people trust one another. In military training, the first rule is to instill soldiers the trust in their officers, because without

¹⁴⁷ van der Kloet, I. (2005). A Soldierly Perspective on Trust: A Study into Trust within the Royal Netherlands Army. Tilburg University: The Netherlands. pp.54ff

¹⁴⁸ Wang, Y., Cai, Z., Yin, G., Gao, Y., Tong, X., & Han, Q. (2016). A game theory-based trust measurement model for social networks. *Computational social networks*, 3(1), p.2.
<https://link.springer.com/article/10.1186/s40649-016-0027-x> (09.05.2020)

¹⁴⁹ Bartelt, D. (2011). Wertschätzende, kompetente und ethische Führung – Das Vertrauen der Mitarbeiter in Ihre Führungskräfte Dissertation, Universität Duisburg-Essen, p.224

¹⁵⁰ Hurley, R. F. (2006). So schaffen Sie mehr Vertrauen: Vertrauen zwischen Managern und Mitarbeitern ist kein Gottesgeschenk. *Harvard-Business-Manager*, November 2006, p.68

¹⁵¹ Sprenger, R. K. (2002). *Vertrauen führt: Worauf es im Unternehmen wirklich ankommt*. Frankfurt: Campus Verlag. p.29

trust they won't fight."¹⁵² Based on this Drucker came to the result, that modern companies don't have to lead their employees with pressure. They have to lead with trust.¹⁵³ This is similar to Meifert, who is working in its research on the properties of trust based in organizations. So called "High Trust Organization" which has a participative leadership and a high level of personal responsibility and self-organization. One factor for a trust based organization is the handling of failures. Sailer shows in the correlation with a High Trust Organization positive results and success of the companies. The personal relationships are long connected and they have a common positive sight of the future.¹⁵⁴ Mc Evily et al.¹⁵⁵ speak about trust as an organizing principle, which helps to increase the efficiency in an organization.

Kastner¹⁵⁶ is the meaning that in the ideal case the employee who made a failure must be treated same as a person who made an improvement. Only by this a failure will be visible and other person can learn from this. Musahl talks in dependence of Wehner¹⁵⁷, that making failures visible and trust are two factors that become stronger the more and powerful one of this factor is. So there is a self-energizing effect in both directions, positive and negative.

Kouzes & Posner found out the following about trust in the office: "Trust is the most significant predictor of individuals' satisfaction within their organizations"¹⁵⁸

To trust an institution in an educational field, students have to make first positive experiences with the institution, but also the personal experiences of and with their fellow students brings the students to trust the educational institution in its reliability and integrity.¹⁵⁹

Zand makes a clear cut between trust and sympathy and he is the meaning, that trust is conscious acting of the own vulnerability. "The competent supervisor changes his own vulnerability.

¹⁵² Drucker, P. F. (1990). *Managing the non-profit organization: Practices and principles*. New York: HarperCollins. p.9

¹⁵³ Drucker, P. F. (1999). *Managing oneself*. Harvard Business Review Press, 2008. p.26

¹⁵⁴ Sailer, M. (2006). *Führung - Instrument der Vertrauensbildung*. In K. Götz (Hrsg.), *Vertrauen in Organisationen (Managementkonzepte, München [u.a.]*: Hampp, p.263

¹⁵⁵ Mc Evily, B., Perrone, V., & Zaheer, A. (2003). Trust as an organizing principle. *Organization Science*, 14, pp.91-103

¹⁵⁶ Kastner, M. (2004). *Ethische Kommunikation*. In A. Elisabeth Auhagen (Hrsg.), *Positive Psychologie*. Weinheim [u.a.]*: Beltz, PVU*, pp.118–119

¹⁵⁷ Endres, E. & Wehner, T. (2006). *Störungen zwischenbetrieblicher Kooperation- Eine Fallstudie zum Grenzstellen Management in der Automobilindustrie: Arbeitsteilung; interorganisationalen Beziehungen; Just-in-time-Lieferung; Koordination; Produktqualität; Störungen*. In J. Sydow (Hrsg.), *Management von Netzwerkorganisationen. Beiträge aus der "Managementforschung". 4., aktualisierte und erweiterte Auflage (Springer-11775 /Dig. Serial]*. Wiesbaden: Betriebswirtschaftlicher Verlag Dr. Th. Gabler/GWV Fachverlage GmbH Wiesbaden. pp.309–353

¹⁵⁸ Kouzes, J. M. & Posner, B. Z. (2003). *The leadership challenge (Compl. updated 3rd ed.)*. San Francisco, Calif.: Jossey-Bass. p.247

¹⁵⁹ Henning - Thurau, T., Langer, F.M., & Hansen, U. (2001, May). Modeling and managing student loyalty : An approach based on the concept of relationship quality. *Journal of Service Research*, 3 (4), pp.331-344.

(S)he adapts it to different tasks, situations and to the counterpart. Sympathy can be developed on the same way than trust, but this is not a must.”¹⁶⁰ (e.g.: A father loves his son (sympathy), but he will not give him his car (no trust). – on the other hand, a passenger of a plane didn’t know the pilot himself (no sympathy) but (s)he trusts the pilot.)

Zand says, that trust is the basis for a fast interaction and the trust-cycle of Zand shows the negative effect in an example of two mistrusting managers.¹⁶¹ (see Figure 2)

Bordum¹⁶² shows in his conclusion that there are different asymmetries between trust and mistrust. He argues with the lot of time that it takes to create trust and the moment, to lose it or to build up mistrust. On the opposite side it can’t be concluded, that the absence of mistrust means that there is trust.

¹⁶⁰ Zand, D. E. (1983). Vertrauen und der Entscheidungsprozeß. In D. E. Zand & U. Reineke (Hrsg.), Wissen, Führen, Überzeugen (Heidelberger Fachbücher für Praxis und Studium, Heidelberg: Sauer. pp.46–67

¹⁶¹ Zand, D. E. (1981). Trust and the Decision Process. In D. E. Zand (Hrsg.), INFORMATION, ORGANIZATION, AND POWER. Effective Management in the Knowledge Society, New York, St. Louis, San Francisco, pp.i–xii, 37-55

¹⁶² Bordum, A. (2004) Trust as a Critical Concept, Center Market Economics, Copenhagen Business School, Frederiksberg, ISBN 87-990224-0-0, p.26

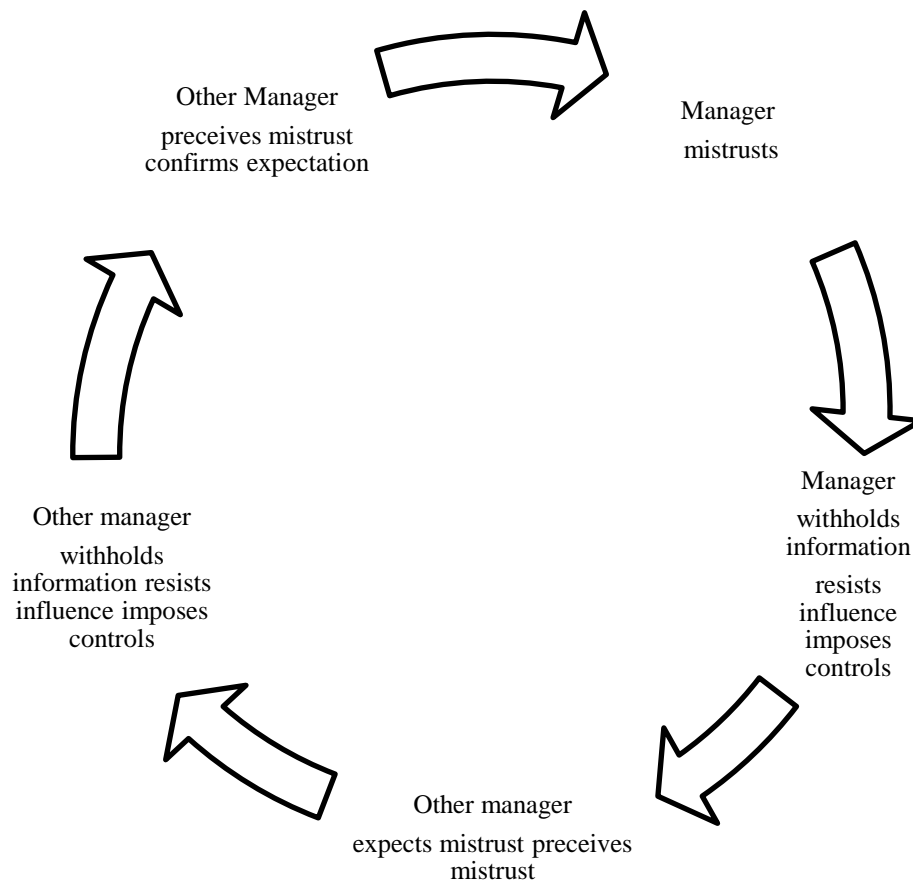


Figure 2: Trust and the decision process

Source: Zand (1983)

Dunn and Schweitzer¹⁶³ found out that emotions can affect the trust in a person. The person who wants to be trustful should have the three emotions “happiness”, “sadness” and “anger” and it was a clear result, that participants of the experiment have less trust to the person, if the person is angry, than if the person is happy. A person with sad emotion had no impact on trust ratings of the participants, because the participants see sadness as situation-focused and not person-focused. According Thomas¹⁶⁴, gives an employee its employer its working force, that the employer can be successful. On the other hand the employee is expecting, that (s)he will get a correct share of the success. E.g., that (s)he gets his full loan in time, that the employer pays all add on labor costs and that the place to work is on a good and human friendly condition. So the worker gives the boss an advancement of trust. But if the expected result does not become

¹⁶³ Dunn, J. R. & Schweitzer, M. E. (2005). Feeling and believing: The influence of emotion on trust. *Journal of Personality and Social Psychology*, 88(5), pp.736-748

¹⁶⁴ Thomas, A. (2005) Vertrauen im interkulturellen Kontext aus Sicht der Psychologie. p.31, 27.04.2016 http://www.psychologie.uni-regensburg.de/Thomas/aktuell/Vertrauen_im_interk_Kontext.PDF

true and the reason why isn't understandable for the worker, (s)he feels exploited and the trust is destroyed. This has the following results: reduction of motivation, mistrust against all activities of the employer, prevention / no attention, work just on regulation basis / inner cancellation, refusal to work (sick certificate, not coming to work), escape into private life, negative propaganda against the employer in- and outside, cancellation, selective attempts to damage the employer and so on.

The importance of the reciprocity effect to create and hold trust in a profit-oriented organization seems to be same important than trust inside the profit-oriented organization itself. A loss of them has definitely a negative impact on the organization.

The negative side of trust in economic view

There can be also another side of trust, which does not make a management process more effective. Even it is generally assumed, that an intensive collaboration of two companies lead to a good trust behavior and this leads to a better effective and innovation situation.¹⁶⁵ Trust is very important, as long it is not possible to monitor and rule between two companies.¹⁶⁶ The situation between two companies is here similar to the situation between supervisor and subordinate. Normally trust reduces competitive conflicts inside cooperative organizations¹⁶⁷ (cooperative = collaboration between competitors¹⁶⁸), but Sende came to the result, that even it seems to be logical, the good effects of trust does not exist every time. She analyzed for this the negative impact of trust in a cooperative organizations and shows that trust can lead to an increased risk of opportunism or can lead to a lower innovation rate.¹⁶⁹ Trust negatively affects conflicts, which is not wanted on the one side, but team members are hampered to raise a conflict, because they don't want to destroy the team spirit. This is in line with Zahra et al., who stated, that often established partners just develop the current situation in small steps.¹⁷⁰ Langfred argues that a high level of trust reduces the amount of monitoring and the other firm,

¹⁶⁵ Pulles, N. J., Veldman, J., Schiele, H., & Sierksma, H. (2014). Pressure or pamper? The effects of power and trust dimensions on supplier resource allocation. *Journal of Supply Chain Management*, 50(3), pp.16-36

¹⁶⁶ Cullen, J. B., Johnson, J. L., & Sakano, T. (2000). Success through commitment and trust: the soft side of strategic alliance management. *Journal of World Business*, 35(3), pp.223-240

¹⁶⁷ Lin, C.-P., Wang, Y.-J., Tsai, Y.-H., & Hsu, Y.-F. (2010). Perceived job effectiveness in cooperation: A survey of virtual teams within business organizations. *Computers in Human Behavior*, 26(6), pp.1598-1606

¹⁶⁸ Bengtsson, M., & Kock, S. (2000). "Cooperation" in business networks—to cooperate and compete simultaneously. *Industrial Marketing Management*, 29(5), pp.411-426

¹⁶⁹ Sende, M., (2016) Potential negative impacts of trust on cooperative relationships, Enschede, The Netherlands, University of Twente, The Faculty of Behavioural, Management and Social sciences. pp.1, 6

¹⁷⁰ Zahra, S. A., Yavuz, R. I., & Ucbasaran, D. (2006). How much do you trust me? The dark side of relational trust in new business creation in established companies. *Entrepreneurship Theory and Practice*, 30(4), pp.541-559

which doesn't feel controlled, reduces its performance. But on the other hand, if firms are monitored in a situation of trust, this results in anger or fear.¹⁷¹ Friedberg and Neuvillev¹⁷² also came to the result, that in cases where control and monitoring is replaced by trust, opportunistic behavior occurs inside the other firm, which can't be detected anymore.

Ring and van de Ven¹⁷³ found out that a high level of trust leads to situations, that contracts and other very relevant things between or in profit-oriented organizations had not been made. This is on the one side very effective, because it saves time and money not to do these things. This is ok as long everything is fine, but in times of potential later disagreement, no basis for discussion is available. This is a risk, which has to take into account and which is also in the definition of trust an important part. Especially this is a risk of small firms, because they prefer to work and collaborate with a partner, who is trustful.¹⁷⁴

Molina-Morales and Martínez-Fernández¹⁷⁵ came to the conclusion, that the function of trust, is a inverted U-pattern and that positive things, same as innovation and effective increase, can shortly go to the opposite side. One of the biggest problem that has been detected is, that firms or persons are often competitors or just have other targets. This standard situation leads to the effect, that the before mentioned, inverted U-pattern is higher than in a normal collaboration. Knowledge is there, especially the critical information, that leads to a competitive advantage and pushes the results of trust, but it will be decrease more faster, if one party comes to the result that the other firm or person takes its own advantage, outside the cooperation. This is more critical, because in a normal collaboration, the other partner will not use the information against the partner¹⁷⁶. This is a conflict, which normally should not exist inside a company, better to say between a supervisor and a subordinate. But also here it is not unusual, that supervisor and subordinate have other interests. It can be the limited time the subordinate has to do its job or other interests or meaning about the topic. There can be things from the outside,

¹⁷¹ Langfred, C. W. (2004). Too much of a good thing? Negative effects of high trust and individual autonomy in self-managing teams. *The Academy of Management Journal*, 47(3), pp.385-399

¹⁷² Friedberg, E., & Neuvillev, J.-P. (1999). *Inside partnership: Trust, opportunism and cooperation in the European automobile industry Interfirm networks: organization and industrial competitiveness*, Routledge, pp. 67-88

¹⁷³ Ring, P. S., & van de Ven, A. H. (1992). Structuring cooperative relationships between organizations. *Strategic Management Journal*, 13(7), pp.483-498

¹⁷⁴ Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(3), pp.20-38

¹⁷⁵ Molina-Morales, F. X., & Martínez-Fernández, M. T. (2009). Too much love in the neighborhood can hurt: How an excess of intensity and trust in relationships may produce negative effects on firms. *Strategic Management Journal*, 30(9), pp.1013-1023

¹⁷⁶ Sende, M., (2016) Potential negative impacts of trust on cooperative relationships, Enschede, The Netherlands, University of Twente, The Faculty of Behavioural, Management and Social sciences, p.7

same as interest from the family at home or just the understanding how things work or experiences from the past. Nevertheless so many things can be different between these two persons, that the situation is same than two firms who have different targets and which are conflicting.

Trust as an applicable definition in correlation to leadership

Coming from the idea of leadership, independent of LSS or LSP, the meaning of trust inside this thesis has to be defined, to clarify what kind of impact the leadership has on the trust level. In first the author shares the meaning of Mc Evily¹⁷⁷ et al. who gives its own view in the problem of the definition of trust: “Rather than debating which of these definitions is more correct, we believe that the field would be better served by researchers acknowledging that trust is a multifaceted concept, clearly identifying which definition is most relevant for their particular research question, and applying that definition consistently”

According Deutsch¹⁷⁸ increases trust the own vulnerability, it will be chosen in a situation, where the damage, which can possibly occur, is higher than the benefit that could happen and trust happens against persons who are not under their own control. So these factors are especially for business life the most critical ones, because very often a supervisor is frightened to loose his job to one of its employees. But especially here it is required to open her-/himself and to open its own vulnerability. This shows, that general trust is based on a status, which is going deeper than in normal business. This is supported also by the sentence, that trust happens against persons who are not under personal control. Based on this, it is needed that the starting point of trust is coming from the supervisor, because only from this position it seems to be independent and without hidden agenda, independent also from the cost-value analyze, which can come from the higher position, too. Based on this and independent from supervisor or subordinate, if a person invests this kind of vulnerability (s)he tries not to loose it and so also we are talking about a long term period in which trust is not suddenly existing, it must be build up, increased, stabilized and secured.¹⁷⁹

¹⁷⁷ Mc Evily, B., Perrone, V., & Zaheer, A. (2003). Trust as an organizing principle. *Organization Science*, 14, p.101

¹⁷⁸ Deutsch, M. (1962). Cooperation and Trust: Some Theoretical Notes. In M. R. Jones (Hrsg.), *Nebraska Symposium on Motivation 1962 (Current theory and research in motivation)* Lincoln Neb.: Univ. of Nebraska Press, pp.275–319.

¹⁷⁹ Thomas, A. (2005) *Vertrauen im interkulturellen Kontext aus Sicht der Psychologie*. p.5, 27.04.2016 http://www.psychologie.uni-regensburg.de/Thomas/aktuell/Vertrauen_im_interk_Kontext.PDF

In addition Luhmann came to the result, that trust reduces the complexity of human acting, expands in the same time the possibility of experience and acting and gives safety, which are all desired results of a good leadership to increase the speed of making decisions and reducing costs. Also, one very interesting item which is recently included in one of the newest definitions has been created by Jäckel.¹⁸⁰ She extended the overview of definitions from Dietz and Den Hartog¹⁸¹, listed 15 definitions of trust in the years between 1962 and 2003 and arrived at her own definition:

“Trust is a social mechanism of complexity reduction that manifests itself in the willingness to make oneself vulnerable based on positive expectations of behavior and the intention of a social counterpart.”

It covers the general points and because of this the author has adapted it just in a minor way to use it as definition in this research.

The Author’s definition of trust in correlation to leadership

- a) Trust is a social mechanism to reduce complexity and can positively influence the business leadership effectiveness.
- b) Trust is based on a positive expectation of the behavior and intention of the person or organization, which should get the trust and
- c) Trust can hurt the person who trusts, if the positive expectation of b) does not become reality.
- d) Trust is future oriented.

1.3.3 The leadership power and trust correlation inside profit-oriented organizations

The first fully accordance of a research about power and trust had been found in Luhmanns *Trust and Power*¹⁸² from 1979, but this research is a combination and translation of two separated books: *Vertrauen*¹⁸³ from 1968 and *Macht*¹⁸⁴ from 1975. That’s also the reason, that these terms are defined more separate than in a relation. Möllering interprets the connection of these two books by “Regarding trust and power, we may actually have to complete Luhmann’s work for him, because he left only hints at best, on how they are related.”¹⁸⁵

¹⁸⁰ Jäckel, A. (2018), *Gesundes Vertrauen in Organisationen*. Wiesbaden: Springer, pp.24-30

¹⁸¹ Dietz, G., Hartog, D.N.D. (2006) Measuring trust inside organisations. *Personnel Review*, 35(5), p.559

¹⁸² Luhmann, N. (1979). *Trust and power*, John Wiley and Sons Limited

¹⁸³ Luhmann, N. (1968). *Vertrauen*, Stuttgart: Enke.

¹⁸⁴ Luhmann, N. (1975). *Macht*, Stuttgart: Enke.

¹⁸⁵ Guido Möllering Editor-in-Chief (2019) Connecting trust and power, *Journal of Trust Research*, 9:1, p.3, DOI: 10.1080/21515581.2019.1609732 <https://www.tandfonline.com/doi/full/10.1080/21515581.2019.1609732> (02.04.2021)

Bachmann researched trust and power in business systems and sees on one side trust as a factor to create easier a cooperation and to reduce uncertainty but on the other side he describes power as a similar factor, that also reduces in the most cases complexity and uncertainty, to control a profit-oriented organization. With trust, same as power the other person can be influenced to do what another person wants.¹⁸⁶ Just the view of expectation is another one. In the way of trust it is the version of a good end. In the way of power the end, in eyes of the subordinate can be all, good neutral or bad. So trust seems to be every time the better option for the subordinate. If the supervisor is strong and or has experiences in this, what the subordinate shall do, it can also be better, just to do what the supervisor wants.

As one of the latest studies Håvold & Håvold¹⁸⁷ researched power, trust and motivation in two hospitals. Unfortunately, trust was only defined as one category, without subscales but also they found out, that 41.8% of the variation of trust in supervisors, is explained by power.

Jäckel¹⁸⁸ researched different influences of trust, beside she researched with four questions for the subordinate and three questions for the supervisor the influence of power on trust. She orientates the questions on the 1998 scale of Raven et al.¹⁸⁹, but she modified them in that way, that the leading power is defined by predominance of the supervisor, same as pressure and stress from the supervisor to the subordinate. She argues this, with her former qualitative study, that this kind of power is especially reversed to build or to prevent trust. But also the results of her quantitative research show a negative significant relation between these kind of powers (negative, same as coercive, legitimation) and trust, so that she assumes, that leaders uses a power or trust based leadership to their subordinates. On the other hand, based on answers out of her qualitative research, she came to the conclusion, that a benevolent use of LSPs is not a competitor and can be converse. This means, it can support trust in the leadership. An important outcome of this limited research of power and trust, is that the more the subordinate feels the negative power, the less trust the subordinate has in its supervisor. Reversed means this, that a supervisor, who uses this kind of power, same as pressure and stress, is not interested in the welfare of the subordinate, so that one of the three dimensions of trust (competence, welfare and integrity) is disturbed and a more deeper trust-based situation is prohibit. As mentioned

¹⁸⁶ Bachmann, R. (2001). The role of trust and power in the institutional regulation of territorial business systems. University of Groningen. p.11

¹⁸⁷ Håvold, J. I., & Håvold, O. K. (2019). Power, trust and motivation in hospitals. *Leadership in Health Services*, 32(2), p.195.

¹⁸⁸ Jäckel, A. (2018), *Gesundes Vertrauen in Organisationen*. Wiesbaden: Springer, pp.209, 263, 272-274

¹⁸⁹ Raven, B. H., Schwarzwald, J., & Koslowsky, M. (1998). Conceptualizing and measuring a power/interaction model of interpersonal influence 1. *Journal of applied social psychology*, 28(4), pp.330-332

before this is based on 3-4 questions and subjective answers out of a specialist interview. The relation is based on a small range of LSPs and will be deeper analyzed in the author's research. Same as trust, power is important in case of leadership, but power can be also shared from the leader to influence performance¹⁹⁰. Yukl¹⁹¹ is also underlining this point inside his Flexible Leadership Theory and the research of Pearce et al.. Sandner¹⁹² comes to the result, that power can be used without creating conflicts and sometimes power is used to interrupt upcoming conflicts¹⁹³.

Neubauer and Rosemann¹⁹⁴ see trust inside organisations as an interpersonal phenomenon with an asymmetric function of power between supervisor and subordinate. Bhatti et al.¹⁹⁵ found out that leader trust in combination with knowledge sharing supports project success. Especially in times of an increased work in homeoffice, trust became more important as a main factor for a distance leadership.¹⁹⁶ Enste¹⁹⁷ sees trust and power as two separate ways to change the behavior of people in governments and profit-oriented organizations. Hardy et al.¹⁹⁸ researched trust and power in interorganizational relations and came to the result that making a differentiation of trust just into predictability and the role of goodwill is not enough, because this determination ignores the conflict of interests, same as the asymmetrical power. This asymmetric can be seen in the research of Jäckel¹⁹⁹ too. It has to be said, that here only the powers are meant, which negatively influences trust with stress, which is in first way coercive power. The idea behind this model is, that the more trust is available, the less (negative) power is needed to get that action the supervisor wants to have.²⁰⁰ This model cannot be used for every

¹⁹⁰ Gronn, P. (2002). Distributed leadership as a unit of analysis. *The Leadership Quarterly*, 13, pp.423–451

¹⁹¹ Yukl, G. (2008). How leaders influence organizational effectiveness. *The leadership quarterly*, 19(6), p.712

¹⁹² Sandner, K. (1990). *Prozesse der Macht: Zur Entstehung, Stabilisierung und Veränderung der Macht von Akteuren in Unternehmen*, Berlin, p.77

¹⁹³ Nienhüser, W. (2003) *Macht*, Universität Essen in Martin, A. (Hg.) (2003) *Organizational Behaviour - Verhalten in Organisationen*, Stuttgart: Kohlhammer, p.10

¹⁹⁴ Neubauer, W. & Rosemann, B. (2006) *Führung, Macht und Vertrauen in Organisationen* W. Kohlhammer Druckerei, Stuttgart, p.125

¹⁹⁵ Bhatti, S.H., Kiyani, S.K., Dust, S.B. and Zakariya, R. (2021), "The impact of ethical leadership on project success: the mediating role of trust and knowledge sharing", *International Journal of Managing Projects in Business*, Vol. 14 No. 4, pp. 982-998

¹⁹⁶ Batz, T. (2021). *Führung auf Distanz. Mobility in a Globalised World 2020*, 25, pp.73-74

¹⁹⁷ Enste, D. H. (2021). *Wirtschaft und Corona: Die Bedeutung von Vertrauen in Krisenzeiten*. *Zeitschrift für Politikwissenschaft*, pp.1-8

¹⁹⁸ Hardy, C., Phillips, N., & Lawrence, T. (1998). Distinguishing trust and power in interorganizational relations: Forms and facades of trust. *Trust within and between organizations*, pp.64-87

¹⁹⁹ Jäckel, A. (2018), *Gesundes Vertrauen in Organisationen*. Wiesbaden: Springer, p.86

²⁰⁰ Wilemyns, M., Gallois, C., & Callan, V. (2003) Trust me I'm your boss: Trust and power in supervisor-supervisee communication. *International Journal of Human Resource Management*, 14(1), p.124

kind of leadership, so e.g. not in authority systems with fanatic followers. They can trust the leader also by using much (negative) power. In the normal profit-oriented organization, this fanatic situation is not usual and transformational and transactional leadership are the most relevant LSS.

The idea of an effective business supervisor, who doesn't work in isolation, but in direct reciprocity leadership with the subordinates, who encourages respect, supports and includes the meaning of the subordinates in decision making processes^{201 202} is very similar with the model above, compared into the direction of the higher share of trust. This observance is also in line with the results of Patrick²⁰³, where the rational use of the supervisor's power creates cooperation from the subordinates, which is the main starting point of the author's research.

1.4 Summary on literature review

The analysis of literature shows, that there have been many studies about Leadership, LSS, Leadership Power and Trust separately, however by combining the two presently relevant items, the author is following Möllering²⁰⁴ who said, "Research explicitly connecting trust and power is surprisingly rare." Håvold&Håvold²⁰⁵, have a similar meaning and have stated that there exists limited empirical research on the influence of power on trust and motivation. They have specifically researched the health sector, but other sectors do not show a comprehensive picture either. For the author a clear item for the further necessity of deeper research of these two relevant variables of leadership.

The will to use power same as the will to trust are not contrary they are complementary²⁰⁶ and can both exist in parallel, this is the same that the asymmetric models of these two influencing factors display, excluding the borders, which should be analyzed for the special case of full trust. This border view would mean in the asymmetric model, that there is no LSP, which is

²⁰¹ Brower, H. H., Schoorman, F. D. and Tan, H. H. (2000) A model of relational leadership: the integration of trust and leader-member exchange, *The Leadership Quarterly*, 11, pp.227–250

²⁰² Kurland, H., Peretz, H. and Hertz Lazarowitz, R. (2010) Leadership style and organizational learning: the mediate effect of school vision, *Journal of Educational Administration*, 48, pp.7–30

²⁰³ Patrick, H. A. (2012) Influence of power bases on leadership strategies adopted by managers' in information technology organizations, *European Journal of Business and Management*, 4, pp.101–108

²⁰⁴ Möllering, G. Editor-in-Chief (2019) Connecting trust and power, *Journal of Trust Research*, 9:1, p.1, DOI: 10.1080/21515581.2019.1609732 <https://www.tandfonline.com/doi/full/10.1080/21515581.2019.1609732> (02.04.2021)

²⁰⁵ Håvold, J. I., & Håvold, O. K. (2019). Power, trust and motivation in hospitals. *Leadership in Health Services*, 32(2), p.208

²⁰⁶ Rother, W. (2016). Wille zur Macht oder Wille zum Vertrauen? *Bulletin der Schweizerischen Gesellschaft für Anthropologie*, (2): p.34

questionable for the view on a profit-oriented organization, because also in case of highest trust the supervisor still has his/her power. Independently if used or not.

In the case of the reciprocal dependents of LSP and trust, LSP has direct influence on trust. The influence itself is surely different, depending on the studies and the research fields, but from author's point of view, trust is the dependent variable and power the independent one. That this relation can also have the opposite direction is the meaning of Mostafa & Mouakket²⁰⁷, who stated "We conclude that the power of trust and mistrust lies in the individual need for ontological security and uncertainty avoidance, while individuals should still be able to critically reflect, understand, monitor and evaluate the process of organizational change. Trust is therefore a basis for power, yet it is not a sufficient condition for the achievement of intended outcomes." This kind of argumentation will not be rejected from the side of the author, but for the primary research of subordinate's trust behavior, the first set of dependents will be used. That LSP is able to change the level of trust is common sense^{208 209} and affirms this approach.

²⁰⁷ Mostafa, K. H., & Mouakket, S. (2018). Power, trust and control. *Journal of Accounting in Emerging Economies*, 8(4), p.491

²⁰⁸ Turner, J. C. (2005). Examining the nature of power: A three-process theory. *European Journal of Social Psychology*, 35, pp.1-22

²⁰⁹ Leonidou, L.C., Talias, M. A., & Leonidou, C. N. (2008). Exercised power as a driver of trust and commitment in cross-border industrial buyer-seller relationships. *Industrial Marketing Management*, 37, pp.92-103

2 LEADERSHIP POWER AS AN INDEPENDENT FACTOR FOR LEADERSHIP STYLE AND TRUST IN AN TRIANGLE SITUATION

To work with complexity, to reduce complexity of problems or changes and to make faster decisions on a more comprehensive background is the main task of this research and the reason to create a higher share of trust, as an active output of leadership. Due to this high importance for management output and decisions, it is the more interesting, that trust is not an already analysed value or target in companies to reflect the behavior of the leadership, independently from leadership style or leadership power view. In quality assessments often the company culture is analyzed by the employee turnover rate (fluctuation rate), employee net promoter score (if employee will recommend the company to another person) or the employee or manager satisfaction rate (how satisfied employee are with their managers), but trust as a direct result of leadership is in best case just a part of or hidden in the employee satisfaction rate.

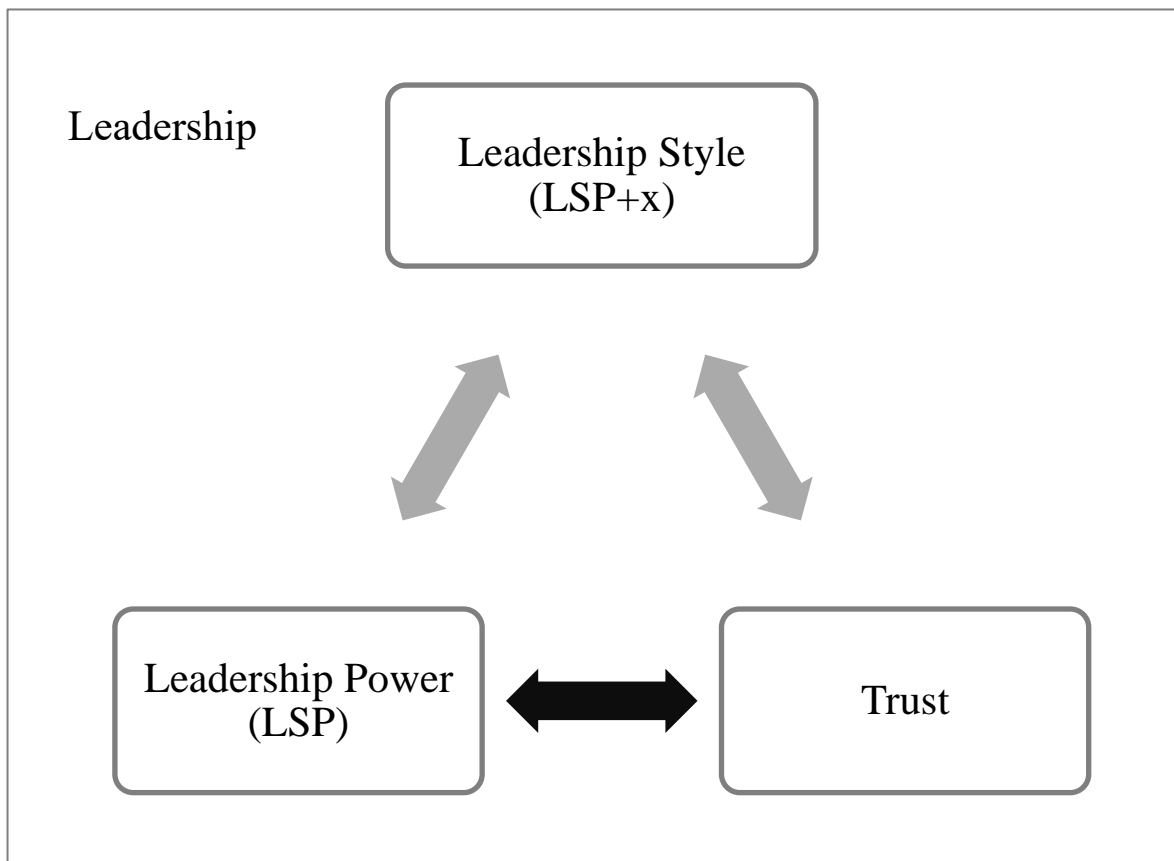


Figure 3: Triangle concept of leadership

Source: author's concept based on literature review

This last mentioned target for an organization can be just calculated by comparing different employee meanings over time and is not directly linked to another result same as e.g. the

fluctuation rate. So if companies make such an effort to get feedback about their company culture, the situation about the employees trust situation into the management could be monitored in the same way, by making comparisons over time or by using a direct trust level measurement system, to use trust as a direct target for an organization, a direct output of leadership.

On the basis of the former research, the situation and effecting relations, same as correlations between Leadership, Leadership Style, Leadership Power and Trust can be specified in the following way. Leadership is the overall term, which can include all the single terms in one. The relationship of the remaining one can be visualized in a triangle concept (see Figure 3), by adding the Factor X for different other inputs to influence the LSS.

Leadership Power is only one of these influencing factors for the LSS, but in the eyes of the author it is the relevant one. Based on this double effect, the influence of LSP onto LSS and trust, the research of the direct way, the direct influence of LSP on trust has a special attitude. Leadership Power can be the direct independent predictor of trust instead of using LSS, which means just that the research is getting more complex and that this is an indirection path to get a direct Leadership predictor of trust.

Before making the next steps of this direct concept of LSP and trust, the environment and research field of trust, which also exists in many ways, has to be analyzed. Also, here the research range has to be specified by using trust in a leadership research between supervisor and subordinate.

2.1 The research range of trust in a leadership situation

Jäckel²¹⁰ sees the research gap in a similar way to the one stated in the dissertation of the author. She refers to the meta-analyses of Dirks & Ferrin²¹¹ and the multi level review of Burke et al.²¹² and defines the two following important gaps, which are adapted by the author for his own research:

1) Most of the studies have researched the trust situation from the subordinate side to the supervisor. It is researched how and how much the subordinates trust the supervisor. Due to the situation, that problems, same as decisions become more and more complex, it is necessary to

²¹⁰ Jäckel, A. (2018), *Gesundes Vertrauen in Organisationen*. Wiesbaden: Springer, p.16

²¹¹ Dirks, K.T., & Ferrin, d.L. (2002), Trust in Leadership: meta-analytic findings and implications for research and practice. *Journal of applied psychology*, 87 (4), p.611

²¹² Burke, C. S., et al. (2007), Trust in leadership: A multi-level review and integration [editor] Department of Psychologie. *The Leadership Quarterly*. 18 (6), p.607

understand, how much trust a supervisor has in his/her subordinate. Trust can help in today's business life, but it is not understood, how supervisors work with this additive.

2) It is researched and understood, what are the specific consequences of the trust situations between supervisor and subordinate, but not how it will be improved. This status between supervisor and subordinate is not comparable with a normal private status. In business life, the supervisor has power above the subordinate. If this relationship is disturbed, it can result in a predictably worst outcome, where the subordinate loses his/her job, perhaps his basis for existence. Especially in high-level management the leadership situation seems more important, than on a blue-collar worker level, because of the importance and complexity of the daily tasks. It has to be taken into account that a trust situation, whatever the level may be, between supervisor and subordinate (both here called employees) can only exist, if both sides trust each other. E.g. if only one employee trusts the other, but the other employee will not return the trust, the first employee will reduce his/her own trust into the other employee as long as they will have a same level. Based on this circle, Jäckel's trust-model has to be adapted. Due to the reason, that supervisor and subordinate status of getting and giving trust changes every time, both are just defined as employee A or B. The arrow between the cause and the employee (A) who gives trusts has to be changed in the opposite direction. In this way, the behavior of the employee (B) who gets trust is the cause, which has an influence on the trust-level of A to B, but also on the behavior of A, which is relevant in the next step, when B defines its trust level to A. In the following step of this trust cycle, the model does not change and can stay the same. The only difference is now, that B is now the one, who gives trust and A is the one who gets trust. The effect of the new trust-level in both cases has also an influence on both employees, but this is in line with the basic trust-model of Jäckel²¹³ before.

In the model adaption of the author (see Figure 4) the labeling of the different areas is adapted in an active and passive side of trust, but the description is still the same:

(1) The basis of trust and its own meaning. (2) Trust exists between min. both parties and / or hierarchy level. (3) The source of trust. (4) The way trust develops. (5) The effect of trust. (6) The importance of the context, in which trust is imbedded.

This is interesting for the later research, because based on this model and the later discussion about trust and LSP of leaders, number (2) and (6) are locked and (1) is a very general discussions, which is part of other earlier, theoretical investigations.

The later research of leadership and trust are inside the research areas (3) and (4) and are also at the border to (5). In this adapted model it is visible, how an employee influences active or

²¹³ Jäckel, A. (2018), *Gesundes Vertrauen in Organisationen*. Wiesbaden: Springer, p.31

passive the trust level. The active side, to change the trust level is the upper side. E.g. the employee B (who gets trust) creates with its own behavior a cause that the employee A (who gives trust) can use this as a judgment to change or create its level of trust to employee B. So B acts and A reacts, in case of adapting its own behavior and by defining or changing its trust level to employee B. This is the active side.

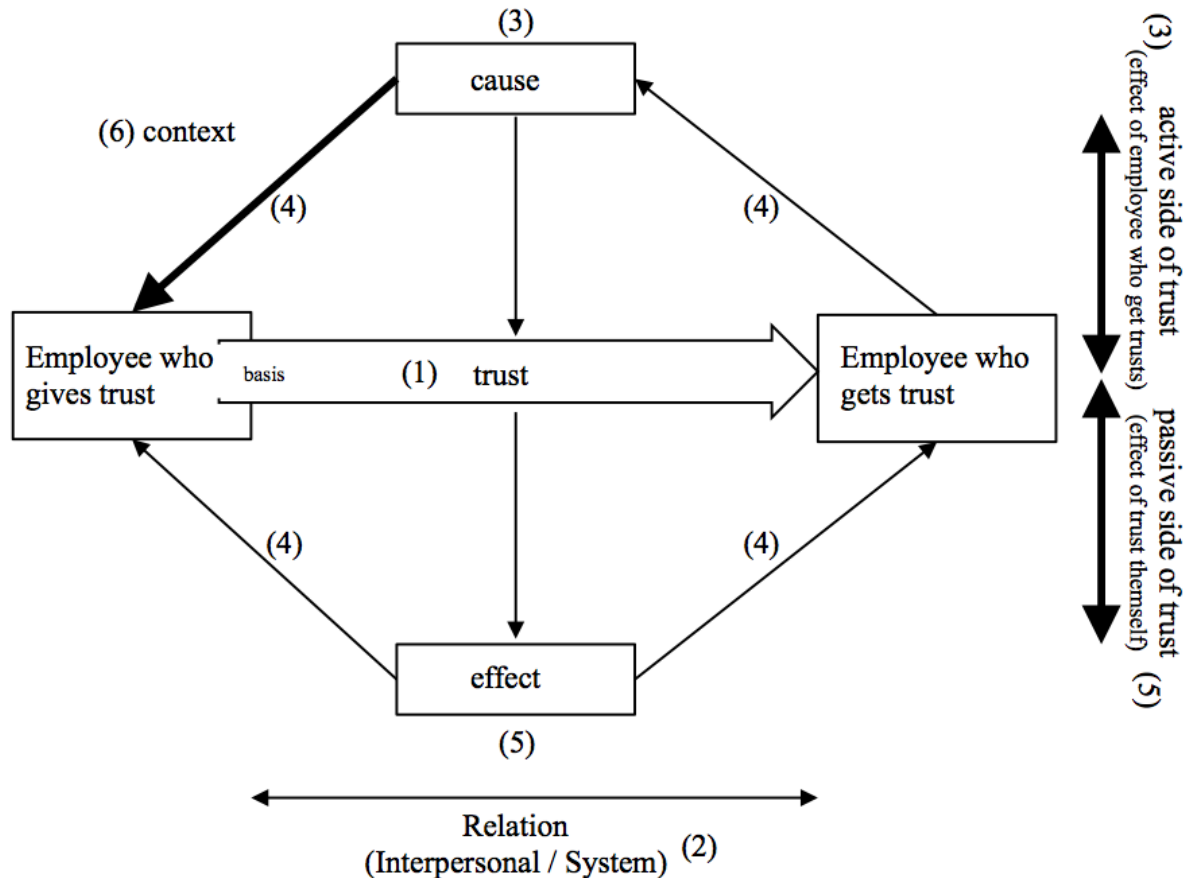


Figure 4: Aspects of trust research

Source: Jäckel's (2018) aspects of trust modified by author, based on literature research

The passive side is the effect of trust itself, which also has an effect onto both employees. The first effect is the new trust level, that has an influence to both of them, but e.g. inside a profit-oriented organization between supervisor and subordinate a third employee (e.g. another subordinate) could notice, that the employee A and B have now another trust level. Just on this effect, employee A or B could adapt its behavior to B or A, because e.g. one of them feel ashamed or proud, about the notice of this new trust situation in front of a third employee. For the two employees itself it is just a reaction of the effect of trust, that is why the author called it the passive side.

This model shows the complexity of trust with its in- and outputs, which have an influence on the leadership situation as well. It shows, that also if LSP can be used as a predictor to create a high trust situation between supervisor and subordinate, there can be other factors, which can influence trust beside. In the eyes of the author, these influencing factors cannot be controlled, because they are mostly on the passive side, same as the behavior of other employees or the environment itself. On the other side, the situation researched here, the use of LSP from supervisor to subordinate is a strong active situation, which can be directly chosen from the supervisor and by that the supervisor can directly and actively influence the trust situation. The first and biggest step to create trust.

2.2 The theoretical value of leadership power and trust inside profit-oriented organizations

From the author's point of view, the asymmetric situation described earlier is not only available on the supervisor's side. It also exists in similar architecture on the subordinate side. It's similar and only in very specific situations the same, because the difference between a supervisor and a subordinate are the different levels of power. On the one side, the supervisor has power over the subordinate. This is the normal situation between supervisor and subordinate with different hierarchy levels in business or other situations.²¹⁴²¹⁵ The subordinate in a normal case has no huge power over the supervisor, but also this employee is or can be an owner of power over the supervisor. Such as, the subordinate may leave the job, a situation the supervisor wants to avoid. So, this is also some kind of coercive power a subordinate can use or threaten to use, if the supervisor does not act as expected. As said before, the power of the supervisor is larger, but the subordinate has the possibility to use LSP, too. In a boundary case it can be that a subordinate has the same LSP the supervisor has, because the subordinate is a good friend of the owner or is a specialist, who is similarly or more important than the supervisor. So independently from the case, the subordinate can have LSP. The question is just, if the subordinate will use it. If the LSP will be used from the subordinate against the supervisor, the LSP of the supervisor will decrease and the leadership situation will decrease as well.

This effect is very important for the later definition of the behavior of subordinates in the power model. Trust exists between a supervisor and a subordinate and has the effect that a steady-state trust situation has the same value on both sides. With the Jäckel's model of trust research, which

²¹⁴ Mayer, R.C., Davis, J.H., & Schoorman, F.D. (1995) An integrative model of organizational trust. *Academy of management review*, 20(3), pp.709-734

²¹⁵ Wilemyns, M., Gallois, C., & Callan, V. (2003) Trust me I'm your boss: Trust and power in supervisor-supervisee communication. *International Journal of Human Resource Management*, 14(1), pp.117-127

is modified by the author before, it is understandable that each reaction of the employee who gets trust has an effect to the employee who gives trust and on the trust level itself. Due to this reciprocal effect, the trust level increases or decreases at both employees at the end to a similar level. This is also a well known process out of the leadership research area. E.g. the LMX-theory²¹⁶ takes supervisor and subordinate in a dyadic role making system^{217 218} and in these cycles, both sides negotiate with their acts and expectations, unless they come to a common basis. This is same as Lewin defined many years before, behavior is a function of interaction and the environment. With environment is especially meant the important social influencing values, which is also a leadership process.²¹⁹ Wimmer²²⁰ recommended, to stop trust if it's just a one sided situation. In a profit-oriented organization it can be that at the beginning one employee trusts the other employee very much, but the other employee does not, or just trusts the first employee less. But this is just an effect at the beginning. At the end, the trust level from both sides approximates each other, so that they have the same level. A look at the boundary cases shows, that if one employee does not trust the other employee, then also, the other employee will not trust the first one. In the other boundary, if one employee trusts the other employee after many meetings and after a long time, this employee will trust the first person, in case they are both in interaction. For sure this effect is slightly different in organizational trust, but if two employees have a situation, same as a supervisor and a subordinate, the trust level of both is similar and it makes things more effective, than just working with power.²²¹ By adding these two behaviors of a supervisor and a subordinate, the power of the leadership in this special relation can be visualized (see Figure 5). The supervisor same as the subordinate has the possibility to trust the opposite side by 0% up to 100%. This means by this asymmetric model, that the leader uses the power from 100% down to 0%.

²¹⁶ Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *The leadership quarterly*, 6(2), pp.219-247

²¹⁷ Graen, G. B. (1976). Role-making processes within complex organizations. *Industrial and organizational psychology*. Chicago pp.1201-1245

²¹⁸ Graen, G. B., & Scandura, T. A. (1987). Toward a psychology of dyadic organizing in Staw, B. M., Cummings, L.L.: *Research in Organizational Behavior*, Bd.9, pp.175-122

²¹⁹ Steinmann, H., Schreyögg, G. (2005). *Management: Grundlagen der Unternehmensführung: Konzepte–Funktionen–Fallstudien*. 6.Auflage. Wiesbaden: Gabler. p.684

²²⁰ Wimmer, H., *Initiales Vertrauen in die Führungskraft: Eine quantitative Analyse der Werthaltungen in Deutschland, Indien, USA*. Wiesbaden : Springer Gabler, 2016. pp46ff

²²¹ Luhmann, N. (1973) *Vertrauen. Ein Mechanismus der Reduktion sozialer Komplexität* (2. Aufl.) Stuttgart: Enke In Petermann, F. (1992). *Psychologie des Vertrauens*. München. p.15

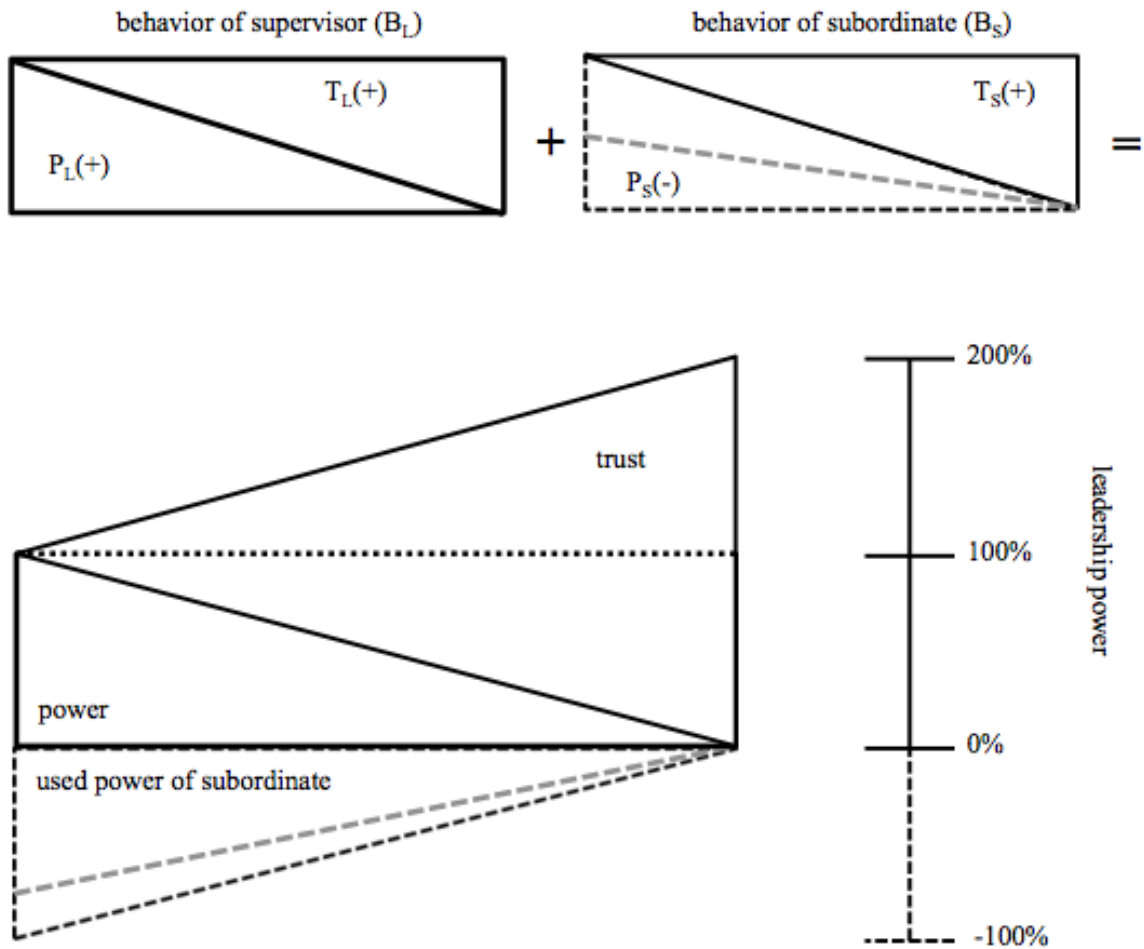


Figure 5: Trust as an element of leadership power

Source: author's theory based on literature research

The subordinate can use all the power (s)he has, in case (s)he does not trust (0%) the leader but it is not a must for him/her. On the other hand, as mentioned before, in a normal case the potential power (s)he can use is in most of the cases lower than the one the supervisor can use, but it can be 100%, too.

The situation that the subordinate has power about the supervisor can be also seen in Emerson's²²² Power-Dependence Theory. The difference to a normal exchange-theory can be seen in Nienhüser's description. He defines the basics of this theory in three terms²²³:

a.) The power of employee A (supervisor) to employee B (subordinate) is defined, as the dependence of employee B to employee A.

²²² Emerson, R.M. (1962) Power-Dependence Relations, in: American Sociological Review, 27, pp.32-41

²²³ Nienhüser, W. (2003) Macht, Universität Essen in Martin, A. (Hg.) (2003) Organizational Behaviour - Verhalten in Organisationen, Stuttgart: Kohlhammer, pp.12-14

b.) The dependence of employee B to employee A is the bigger, the more important the resource of employee A for employee B is and the less employee B has the possibility to get onto these resources outside the relationship to employee A (the same is true the other way round).

c.) The more employee B depends on employee A, the more it is possible for employee A to conquer a potential resistance of employee B and to get an advantageous result for employee A.

Therefore, the degree of power is defined as the effort that employee A gets from employee B, or in other words, the more effort employee B makes in favor of employee A, the more power employee A has over employee B. Independently of that, if the subordinate uses power against the leader, the level of leadership will decrease. The model demonstrated above shows this power of the subordinate as a minus value, because of the theory, that this power is negatively related to the power of the leader. In a normal case also the power of the leader is bigger than the one of the subordinate, that's why the overall power value cannot be negative. In theoretical, the power of the subordinate can be higher than the one of the supervisor and the result can be negative, but in this case this is a clear indicator that the leadership situation between supervisor and subordinate will not work. The trust itself is decreasing by the same factor. The opposite side gives trust and ends at this point, when a total trustful situation, without power, is reached. A trustful situation is then also more effective, than leadership with power only. That is why the overall level of the leadership is higher on the right than on the left side. As an alternative and a little more complex model, trust can be seen in this model as the result, the use of special powers creates. In best case the supervisor leads with the five LSP by creating a maximum of trust. This would be the best situation, because trust has a doubling effect in this leadership power model. Compared this model with the asymmetric model of Jäckel, the influence of trust in a leadership situation is more visible, because the trust and power of the subordinate is integrated and it shows, that if the leader creates more trust instead of normal use of LSP, the level of his/her leadership power increases.

This effect is described in the behavior of the leader (B_L) is the asymmetric function and the sum of its use of trust (T_L) and LSP (P_L), which gives 100% (see Formula 2.2.1) of its leadership behavior.

$$B_L = T_L + P_L = 100\% \quad (2.2.1)$$

The behavior of the subordinate (B_S) is also the sum of trust (T_S) and power (P_S), but its use of power has a negative effect (see Formula 2.2.2) as described before and so the sum of its part of the leadership behavior can be 100% in best case, but it also can be lower.

$$B_S = T_S - P_S \leq 100\% \quad (2.2.2)$$

In the next steps (see Formula 2.2.3 and Formula 2.2.4) the leadership level (η_L) is defined by the sum of both, leader and subordinate behavior.

$$\eta_{L(f=T,P)} = B_L + B_S \quad (2.2.3)$$

$$\eta_{L(f=T,P)} = T_L + P_L + T_S - P_S \quad (2.2.4)$$

Based on the meaning of Zand²²⁴, and as described before, is the level of trust depending on both sides and a learning effect, which results in the situation, that the trust situation from leader (T_L) and subordinate (T_S) have a similar level or value. [Requirement (1) $T_L = T_S = T$] That is why the trust of the subordinate (T_S) can be replaced by the trust value of the leader (T_L). This definition of the maximum of trust can go in both directions, because the leader defines the situation with its leadership behavior, or better to say with its use of power, the maximum share of the maximum possible trust. But if the subordinate doesn't accept the remaining level of trust, it will decrease further and so the maximum level of trust is depending on subordinate or supervisor side and can be named as trust (T), independent of the relation side. E.g. if the leader just uses a small share of trust, the subordinate has no chance to increase the share of trust between both, if the leader does not want to do so, but the subordinate can further decrease the trust level. Opposite direction is the same. The leader is the beginner to create trust.²²⁵

$$\eta_{L(f=T,P)} = T + P_L + T - P_S \quad (2.2.5)$$

$$\eta_{L(f=T,P)} = 2 T + P_L - P_S \quad (2.2.6)$$

At this stage of equation it can be visualized theoretical, that the trust-side has an higher positive influence on the effective level of leadership based on trust and power, than the power side, which just has the half positive influence from the side of the leader and can be further negative influenced from potential power of the subordinate side (see Formula 2.2.5 and Formula 2.2.6).

²²⁴ Zand, D. E. (1981). Trust and the Decision Process. In D. E. Zand (Hrsg.), INFORMATION, ORGANIZATION, AND POWER. Effective Management in the Knowledge Society. New York, St. Louis, San Francisco, pp.i-xii ,37-55

²²⁵ Schweer, M. (1997): Eine differentielle Theorie interpersonalen Vertrauens in Psychologie in Erziehung und Unterricht, 44, pp.2-12 in Neubauer, W. & Rosemann, B. (2006) Führung, Macht und Vertrauen in Organisationen, W. Kohlhammer Druckerei, Stuttgart, p.132

For further information the trust of the leader (T) can be replaced by the before mentioned function, that the use of trust (T_L) and power (P_L) of the leader gives 100% of its leadership behavior. (see Formula 2.2.7) This is the basis of its own leadership behavior. [Requirement (2) T_L = 100% B_L - P_L which comes from T_L + P_L = 100% B_L]

$$\eta_{L(f=T,P)} = 2 (100\% B_L - P_L) + P_L - P_S \quad (2.2.7)$$

$$\eta_{L(f=T,P)} = 200\% B_{L(f=T)} - 2P_L + P_L - P_S \quad (2.2.8)$$

$$\eta_{L(f=T,P)} = 200\% B_{L(f=T)} - P_L - P_S \quad (2.2.9)$$

At the end it is visible, that the leader can reach the best result for the leadership level ($\eta_{L(f=T,P)}$), by doubling its own leadership performance ($B_{L(f=T)}$), by minimizing its own leadership power (P_L) and creating same as using trust. (see Formula 2.2.8 and Formula 2.2.9) The result is same than in the discussed model that the maximum leadership level between a leader and a subordinate can be just reached, if the use of power will be minimized.

From authors point of view the term power, called in this leadership model can be used in different directions

- as negative powers, same as coercive, which would mean it is the opposite side of trust, or
- as the remaining part of LSP, for which it was not able to create a trust situation. This is in line with the hypothesis of this thesis, that the special use of Leadership power can create trust.

This model describes the theory of the importance of trust in a leadership situation. It describes the higher importance of trust instead of the use of LSP alone and why the target for leaders should be to create a maximum of trust between supervisor and subordinate. This model describes the background and reason of the research in chapter 3.

Reciprocity powers as indicator and binding element for a trust-based leadership

Scholl described persons with power in organisations with a hierarchy as light menace and using coercive power. He suggests 360°-Feedback rounds, to get not such a high distance between the hierarchy levels.²²⁶ High distance results in less communication and in potential misuse of power.

²²⁶ Scholl, W. (2014), Führung und Macht: Warum Einflussnahme erfolgreicher ist, artoop, Institut an der Humboldt-Universität Berlin, p.5

The use of coercive power is very easy, because coercive power can be used without additional effort of the supervisor, at once and directly. Other powers same as referent or expert power can be used also direct, but it can naturally grow with the positive feedback of the subordinate and it takes much more effort for the supervisor to create it. This is same than a 360°-feedback round, if the supervisor is working with the results of this. It takes time to create the feedback round, it takes time to understand the words of the person who gives feedback and it takes time to act in daily business life with the outcome of this feedback round. Nevertheless, the process is same than the use of the other powers, same as referent and expert power, or same as creating trust, it is a reciprocity act which is needed not only as a top to down act. The legitimation power can be used also direct, because it is given from the institution or the organization. It is not seen as a reciprocity power, because the self-strengthening effect is also not based on a positive feedback of the subordinate, here there increase of the power will be stronger the more the legitimation will be supported from the outside or if the subordinate makes negative experiences, which result in a learning effect that it is better for the subordinate to follow the legitimate power. Nevertheless both powers, coercive, same as legitimate do not grow due to positive experiences of the subordinate. These two powers just grow based on negative experiences or expectations.

The reward power is not as clear as the other powers. On the one side it's a reciprocity power, which will be the more accepted the higher the reward is, or the more it is clear for the subordinate, that the reward will be given from the supervisor. But reward power can be also used directly, just by showing some reward. Sometimes there must be evidence, that the reward is existing, or that the reward will be forwarded and then there is once again the learning effect which is an indicator for a reciprocity use. Unfortunately, the reward power is seen in most cases as short-term prediction model^{227 228}, which directly stops, when the reward is not renewed or increased.

Combining the results (that coercive and legitimate powers are direct powers and expert, referent and reward powers are reciprocity powers) with the argumentation that trust can be created only on reciprocity way, an existence or wish for having a trust based relationship to the supervisor or subordinate can be researched with a potential correlation to reciprocity powers. This could be an indicator for an existing trust based leadership.

²²⁷ Daw, N. D., & Touretzky, D. S. (2002). Long-term reward prediction in TD models of the dopamine system. *Neural computation*, 14(11), p.2567

²²⁸ Wang, H., & Sun, C. T. (2011). Game reward systems: Gaming experiences and social meanings. In *DiGRA Conference*, p.10

2.3 Definition of hypotheses

The more trust a leader has in its subordinate, the more important things can be delegated, the more complex decisions can be made in a short time period, the more important the subordinate feels and the more each single employee can be aware about the situation, that a positive result can be only reached, because of the good team or status, which is established. This is also what specialists say, when they were asked about their most critical leadership problems from today. In their eyes the business world becomes more difficult day by day. Communication, requirements, knowledge and quantities of changes are raising and increasing. Success stories of the past will not work in future, complete industries will change (e.g. Automotive) or occur (e.g. Internet), all these items show a much more complex world in future. On the other hand, the fast pace of today lead to less personal leadership. Leaders have to allow failures to find risks and potentials and on the same way leaders have to be predictable in the eyes of the subordinate to create the second step of trust,²²⁹ because the expectations of the subordinate from a leader to make every time the right thing, to motivate and to be consequent is something which will be the more difficult the complex the environment is. - One more indicator that trust seems to be a must in a future and more complex leadership.

From experiences of the author, managers stated often, that respect without reserve and just hierarchy are leadership advantages from the past. Today leaders must win the subordinates, which can be done only with trust. It's same than employee of today are not thinking: what can I do for the job? They are thinking more: what can the job do for me? This statement is totally in line with the statements of earlier results of the author, where subordinates preferred trust as a leadership tool instead of the use of different, sometimes called, negative powers. So a trust situation should be created with a specified use of LSPs as leadership instrument. That is the reason for the main hypothesis.

(H0) The kind of leadership is a predictor for the trust level of a subordinate in a profit-oriented organization between supervisor and subordinate.

In general it can be said, that the level of importance of trust inside profit-oriented organizations should be very high. This is on the one side the experience of the author, on the other side the outcome of the theoretical research. Due to the reciprocal effect of trust, this statement is awaited from both sides, supervisor and subordinate side. In this case this is a part of the

²²⁹ Doney, P.M., Cannon, J.P., & Mullen, M.R. (1998), Understanding the influence of national culture on the development of trust. *Academy of Management Review*, 23(3), pp.601-620

leadership model, which improves the outcome and will be supported from both sides of the profit-oriented organization, so that normally there is no barrier to use it. Creating such a high trust situation on subordinate side should also bring an additional high Trust Level (TL) on the supervisor side. This will be tested with with the hypothesis

(H1) Trust as a result of leadership in a profit-oriented organization has the same level for supervisor and subordinate, in real and in desired situation.

One thing that definitely prevents a trust-based leadership between supervisor and subordinate is the behavior of the non-predictability of the leader, which in some case is used by full awareness of the leader itself. The predictability is one of four categories to define trust and in the way of thinking, that trust is the result of a two-sided relationship,²³⁰ it's a barrier, if the supervisor wants to have predictability from its subordinate, but just gives less or no predictability, to the subordinate itself. This is also a reinforcing problem, because the leader has to start building this trust situation,²³¹ and if the leader gives the wrong signal, trust can be blocked, before it can arise. The other three bases of trust, benevolence, integrity and competence, are not so sticking out from theoretical research and own experience than predictability, so hypothesis is

(H2) Predictability influences the leadership situation in a profit-oriented organization between supervisor and subordinate more than benevolence, integrity and competence.

As a further result of a high trust situation between supervisor and subordinate, the resulting advantage has to be researched. Based on Dirks the trust of the employee has a direct effect on the identification to the company.²³² The supervisor represents the company and so it should be a one by one effect that also the binding to the company is getting higher, if the trust level to the supervisor increases.

²³⁰ Zand, D. E. (1981). Trust and the Decision Process. In D. E. Zand (Hrsg.), INFORMATION, ORGANIZATION, AND POWER. Effective Management in the Knowledge Society, New York, St. Louis, San Francisco, pp.i-xii,37-55

²³¹ Schweer, M. (1997): Eine differentielle Theorie interpersonalen Vertrauens in Psychologie in Erziehung und Unterricht, 44, S.2-12 in Neubauer, W. & Rosemann, B. (2006) Führung, Macht und Vertrauen in Organisationen, W. Kohlhammer Druckerei, Stuttgart, p.132

²³² Dirks, K. /Ferrin, D. (2001), The role of trust in organizational settings, published in Organization Science, 12, pp.450-467

(H3) A high trust level of an employee has a positive impact on a higher binding to the company.

The main hypothesis and its potential result of a high trust-level also supports the binding between supervisor and subordinate, so that as a rational next step the specific use or disuse of, until now so called positive and negative powers will be examined.

(H4) Referent and expert leadership powers have positive impact on the trust level of the subordinate in a profit-oriented organization between subordinate and supervisor.

(H5) Coercive and legitimate leadership powers have negative impact on the trust level of the subordinate in a profit-oriented organization between subordinate and supervisor.

This classification is based on the theoretical research with overlapping results of good and bad, positive and negative LSP, combined with direct and reciprocity leadership powers. The approach of reciprocity and direct LSP's is interesting, because they are comparable with trust, which is a reciprocal process. On the other side, there are differences to the latest results of Håvold & Håvold, who found with a path analysis that legitimate, referent and reward power have a positive and only coercive power has a negative influence on trust,²³³ which is perhaps to explain with their special research-field of two hospitals in Norway and Finland. Also former researcher had stated in a similar way, that legitimate power, not seen alone, but as a collective term for legitimate, expert, identification and information power, mediates the trust in a positive way.²³⁴ – Due to this difference to the reciprocal approach, the last two hypotheses will be proven.

²³³ Håvold, J. I., & Håvold, O. K. (2019). Power, trust and motivation in hospitals. *Leadership in Health Services*, 32(2), p.195

²³⁴ Lenhard, M. (2012). *Macht und Vertrauen in Unternehmen (uniwien)*. pp.9, 13

3 MODEL DEVELOPMENT AND EMPIRICAL EVALUATION OF LEADERSHIP POWER AS PREDICTOR FOR THE TRUST SITUATION IN PROFIT-ORIENTED ORGANIZATIONS

To reflect the dissertation research questions on a systematic research, the item of research will be split to the following steps: identification of the problem, relating the problem to existing theories, collecting of data, analysis and interpretation of data, drawing conclusions and integration of these conclusions into the stream of knowledge. This is a very similar meaning than actual guidelines for collecting and reporting experimental data: “Research and experimental development comprise creative and systematic work undertaken in order to increase the stock of knowledge – including knowledge of humankind, culture and society – and to devise new applications of available knowledge.”²³⁵ This again is also similar to the long lasting scientific research according Kerlinger, who means, that it is a research, which is systematic, controlled, empirical and a critical investigation of hypothetical propositions about the presumed relations among natural phenomena.²³⁶ All of these definitions build the guideline for the further research.

3.1 Reflection of the approach in view of the appropriate methodology and research methods

The first part of this task is to relate the problem to existing theories and for this a literature research had been done in the first chapter. This research shows the actual status round about the dissertation theme gives a comprehensive overview about status of knowledge and to make sure, that the dissertation theme is a new and not an already researched one.

For the process of the research also defined steps had been done, but the choose of the right methodology and methods needs many future influencing factors that have to be taken into account. Unfortunately not all of them are already known at the beginning and had been just made visible after the first steps of research. That is why also the methodology and methods have been rethought after getting new kind of information out of the pre-research and specialist interview.

As a general overview the research pyramid gives an impression, which impact a wrong decision for the methodology has. All points below that methodology would go into the wrong

²³⁵ OECD (2015), Frascati Manual 2015: Guidelines for Collecting and Reporting Data on Research and Experimental Development, The Measurement of Scientific, Technological and Innovation Activities, OECD Publishing, Paris, p.380 <https://doi.org/10.1787/9789264239012-en> (29.11.2020)

²³⁶ Kerlinger, Fred N. (1973) Foundations of Behavioral Research. 2nd edition. Holt, Rinehart and Winston, p.11

or partly wrong direction, which causes much more effort than decision about the methodology itself. Different kind of research pyramids can be found in a huge kind of variations and differentiations from many different authors, but the principle is still similar to the steps of research paradigm, methodology, method and techniques.

The research paradigm is comparable to the purpose of the research. Burrell and Morgan say to paradigm: “. . . a term, which is intended to emphasize the commonality of perspective, which binds the work of a group of theorists together in such a way that they can be usefully regarded as approaching social theory within the bounds of the same problem”²³⁷.

The research methodology can be compared to the process of research and the further process how to go ahead. After the pre-test and the specialist interviews a questionnaire based on qualitative or quantitative background seems to be the preferred solution to get the information out of a bigger amount of companies and without the influence of own created circumstances. An experiment is not preferred, because trust, as researched in the dissertation, needs a history, which is not given in an experiment.

General evaluation of collecting data for trust and leadership power

Regarding the question: How the data will be collected, a first direction is given in the step before. A combination of qualitative and quantitative research is the preferred medium of choice. Same than the two steps before, also this step can be compared with the last items of the research pyramid: the research method and the research technique, which will be defined now and which will show the logic of research, too. So in next step the decision of a quantitative or qualitative research method for the final research step, after theoretical research, pre-test and specialist interview has to be done.

Independent of all, the collected empirical data has to be a representative part of the reality²³⁸. The result of a comparison is shown on Table 1, in which the different categories are defined by the author in adaption to Bryman and Bell²³⁹.

Nevertheless also the result of more hits for a quantitative research by questionnaire, which is a typical empirical measuring method²⁴⁰, has its disadvantages.

²³⁷ Burrell, G. & Morgan, G. (1979). *Sociological paradigms and organizational analysis*. Hants: Gower Publishing. p.23

²³⁸ Raab-Steiner, E., Benesch, M.(2015), *Der Fragebogen*. Wien, p.48

²³⁹ Bryman, A. and Bell, E. (2007), *Business Research Methods* revised edition, Oxford University Press, p.426

²⁴⁰ Schneider, A.,(2013) *Fragebogen in der Sozialen Arbeit*. Opladen & Toronto: Verlag Barbara Budrich, p.10

Table 1: Comparison of quantitative and qualitative research models

Quantitative		Qualitative	Remark
sampling	X	observation	the time to observe "trust" seems to be to long.
structured interview	X	X qualitative interview	information about trust seems to get easier by an anonymous way than by personal interviews. On the other hand, in a personal interview misunderstandings can be corrected.
self-completion questionnaires	X	focus groups	questionnaires for main research and focus on groups will be done before in a pre-research: Pre-research of subordinates and Pre-research with specialists (interview)
structured observations	-	- language based approaches	no preferences
content analysis	X	the collection and qualitative analysis of text and documents	arguments of qualitative column not needed for research
secondary analysis and official statistics		X case studies	no official statistics known
tends to produce quantitative data	X	tends to produce qualitative data	qualitative data of specialists available
uses large samples		X uses small samples	just small sample size
concerned with hypotheses testing	X	concerned with generating theories	hypothesis shall be tested
data are highly specific and precise	X	data are rich and subjective	Data will be more specific than rich
location is artificial	X	location is natural	trust business location is difficult to create
reliability is high	X	reliability is low	is better
validity is low		X validity is high	is better
generalizes from sample to population	X	generalizes from one setting to another	the output shall be comprehensible for other companies/suppliers
numbers	X	words	Research output can be classified in likert scale, so use of numbers is preferred
point of view of researcher	X	point of view of participant	authors point of view shall be tested
researcher distant	X	researcher close	researcher distant will not influence the output
theory testing	X	theory emergent	theory shall be tested
static	-	- process	result of trust can be static but also process
structured	X	unstructured	authors bias
generalization	X	contextual understanding	contextual understanding is not needed
hard, reliable data	X	rich, deep data	authors bias
macro	X	micro	authors bias
behavior	X	meaning	data shall be secured and not only based on meanings

Source: author's research comparison, based on Bryman & Bell (2007)

Also if questions are precise formulated, which is essential for that method²⁴¹, there are the following problems in comparison to a structured interview²⁴²: cannot prompt, cannot probe, cannot ask more questions that are not salient to respondent, difficulty of asking general other kind of questions, questionnaire can be read as a whole, do not know who answers, cannot collect additional data, difficult to ask a lot of questions, not appropriate to some kinds of respondents, greater risk of missing data and the response rate is lower.

Check of sample size and non-probability sample of quantitative research

The sample-size is one or perhaps the most important factor for a quantitative research method. The number of samples gives direct information about the safety, that the result is significant and repeatable. The formula 3.1.1 confirms, that round about 100 test employees will give a good research result:

$$n = \left(\frac{t \cdot \sqrt{p \cdot q}}{e} \right)^2 \quad (3.1.1)$$

To get more safety into this stage of research, the author will work with round about 242 samples, to create a higher safety and which creates round about a t-value of 1,64, which results in a probability rate of approx. 90%.

In addition it is checked, that the sample itself isn't a non-probability sample²⁴³. The result of both checks are shown in Table 2.

Due to the situation, that all respondents come from profit-oriented organizations, but not from the same, the data of the subordinates, who are the biggest group in the research, had been considered for the trust level, to show a potential difference in the kind of industry and the gender question.

²⁴¹ Raab-Steiner, E., Benesch, M.(2015), Der Fragebogen.Wien, p.49

²⁴² Bryman, A. and Bell, E. (2007), Business Research Methods revised edition Oxford University Press, p.240

²⁴³ Bryman, A. and Bell, E. (2007), Business Research Methods revised edition Oxford University Press, p.197

Table 2: Check sample size and non-probability sample

Check of sample size		
n	100	minimum quantity of samples,
t	1 ζ (sigma a)	value to set the grade of safety in the confidence-area, t will be set 1 ζ (sigma) and the spot check failure will be set to 5%, so the result is 100 samples
e	5%	(allowed) spot check failure will be set to 5%
p , q	0,5	characteristics of the spot check sample (if the correct value for the characteristic-distribution is not known, p an q will be set to 0,5, because this is the maximum product of a dichotomous characteristic multiplication.)
Check of non-probability sample		
Convenience sample	No	The sample-employees come from different companies and supervisor/subordinate teams. Each team is only allowed to choose max. five subordinates. So it's not a convenience sampling
Snowball sampling	No	The notion of population is not problematic, because the supervisor defines its team, its subordinates. So the supervisor knows the subordinates. Just if a person from outside would define the sample employees, than we would talk about a snowball sampling.
Quota sampling	No	This is not relevant for the choice of the sample persons itself, but due to the fact, that the choice is done by many supervisors, there will be relative proportions of supervisors and subordinates (age, gender, company membership,...).

Source: author's settings of research theme

As shown in Figure 6, there is not a clear trend for the gender and e.g. the trust level of women has different directions in the two biggest groups and also the results of the other industries show same behavior, so that the kind of gender seems not to be relevant for the result. The kind of the researched business itself shows with automotive and manufacturing also the middle of the trust levels with 68-71%. This is interesting, because all other industries show light lower or higher values, but also these industries have just a much more smaller quantity of respondents. So the kind of business shows light differences, but due to opposite directed results, which are below and above the middle value and the small single quantities of each business, this will not be a key characteristic inside this research and so all kind of business can be used.

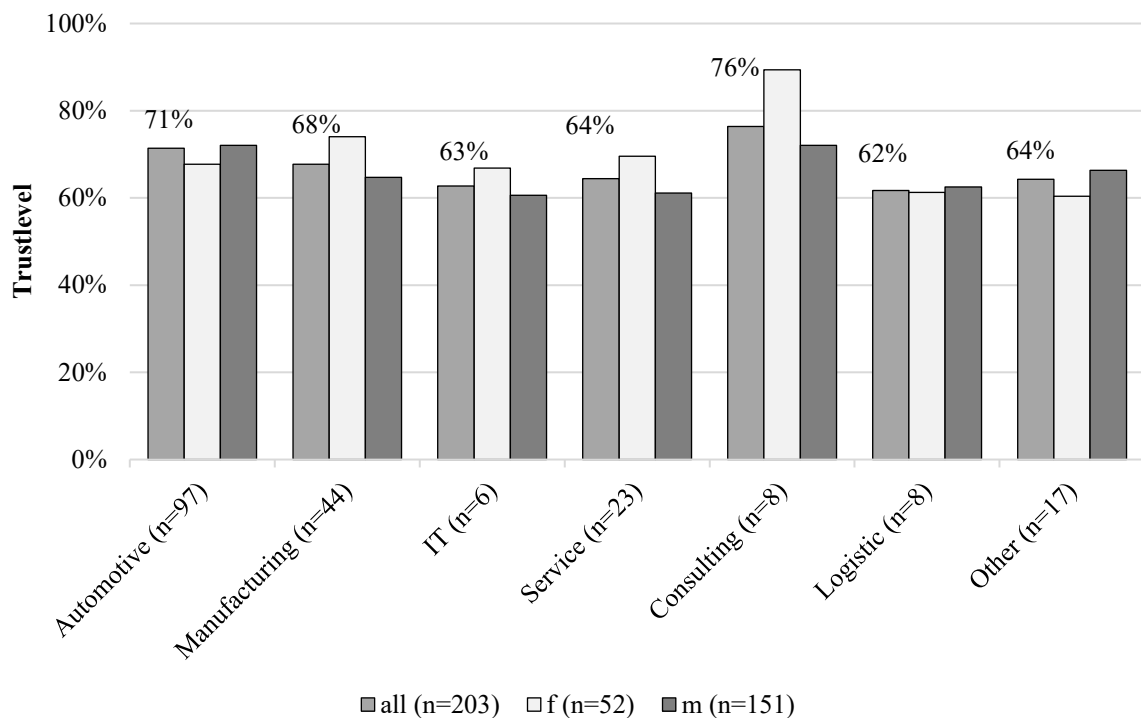


Figure 6: Trust level of subordinates in comparison to gender and kind of business

Source: author's quantitative-research

Summary of methodology and methods of research

The methodology and methods of research have been reflected and chosen according to the theme of the dissertation. A pre-test (2017) of the importance of the researched item has been done and the result has been compared to the result of the qualitative specialist interview (2018) carried out afterwards. Finally, the quantitative questionnaire (2019) for an empirical evaluation has to be taken into account, in order to investigate the trust and LSP in a supervisor and subordinate situation.

3.2 Pre-test of the importance of trust as a relevant outcome of leadership

The general employees view about trust inside a leadership

“Inside the empiric social research and in particular the survey research, it is common sense to do a pre-test in front of the regular survey.”²⁴⁴ As a first indicator, to see if the author's view is not only subjective, a pre-test with subordinates and supervisors had been done. In this case French&Ravens LSP model had been chosen and added by the factor trust.

So employees were asked three questions:

²⁴⁴ Weichbold M. (2019) Pretest. In: Baur N., Blasius J. (eds) Methoden der empirischen Sozialforschung. Springer VS, Wiesbaden, p.349

- a.) How is your supervisor leading you?
- b.) How should lead a supervisor from your point of view?
- c.) How much trust your supervisor has in you and your daily work?

At first, a smaller group of 19 employees were asked, how they want to be led and how they are led²⁴⁵. Later this pre-research was added by additional employees and the number raised in total to 106 respondents (32 supervisors, 26 subordinates with a staff membership of more than 18 months and 48 subordinates with a staff membership of exact 18 month), but the result itself was similar. The test had been done with a 5 point Likert-scale (“fits less” (1) to “fits more” (5)). The biggest problem, which had been detected afterwards, was the situation, that it was not clearly described, if a power was available or not. With other words, one employee gave 1 point (“fits less”), if a power was not used, the next employee made no mark, and so it is more a 6 point scale than a 5-point scale. On the other hand, the author didn’t handle such 0-Point cases with 1-point, because, then the relation to the other points is destroyed. That was then also the reason, why the results are shown, same as created, with this small absolute failure. The different use of the powers itself, which is the most important research point, is due to the retention of the relation still given.

Importance of trust in a subordinate position

The result of the first two questions, “How is your supervisor leading you?” and “How should lead a supervisor from your point of view?” is same as expected by the author. In both cases the answer was that the subordinate want to be led by knowledge, gratification, personality and light above the others, by trust. Further is the scale of the subordinates, who are just 18 months inside a company, in general higher than in case of the other subordinate. This can be observed in the results of the reality, same as for the results of the desired future. The only exception is the coercive power. Here the he value for the reality of the 18-month- subordinate is smaller, same as for the desired future, than the value of the longer staff membership. (see Figure 7)

²⁴⁵ Menk, Oliver (2017), The Correlation of the Forces of Leadership and the Level of Management, in: ABRM 7th International Conference on Restructuring of the Global Economy (ROGE), July 3-4, 2017, Said Business School, Oxford, UK, Volume 9, Number 1, ISSN 2047-2854, pp. 293-298.

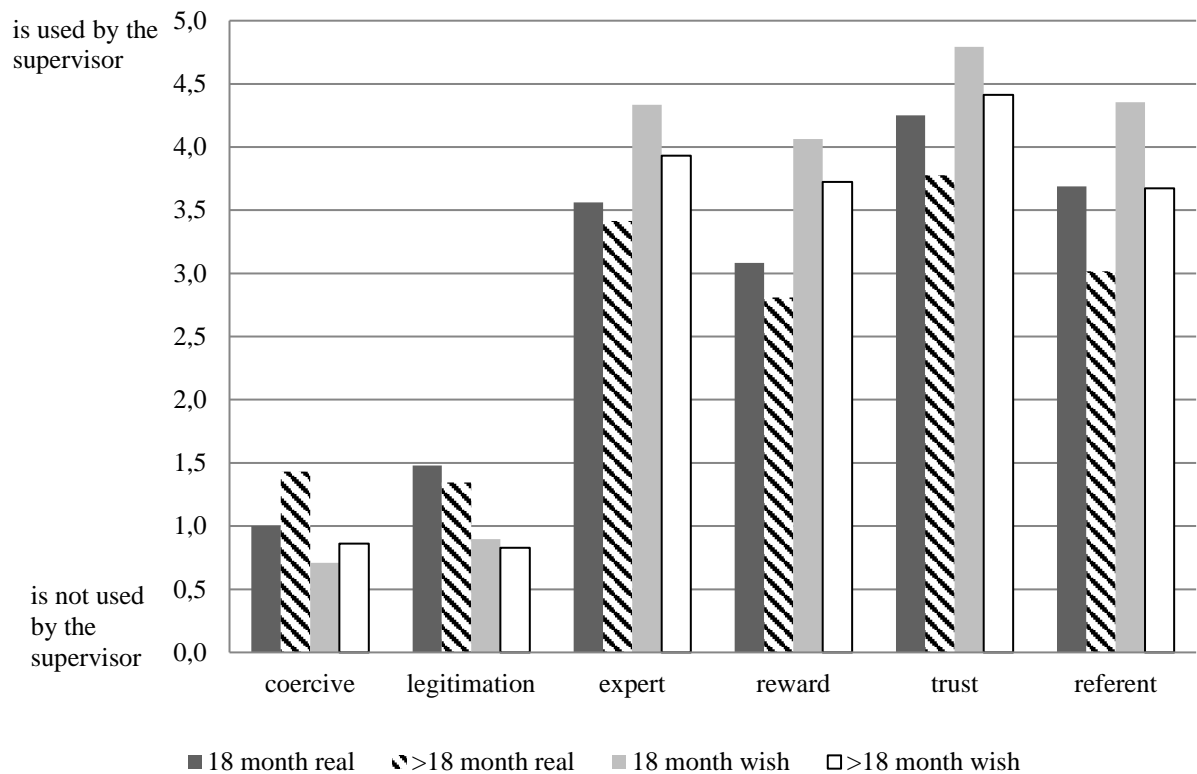


Figure 7: Real and desired leadership powers of subordinates (pre-research)

Source: author's research results based on pre-research

The difference of trust, which is decreasing with the number of years, the subordinate belongs to a company is also confirmed from Bartelt²⁴⁶, interesting is, that this kind of phenomenon can be also seen at the LSPs: expert power, reward power and referent power. Otherwise this effect can be also seen at the legitimation power, which is defined as a direct and negative power in relation to trust. Independent of that, the most interesting is the situation, that trust has the highest value in reality and in a desired leadership. This shows, how important it is to lead with trust. Also it is shown, that the supporting reciprocity LSPs, referent and expert power, in relation to trust are used and necessary for a better leadership situation. These powers seems to have a direct correlation to create a trust based leadership, which will be researched later on. A similar effect can be explained by the job tenure. Here the data had been separated between, supervisors and subordinates, but both of them stated how they are led. The trust values show the effect, that the trust level of the supervisors is lower for reality and desired leadership than the bars of the other, normal subordinates. This could be explained, by the potential effect, that supervisors are sometimes longer inside the company than others, but this is just a theory which can't be confirmed or rejected, because the data was not recorded.

²⁴⁶ Bartelt, D. (2011). Wertschätzende, kompetente und ethische Führung – Das Vertrauen der Mitarbeiter in Ihre Führungskräfte Dissertation, Universität Duisburg-Essen, p.162

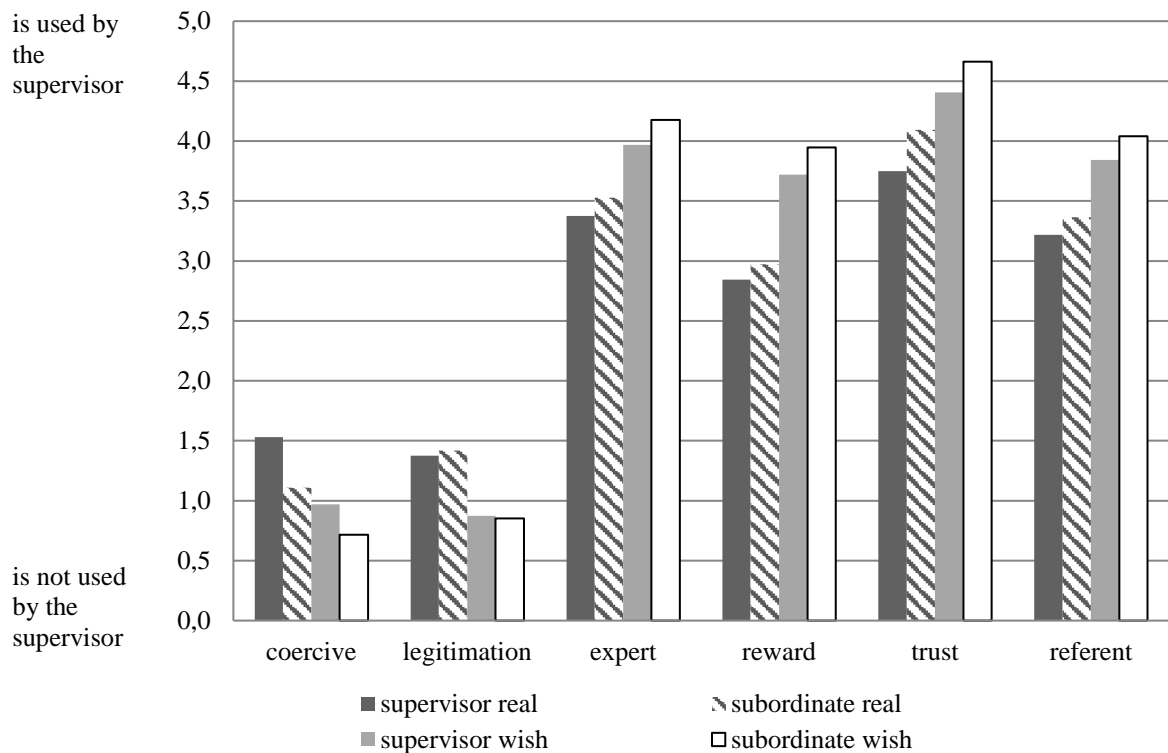


Figure 8: Real and desired leadership powers of supervisor and subordinate (pre-research)

Source: author's research results based on pre-research

It just can be stated, that supervisors have a general lower trust level to their leader than employees with the lower hierarchy level, but this is the opposite site of the research of Bartelt, who came to the result, that the trust to the leader raises with the hierarchy level.²⁴⁷ The difference between the trust supporting and preventing powers, same as coercive and legitimate, can be seen here much more clearly, because the preventing powers of the supervisors are higher or have same level than the subordinates. The coercive power of the supervisors, which is probably the power with the most negative effect for a trust based leadership, is relatively high in comparison to the normal subordinates. (see Figure 8) This could mean on the one hand that the supervisors are led by their leaders with a relative high level of trust supporting powers and with trust, but on the other hand, they also feel more the coercive power from their leader, which is perhaps a result of the higher hierarchy level.

²⁴⁷ Bartelt, D. (2011). Wertschätzende, kompetente und ethische Führung – Das Vertrauen der Mitarbeiter in Ihre Führungskräfte Dissertation, Universität Duisburg-Essen, p.180

The perception of LSP and trust seems not to be influenced by gender (see Figure 9). In total 75 male and 19 female participants showed the following, not sustainable result. Regarding the third question, “How much trust the supervisor has in the subordinate?”

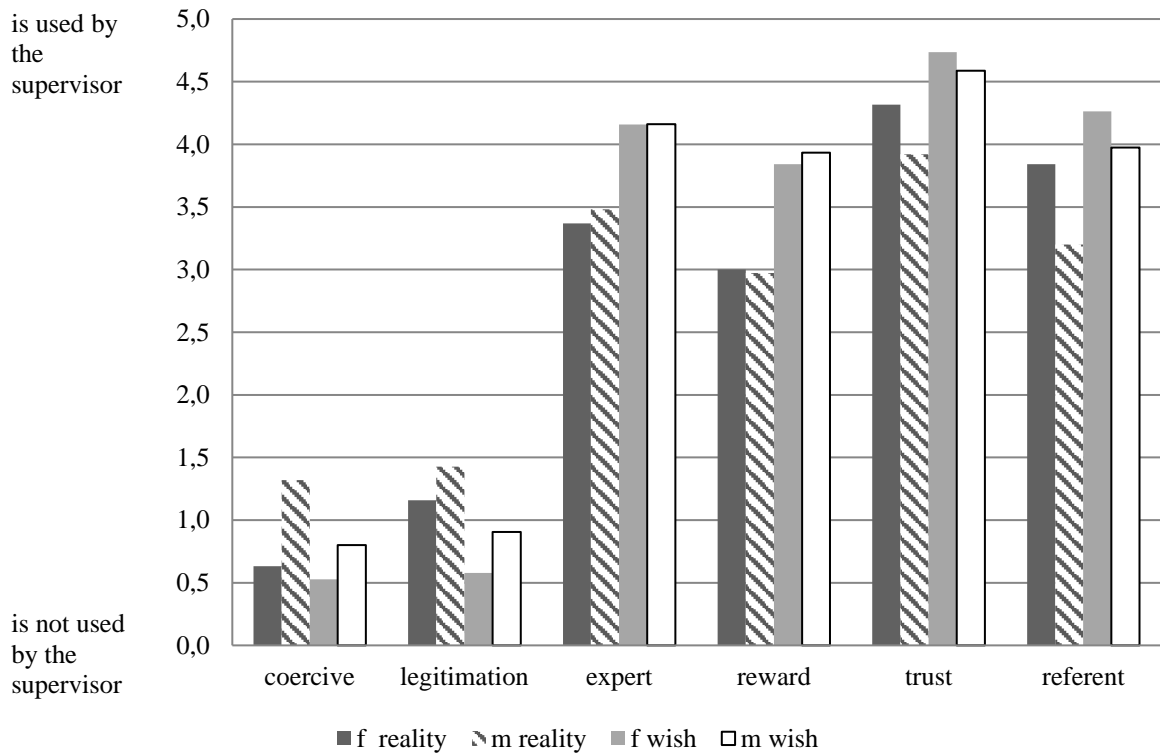


Figure 9: Real and desired leadership powers by gender (pre-research)

Source: author's research results based on pre-research

In 9 of 104 cases of the last question, was also a direct comparison with the view of the responsible supervisor possible. The result shows

- 5 subordinates estimated that the supervisor has full trust to them, this was also confirmed by the supervisors.
- 4 subordinates estimated that the supervisor has mostly trust to them. This was correct for 2 subordinates, the other two the supervisor had a higher trust.
- In none of the 9 special cases had the supervisor a lower trust level as the subordinate estimated.

In 90,3% (94/104) of the cases a trust based leadership (supervisor to subordinate) is found. (see Figure 10) 6 subordinates had no feeling of a positive or negative trust level. 4 subordinates had a trust damage to the supervisor and 2 subordinates gave no information (known or unknown)

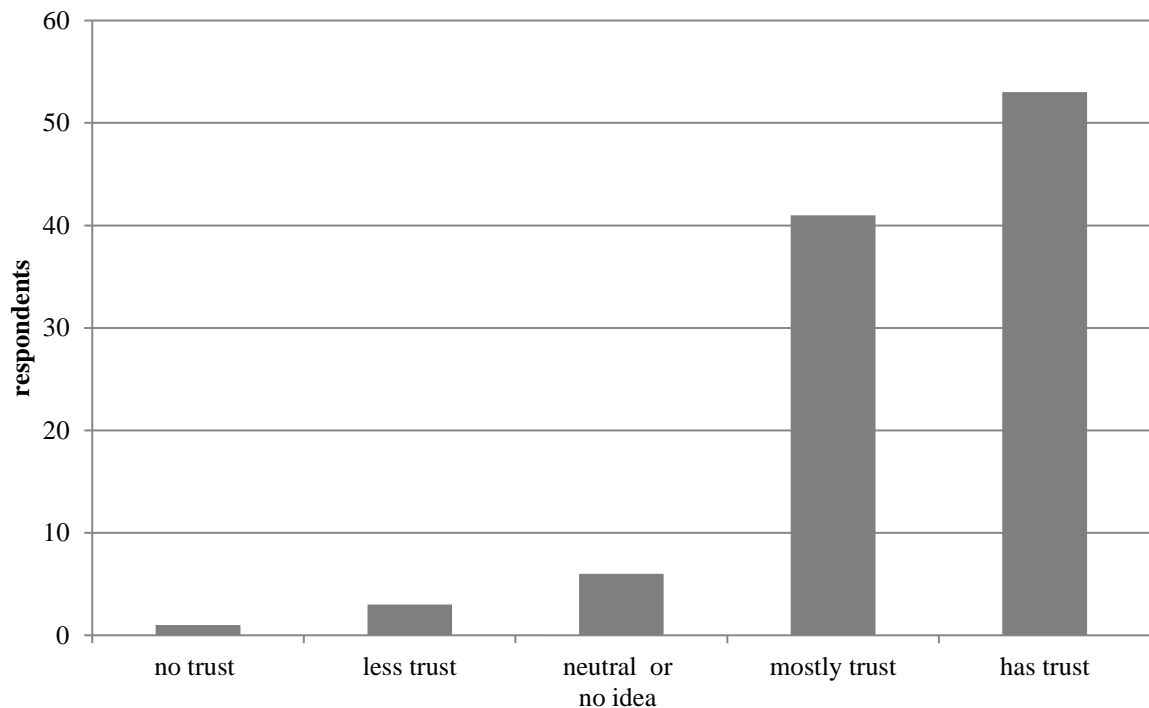


Figure 10: Trust of the supervisor in the subordinate (subordinate's view)

Source: author's research results based on pre-research

So the result of this pre-research is from author's point of view, that trust could be a real and own standing power or an outcome of the LSP, which is not based on a subjective experience of the author only. But independent if it is an own power or not, a strong relation has been detected between the trust and the expert, reward and referent LSPs, which have to be researched more deeply.

Nevertheless, to underline this impression a qualitative research in form of specialist interviews is the next step for a more objective basis.

3.3 Check of supervisors view – the specialists interview

The approach

Peterson²⁴⁸ as an example for a supervisor on CEO-level pointed out the meaning of the high importance of trust in companies from CEO to entry level and defined ten items to improve business environment and results by using and creating trust between internal and external partnerships. Beside the items itself, he highlighted also the personal properties of character,

²⁴⁸ Peterson, J. (2019). The 10 laws of trust: Building the bonds that make a business great. Amacom. in Childers, B. (2019). 10 STEPS TO TRUSTWORTHINESS: Improving the business environment and results are one outcome of cultivating trust. Strategic Finance, 100(10), p.14.

competence and authority to create high level of trust. These are all properties, which are very often found on high level management positions.

To get a direct external impression of the relation between leadership and trust, the following qualitative research with interviews of specialists has been done. It should confirm or reject results out of the pre-test, to give a brighter, objective basis for the last research step, the later quantitative research in the direction of LSP and trust. In addition it has to be remarked, that leadership and trust is researched between a supervisor and a subordinate. It is not researched between a supervisor and a whole company or organization.

The trust of the employee has a direct effect on the identification of the employee to the company and its performance,²⁴⁹ the higher the trust, the higher the identification and performance. On the other side a leadership is based on LSPs and not only on trust. So trust and power in business systems are researched before and can be seen in the case of trust as a factor to create easier a cooperation and to reduce uncertainty, but power is described as a similar factor, that also reduces in the most cases complexity and uncertainty, to control a profit-oriented organization. With trust, same as power the other person can be influenced to do what another person wants.²⁵⁰ Just the view of expectation is another one. In the way of trust it is the version of a good end. In the way of power the end, in eyes of the subordinate can be all, good neutral or bad. So trust seems to be every time the better option for the subordinate. Nevertheless the correlation between trust and power seems to be asymmetric,^{251 252 253} otherwise a negative directed power same as coercive power can be used by different level and the trust level will not go down at the subordinate, because it is expected, that coercive power is used from the supervisor, independent from the level of trust, it just depends, how much it will be used.

The specialists

The interview partners were chosen by different criteria. In first they should have long lasting experiences in the leadership of subordinates. This for sure seemed to be in first way the overall and most important criteria to be a specialist. On the other side, if only interview partners with

²⁴⁹ Dirks, K. /Ferrin, D. (2001), The role of trust in organizational settings, published in *Organization Science*, 12, pp.450-467

²⁵⁰ Bachmann, R. (2001). The role of trust and power in the institutional regulation of territorial business systems. University of Groningen. p.11

²⁵¹ Hardy, C., Phillips, N., & Lawrence, T. (1998). Distinguishing trust and power in interorganizational relations: Forms and facades of trust. *Trust within and between organizations*, pp.64-87

²⁵² Neubauer, W. & Rosemann, B. (2006) *Führung, Macht und Vertrauen in Organisationen*, W. Kohlhammer Druckerei, Stuttgart, p.125

²⁵³ Jäckel, A. (2018), *Gesundes Vertrauen in Organisationen*. Wiesbaden: Springer, p.86

very long experiences had been chosen, it could be that a generation problem occurs and that the research got just a very specific view on this item, so different levels of leadership experiences are chosen.

The next criterion was the level of management. Here for sure a high management level is preferred, but the management level by its own is useless, also the relation to the company size must be given. The company size itself is also very interesting, because a CEO in a 3000 employee company has other tasks, than a CEO in a 20 employees company and so the chosen managers should be a mix of them, too.

In the case of a shareholder CEO and an employed CEO the experience of the author is, that a shareholder CEO has another way and position than an employed CEO. So also different CEO's had been interviewed.

It was not expected, that the kind of company (manufacturing, consulting, service provider) has an influence of the leadership of employees, but especially the information of the consulting area is very interesting, because here the specialist got over years experiences of third party companies and their leadership behavior. This had been done with a share of 75% inside Germany, where the later quantitative research had been done, but also leaders in other countries had been interviewed, to get a direct information about potential cultural aspects or differences. Twelve international leaders had been chosen for the specialist interviews, who should give an overall intersection of the before mentioned criteria. The sample size is oriented to Ulaga & Eggert, who recommend ten or more persons for a qualitative, explorative research.²⁵⁴ The list of specialists is shown in the appendix.

The interview

The duration of each interview was 50 to 70 minutes. The content of questions itself was every time the same, just the length and kind of answers differed. Each interview had been done in personal or by phone and each interview partner got in front of the meeting the questions to get a better understanding of the interview. The questions, which had been provided and which just should give a red line of the interview in front of the meeting, should give the interview partner the feeling, that there will not some surprises inside the interview itself. Because in the contact phase, where the potential interview partners were asked to give some information about leadership and trust, the author felt often some skepticism, due to the word trust. To reduce this skepticism, the questions had been provided in front of in the most cases, this is necessary in most of the researchs and questions to steer, beside all openness, the interview in a certain

²⁵⁴ Ulaga, W., & Eggert, A. (2006). Value-based differentiation in business relationships: Gaining and sustaining key supplier status. *Journal of marketing*, 70(1), p.121

way.²⁵⁵ Nevertheless, the answers had been just documented by the author, coming out of the conversation of the meeting.

All questions have to be answered in view of the interview partner, to his next level subordinate and not to the whole organization below her/him. Especially on CEO & owner level it could be observed, that the answers about trust from or to the subordinate were given in the first step for the whole organization. Not to falsify the result, the author corrected in these cases the interview partner, so that the answer was just given in view to the next level subordinate.

The questions

The basis of the interview were 13 open and closed questions and the conversation had been built on these topics. The interviewed specialist was allowed to skip questions, if the specialist doesn't want to give a personal answer or if the content of the question was not really understood, also if the author formulated the question in other words. In general this was only the exception.

Every interview was started in the same way. After a short introduction of the theme by the author the respondent were asked by a total open question, to give an own impression of trust in a supervisor/subordinate leadership situation. Based on a detailed overview table (see appendix), the following result was extracted.

The general status of trust for the specialists in an economic leadership

Due to the fact, that no potential answers were specified by the author, it was surprising, that 100% of the specialists answered a totally open question that trust and leadership belong to each other and/or that a leader is not able to lead without trust. These answers are a cluster of two statements. In detail this means, that 12 of 12 specialists stated in their own words, that trust and leadership belong together or that a leader is not able to lead without trust, which is in eyes of the author the same meaning as the statement before. But as described before, these were no predefined answers, which respondents could choose. These were individual answers, provided by the interviewed specialists as a result of an open question and to underline the result: in 100% of the cases one or both of these statements had been given. Just this part result showed, that trust is not only a part of leadership, it is essential, as the following answers of the respondents show in addition and which reflect the answers overall. "I employ people by checking factors same as knowledge, personality, marks, etc. but if there is not a first feeling of having trust to the subordinate, all other points are not relevant." "Trust in leadership gives

²⁵⁵ Helfferich, C. (2019). Leitfaden-und Experteninterviews. In Methoden der empirischen Sozialforschung Springer VS, Wiesbaden. ISBN 987-3-658-21307-7, p.670

loyalty in both directions, flexibility, good salary, good working atmosphere.” “Trust is essential for leadership, otherwise I just have to control which is not efficient.”

This result is the more interesting, because only half of the interviewed specialists have had a trust-based leadership situation to their former supervisor. Every fourth specialist has made no trust experience with its former supervisor, because they are owner in the second generation and saw just as a maximum their father as their supervisor, which is a different background. One specialist didn't give information and two others had definitely not a trust-based leadership situation to one of their former supervisor. Independent of that, all interviewed leaders have the meaning, that trust in a leadership is a must.

Regarding the potential disadvantages of trust the interviewed leaders have a splitted view.

- 50% of them see definitely no disadvantage or haven't seen disadvantages in reality by the use of trust inside a supervisor/subordinate leadership situation.
- Two (16,6%) of them lead with trust, but they have the meaning that they have to control, otherwise it can be misused.
- One specialist made the experience that personal (negative) decisions about subordinates with trust, take too much time, compared to a subordinate without trust. This is good for the subordinate, but not for the supervisor. Another negative effect of trust for the career can be, that if the employee open shows a trust based status to an employee, who is in the wrong team, the career can be handicapped.

At the end also two leaders made negative experiences with trust, when it will be misused (in both directions). Here one leader has seen the effect, that a subordinate, who has a trust-based leadership situation to its supervisor, is exploiting the trust and uses this to its own interest while discussions about daily items with its colleagues.

With this qualitative research it should be also checked if leaders use special kind of trust creating tools to give or to get trust. For this the leaders were asked in the different categories referred to Adams and Sartori²⁵⁶, how important these items are. These categories for trust are benevolence, integrity, predictability, and competence. The respondent had the possibility to answer in a 7-point Likert-scale, that they agree (7) or disagree (1). The answers differ very much and are for sure also depended onto the type of leader. In general for all leaders is integrity and competence a very important factor, which they want to see at their subordinates. For the leader it is more important to give benevolence, to give integrity and to be competence, than the leader is awaiting these from the subordinate. Only exception is predictability. Here it can

²⁵⁶ Adams, B.D., & Sartori, J.A. (2005) The Dimensionality of Trust Report to Department of National Defense. DRDC Report No. CR-2005-204 in Adams, B.D., & Sartori, J.A. (2006) Validating the Trust in teams and Trust in Leaders Scales. DRDC Report No. CR-2006-008, pp.25ff

be seen, that the leaders want to have subordinates, where the leader know what they will do, but the leader itself does not want to be predictable. This is general not a good starting point to create trust when this situation will be compared with Mc Knight et al.²⁵⁷, who said, that the initial development of trust is based only on two basics. The first one, trust-conviction, is this what the supervisor wants to have from the subordinate, but just want to give in parts. It is the goodwill, fairness and competence, which will be given, but the personal behavior, which could be calculated or forecasted, will be denied. In other words, independent from this one remarkable deviation it can be shown, that the high-level supervisor of today are all creating an environment, in which trust can grow. They wish to have subordinates, who have integrity to the leader and also the leader gives integrity. The leaders want to be competent and they also ask for competence. Mostly they are awaiting, that the subordinates keep their own back free but even more, the leader want to take care about the back of the subordinates. Also, if some of the supervisors do not want to be predictable, the supervisors want in a high amount subordinates, who are predictable. These are in general all very good circumstances, that trust can grow, which is in line with the statement of all supervisor, who are saying, that trust is a must in leadership.

The low value for the predictability in comparison to the others categories of trust (see Figure 11), same as compared with the predictability that the supervisors want to see in the subordinates, is a problem for trust. So that the meaning of predictability is near to the meaning of trust, which is confirmed by Rotter²⁵⁸, Gabarro²⁵⁹, Lewis²⁶⁰, Dasgupta²⁶¹, Gambetta²⁶² and Good²⁶³. Both terms take expectations to a happening in the future, but the difference is that trust includes the factor risk. So if something is predictable, then the subordinate does not have to have trust, because there is no risk, that the expectations will not be fulfilled.²⁶⁴

²⁵⁷ McKnight, H., Cummings, L.L., & Chervany, N. (1998). Initial trust formation in new organizational relationship. *Academy of Management Review*, 23(3), pp.473-490

²⁵⁸ Rotter, J. B. (1967). A new scale for the measurement of interpersonal trust. *Journal of Personality*, 35 (4), pp.651-665

²⁵⁹ Gabarro, J.J.,(1978) The development of trust, influence and expectations. In A.G. Athos, & J.J. Gabarro (Eds.), *Interpersonal behaviour: Communication and understanding in relationships*, Englewood Cliffs, NJ: Prentice Hall, pp.290-303

²⁶⁰ Lewis, J.D., Weigert, A. (1985) Trust as a social reality, *Social forces* 63(4), pp.967-985

²⁶¹ Dasgupta, P., (1988) Trust as a commodity, Gambetta (Ed.) *Trust*, New York: Basil Blackwell, pp 49-72

²⁶² Gambetta, D.G. (1988) Can we trust "trust"?, Gambetta (Ed.), *Trust: Making and Breaking Co-Operative Relations*, New York, NY: Basil Blackwell, pp.213-237

²⁶³ Good, D. (1988), Individuals, interpersonal relations and trust, Gambetta (Ed.), *Trust: Making and Breaking Co-Operative Relations*, New York, NY: Basil Blackwell, pp.131-185

²⁶⁴ Mayer, R.C., Davis, J.H., Schoorman, F.D. (1995) An integrative model of organizational trust. *Academy of managementreview*, 20(3), p.714

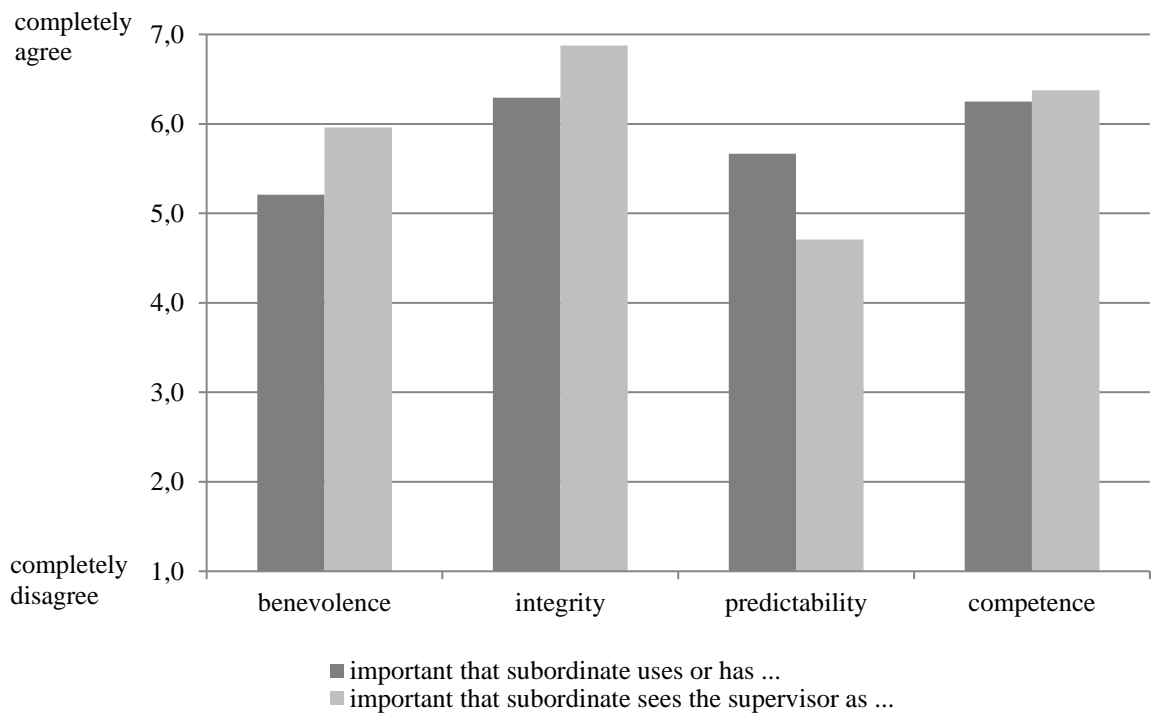


Figure 11: Specialists important components of trust

Source: author's research results based on specialists interview

Regarding the question, if the importance of trust is depending on the level of management (vertical) or depending on different business types (horizontal), no one found a clear difference in horizontal view, but 75% made the experience, that trust is the more important, the higher the management level is (vertical). As reason for that statement, the specialists mentioned the high complex decisions, which have to be made and the complexity increases, the higher the management is. This is also in line with the observations Luhmann²⁶⁵ made. He is saying, that human is only capable of acting when it is possible for them to reduce the numbers of information. The trust of the leader to the subordinate reduces such information and gives the possibility to work with more information. Or as Coleman²⁶⁶ interprets Simon's view of the rational choice theory: It is impossible, to act just on hard facts. The actor must have trust in his own decision, based on the experiences he made by himself, same as its trust to the employee, he got the basis information for decision from.

²⁶⁵ Luhmann, N. (2001). Vertrautheit, Zuversicht, Vertrauen. In M. Hartmann & C. Offe (Hrsg.), Vertrauen. Die Grundlage des sozialen Zusammenhalts, Campus. p.149

²⁶⁶ Coleman, J. S. (1990). Foundations of social theory. Cambridge, Mass.: Belknap Press of Harvard Univ. Press p. 91-115, pp.175-196

The remaining 25% of the specialists see a trust-based leadership is depending on the personal structure or that a trust-based leadership is a LSS and makes no difference of level.

About the question, who will get more trust, a CEO or a CEO & owner, the specialists' meaning differ from 7 of 12, who said that the CEO & owner will get more trust. As a main reason for that, the specialists see the circumstance, that the CEO only has in often cases just a 5 year contract and the CEO & owner is bound to the company. Interesting is also that 5 of 7 CEO & Owner are part of the group, who are thinking that way.

The other remaining 5 specialists see this characteristic as a not important figure and explain this with statements same as: "It makes no difference, because trust must grow, the supervisor must earn it while the years." "Both versions (more trust in CEO or CEO & owner) were seen in reality." "It makes no difference. It depends on the leader, if people will follow."

The different use of power in economic leadership

To understand more of the daily behavior of the leaders, the use of the different powers according French and Raven²⁶⁷ had been analyzed. The leaders had been asked, what kind of powers they use to convince the subordinate to do special work (which the worker normally would not do voluntary). e.g. that the subordinate shall work on a special weekend or something else.

The leader got the option to choose one or more out of the before defined five LSPs.

100% of the specialists are leading with referent power.

7 of 12 are also using the expert power, 4 - sometimes, 1 doesn't use it.

6 of 12 are also using the reward power, 3 - sometimes, 3 do not use it because, as they stated, it is only a short-term power.

The coercive power is used by 6 out of 12 only as the last resort and 5 definitely would not use it. Only one leader was saying, that the supervisor is using it also sometimes in daily life. This result is similar to the use of legitimation power. Here 9 of 12 did not use it, 1 specialist uses it as the last resort and the remaining two leaders use legitimation in order to be fast in situations where no time is available for an explanation.

Overall this result of the powers used shows, that there are positive and negative powers, which are in line with the occurrence in which they are used today. The positive powers in relation to trust, which are used today by the specialists, are referent, expert and reward power. The

²⁶⁷ French, J.R.P./ Raven, B. (1959): The bases of social power, in: Cartwright, D. (Hrsg.): Studies in Social power, Ann Arbor, S.150-167. and in: Raven, B.H./ Kruglanski, A.W. (1970): Conflict and Power, in: Swingle, P. (Hrsg.): the structure of conflict, New York, pp.69-110.

negative powers in relation to trust are coercive and legitimation power, which will be in general not used by the specialists today or only as the last resort.

Also this result shows that the specialists are working with trust as a basis in their leadership method, which is matching with to the earlier pre-research, with 106 employees. The result was similar to the used powers of the specialist: expert and referent power is important (referent power is not so important in the eyes of the subordinate as the leader think it is). Reward power is also desired, but legitimation and coercive powers were not desired from the subordinates and this they do not have in their relation to their leader, too.

The influence of power in a trust-based economic leadership

All interview partners had the meaning, that trust is important in the leadership. Even 11 of 12 specialists came to the result, that trust is a missing power and point this out with statements same as. "Trust is a must have." "Trust is basis to convince people." "Trust is essential, other powers based on this." "If there is no trust all other points are not relevant." One specialist didn't find a clear relation between trust and leading power.

With the five categories of powers itself, 100% of the specialists came to the result, that a specific use could influence the trust level of the subordinates. Not to manipulate the interview partners, the specialists were not asked power after power, if it could influence in positive or negative way. 3 of 12 specialists rated all powers in good and bad ones by their own, all other rated just one to three of them. But independent of the number of powers they rated, it came to no crossings of the results. No crossing of good and bad powers, which is highly interesting. So referent, reward and expert power were rated as a positive power, coercive and legitimation power were rated as a negative power to create trust. The negative coercive power, defined by dominance or punishment is not supporting a trust-based leadership situation.²⁶⁸ This result is also in line with an earlier research of Hede²⁶⁹ who also did not found a high influence of coercive power in the today leadership.

A very high consensus of the specialists is found in the result that 11 of 12 specialists see the referent power as good power to influence the trust level in a positive way. In detail the following statements were provided regarding the kind of powers that can influence the trust level in a positive or negative way:

²⁶⁸ Willemyns, M., Gallois, C., & Callan, V. (2003) Trust me I'm your boss: Trust and power in supervisor-supervisee communication. *International Journal of Human Resource Management*, 14(1), pp.117-127

²⁶⁹ Hede, A.(2005), *Patterns of Power and Leadership: Understanding Total Behaviour Leadership*, Australian Institute of Management, University of the Sunshine Coast, Queensland Australia, p.13

- referent power: 11/12 respondents stated that it influences trust in a positive way,
- reward power: 5/12 respondents stated that it influences trust in a positive way,
- expert power: 6/12 respondents stated that it influences trust in a positive way,
- coercive power: 5/12 respondents stated that it influences trust in a negative way,
- legitimation power: 5/12 respondents stated that it influences trust in a negative way.

Cultural influence on a trust-based economic leadership

Not all interview partners felt as specialists for cultural aspects and so not all gave answers about potential cultural deviations. Some of them tried to answer but with no clear statement. Overall the half of the asked supervisors see a cultural aspect. One specialist does not see it and the other answers of the respondents were not relevant. Often the Asian culture is seen as a hierarchy culture, with a clear difference to the European one. Due to this hierarchy the build up of trust is seen more difficult in Asia. Distance, due to respect, to CEO or owner is more given and this makes it more difficult to create trust, than in western culture, where the people would work more self depended and so trust is a must.

3.4 Definition of the general quantitative research model

Starting with simplifying of the definition of the LSP's and trust, already valid questionnaires for both research items are combined in one overall survey. This is done for subordinate, same as for the supervisor side. In addition, for the real situation the respondents are asked to indicate all circumstances, same as for a potentially favorable future for the supervisors and subordinates participating in the survey. All this is combined in the overall quantitative research model.

The pre-research results as starting point of quantitative research

Following the results of the former pre-research, trust is an important factor for both sides in a profit-oriented organization between supervisor and subordinate. Trust seems to be a result and/or a counterpart of the leadership power.

In eyes of the specialists, the business world becomes more difficult day by day and according the main statement, which 100% of the specialist stated in the same way, trust is the most important factor in the business leadership of today. This statement was given by the subordinates before and supports the view of the author and the main reason of this research, which will be further quantitative researched.

Research the importance of the factor trust in the business leadership of today in subordinate and supervisor's view.

To set up an actual status of the trust situation and to find out what is the best case, the situation of the subordinate has to be defined.

Research the trust behavior in reality and wish of the subordinates in a leadership situation.

On the other side and based on the statement that a trust leadership situation is only possible if both sides trusts the other side, it has to be researched both sides, the situation of the supervisor too.

Research the trust behavior in reality and wish of the supervisor in a leadership situation and compare it with the given statement of the subordinates.

Furthermore supports the result of the interview the main hypothesis, that a specific use of LSP can predict the trust behavior between supervisor and subordinate.

The former result for the good and bad powers is not based on predefined answers and a comparison with the direct and reciprocity powers is not meaningful. The before shown results based on answers from an open question. This can increase the importance of independent stated powers, but it can be also, that some powers just had been forgotten to define by the interviewed specialist. So this should be researched in a more defined way, too. The influence of the LSPs on the trust situation have to be checked once again with validated questionnaires.

Confirm the good and bad powers of the specialists' interview in the environment with all LSPs with validated questionnaires

The most surprising result of the former research is the behavior of the specialists, which represent the supervisors in the way of their own and their expected predictability. Coming back to the result of the specialist interview, that all supervisors see trust as the most important factor of today's leadership it is not in line with their own attitude that they do not want to be predictable. But they are in line with their expected behavior of their subordinates, who should be predictable. Perhaps this is an effect, based on the small number of participants or perhaps it is the biggest barrier of a trust-based leadership in profit-oriented organizations. So this effect has to be investigated more deeply.

Evaluate if the predictable part of trust has the same share than the other bases of trust in reality and wish for subordinates and supervisors or if it is lower in reality for supervisors only.

The basis of the quantitative validation of leadership power

The author decided to use the French and Raven power bases, because he is in line with the meaning of Hinkin and Schriesheim²⁷⁰, who said, that "Although a number of power typologies or frameworks exist, perhaps the most influential is that of French and Raven. (...) Their typology is presented in most major textbooks an the field and, according to Mintzberg and others, it is also the framework most frequently used in power research." That the French and

²⁷⁰ Hinkin, T. R., & Schriesheim, C. A. (1989). Development and application of new scales to measure the French and Raven (1959) bases of social power. *Journal of Applied Psychology*, 74, p.561

Raven taxonomy is the most popular one inside the research of leadership power was also stated by Cobb²⁷¹, Frost & Stahelski²⁷², Rahim²⁷³ and Lumenburg.²⁷⁴

As described before the five LSPs, reward, coercive, legitimate, expert and referent power were chosen because these are the main powers between two employees. Other detected powers, e.g. connection or informational power have its basis in an organizational platform, which is not part of this research. Based in this the developed and validated scale of Hinkin & Schriesheim²⁷⁵ is used in minor modified way. The questions, four for each power base, are the same, but according Hinkin & Schriesheim each question started with the words: My supervisor can... The author deleted the word can, because it should not be researched, what the subordinate thinks its supervisor can do, it should be researched, how the subordinate feels the supervisor is leading. So a potential situation is deleted by deleting the word “can” and it is just asked for the real situation of the subordinate.

Due to the situation, that this already validated questionnaire is just written for the subordinate’s view and not for the leader’s view, the questions also had to be adapted by the way, that all questions for the supervisors started with “I (make, give, share, provide,...)” to document the leaders behavior. The supervisor questions itself, same as the subordinate questions before are the same than developed by Hinkin & Schriesheim so that also the meaning of the five power bases is untouched.

<i>“Reward power</i>	is the ability to administer to another things he or she desires or to remove or decrease things he or she does not desire.
<i>Coercive power</i>	is the ability to administer to another things he or she does not desire or to remove or decrease things he or she does desire.
<i>Legitimate power</i>	is the ability to administer to another feelings of obligation or responsibility.
<i>Referent power</i>	is the ability to administer to another feelings of personal acceptance or removal.

²⁷¹ Cobb, A. T. (1980). Informal influence in the formal organization: Perceived sources of power among work unit peers. *Academy of Management Journal*, 23, pp.155-161

²⁷² Frost, D. E., & Stahelski, A. J. (1988). The systematic measurement of French and Raven’s bases of social power in work groups. *Journal of Applied Social Psychology*, 18, pp.375-389

²⁷³ Rahim, M. A. (1988). The development of the leader power inventory. *Multivariate Behavioral Research*, 23, pp.491-503

²⁷⁴ Lumenburg, F. C. (2012). Power and leadership: An influence process. *International Journal of Management, Business, and Administration*, 15, pp.1-9

²⁷⁵ Hinkin, T. R., & Schriesheim, C. A. (1989). Development and application of new scales to measure the French and Raven (1959) bases of social power. *Journal of Applied Psychology*, 74, p.567

Expert power is the ability to administer to another information, knowledge or expertise.”²⁷⁶

Hinkin & Schriesheim used a five-point scale ranging from 1 (“Strongly Disagree”) to 5 (“Strongly Agree”) with a neutral midpoint, which is same than in author’s survey.

The basis of the quantitative validation of trust

For trust two different kinds of trust scales are used for subordinate and supervisor. The team trust scale for subordinate and the leader trust scale for the supervisor. The basis for these two scales, which are used inside the survey is the revised Team Trust Scale of Adams & Sartori²⁷⁷, which are for both cases an each compressed 20 items questionnaire, out of the former team and leader trust scale of the same authors. They are an adaption and validation of the earlier work of Adams, Bruyn and Chung-Yan²⁷⁸ two years and Adams and Webb²⁷⁹ three years before. This shorter version was developed to get an effective set of questions, which are less redundant and easier to complete. The reduction of the single items had been done empirically by the before mentioned authors. They removed the lower items in total correlation out of the different subscales and recalculated the new reliability and total correlation until five items of each subscale remained. The subscales or here also called trust categories benevolence, integrity, predictability and competence had not been changed. Originally benevolence, integrity, predictability and competence had been created as person based factors 2003²⁸⁰ / 2004²⁸¹ and in 2006 Adams& Sartori revised the competence item, also based on the findings of van der Kloet²⁸² and validated the four categories.

²⁷⁶ Hinkin, T. R., & Schriesheim, C. A. (1989). Development and application of new scales to measure the French and Raven (1959) bases of social power. *Journal of Applied Psychology*, 74, p.562

²⁷⁷ Adams, B.D., & Sartori, J.A. (2006) Validating the Trust in teams and Trust in Leaders Scales. DRDC Report No. CR-2006-008, Report to Department of National Defence Canada, Toronto, Ontario, pp.25, 40

²⁷⁸ Adams, B.D., Bruyn, L.E., & Chung-Yan, G. (2004). Creating Measures of Trust in Small Military Teams. DRDC Report No. CR-2004-077, Report to Department of National Defence Canada, Toronto, Ontario

²⁷⁹ Adams, B.D., & Webb, R.D.G. (2003), Trust Development in Small Teams, DRDC No. CR-2003-016, Report to Department of National Defence Canada, Toronto, Ontario

²⁸⁰ ADAMS, B.D., & WEBB, R.D.G. (2003). Model of Trust Development in Small Teams. Report to Department of National Defence. DRDC No. CR-2003-016. pp.39, 54ff, 70

²⁸¹ ADAMS, B.D., BRUYN, L.E., & CHUNG-YAN, G. (2004). Creating Measures of Trust in Small Military Teams. Report to Department of National Defence. DRDC Report No. CR-2004-077. p.29

²⁸² van der Kloet, I. (2005). A Soldierly Perspective on Trust: A Study into Trust within the Royal Netherlands Army. Tilburg University: The Netherlands, pp58 ff

Both questionnaires are original created for subordinates and supervisors in a military organization and is originally ordered from the Canadian Forces. Nevertheless the result of a comparison between a military organization and a profit-oriented organization between subordinate and supervisor is very similar. In both cases we have one person, who wants another person to do something what the supervisor wants. The basis of the supervisor's power is in both cases given by all five LSPs and in both way the result of defiance what the supervisor said is the same: coercive in different ways with the final worst case of leaving the company or military. Also the trust situation of subordinate and supervisor is similar. All four categories of trust, benevolence, competence, integrity and predictability, have to be used or developed between both sides, independent if in business or military daily routine. In both cases, subordinate and supervisor didn't know each other before, but they must work together to create the best result. – There is no given trust like mostly in a family or mother child relationship. In addition Adams & Sartori recommended: "However, it would be ideal to validate the shortened version with an independent sample from a different (e.g. non-military) context."²⁸³

In the further research Adams & Sartori²⁸⁴ validated and confirmed their team and leader trust scale among other scales, e.g. Zolin & Hinds²⁸⁵, van der Kloet²⁸⁶, Mc Allister²⁸⁷ and Cook & Wall²⁸⁸ and others.

The definition of the four trust items from Adams & Webb²⁸⁹ is adapted by the author in the following:

<i>Benevolence:</i>	Is rather more affective, than cognitive, taking care of the well-being of others.
<i>Integrity:</i>	Defined as honor and match between words and actions.

²⁸³ Adams, B.D., & Sartori, J.A. (2006) Validating the Trust in teams and Trust in Leaders Scales. DRDC Report No. CR-2006-008, Report to Department of National Defence Canada, Toronto, Ontario, p.50

²⁸⁴ Adams, B.D., & Sartori, J.A. (2006) Validating the Trust in teams and Trust in Leaders Scales. DRDC Report No. CR-2006-008, Report to Department of National Defence Canada, Toronto, Ontario, pp.29-33, 43-45

²⁸⁵ Zolin, R., & Hinds, P. J. (2004). Trust in Context: The Development of Interpersonal Trust in Geographically Distributed Work. In R. M. Kramer & K. S. Cook (Eds.), The Russell Sage Foundation series on trust. Trust and distrust in organizations: Dilemmas and approaches, Russell Sage Foundation. pp.214–238

²⁸⁶ van der Kloet, I. (2005). A Soldierly Perspective on Trust: A Study into Trust within the Royal Netherlands Army. Tilburg University: The Netherlands, pp.58 ff

²⁸⁷ MCALLISTER, D. (1995). Affect- and cognition-based trust as foundations for interpersonal cooperation in organizations. *Academy of Management Journal*, 38(1), pp.24-59

²⁸⁸ COOK, J., & WALL, T. (1980). New work attitude measures of trust, organizational commitment and personal need non-fulfillment. *Journal of Occupational Psychology*, 53, pp.39-52

²⁸⁹ ADAMS, B.D., & WEBB, R.D.G. (2003). Model of Trust Development in Small Teams. Report to Department of National Defence. DRDC No. CR-2003-016. pp.54-58

- Predictability:* The result of experience will prognosticate the act of another person.
- Competence:* The ability to deal with a variety of stressors (time, value, manpower...), the ability to solve problems.

Adams and Sartori used a 7-point scale ranging from 1 (“Completely Disagree”) to 7 (“Completely Agree) with a neutral midpoint. The author changed this to a 5-point scale ranging from 1 (“Strongly Disagree”) to 5 (“Strongly Agree) with a neutral midpoint, to get an overall ranking system, which is in line with the additional power questionnaire. So the asked persons have the advantage, that they have an overall scale for all questions of the questionnaire, independent from trust or LSP, just mixed in a random order.

Quantitative research model

To create a general research model for the situation between supervisor and subordinate with the view on LSP and trust and to combine the before mentioned models, it has to be taken into account, that the questions have to be separated in the following way:

- Supervisor and subordinate have their own specific questions about each of the four trust bases, with each 5 questions according Adams & Sartori – in total each 20 questions.
- Supervisor and subordinate have their own specific questions about each of the five LSP bases, with each 4 questions according Hinkin & Schriesheim – in total each 20 questions

With this information a clear picture about the actual situation in relation to LSP and trust can be researched for a profit-oriented organization between supervisor and subordinate. Also the volume of each 20 questions for trust and power has a balance between the two research items, so that the asked employee doesn't get the feeling, that the questionnaire has a main direction of research. Unfortunately, it cannot be determined, if the surveyed employee, independently whether a subordinate or a supervisor, is satisfied with this situation. That is the reason, why it is asked about the desired status in both ways too, for the LSP situation as well as for the trust situation.

So the total amount of basic questions raise in this way to 40 (real) + 40 (wish) for supervisor, same as subordinate. This doubles the model (see

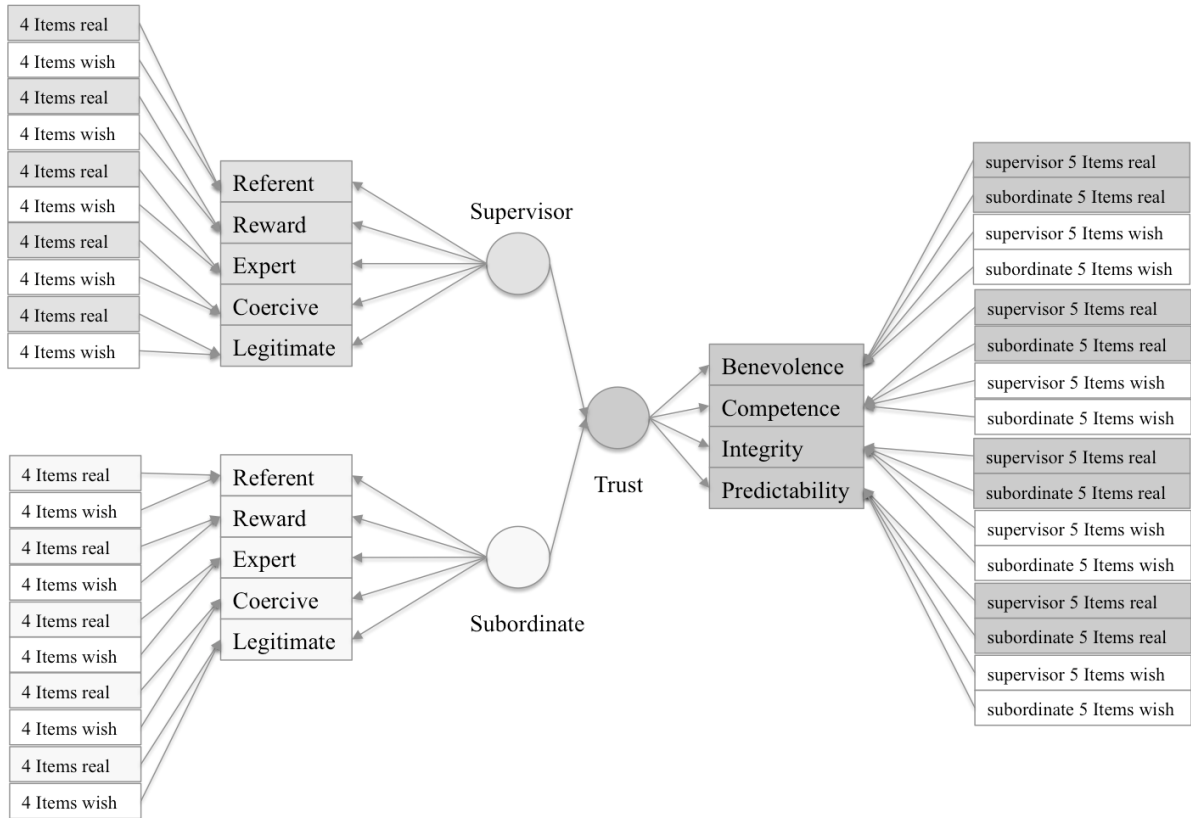


Figure 12) and survey for the desired situation.

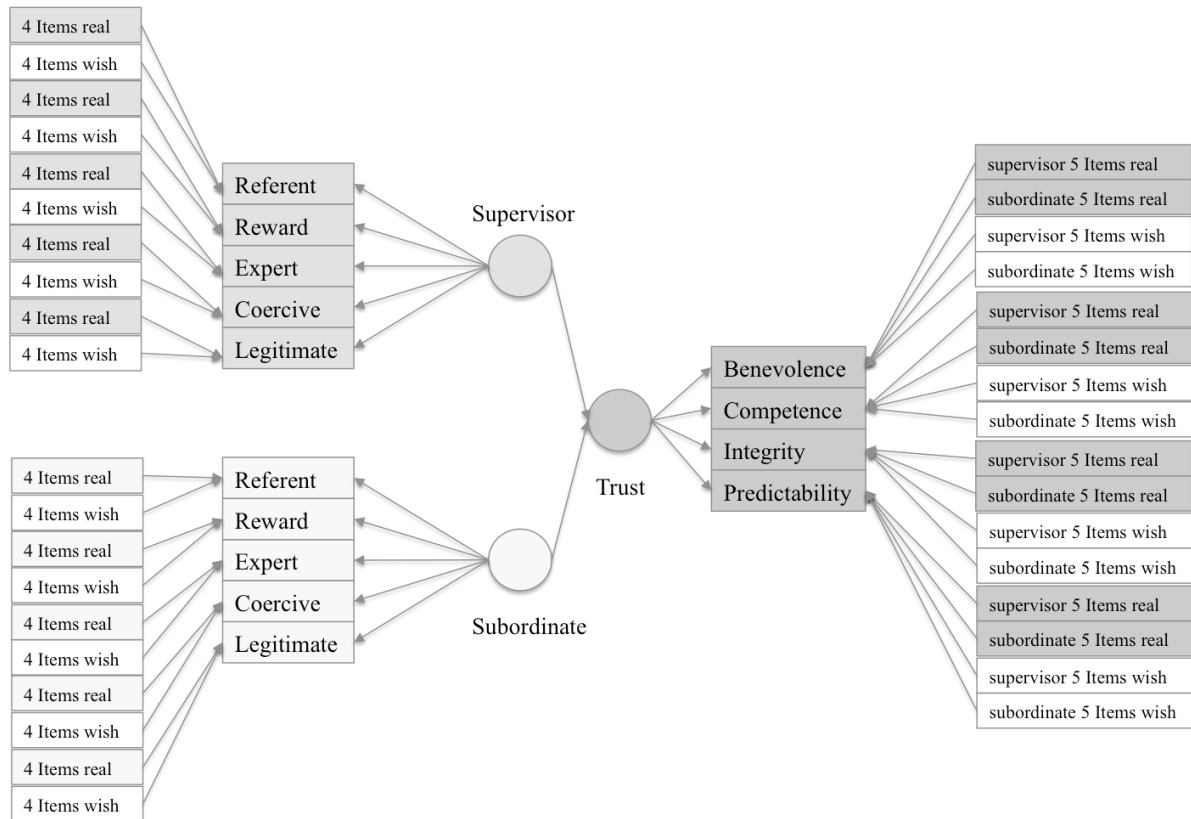


Figure 12: Research model

Source: author's model based on validated questionnaires

In the beginning the author had some doubts if there would be a difference between the actual and desired power situation of the supervisor, because the supervisor is controlling the power to its subordinate by his/her own. However the result shows, there is a difference.

3.5 Evaluation of the quantitative data collected by questionnaire

While creating the questionnaire round about the general research model, the question about the length arose. It should be prevented, that the questionnaire is too long and that the asked respondents abort filling out in the middle of the questionnaire. This would have the effect that probably the whole questionnaire couldn't be used, because of just part results. This is the so called Drop-Outs, if the respondent aborts the questionnaire, due to non interest or other reasons. In ideal case the questionnaire should be no longer than 10 to 15 minutes²⁹⁰, which is fulfilled for the case that just one questionnaire, supervisor or subordinate, had been filled out. (Filling out both parts of the questionnaires takes round about 20 minutes time.) To prevent this situation, the following measures had been done:

- a.) Combined questions – Due to the situation, that the already validated questionnaires of trust and power do not allow open questions, just a scaling on a Likert scale, each specific question for trust and power had been combined for reality and desired future. So these 20 plus 20 questions for power and trust are just asked one time for the real situation and direct behind this, an additional five point Likert scale for the desired future had been placed. With this action the asked employee just need to think one time about the question and can put two answers in very short time period. Another advantage is, that the relative position of the answer in theses two, real and wish scales is directly linked and the failure of giving a wrong answer in view of the relative position is reduced. That the answer itself is wrong is in both cases, real same as wish, secured to the mixed position of the additional beside-questions for the same variable.
- b.) Splitting questionnaires for supervisor and subordinate – starting with a general part about the person itself, the asked employee has the option to fill out the subordinate or supervisor questionnaire. This is most important for the supervisors, because subordinate just have the only option to fill out the subordinate part. The supervisors, who are less than subordinates in organizations and so the data are not so easy to get,

²⁹⁰ Wagner, Pia, and Linda Hering. "Online-Befragung." *Methoden der empirischen Sozialforschung*. Springer VS, Wiesbaden, 2014. p.667

has the option to do only the supervisor or the supervisor and subordinate questionnaires. In most of the cases, if the supervisor is not the owner of the company, the supervisor is able to fill out the subordinate part too, because also another person leads the supervisor. Independent of that situation, this splitting should make sure that the supervisor fills out the supervisor part and if motivated the subordinate part can be filled out, in addition.

Beside the aim of a smart content of the questionnaire, the general information of the asked employee has to be researched. Here 12 additional questions about the person itself, the position inside the company, the company itself and the supervisor were asked in closed question in the beginning of the questionnaire.

At the end of each supervisor or subordinate section with the basic 20+20 questions for LSP and trust, some control questions had been placed. The questions, three for the supervisors and four for the subordinates, had been created by the author to get a better understanding, if the potential findings are in line with general statements of the asked employees. All parts of the questionnaire followed the recommendation of Kallus²⁹¹ that several questions were given with the identical response mode in clear and unique way.

Evaluation of the data collecting influence onto the quantitative data

The experience of collecting data about leadership and trust, out of the former pre-test and specialist interview, was that the respondent often seem to be very critical by giving answers about this research field. The best way to prevent getting wrong or no information was a mix of personal information and discussion at the beginning and then giving the possibility of anonymous answers. This situation was independent from supervisor and subordinate side and has been adapted to the quantitative research.

To get the best picture of the LSP and trust correlation between supervisor and subordinate, the questionnaire had been forwarded to the respondent personally. This means, a printed cover letter with the questionnaire and an envelope for the later return. Beside the background of the questionnaire, in the cover letter all respondent have been asked to write their name onto the questionnaire to create a higher identification from the respondent to the given answers, but 94% of the returned questionnaires had no personal identification on the document itself. Just from the stamp or similar remarks the company was identifiable.

²⁹¹ Kallus, K. W. (2016). Erstellung von Fragebogen. 2. Auflage (Vol. 4465). UTB., p.19

To hand over the questionnaire direct to persons, instead of an online questionnaire, has several advantages. According Couper & Coutts²⁹² the respondent has several barriers before (s)he answers the first question and which are disadvantages for an online version. In first step the respondent must know that (s)he shall make the questionnaire. So the invitation for that online survey can be detected as spam and the respondent will never be aware of it. Second, also if the respondent finds the invitation inside its mailbox, (s)he must decide to do it and to find the right time to do it. So it can be forgotten or the respondent can be fully aware of it, but due to the effort, (s)he has the excuse, that it will be never seen due to the spam diagnostic program. This excuse can be also used, if reminder e-mail will be sent. The next problem is, that if the respondent only wants to answer in an anonymous way, which was often desired due to the research items trust and power, a universal link must be used, which doesn't allow an exact answer about the return quote of the questionnaire later on.²⁹³ To prevent these problems, the respondent had been asked directly and the questionnaires had been forwarded in a printed version. The respondent had been also not motivated with incentives to fill out the form. Here the factor of a smart questionnaire with reduced time to fill out has a higher relevance.²⁹⁴

The expectation that most of the respondent prefer to give an anonymous answer became real as written before, independent if it is stated that the later evaluation is anonymous or not. This expectation based on the earlier results of the pre-test and the specialist interview, where the author found an obstruction of the asked employee, when they should talk about their trust leadership situation to their supervisor or subordinate counterpart. The situation for the use of the different LSPs was the same. Here in particular, the subordinate had a barrier to forward information about their supervisor in a non-anonymous way. As a further challenge to get the wanted data was the situation, that in case of anonymous data, it seemed to be that it can't be assured, that subordinate and supervisors have a coupled situation, means that the information from subordinate and supervisor belong to each other. In worst case supervisor information are from company A to E and subordinate information are from company F to H. To avoid this effect in most of the cases only the supervisors were directly asked by the author to participate at the survey. In addition they should distribute the forwarded questionnaires to their subordinates to get subordinate / supervisor couples inside the database. In some cases the

²⁹² Couper, Mick P./Coutts, Elisabeth (2006): Online-Befragung. Probleme und Chancen verschiedener Arten von Online-Erhebungen. In: Diekmann (Hg), pp.217-243

²⁹³ Wagner, Pia, and Hering, Linda. "Online-Befragung." *Methoden der empirischen Sozialforschung*. Springer VS, Wiesbaden, 2014., p.667

²⁹⁴ Batinic, Bernad/Bosnjak, Michael (2000): Fragebogenuntersuchungen im Internet. In Batinic, B. (Ed.). (2000). *Internet für Psychologen*. Hogrefe Verlag., pp. 287-317

questionnaires were forwarded also to subordinates directly with the appeal to forward the other questionnaires to their supervisor and colleagues. Not to get an overweight of one company, because companies same as leaders can have sometimes very specific management cultures. The employees, supervisor same as subordinate, were asked to fill out five questionnaires with their team. Further it was regulated by the author, that not more than 20 questionnaires are from one company, because respondents from some companies are more motivated than others to fill out the questionnaire.

Evaluation of the respondents influence onto the quantitative data

207 employees from 125 companies were asked to fill out five questionnaires with their teams. During the period from 15.03.2019 to 18.06.2019 the research has been carried out with supervisors and subordinates in profit-oriented companies in German speaking countries and the return quote were 242 questionnaires out of minimum 74 different companies. Due to the completely anonymous status, in 37 returned questionnaires it was not clear what companies they were from. This relatively high share of theoretical 23,4% returned questionnaires, out of min. 59,2% of the surveyed companies, is expected due to the effect of the personal contact to the respondents.

From the 242 returned questionnaires 6 were not useable, 32 had only the supervisor part and 119 had only the subordinate part filled out. 85 questionnaires had been filled out completely both on the part of the supervisors and the subordinates. Due to the situation, that 16 shareholders and 3 freelancers took part in the survey, not all employed supervisors (11,1%) felt to have a boss, did not understand the cover letter or did not want to fill out the subordinate questionnaire. On the other hand, the respondent were asked in the common part of the questionnaire, if they have supervisorial responsibility, here 133 participants agree but only 117 real supervisor questionnaires returned. This can be on the one side the effect, that they do not see themselves as real supervisor, because they are just managing small teams, but the real supervisor with disciplinary responsibility is another employee. This could be explained that all of these employees, beside one, have just mid or low management level. Just one employee stated, that she is in a high management position of a company size with 50-249 employees but unfortunately she didn't fill out the supervisor questionnaire, too. Overall the distribution of the supervisors is 23 CEO/managing directors and other supervisors, who are working in high management (36), mid management (47) and low management (27).

45 participants just make national business, the rest, 197 respondents are making international business, but all respondents are from German speaking countries (Swiss, Austria, Germany).

Nearly the half of them (117) are from the automotive industry, which is for Germany relevant because the Automotive industry is the biggest part in the producing industry, measured on the sales volume, the most significant industrial sector of Germany.²⁹⁵

The other respondents are from manufacturing (52), service (30), logistic (9), consulting (8), IT (7) and other not specified companies (19).

The age of the participants is subdivided by <29 years (63), 30-39 years (56), 40-49 years (48), 50-59 years (64) and >59 years (11) and the estimated age of the next leader level or in other words, the respondent's supervisor was <29 years (4), 30-39 years (36), 40-49 years (79), 50-59 years (93) and >59 years (13). This is representative with the average age of supervisors in Germany, which is 51,9 years in 2018, researched with 3,16 million supervisors, where even 17,1% of the supervisors were 61 to 70 years.²⁹⁶ Surely the demographic change is one reason of this high average age of the supervisors. Just to compare the results with 14 years before, the average age was between 40 and 50 years.²⁹⁷ Other distributions of the respondents do not show a real relevance to the research. 23,2% of the respondents are women, 76,4% men and 0,4% have not specified the gender. The different company size is shared by <50 employees (35), 50-249 employees (76), 250-749 employees (36), 750-1999 employees (36) and >1999 employees (59). – *Graphs see appendix*

The gender of the next level leader are 24 female and 202 male supervisors. This share of women is still small but representative for the share in Germany. In 2018 the share of women in supervisor position was 21,3% overall. In mechanical engineering, which is comparable to automotive and manufacturing and which have the highest share of participants in this study, only 9,8% of the supervisors were women.²⁹⁸

3.6 Trust as a factor to improve the fluctuation rate in the company

In the beginning of the research, the author supposed to find a correlation between the fluctuation rate and a high trust leadership between subordinate and supervisor. That the job

²⁹⁵ Deutscher Bundestag (2017) wissenschaftliche Dienste: Arbeitsplätze der Automobilindustrie und des Umweltverbundes, WD 5 Wirtschaft und Verkehr, Ernährung, Landwirtschaft und Verbraucherschutz. WD 5 - 3000 - 122/16, p.4 <https://www.bundestag.de/resource/blob/496346/1a9b4fbe228b43b15bc6fbf3de0cb195/wd-5-122-16-pdf-data.pdf> (07.04.2020)

²⁹⁶ Rudnicka, J. (2018), Statista: Durchschnittsalter von Führungskräften in Deutschland nach Bundesländern im Jahr 2018, <https://de.statista.com/statistik/daten/studie/182536/umfrage/durchschnittsalter-von-geschaefsfuehrern-nach-bundeslaendern-und-geschlecht/> (08.04.2020)

²⁹⁷ Schneider, H., Lorenzen, O., & Stein, D. (2006). Personalpolitische Strategien deutscher Unternehmen zur Bewältigung demografisch bedingter Rekrutierungsengpässe bei Führungskräften. IZA., p.12

²⁹⁸ Rudnicka, J. (2019), Frauenquote - Stand 30.Okt. 2018, Statista <https://de.statista.com/statistik/daten/studie/575509/umfrage/frauenanteil-in-fuehrungspositionen-in-deutschland-nach-branchen/> (03.07.2019)

satisfaction is significant negative correlated to the fluctuation rate is common sense. The trust of the employee has a direct effect on the identification of the employee to the company and its performance.²⁹⁹ Porter et al. said, that “Job satisfaction reduces the fluctuation probability”³⁰⁰ which is beside many other e.g. confirmed by Gebert & von Rosenstiel.³⁰¹ Also trust can be a binding element between subordinates and supervisor, and so also the binding to the company is expected. Looking at the Hays Human Resources Report 2018³⁰², 27% of the managing directors (Top 3 Item after development of company culture (32%) and flexible working structures (28%)), 32% of the Human Resources Department Leaders (Top Item) and also 43% of other Department Leaders (Top Item), see the task to bind employees as a top challenge. So trust seems to be an important element here, too.

The results of McClelland³⁰³ showed furthermore that having trust in the competence of the employee is improving the performance-orientation of an employee and that this is an important factor how the environment must be arranged to bind performance oriented employees to the company. Companies, which didn't respect this, beside other soft factors, had a higher fluctuation rate according Mertel³⁰⁴. This is the more interesting in the direction of management, because soft factors are, compared with the normal hard ones, the success factors, which are more difficult to control in companies.³⁰⁵ But this situation is not only relevant for companies, according Kuhn & Weibler³⁰⁶, a bad leadership model of the supervisor has a negative correlation to the performance and the well being of the subordinate, up to a change of the job itself. “Fluctuation results out of the voluntary decision of employees to quit their organizational membership.”³⁰⁷ On the other side talking about fluctuation means adding the

²⁹⁹ Dirks, K. /Ferrin, D. (2001), The role of trust in organizational settings, published in *Organization Science*, 12, pp.450-467

³⁰⁰ Porter, L. W., E.E. & Hackman, J.R (1975): *Behavior in Organizations*. New York: McGraw Hill. p.350

³⁰¹ Gebert, D., & von Rosenstiel, L. (2002): *Organisationspsychologie*. 5. Auflage. Kohlhammer: Stuttgart. p.91

³⁰² Eilers, S, Möckel, K., Rump, J., Schabel, F. (2018), Hays HR Report 2018, <https://www.hays.de/documents/10192/118775/hays-studie-hr-report-2018.pdf/243a467e-bc39-6b0a-3ac1-95c5f9bd43bc> (09.01.2019)

³⁰³ McClelland, D.C. (1965) Toward a theory of motive acquisition. In: *American Psychologist*. Nr. 20. pp.321-333

³⁰⁴ Mertel, B. (2006), *Arbeitszufriedenheit – eine empirische Studie zu Diagnose, Erfassung und Modifikation in einem führenden Unternehmen des Automotives*; Inaugural Dissertation in der Fakultät Pädagogik, Philosophie, Psychologie an der Otto-Friedrich-Universität Bamberg, p.52

³⁰⁵ Peters, T. J. & Waterman, R. J. (1982): *In search of excellence. Lessons from America's best-run companies*, New York et al.: Harper & Row in Dorow W. (2007) *Konfliktverhalten: Eine interkulturelle Spannungsquelle*. In: *Unternehmenskulturen in globaler Interaktion*. Gabler, p.133

³⁰⁶ Kuhn, T., & Weibler, J. (2020). *Bad Leadership: Von Narzissten & Egomanen, Vermessenen & Verführten: Warum uns schlechte Führung oftmals gut erscheint und es guter Führung häufig schlecht ergeht*. Vahlen. (p.15)

³⁰⁷ Huf, S. (2012) *Duale Hochschule Baden-Württemberg Stuttgart*, inside *Ursachen der Fluktuation verstehen, Mitarbeiterbindung optimieren, Personalführung* 03/2012, p.30

company, means also adding a new connection node into the research. Until now, the situation between two employees had been researched. By adding the company, there is a new node, which can be in a linear view behind the supervisor or in a triangle view beside both persons. Nevertheless, it is a new node. Shahram³⁰⁸ treated in case of several nodes the trust values same as probability values, but as mentioned in the beginning, in this research just a two sided effect will be assumed, that's why at this exceptional case of leaving the direct research way between supervisor and subordinate, the fluctuation will be seen as direct relation to the subordinate, same as a triangle, just having a view on the loyalty path, one path between subordinate and company. Loyalty can be seen as a direct connection to the fluctuation problem in companies. 2016 Germany had a fluctuation rate for the processing trade companies of 19,1%. In 2017 the fluctuation rate increases to 21,5%³⁰⁹. The average time of employment of a specialist or supervisor is only four years, even if in general every second employee in Germany changes its job earliest after 10 years³¹⁰. All these are reasons, why loyalty or better to say trust as a precondition has to be improved from the supervisor to the subordinate. The importance to bind employees to the company or department is known in the meantime on every management level. So the expectation, to get a confirmation of the direct relation between trust and an improvement of the fluctuation rate was high, but unfortunately, the results showed disturbance values which are not allowing a direct and final conclusion out of this data of this research study. The number of respondents have to be increased in future studies, because of the high share of employees, who do not want to change the job at all. On the other side two part results are also very interesting for this study as well. That's why it should be mentioned here, too. To get an overview of the starting point of the research, subordinates same than supervisors had been asked about their time inside their actual company. They were clustered by their actual time in company of <1 year (22), 1-4 years (67), 5-10 years (53), 11-19 years (51) and longer than 19 years (48). In additional it was documented how often they changed the company after their 25th birthday. This age was chosen to cut off the orientation phase of the employee, which is also different when persons will be compared, e.g. who studied or have started a job directly

³⁰⁸ Shahram, S. (2020). A new model for calculating the maximum trust in online social networks and solving by artificial bee colony algorithm. *Computational Social Networks*, 7(1), p.6

³⁰⁹ Statistik der Bundesagentur für Arbeit (2018) Berichte: Blickpunkt Arbeitsmarkt – Der Arbeitsmarkt in Deutschland 2017, Nürnberg, <https://statistik.arbeitsagentur.de/Statistikdaten/Detail/201712/ama/heft-arbeitsmarkt/arbeitsmarkt-d-0-201712-pdf.pdf> (09.01.2019)

³¹⁰ Sorrentino, T. (2014) Stepstone.de, Alle vier Jahre ein neuer Arbeitgeber – 21.03.2014 12:08 <https://www.presseportal.de/pm/38447/2693619> (09.01.2019)

after school. Every third employee has changed its job one or more times up to its 25th year.³¹¹ So the distribution of the clusters of the respondents were, that 111 employees have not changed, 57 changed one time, 58 employees changed 2-3 times, 15 changed 4-9 times and one employee changed 10 or more times. So starting with these quite well distributed employees it was very surprising, that 165 employees (68,7%) are not planning to change the company. The other clusters showed, that 13 employees want to leave the company in less than 1 year, 21 employees in 1-2 years, 25 employees in 3-5 years, 11 employees in 6-9 years and 5 employees in 10 or more years. A similar distribution is also found by having a look on the subordinates only (see Figure 13).

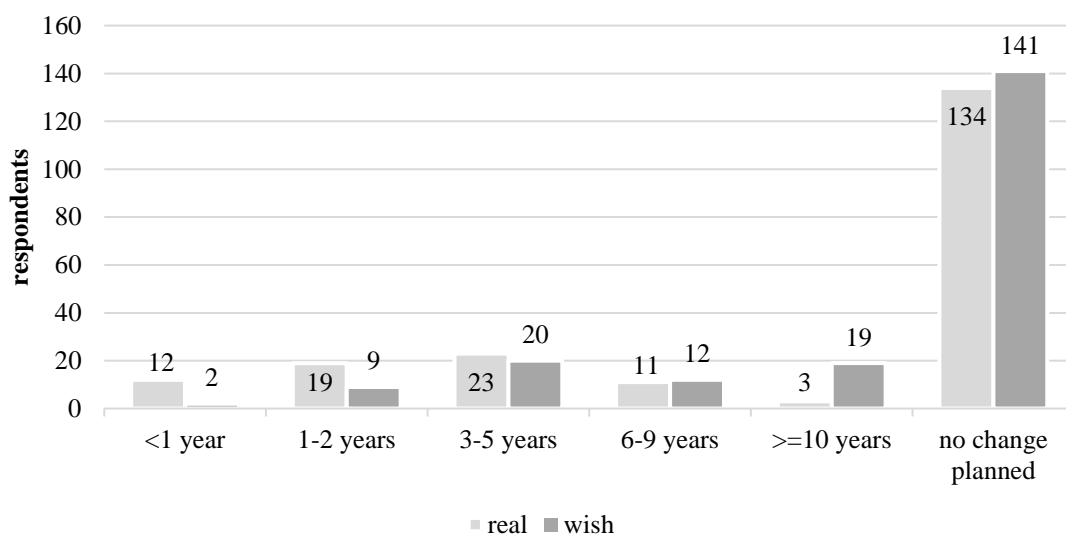


Figure 13: Changing the company is planned (only subordinates)

Source: author's research results based on quantitative research

134 subordinates do not plan to change their workplace, 12 subordinates would like to leave their jobs in less than 1 year, 19 subordinates in 1-2 years, 23 subordinates in 3-5 years, 11 subordinates in 6-9 years and 19 in 10 or more years. The data for the supervisors had been also received, but due to the small number of supervisors, who would like to change work, they have not been separately analyzed in this case. So, based on the data received from subordinates only, that most of the employees would not want to change work, the starting database of the employees, who would like to change work in reality is too small. To get a real statement of

³¹¹ Statista research department (2011), Haben Sie schon einmal oder mehrmals von sich aus den Arbeitgeber gewechselt oder haben Sie die Absicht, in Kürze zu wechseln? - Deutschland, <https://de.statista.com/statistik/daten/studie/180071/umfrage/haeufigkeit-von-arbeitgeberwechseln/> (09.04.2020)

research, the number of respondents who do not plan to change work must be higher. But independently of that, two remarkable effects have been shown on this stage, because of these findings the respondents, who would not want to change work, can be included:

a.) There is a trend in the respondents' statements, that if the supervisor would lead the subordinates as they desired, the respondents would stay in the company longer.

Also, it is interesting, that the respondents stated only that they would stay longer and not that they would not change workplace. So there seems to be an effect that the employees who are led with power and trust as they want (which is a surely a borderline, theoretical view and not practical) would stay longer in the company, but not for ever. In eyes of the author this is very interesting, because this could mean in other words: Employees change the company independent from the kind of leadership.

Counting only the respondents, who would like to change the real situation to the desired one, the following conclusions could be found:

If supervisors are leading with power and trust the as subordinates wish,

- less than 3.5% of the subordinates who earlier wanted to change the company, would not change the company,
- max. 29.5% of the subordinates who earlier wanted to change the company, would stay longer in the company and
- for min. 67% of the subordinates it makes no difference how they will be led. They will leave or stay, same as before.

The 29.5% can be investigated more deeply to see if there are also subordinates inside, where real and wish is the same and if not, how big the difference is. But in author's view this just makes sense with a higher number of respondents. The more interesting outcome is, that it is in maximum a third, where the desired situation of power and trust brings an improvement and that just in 3.5% the respondents would only change their status from "want to leave the company in x-years" to "will not leave" the company. Further in two third of the cases, it has absolutely no influence onto the subordinates.

That is why the situation of the high amount of employees has to be discussed, who not plan to change the company.

b.) The amount of people who do not plan to change the company seem to be very high. This can be due to the effect, that people do not want to give the right answer, because they think

that the information can be shared with their supervisor or company and this information as same as the information of the trust and power situation with their supervisor is a very sensible information.³¹² So these questions, which are for real in the common part at the beginning and for wish at the end of the questionnaire, are only two direct and not repeated questions with variables. So the respondent could be gone into defensive and just gave a safe answer, just for the case that an employee from inside of the company should get this information. On the other side compared with a study from 2009 (26.756 respondents) in German companies, 75% changed one to five times and 16% never changed the company. 6 to 10 times changed only in 8% of the employees, which seem to be not so different to the before discussed research.³¹³

Table 3: Cross check of own and existing results for the fluctuation of employees

	Research Statista (2009)	Research Statista (2011)	Research Brenke (2015)	Own research 2019
employee changed	75%	n.a.	n.a.	~50%
1-5 times				47.5% (1-3 times) 6 % (4-9 times)
				age >15 years age >25years
employee want to change	n.a.	8.8%	11%	14% / 17,7%
	data not comparable (world economic crisis)	want to change in near future	unsatisfied with work	want to change in next 2 years
		age 26-29		all / age 26-29
Gross domestic product growth (Germany)	- 4.0%	+ 5.0%	+ 4.1%	+ 2.75% 2015-18: + 3.1-3.5%

Source: research results of Brenke, German statistical research department and author

Unfortunately the data cannot be compared one by one, because in mentioned study employees starting with an age of 15 years are included. Another study from 2011 showed that 8.8% with age of 26-29 years want to change their job in the near future.³¹⁴ Comparing this with the result

³¹² Respondents stated often, that the questionnaire has very sensible information and they double checked at the author, that this information will be just shared anonymous

³¹³ Statista research department (2009), Wie häufig haben Sie in Ihrem Arbeitsleben schon den Arbeitgeber gewechselt? - Deutschland und EU, <https://de.statista.com/statistik/daten/studie/28914/umfrage/haeufigkeit-der-arbeitsplatzwechsel/> (09.04.2020)

³¹⁴ Statista research department (2011), Haben Sie schon einmal oder mehrmals von sich aus den Arbeitgeber gewechselt oder haben Sie die Absicht, in Kürze zu wechseln? - Deutschland, <https://de.statista.com/statistik/daten/studie/180071/umfrage/haeufigkeit-von-arbeitgeberwechseln/> (09.04.2020)

of the research, the overall value of round about 14%, who want to change the job within the next 2 years gets a more realistic value. A direct comparison of the 63 persons of the research with the same age, show that 17.7% will change their job in the next 2 years.

The comparison in Figure 3 shows, that the basis data of the research are in the range of already existing data and the light increased value of employees who want to change is a note, that the respondents answered in an open way and the data are trustable.

It has to mention, that the quantity of persons, who want to change the company can be much more different looking at business platforms or company researches. There are also researches from online business platform, where 39%³¹⁵ - 44%³¹⁶ of the asked employees would change the company in the next twelve months. These values differ a lot from the ones of the earlier shown researches and are from the value itself just comparable with the overall persons, who want to change inside this research (33%). On the other side could be the high share coming from the business platform sample itself, which is very near located to item “job change” itself. Independent of that it shows, that the share of people, who wish to change the company can differ a lot and should be investigated more deeply.

Another reason for the high amount of respondents, who don't want to change the company can be the economic situation. If the respondent is afraid about the loss of its employment or in unsecure times, the respondent is less willing to change the company. The period of the survey was the time within March and July 2019. The respondents are all from German speaking countries and nearly the half of them are from 2nd or 3rd tier automotive supplier industry, which is a usual situation in German. Comparing the gross domestic product of Germany with the times before, the increase was a little bit smaller in 2019 (2.75%) than the four years ago (3.1%-3.5%).³¹⁷ Comparing just the first two quarters of 2019 with the quarter afterward or the quarters before, there is also no abnormality, all quarters continue with a steady growth.³¹⁸ So this potetial effect seems not to be the reason.

³¹⁵ Xing.com (2020) <https://recruiting.xing.com/de/wissen-veranstaltungen/wissen/hr-news-trends/job-umfrage-2020-das-wuenschen-sich-deutsche> (30.03.2021)

³¹⁶ Karrierebibel.de (2020) <https://karrierebibel.de/jobzufriedenheit/> (30.03.2021)

³¹⁷ Rudnicka, J. (2020), Bruttoinlandsprodukt (BIP) in Deutschland von 1950 bis 2019, Statista, <https://de.statista.com/statistik/daten/studie/4878/umfrage/bruttoinlandsprodukt-von-deutschland-seit-dem-jahr-1950/> (10.04.2020)

³¹⁸ Rudnika, J. (2020) Bruttoinlandsprodukt (BIP) in Deutschland in jeweiligen Preisen vom 4. Quartal 2015 bis zum 4. Quartal 2019, Statista, <https://de.statista.com/statistik/daten/studie/3829/umfrage/entwicklung-des-bruttoinlandsprodukts-in-deutschland-nach-quartalen/> (10.04.2020)

Last but not least, beside all doubts about the correctness of data, there is also a good possibility, that the data reflects the reality. Comparing the results with Brenke³¹⁹, which results based on German employees in 2013, only round about 11% are unsatisfied with their job. A crosscheck with the gross domestic product growth, which was in 2012 2,4% and in 2013 4,1% the situation is light but not fundamental different, so that a comparison is acceptable.

3.7 Detailed analysis of the empirical data of leadership power and trust of supervisor and subordinate

In this part the correlation of LSP and trust is analyzed with the output of the collected data. For this the research model, the data itself has to be verified with the findings of the research and tested with validated statistical methods.

3.7.1 Empirical examination of the quantitative data

Starting with the empirical examination, in a first step the general research model has to be adjusted. The before shown variant is showing two separated power bases, one for each employee, subordinate and supervisor. These positions are clearly different, because they get or give LSP. This situation is fine and correct also for the further research.

³¹⁹ Brenke, Karl (2015) : Die große Mehrzahl der Beschäftigten in Deutschland ist mit ihrer Arbeit zufrieden, DIW-Wochenbericht, ISSN 1860-8787, Deutsches Institut für Wirtschaftsforschung (DIW), Berlin, Vol. 82, Iss. 32/33, p.719

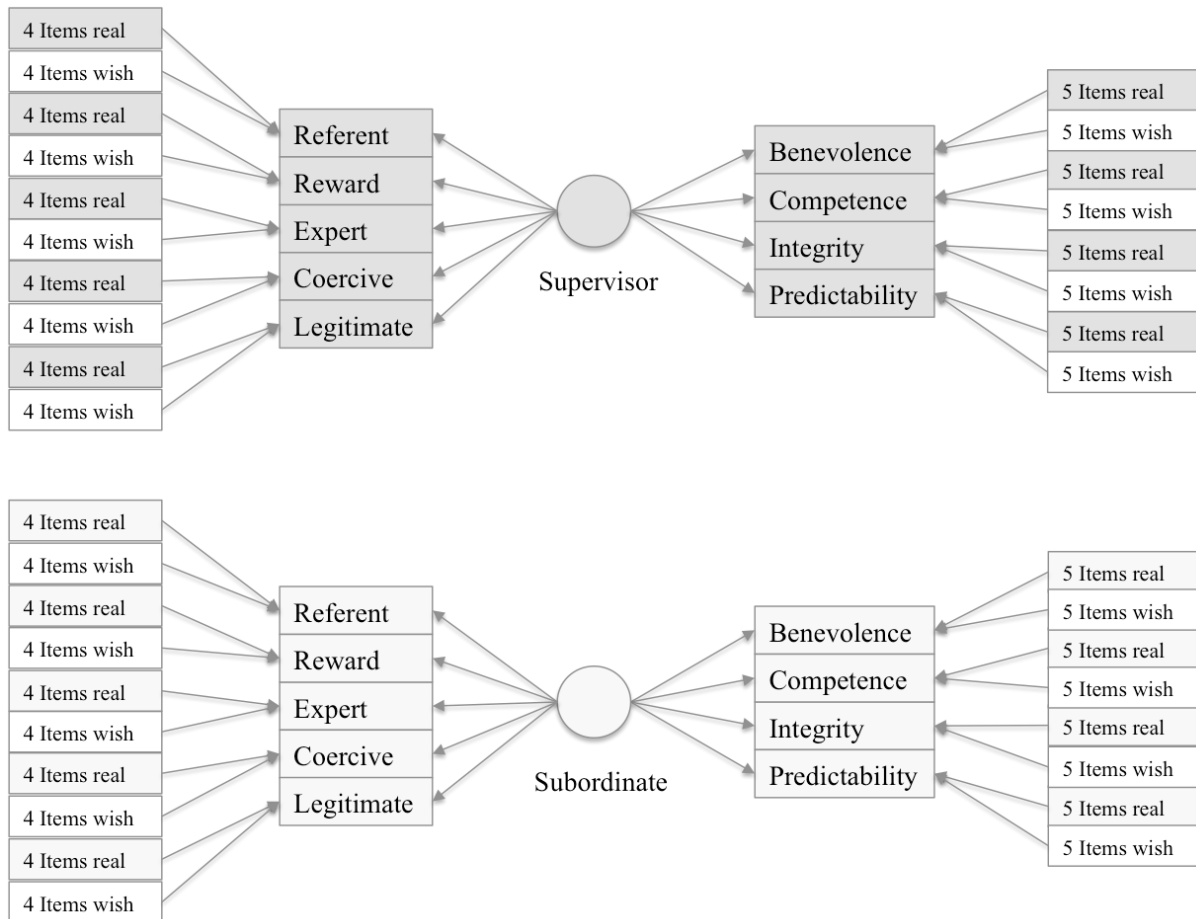


Figure 14: Separated research models for supervisor and subordinate

Source: author's research results based on quantitative research

The base, which is rethought, is the one for trust. - One base for trust is chosen in the general research model, because it should be the binding element between supervisor and subordinate, with the same level of trust for both sides. Surely, the trust level between the both employees can be the same and just vary due to the use of the different LSPs. But unfortunately this is just a theory at this stage of examination and also the trust level of the both employees can be different. So the research model has to start a step before and the trust and LSP situation has to be researched for subordinate and supervisor separate (see Figure 14). Also there are different questionnaires for the trust situation of supervisor and subordinate, which is also an item to divide the trust situation for both employees. It has to be made transparent how the different subversions of trust and LSP will work together, to get a clear picture for both parties alone. After the situation for both sides is clear by its own, then a crosscheck will be done to compare the results between supervisor and subordinate.

Both separated models show the different variables of LSP and trust with its appropriate questions in real and a desired future. For both sides of the leadership, information about reality

and desired future are available out of the questionnaire, but to get a stable base and to avoid discussions about a potential or desired future, just the real situation will be examined more deeply. The desired situation will be just used as a comparison of a potential best case. The two single research models have each 20 questions for trust and power. Trust has 4 subversions with each 5 questions and power has 5 subversions with each 4 questions. The detailed research model with description of abbreviations is shown in the appendix. To understand the different variables and potential changes or lacks, e.g. out of the translation from the original English into German or by adapting the supervisor questionnaire from the Hinkin & Schriesheim definition, the questions had been descriptive analyzed by the total number of results of subordinate and supervisor. All statistical analysis had been done with IBM SPSS.

Descriptive analysis statistics of leadership power and trust

Leadership Power - The four questions of the coercive power have a relative high spread (1,71-2,91) in the mean and a standard deviation between 0,954 and 1,057 (see Table 4). While the deviation is comparable to the other powers later on, the spread of the mean can be a result of the translation, but the more interesting is that all these means are smaller than neutral (= 50% or scale point 3 of 5 in the questionnaire).

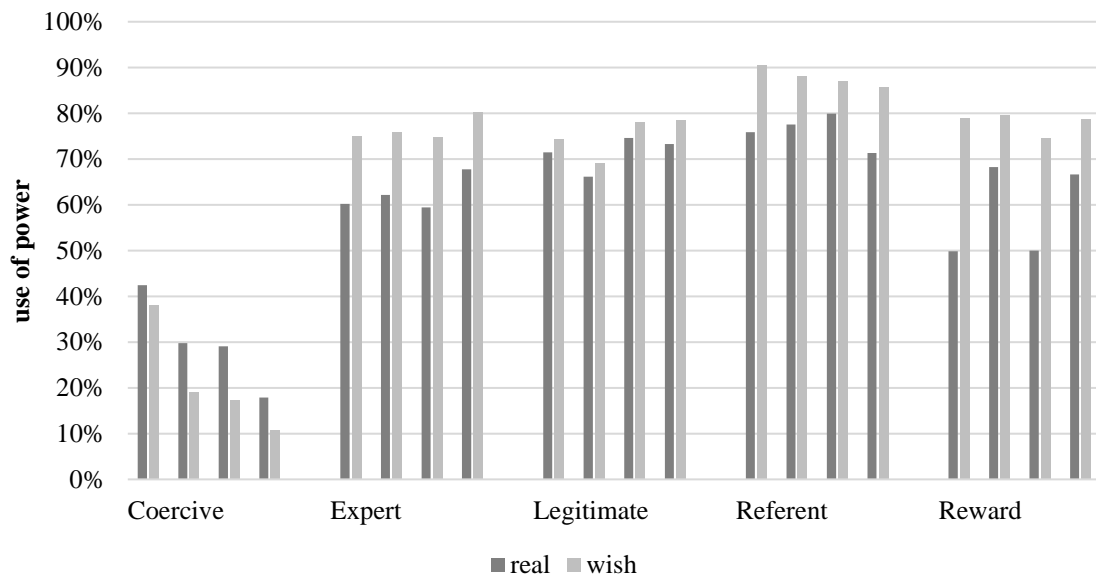


Figure 15: Felt leadership power of supervisors (subordinates' view)

Source: author's research results based on quantitative research

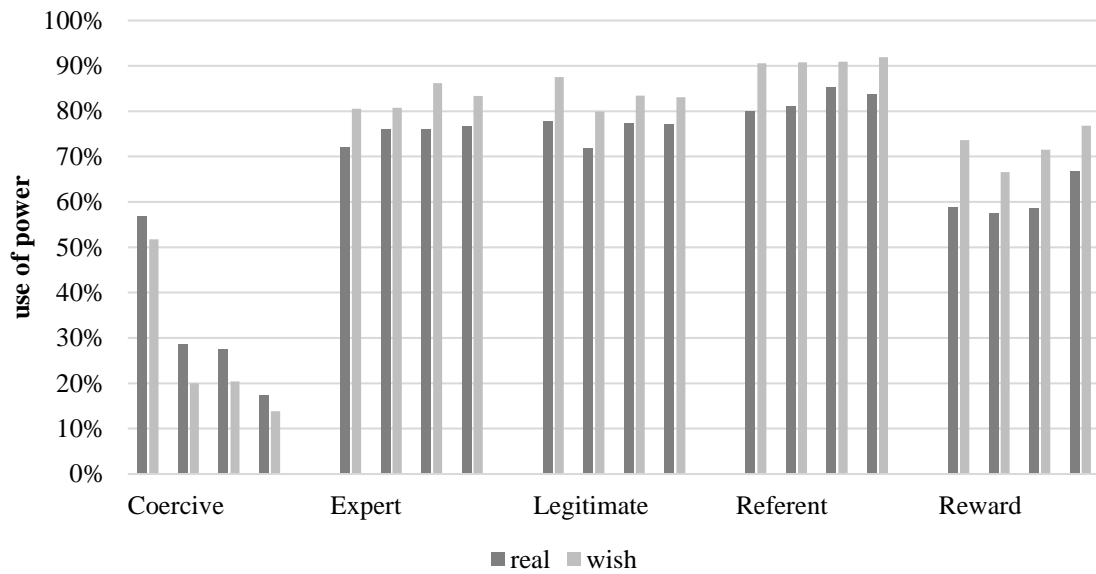


Figure 16: Used leadership powers of supervisors

Source: author's research results based on quantitative research

It means also that this LSP is used not so much than the others, which are all above 3 or 4 (comparable to 50-75%) in the mean. In comparison to the other ones it becomes directly visible.

The before shown questions of LSP can be compared one by one between subordinate (see Figure 15) and supervisor (see Figure 16), because the basis from the supervisor part had been adapted from Hinkin & Schriesheim subordinate scale items by the author. For this analysis a Mann-Whitney-U-Test had been done. (see chapter 3.7.3)

Table 4: Descriptive statistics of leadership power (total sample)

	Mean (min:1 / max:5)	Standard Deviation
Coercive power	1.71-2.91	.954-1.057
Expert power	3.58-3.84	.846-1.039
Legitimate power	3.73-4.02	.695-.870
Referent power	4.03-4.28	.804-.901
Reward power	3.13-3.67	1.090-1.167

Source: author's research results based on quantitative research

Trust - The categories of trust show a more homogeneous behavior. (see Table 5) Here the four variables with their each 5 questions show all mean values above 3 (50%) in the mean, which

is an indicator for a trustful leadership situation between subordinate and supervisor of the participants.

For the scaling of trust, two different questionnaires had been used: the team trust scale (results see Figure 17) and the leader trust scale (results see Figure 18).

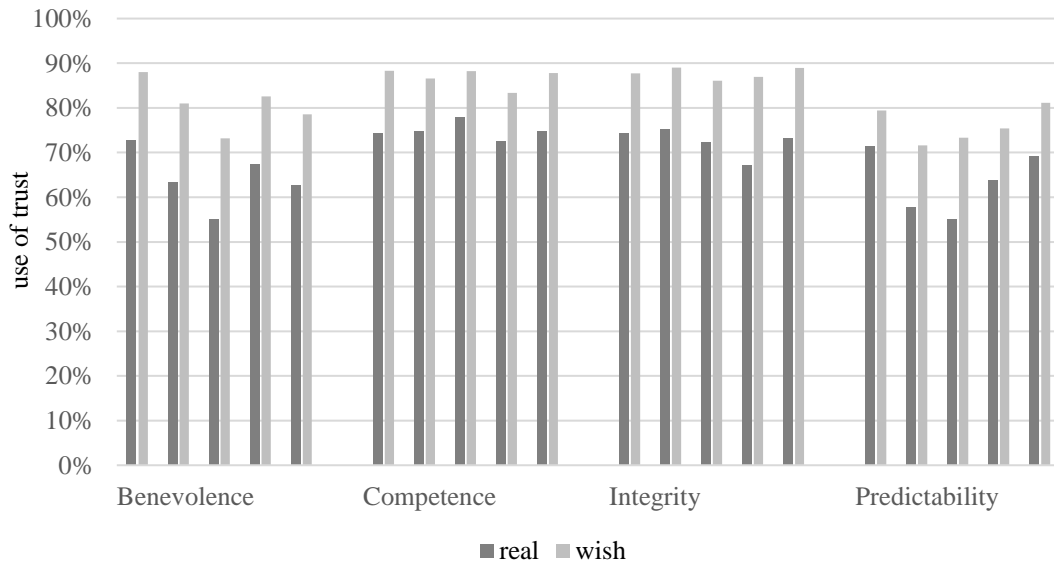


Figure 17: Trust situations of subordinates

Source: author's research results based on quantitative research

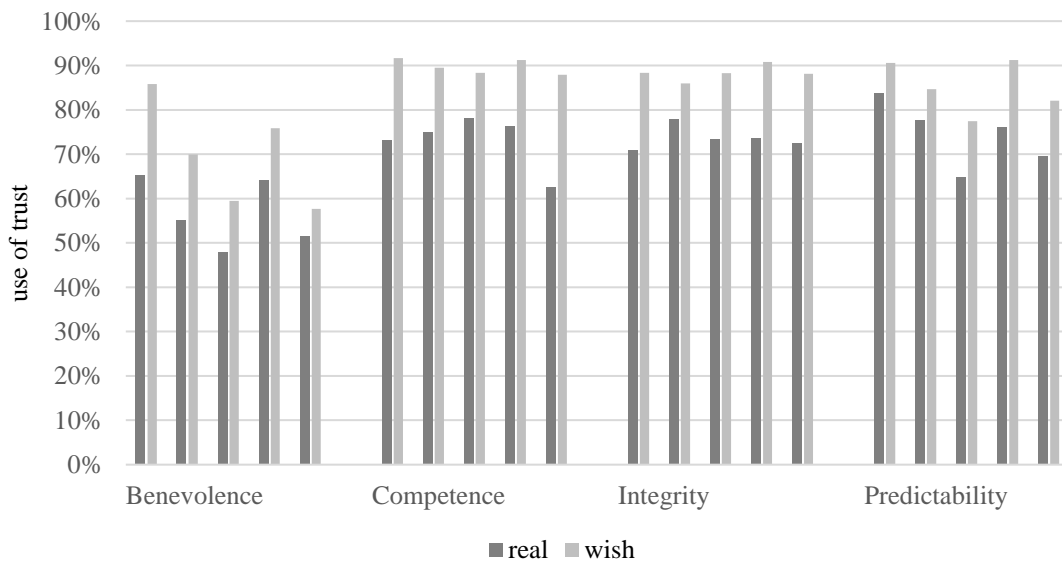


Figure 18: Trust situation of supervisors

Source: author's research results based on quantitative research

Both scales are from Adams and Sartori, both scales have 20 questions, both have 5 questions for the same categories of trust. But the single questions cannot be compared together, because the background is partly different. So e.g. question TS-B01 (see appendix) of the category benevolence cannot be compared between supervisor and subordinate, because the meaning of both questions are different. This information is important to know, if single questions will be compared, but it's not important for comparing the trust categories benevolence, competence, integrity and predictability between supervisor and subordinates, because they are the same and have been proven by the original authors before.

In addition the common level of the four trust categories is also an indicator for stable research basis. For a better differentiation of the trust situation they will be split to different trust levels afterward.

Table 5: Descriptive statistics of trust (total sample)

	Mean (min:1 / max:5)	Standard Deviation
Benevolence	3.10-3.80	.884-1.014
Competence	3.81-4.12	.776-.938
Integrity	3.78-4.05	.861-.939
Predictable	3.34-4.04	.746-.893

Source: author's research results based on quantitative research

Scale Testing

Before this can be allowed, the reliability of the 9 general variables of LSP and trust for the total sample has to be checked with Cronbach's Alpha, which measures the reliability of a group of items, to measure an overall construct.³²⁰ Schecker sees the Cronbach's Alpha to measure the different items of one variable and its similarity, in particular to measure certain personal characteristics.³²¹ The values can be between minus infinite and 1 and the resulting value should be 0.7 or higher³²², so that the use of the middle values for trust, same as LSP is acceptable.

³²⁰ Homburg, C. and Giering, A. (1996), "Konzeptualisierung und Operationalisierung komplexer Konstrukte: Ein Leitfaden für die Marketingforschung," *Marketing: Zeitschrift für Forschung und Praxis* 18, no. 1, p.8. [11]

³²¹ Krüger, D.; Parchmann, I.; Schecker, H. (Hrsg.); (2014) *Methoden in der naturwissenschaftsdidaktischen Forschung* Springer-Verlag, (p.1) ISBN 978-3-364237826-3 – Zusammenfassung, p.1
https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=4&ved=2ahUKEwintuiqturoAhWdwQIHegDCM8QFjADegQIBBAB&url=https%3A%2F%2Fwww.springer.com%2Fcontent%2Fdocument%2Fdownloaddocument%2FCronbach%2BAlpha.pdf%253FSGWID%3D0-0-45-1426184-p175274210&usq=AOvVaw2_wmYTLTy1LgaufHP1hmLb (20.04.2020)

³²² Nunnally, J. C., *Psychometric theory*, 2nd ed. (New York: McGraw-Hill, 1978), p.245

This is same to the meaning of Schmitt³²³ or Cortina³²⁴, but 0.7 is not a general statement in the literature. So Bortz & Döring³²⁵ aspire a value of 0.8, but also less alpha values between 0.6-0.7 are still acceptable according Bagozzi & Yi³²⁶.

However values less than 0.6 are seen from all as a critical value. For these variables the definition of a final value is not really relevant, comparing the results with the before mentioned requirements.

Table 6: Reliability of variables (total sample)

	Cronbach's Alpha		Cronbach's Alpha
Coercive Power	0.792 (4 items)	Benevolence (Trust)	0.867 (5 items)
Expert Power	0.852 (4 items)	Competence (Trust)	0.903 (5 items)
Legitimate Power	0.822 (4 items)	Integrity (Trust)	0.892 (5 items)
Referent Power	0.902 (4 items)	Predictability (Trust)	0.778 (5 items)
Reward Power	0.790 (4 items)		

Source: author's research results based on quantitative research

Streiner has the meaning as well and gives as a rule of thumb a value of > 0.65 to accept the analyzed data. Further a very high value of e.g. 0.95 can be critical as well, because it could point out that different items are redundant.³²⁷

All 9 variables have a Cronbach's Alpha between 0.778-0.903 and are in or above the requirement of Nunnally, Schmitt, Cortina, Bortz and Döring, so the reliability is given and the use of the middle value is acceptable. (see Table 6) In addition it has to be remarked, that with a increasing number of items, Cronbach's Alpha increases too and that so the number of items should be taken into account while interpretation, in particular for the case, that a scale has just a small number of items (<5)³²⁸, same as the five power variables have. So also if these

³²³ Schmitt, N. (1996). Uses and abuses of coefficient alpha. *Psychological Assessment* 8(4), pp.350–353.

³²⁴ Cortina, J. M. (1993): What is Coefficient Alpha? An Examination of Theory and Applications. *Journal of Applied Psychology*, 78(1), pp.98-104.

³²⁵ Bortz, J., Döring, N. (2006). *Forschungsmethoden und Evaluation für Human- und Sozialwissenschaftler*. (4. Auflage). Heidelberg: Springer Medizin Verlag. p.725

³²⁶ Bagozzi, R. P., Yi, Y. (1988). On the Evaluation of Structural Equation Models. *Journal of the Academy of Marketing Science*, 16(1), pp.74-94.

³²⁷ D. L. Streiner (2003) Starting at the beginning: An introduction to coefficient alpha and internal consistency In: *Journal of Personality Assessment* Ban 80, 2003, pp.99–103.

³²⁸ Cortina, J. M. (1993) What is Coefficient Alpha? An Examination of Theory and Applications. *Journal of Applied Psychology*, 78(1), pp.98-104.

Cronbach's alpha values are disadvantaged due to their only 4 items, the values are still high enough for the reliability of their scales.

Trust Level definition

To get a first impression of the different scales and their distribution for subordinate and supervisor, the different levels of trust, has to be defined and the data has to be clustered. (see Table 7) To get direct link to the results of the survey, three groups with the following boundaries have been defined.

These categories can be also directly compared with the five point Likert scale with the neutral mid-point inside the original questionnaires. Due to the reason, that in the case that the asked employee has absolutely no trust, the first point of the Likert-scale is marked, which gives the zero-point of the scale.

Table 7: Trust level definition

Trust level (TL)	Percentage value	Comparison to 5 Point Likert Scale
(no or) low trust	0% - 50%	1- 3 point
mid trust	>50% - 75%	>3 - 4point
high trust	>75% - 100%	>4 - 5 point

Source: author's research results based on quantitative research

If the asked employee has a neutral approach, the third point is marked, which is still the category of low trust. The counter part for the 4th point of the 5 point Likert-scale is 75% and still the mid trust level. Just by marking the fifth of five points, the trust level can become a high trust level. For each of these three trust levels, the power situation had been research. The trust level (TL) will be calculated (see Formula 3.7.1) by sliding the zero point to the first point of the 5 point Likert scale, otherwise the minimum would be 1.

$$TL_n = \frac{\left(\frac{\sum(Likert\ Scale\ value)_{n,px}}{n} - 1\right)}{(Likert\ Scale\ value_{max} - 1)} \quad (3.7.1)$$

Group comparison test

To confirm the effectiveness of the low, mid and high TL in each power variable, an Analysis of Variance (ANOVA) had been carried out. In case of two groups, the result is same than t-Test, which would be ok for the supervisor situation only.

Table 8: LSP group comparison of subordinates

		Sum of Squares	df	Mean Square	F	Sig.
Coercive power	Between Groups	59.774	2	29.887	77.564	.000
	Within Groups	77.450	201	.385		
	Total	137.224	203			
Expert power	Between Groups	58.068	2	29.034	61.712	.000
	Within Groups	94.566	201	.470		
	Total	152.634	203			
Legitimate power	Between Groups	8.498	2	4.249	9.387	.000
	Within Groups	90.986	201	.453		
	Total	99.484	203			
Referent Power	Between Groups	83.400	2	41.700	130.879	.000
	Within Groups	64.042	201	.319		
	Total	147.443	203			
Reward power	Between Groups	29.216	2	14.608	20.274	.000
	Within Groups	144.827	201	.721		
	Total	174.043	203			

Source: author's research results based on quantitative research

Here the low-TL is not researchable of the supervisors, due to the small group of five employees only. To compare the mean of more than two groups, the One-way ANOVA can be done³²⁹ to analyze the subordinates (see Table 8) and supervisors (see Table 9) situation. For the subordinates, the three trust levels differed statistically significantly in the case of all five LSPs on the 0.01 level.

For the supervisors the result of the group comparison differs especially for legitimate power ($p = 0.796$), which does not show a statistical significance same as the groups inside the Coercive power ($p = 0.067$). The three remaining LSPs had all statistical significance on the 0.05 level. In the case of the supervisors it has to be said, that here only two groups, mid and high-TL, could be tested, due to the low share of respondents with a low-TL.

³²⁹ Hain, J. (2011). Varianzanalyse–ANOVA. Universität Würzburg. pp.2, 4 https://www.uni-wuerzburg.de/fileadmin/10040800/user_upload/hain/SPSS/ANOVA.pdf (27.04.2020)

Table 9: Leadership power group comparison of supervisors

		Sum of	df	Mean	F	Sig.
		Squares		Square		
Coercive power	Between Groups	1.805	1	1.805	3.420	.067
	Within Groups	60.674	115	.528		
	Total	62.479	116			
Expert power	Between Groups	1.833	1	1.833	7.110	.009
	Within Groups	29.647	115	.258		
	Total	31.480	116			
Legitimate power	Between Groups	.014	1	.014	.067	.796
	Within Groups	24.147	115	.210		
	Total	24.161	116			
Referent Power	Between Groups	.945	1	.945	3.975	.049
	Within Groups	27.335	115	.238		
	Total	28.280	116			
Reward power	Between Groups	5.853	1	5.853	9.113	.003
	Within Groups	73.867	115	.642		
	Total	79.720	116			

Source: author's research results based on quantitative research

Normal distribution test (Total Sample)

For the later analysis between the different variables of trust and LSP, it has checked if the values are normal distributed or not. For this an empirical distribution function test has to be used, to measure the discrepancy between the empirical and a hypothesized distribution.³³⁰ Mostly used are here the Kolmogorov-Smirnov Test, the Anderson-Darling Test and the Cramer von Misses Test.^{331 332} For the analysis of the total sample the Kolmogorov-Smirnov Test with the Lilliefors Significance Correction had been done to compare each single item with a normal distribution. In addition the Shapiro-Wilk Test³³³ had been done, which also analyses if a random sample is normal distributed, but according other normal distribution tests, the Shapiro-Wilk test has a higher statistical power than the Kolmogorov-Smirnov Test or

³³⁰ Dufour, J.M., Farhat, A., Gardiol, L., Khalaf, L.(1998) Simulation based finite Sample Normality Tests in Linear Regressions. *Ecometrics Journal*, Vol.1, pp.143-173

³³¹ Seier, E. (2002) Comparison of Tests for Univariate Normality, *Interstat Statistical Journal*, Vol. 1, pp.1-17

³³² Arshad, M., Rascool, M.T., Ahmad, M.I. (2003) Anderson Darling and Modified Anderson Darling Tests for Generalized Pareto Distribution. *Pakistan Journal of Applied Sciences* 3(2), pp.85-88

³³³ Shapiro, S. S., & Wilk, M. B. (1965). An analysis of variance test for normality (complete samples). *Biometrika*, 52(3/4), pp.591-611

others.^{334 335} Both tests are similar to others and their null hypothesis is that the data are normal distributed.

Table 10: Tests of normality (total sample)

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Coercive	0.193-0.323	291	.000	0.734-0.898	291	.000
Expert	0.233-0.259	291	.000	0.863-0.890	291	.000
Legitimate	0.286-0.324	291	.000	0.792-0.851	291	.000
Referent	0.251-0.283	291	.000	0.779-0.834	291	.000
Reward	0.181-0.231	291	.000	0.878-0.913	291	.000
Benevolence	0.202-0.292	291	.000	0.855-0.901	291	.000
Competence	0.230-0.294	291	.000	0.806-0.847	291	.000
Integrity	0.226-0.294	291	.000	0.831-0.863	291	.000
Predictability	0.258-0.334	291	.000	0.781-0.867	291	.000

a. Lilliefors Significance Correction

Source: author's research results based on quantitative research

All items show for both tests, Kolmogorov-Smirnov Test with the Lilliefors significance Correction, same as Shapiro-Wilk Test $p < 0.05$, that the null hypothesis is not confirmed and the data are not normally distributed. All significance levels have a value of 0.000. (see Table 10)

3.7.2 Analysis of trust in comparison between supervisor and subordinate

The three defined trust levels (TL) are the sum of the four trust categories, benevolence, competence, integrity and predictability, divided by the number of categories.

³³⁴ Steinskog, D. J., Tjøstheim, D. B., & Kvamstø, N. G. (2007). A cautionary note on the use of the Kolmogorov-Smirnov test for normality. *Monthly Weather Review*, 135(3), pp.1151-1157

³³⁵ Razali, N. M., & Wah, Y. B. (2011). Power comparisons of Shapiro-Wilk, Kolmogorov-Smirnov, Lilliefors and Anderson-Darling tests. *Journal of Statistical Modeling and Analytics*, 2(1), pp.21-33

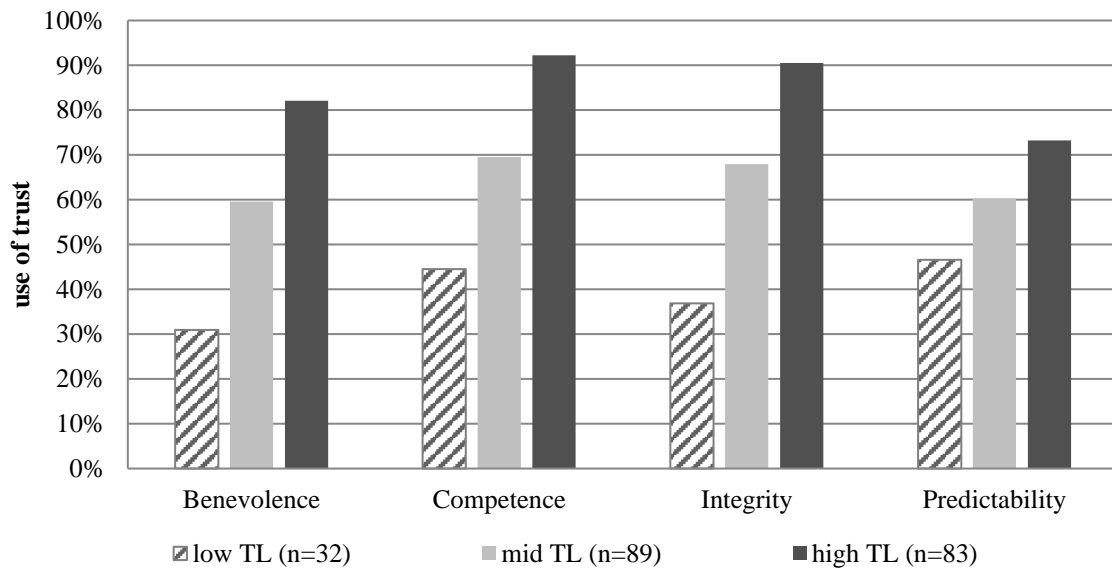


Figure 19: Trust distribution of subordinates (real)

Source: author's research results based on quantitative research

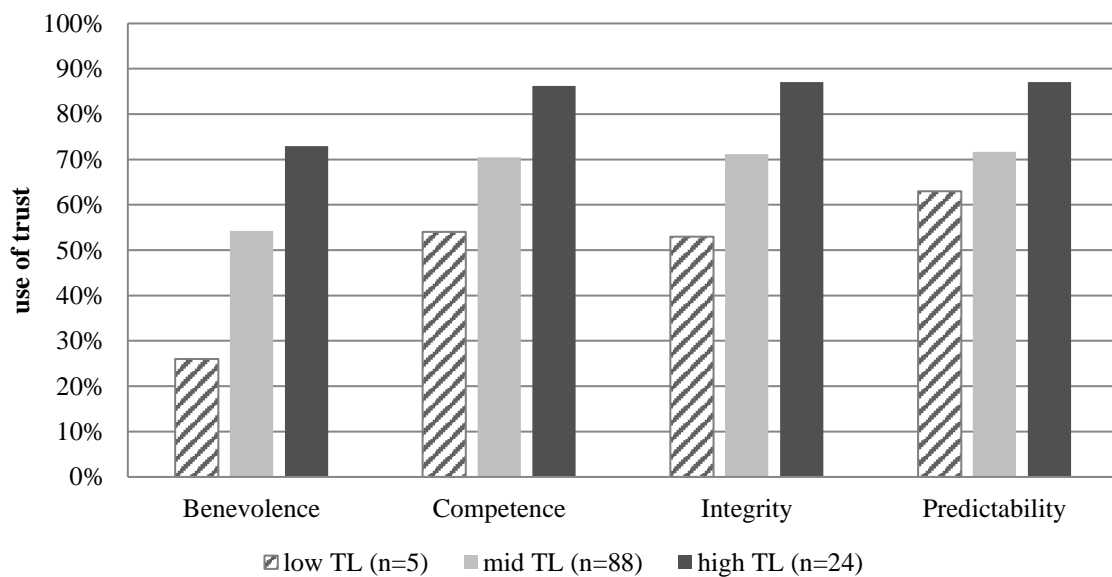


Figure 20: Trust distribution of supervisors (real)

Source: author's research results based on quantitative research

The distribution of the categories in relation to the different trust levels shows, that each category of trust is the higher, the higher the trust level of the respondent is, independently if the responding employee is subordinate (see Figure 19) or supervisor (see Figure 20), independently if it is the real or the desired situation (see Figure 21 and Figure 22). This is a clear indicator that the requirement for a high-TL is a high share of all the four different trust

categories, which is also an argument, that the before mentioned formula can be used and there is no need for a special view on a special trust category, which is much different.

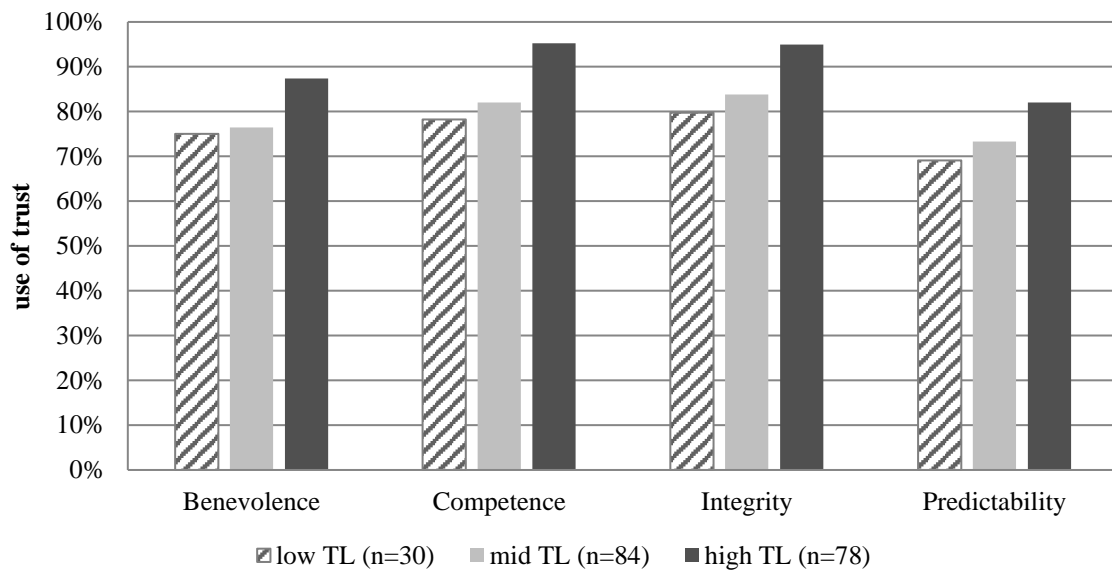


Figure 21: Trust distribution of subordinates (wish)

Source: author's research results based on quantitative research

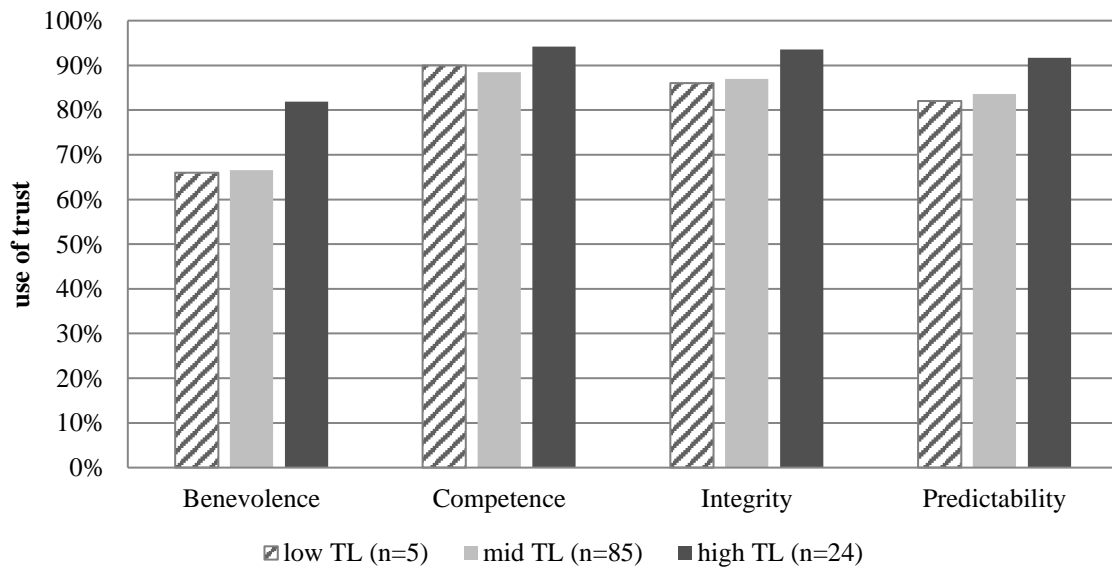


Figure 22: Trust distribution of supervisors (wish)

Source: author's research results based on quantitative research

Another fact, which is shown in the trust distribution of subordinate and supervisor is, that both have the wish for a higher trust based situation to its counterpart, than they have it in real. For both groups, supervisors and subordinates, potential influencing factors have been researched. The age e.g. did not show a real influence to the trust level from both kinds of respondents.

Table 11: Potential influencing factors on trust

Age of respondent	<29	30-39	40-49	50-59	>59
Supervisor (n)	10	28	30	41	7
Supervisor - TL	67%	67%	70%	71%	74%
Subordinate (n)	61	52	41	43	6
Subordinate -TL	70%	67%	70%	68%	69%

Time in actual company	<1 year	1-4 years	5-10 years	11-19 years	>19 years
Supervisor (n)	2	16	32	38	27
Supervisor - TL	53%	65%	70%	70%	71%
Subordinate (n)	20	61	47	40	34
Subordinate -TL	72%	71%	65%	69%	68%

Position of supervisor	CEO	High mgmt..	Mid mgmt..	Low mgmt..
Supervisor (n)	23	35	40	18
Supervisor - TL	71%	71%	69%	67%

Kind of business	Auto.	Manuf.	IT	Service	Consult.	Logistic	Other
Subordinate (n)	97	44	6	23	8	8	17
Subordinate -TL	71%	68%	63%	64%	76%	62%	64%

Source: author's research results based on quantitative research

A different behavior can be seen in the actual company, depending of the time the respondent has worked in the company. Here the supervisor in the first year and up to 4 years of work has a smaller trust value than later on. The subordinates in contrast have their highest TL in the beginning and a high level after 10 years, but between 5-10 years inside a company, they have a lower trust rate. Bartelt³³⁶ has shown this effect before. Nevertheless, also the subordinates have all mean TL values between 65% and 72%. The position of the supervisors only provides a small indication, that the higher the position, the higher the TL-level is. All supervisor positions showed mean values between 67%-71%.

³³⁶ Bartelt, D. (2011). Wertschätzende, kompetente und ethische Führung – Das Vertrauen der Mitarbeiter in Ihre Führungskräfte Dissertation, Universität Duisburg-Essen, p.162

The kind of business of the subordinates showed their average with approximately a TL=70% at Automotive and Manufacturing (together a share of 69,5% of the subordinates). This mean value in smaller groups constitutes from 76% in Consulting to 62% in Logistics, but these are each just with 4% of the respondents, so that the outer tolerances are not relevant.

The use of trust, measured with the trust-level is a little less important and different between subordinate (see Figure 23) and supervisor (see Figure 24). Overall the leaders seem to have more trust into the subordinates than the other way around. In contrast to this small difference in the real situation, the desired situation of both groups is nearly the same, looking at the distribution of the respondents.

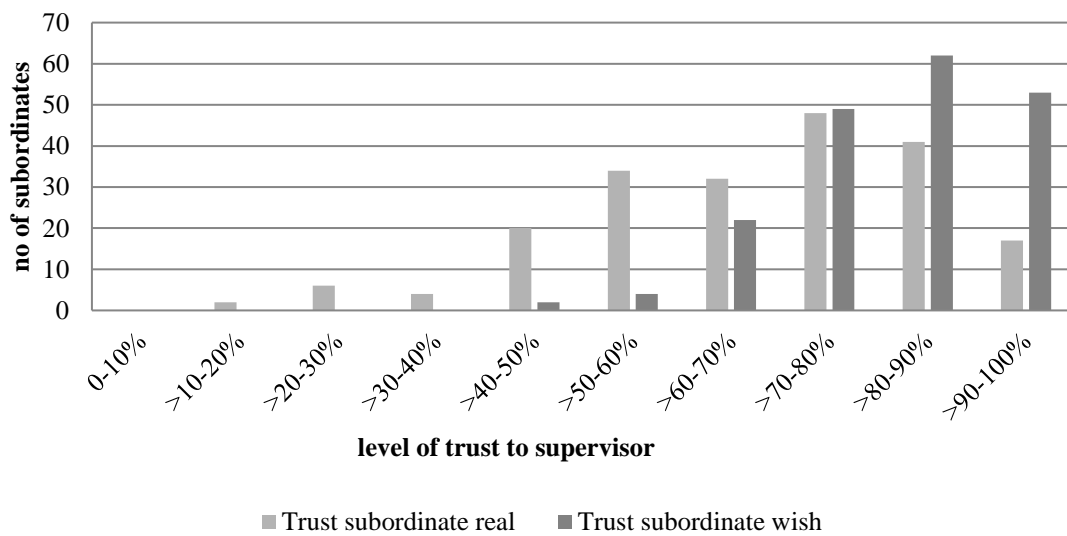


Figure 23: Trust level of subordinates

Source: author's research results based on quantitative research

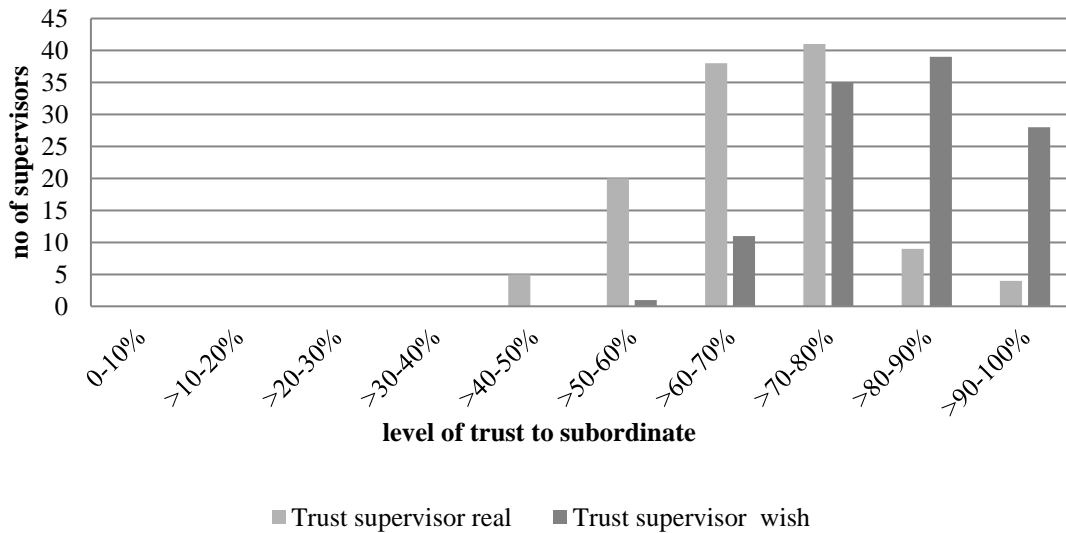


Figure 24: Trust level of supervisors

Source: author's research results based on quantitative research

From another point of view, it means, that two third of the subordinate have TL= >60 to 70%. (see Figure 25) The supervisors (see Figure 26) reach the same TL even with nearly 80% of the supervisors, but the TL-relation seems to skip, because at the end, there is a bigger share of subordinates, who have a higher TL than the supervisors. The desired situation is similar than before: it is the same compared between the both parties.

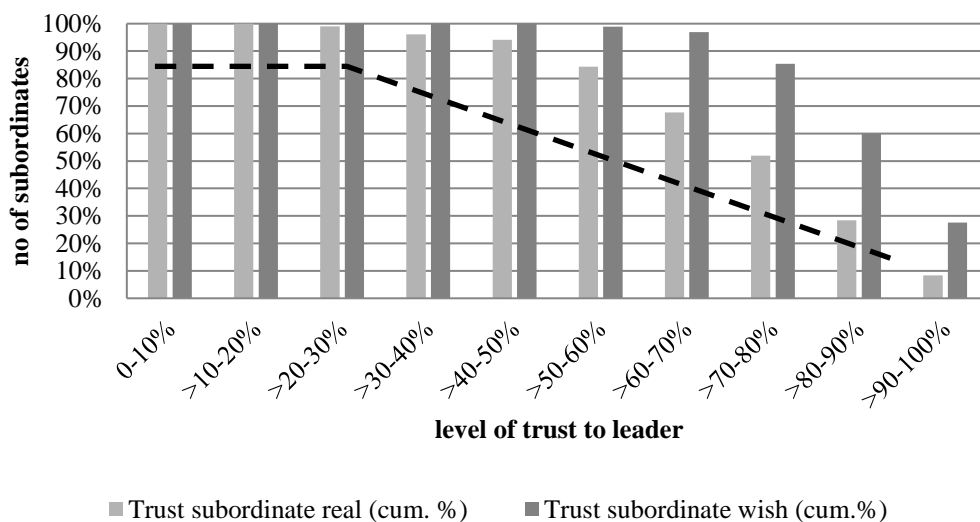


Figure 25: Subordinates' trust level real & wish (cum.)

Source: author's research results based on quantitative research

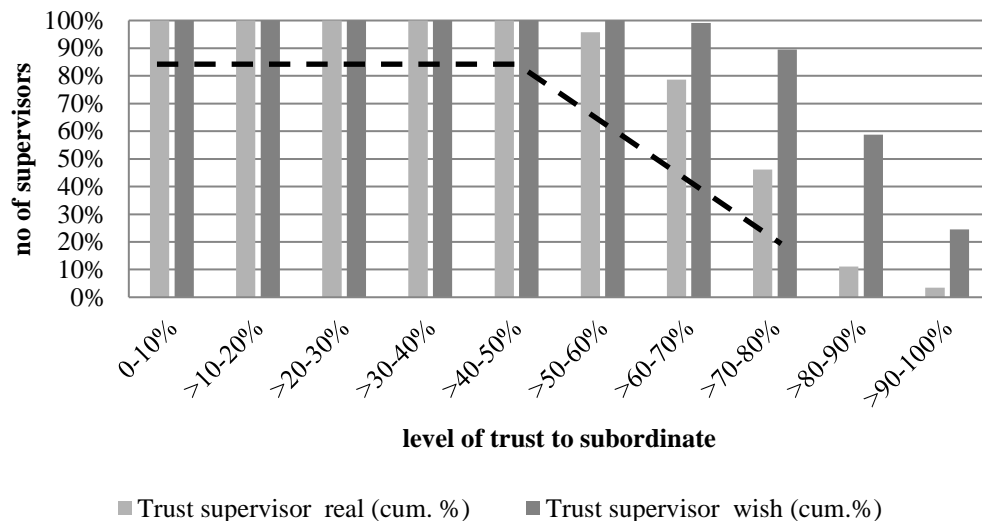


Figure 26: Supervisors' trust level real & wish (cum.)

Source: author's research results based on quantitative research

To check the result of the single questions about the topic of trust, for each kind of the questionnaires three control questions have been added to the questionnaire. (see Table 12) In these questions the respondents were directly asked about their overall trust situation to their counterperson, same as their feeling about the importance of trust in this profit-oriented organization.

Both groups rated the circumstance, that the counterperson has trust in them with a very high TL of 91% and 94%. The further values show also the same result than before, that the supervisor has a higher TL into their subordinates, than the other way around and that they have nearly the same TL, they expect from the counter side.

Table 12: Control-questions about trust level

	Trust level _{real}	Trust level _{wish}
Subordinate: The trust in my supervisor is in general ...	75%	92%
Subordinate: The trust of my supervisor into me is probably ...	74%	91%
Subordinate: If the supervisor has trust in me, is for me...	91%	
Supervisor: My trust in my subordinates is in general...	79%	93%
Supervisor: The trust of my subordinates into me is probably...	73%	91%
Supervisor: If the subordinates have trust in me, is for me...	94%	

Source: author's research results based on quantitative research

The desired situation of both is also very similar and comparable to the trust level, which has shown before, with values above 90%.

3.7.3 Analysis of leadership power between supervisor and subordinate

Coming back to the before mentioned situation, that the single power questions can be compared directly, because of author's adaption of Hinkin & Schriesheim's subordinate scale items for the supervisors questionnaire.

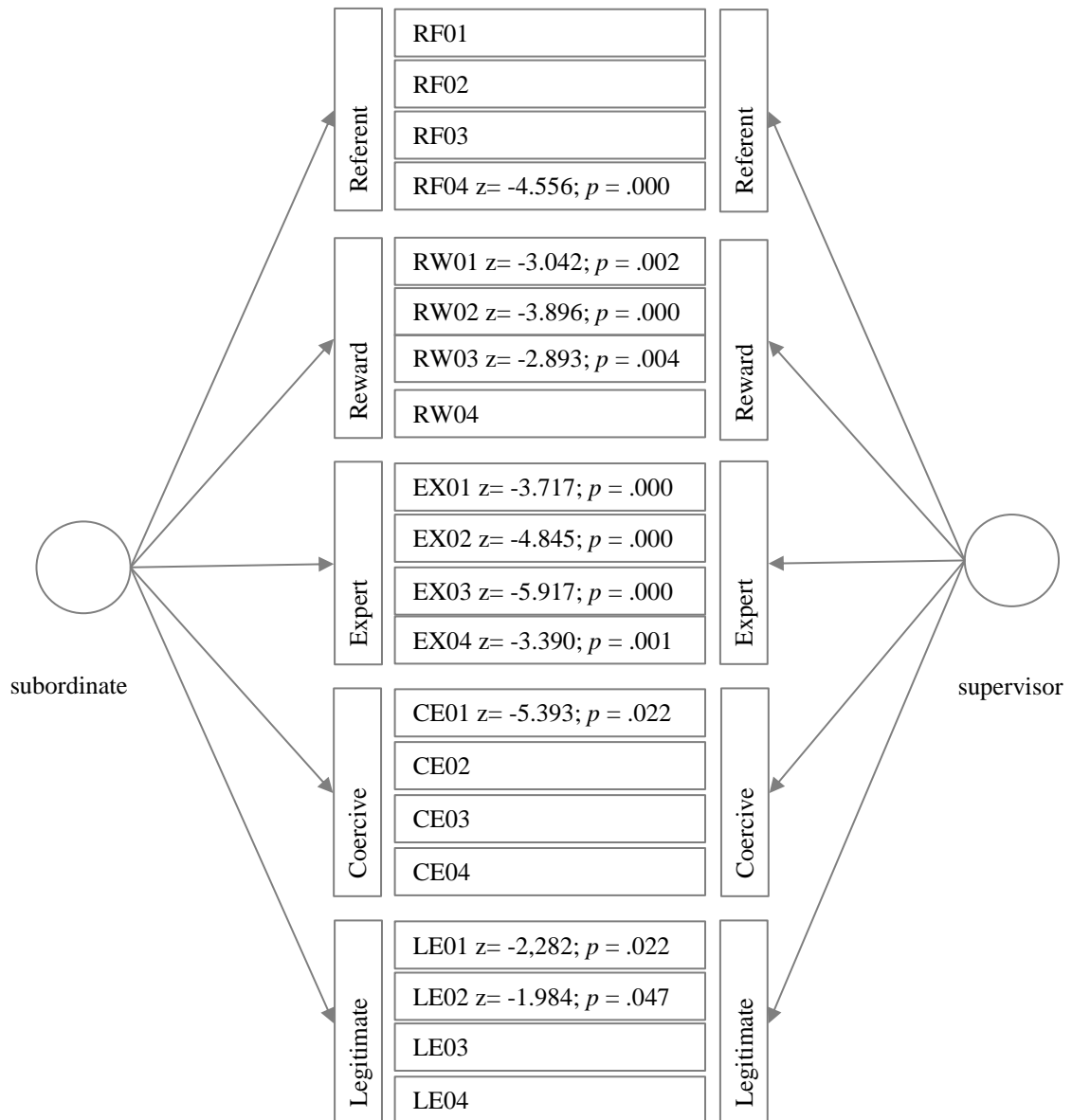


Figure 27: Group comparison of subordinate and supervisor power items

Source: author's research results based on quantitative research

A visual comparison of the mean values in the descriptive analysis has not displayed a difference between supervisors and subordinates before, the results of the Mann-Whitney-U-

Test for the group comparison between the two parties have indicated significant differences in different LSP items. This could lead to a difference in the later correlation analysis between the trust and power variables between supervisors and subordinates. Based on these results, the most differences are expected for the expert power, because all four expert items show a significant difference ($z = -3.7 \dots -5.9$; $p = 0.000 \dots 0.001$) and also the reward power items are significantly different in 3 of 4 cases ($z = -2.8 \dots -3.8$; $p = 0.000 \dots 0.004$). Legitimate power shows a difference in 50% of the items and coercive and referent power have a significant difference in just 1 of 4 items. All other, not shown items show no relevant differences and is hidden for a better overview. (see Figure 27)

A check of the effect size shows for the item EX03 with the highest z-level of $z = -5.917$ and an $n=319$ just a beginning mid effect of $r = 0.33$ according Cohen (1988). The item CE01 has a similar effect size value with $r = 0.30$, ($z = -5.393$, $n=321$) which together with the item mentioned before are the only two items with mid effect size. All other items have a low effect size. Comparing these results with the mid-effect size according Cohen, which is for this analysis for small effect: $r = 0.10$, medium effect: $r = 0.30$ and for a large effect: $r = 0.50$, it is expected, that also the significant different power items will have just a low to max. mid effect on the final results.

Power distribution of the subordinates

The results of the subordinates showed a strong indication, that the subordinates with a low trust level (TL) were led with a higher share of coercive and a lesser share of expert, legitimate, referent and reward power, than the mid or high trust subordinates. (see Figure 28) Comparing the results of the earlier pre-tests of the author, and the results of Hede³³⁷ as an indicator of the former use of power in profit-oriented organization, the low or nearly non usage of the coercive power can be seen in all researches. If the results of the specialist interview will be compared, there 5 of 12 supervisors gave the information that they use it, even when they do not like to use it or they just use it not so often. These results for coercive power are all in line with the earlier ones from Hede, because she just made a difference between low and high and not between low, high, and no use. The result for the other powers is not comparable with the Hede's result, 15 years ago.

³³⁷ Hede, A.(2005), Patterns of Power and Leadership: Understanding Total Behaviour Leadership, Australian Institute of Management, University of the Sunshine Coast, Queensland Australia p.13

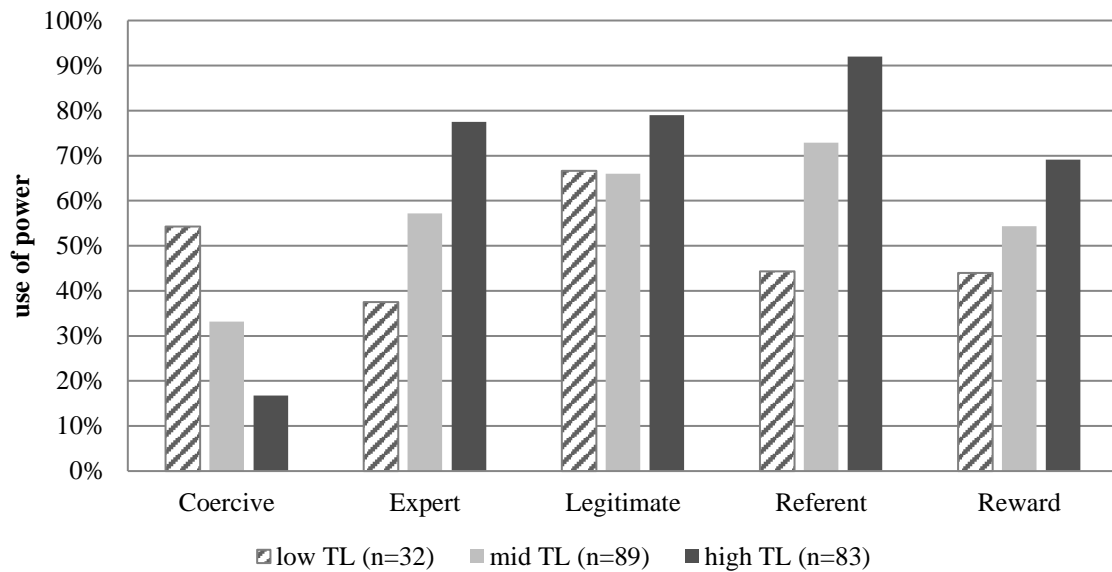


Figure 28: Leadership power situation (real) of subordinate in relation to trust level

Source: author's research results based on quantitative research

The real difference can be seen at the power which is used second low. Hede's research showed clear for this position the reward power. From author's earlier point of investigation, the pre-test and specialist interview showed the legitimation or also called position power. From the empirical evaluation result, the second lowest is reward power too, but the share cannot be called low anymore, compared with the other powers. Here the real difference to the former result can be visualized easily, because the leadership style, that only coercive power is low and all other powers have a similar high level was not part of Hede's Top10 pattern rank of power. Comparison of these results with the desired situation (see Figure 29) shows that the low-TL subordinates nearly disappear, from 32 to 2 respondents. The overall power distribution of the three trust-levels is still similar to the real situation, which is an indicator for a stable LSP distribution to the three defined trust-levels for the subordinates. (see Table 13)

In the next step the groups of subordinates with the different TL from the real-situation have been used and the desired situation has been checked again. (see Figure 30)

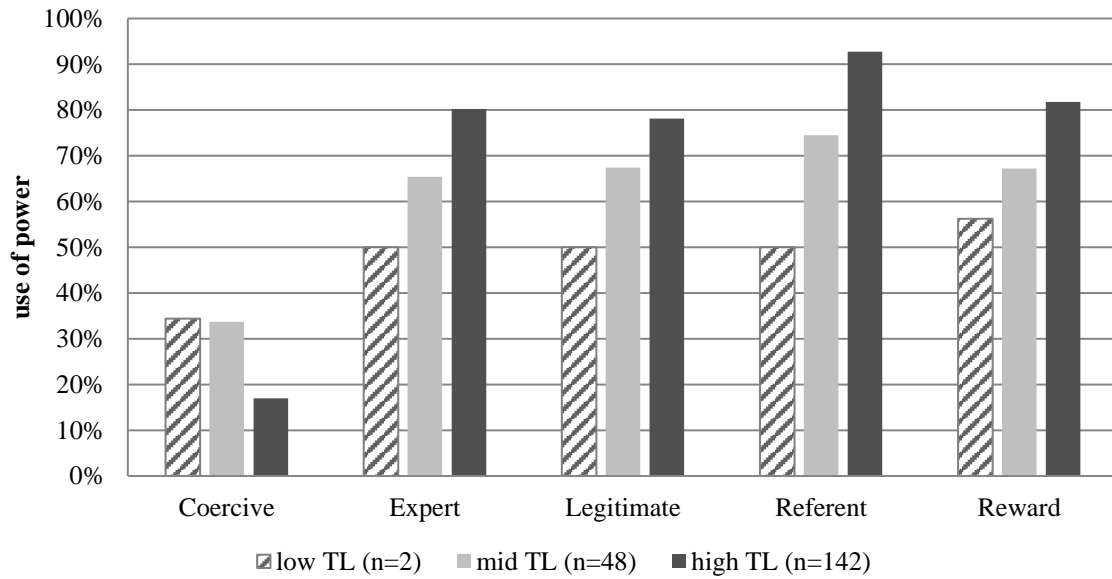


Figure 29: Leadership power situation (wish) of subordinate in relation to trust level

Source: author's research results based on quantitative research

The result is, that compared the results with original, first real situation (see Figure 28), the subordinates with the low and mid TL approximated the direction, the subordinates with a high TL already have, more and more.

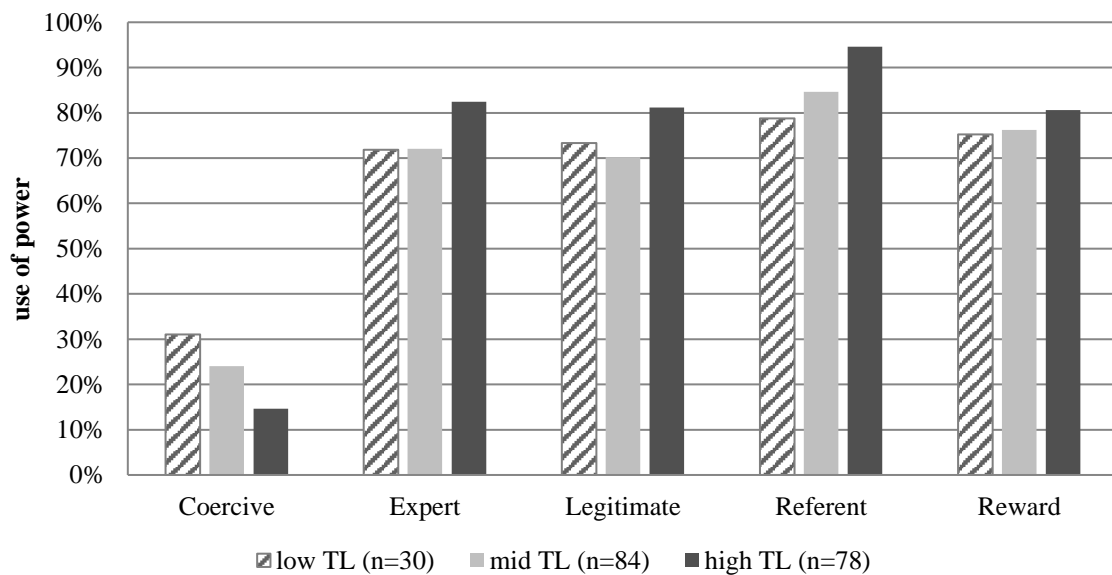


Figure 30: Leadership power situation (wish) of subordinate in relation to trust level, same groups as real situation

Source: author's research results based on quantitative research

In addition, the subordinates with the high-TL in real situation have only minor changes between the real and the desired situation, so that it seems that they do not want to change anything in their actual situation. The relatively high share of the high-TL (40,7%) and mid-TL (43,6%) in this research for the real situation is also an indicator, that the share of the LSP in order to obtain a high-TL, is similar to the situation of the high-TL of the subordinates. The number of respondents between real and wish is different, due to the situation, that not all wish questionnaires were filled out.

Table 13: Subordinates' mean values of trust and leadership power

	REAL				WISH				WISH (groups same as REAL)			
	All Trust level	Low-Trust level	Mid Trust level	High Trust level	All Trust level	Low-Trust level	Mid Trust level	High Trust level	All Trust level	Low-Trust level	Mid Trust level	High Trust level
n	204	32	89	83	192	2	48	142	192	30	84	78
Coercive	2.19	3.17	2.33	1.67	1.85	2.38	2.35	1.68	1.85	2.24	1.96	1.59
Expert	3.50	2.50	3.29	4.10	4.05	3.00	3.61	4.21	4.05	3.87	3.88	4.30
Legitimate	3.86	3.66	3.64	4.16	4.01	3.00	3.70	4.13	4.01	3.93	3.81	4.25
Referent	4.05	2.77	3.92	4.68	4.51	3.00	3.98	4.71	4.51	4.15	4.38	4.79
Reward	3.35	2.76	3.18	3.77	4.11	3.25	3.69	4.27	4.11	4.01	4.05	4.22
Benevolence	3.57	2.24	3.38	4.28	4.23	2.80	3.74	4.41	4.23	4.00	4.06	4.50
Competence	3.99	2.78	3.78	4.69	4.47	3.00	3.85	4.70	4.47	4.13	4.28	4.81
Integrity	3.89	2.47	3.72	4.62	4.51	3.00	3.95	4.72	4.51	4.19	4.35	4.80
Predictability	3.54	2.86	3.41	3.93	4.05	3.00	3.55	4.23	4.05	3.76	3.93	4.28

Source: author's research results based on quantitative research

Leadership power distribution of the supervisors

The result of the supervisors is similar to the subordinates. There is also a strong indication, that the supervisors with a low trust level (TL) lead with a higher share of coercive and a lower share of expert, legitimate, referent and reward power, than the high trust supervisors, but the difference is not as clear as shown by the subordinates (see Figure 31). Especially for expert and legitimate power, their use is higher than in case of subordinates, but it has to be taken into account, that these are only 117 supervisors in total and that there are only 5 supervisors, who

have a low TL. This means, that compared with the subordinates (low-TL:15.7%) they have a more than 3.5times less share of the low-TL.

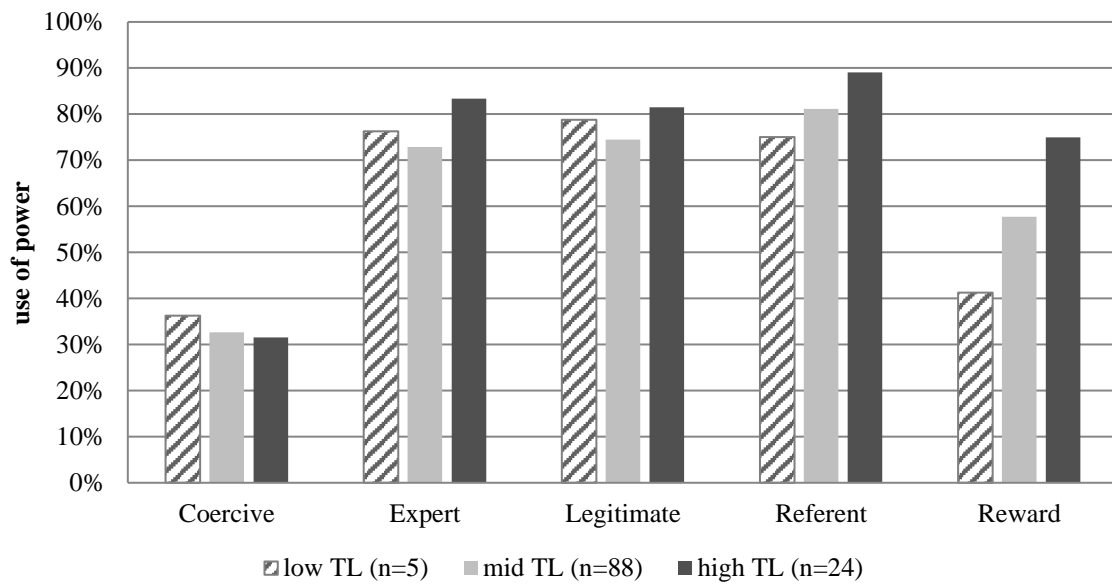


Figure 31: Leadership power situation (real) of supervisor in relation to trust level

Source: author's research results based on quantitative research

Comparing these results with the desired situation (see Figure 32) shows that the low-TL supervisors disappear, and the main share of respondents have changed from the mid-TL to the high-TL.

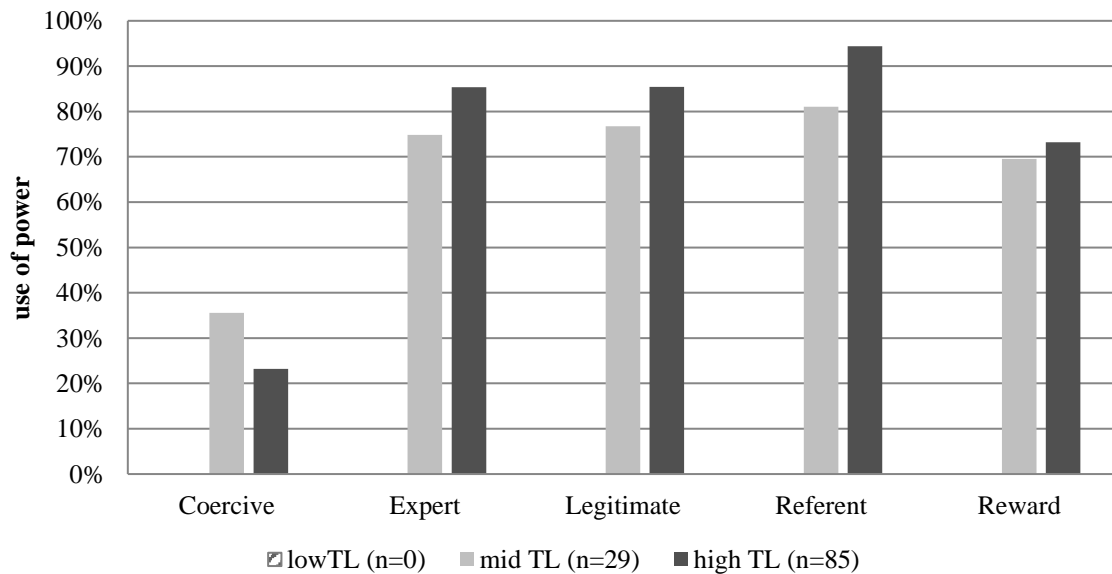


Figure 32: Leadership power situation (wish) of supervisor in relation to trust level

Source: author's research results based on quantitative research

The overall power distribution of the three trust-levels is still similar to the real situation of the supervisors and as well to the subordinates. This is an indicator for a stable LSP distribution to the three defined trust-levels for the supervisors, too. (see also Table 14)

Same as for the subordinates, also here the groups of supervisors with different TL from the real situation have been used and the desired situation has been checked again. (see Figure 33) The result is, that compared the results with original real situation (see Figure 31), there are just minor changes. Same as the subordinates, also the supervisors with the low and mid TL approximated the direction that the subordinates with a high TL already have more and more. The main difference is coming from reward power, which was desired to be used from the low and mid-TL more often, other powers just changed in the area of approximately 10%. This result is not so amazing, because the supervisors benchmarked with the questionnaire their own leadership behavior, which could be surely better every time, that is how the difference of 10% can be explained. The bigger difference at the reward power also seems logical, because the frame in which a supervisor is able to lead with reward is mostly granted from a higher management position. So, this reward power cannot be handled by the supervisor alone, and the higher increase reflects the wish for a wider frame, provided from outside. The more interesting is the parallelism to the subordinates, that the high-TL in the real situation have only minor changes between real and wish, so that it seems, that they do not really want to change anything in their actual situation.

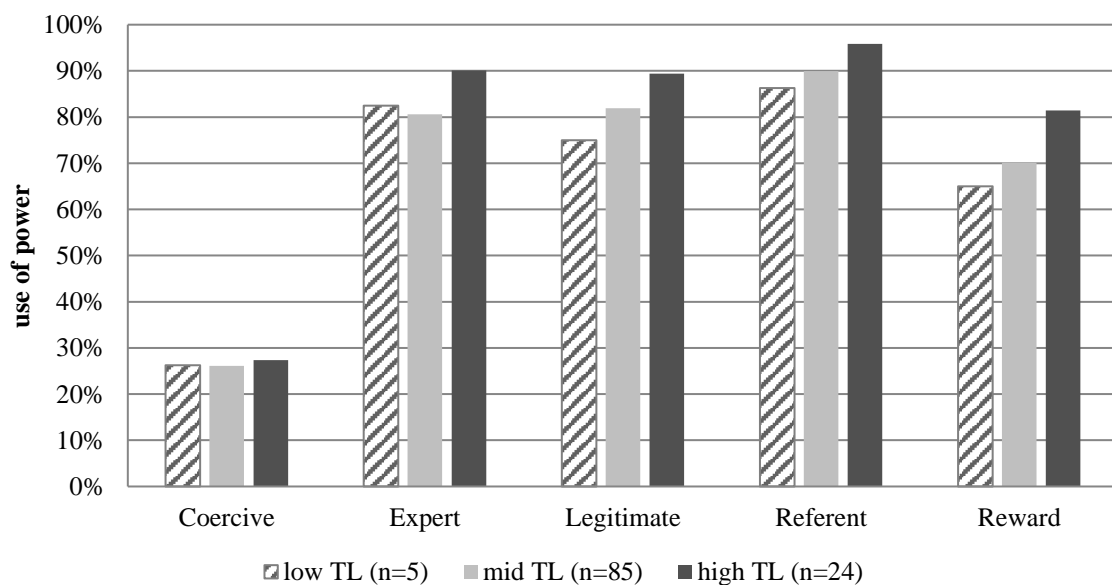


Figure 33: Leadership power situation (wish) of supervisor in relation to trust level, same groups as real situation

Source: author's research results based on quantitative research

The relative high share of the high-TL (21,0%) and mid-TL (74,5%) of supervisors in this research for real is also an indicator, that the share of the LSP to get a high-TL, is similar to the situation of the high-TL supervisors in this research. A little bit different is only the meaning of the use of the coercive power, which is stable for all three different trust levels is different, compared to the results of the subordinates. It looks like all supervisor groups have the same opinion about it and just the subordinates want to have a lower but still existing use.

Table 14: Supervisors' mean values of leadership power and trust

	REAL				WISH				WISH (groups same as REAL)			
	All Trust level	Low-Trust level	Mid Trust level	High Trust level	All Trust level	Low-Trust level	Mid Trust level	High Trust level	All Trust level	Low-Trust level	Mid Trust level	High Trust level
n	117	5	88	24	114	0	29	85	114	5	85	24
Coercive	2.30	2.45	2.31	2.26	2.05	0.00	2.42	1.93	2.05	2.05	2.04	2.09
Expert	4.01	4.05	3.92	4.33	4.31	0.00	3.99	4.41	4.31	4.30	4.22	4.60
Legitimate	4.04	4.15	3.98	4.26	4.33	0.00	4.07	4.42	4.33	4.00	4.28	4.58
Referent	4.30	4.00	4.24	4.56	4.64	0.00	4.24	4.78	4.64	4.45	4.60	4.83
Reward	3.42	2.65	3.31	4.00	3.89	0.00	3.78	3.93	3.89	3.60	3.81	4.26
Benevolence	3.28	2.04	3.17	3.92	3.79	0.00	3.28	3.96	3.79	3.64	3.66	4.28
Competence	3.92	3.16	3.82	4.45	4.59	0.00	4.14	4.74	4.59	4.60	4.54	4.77
Integrity	3.95	3.12	3.85	4.48	4.53	0.00	3.98	4.72	4.53	4.44	4.48	4.74
Predictability	3.98	3.52	3.87	4.48	4.41	0.00	3.90	4.58	4.41	4.28	4.34	4.67

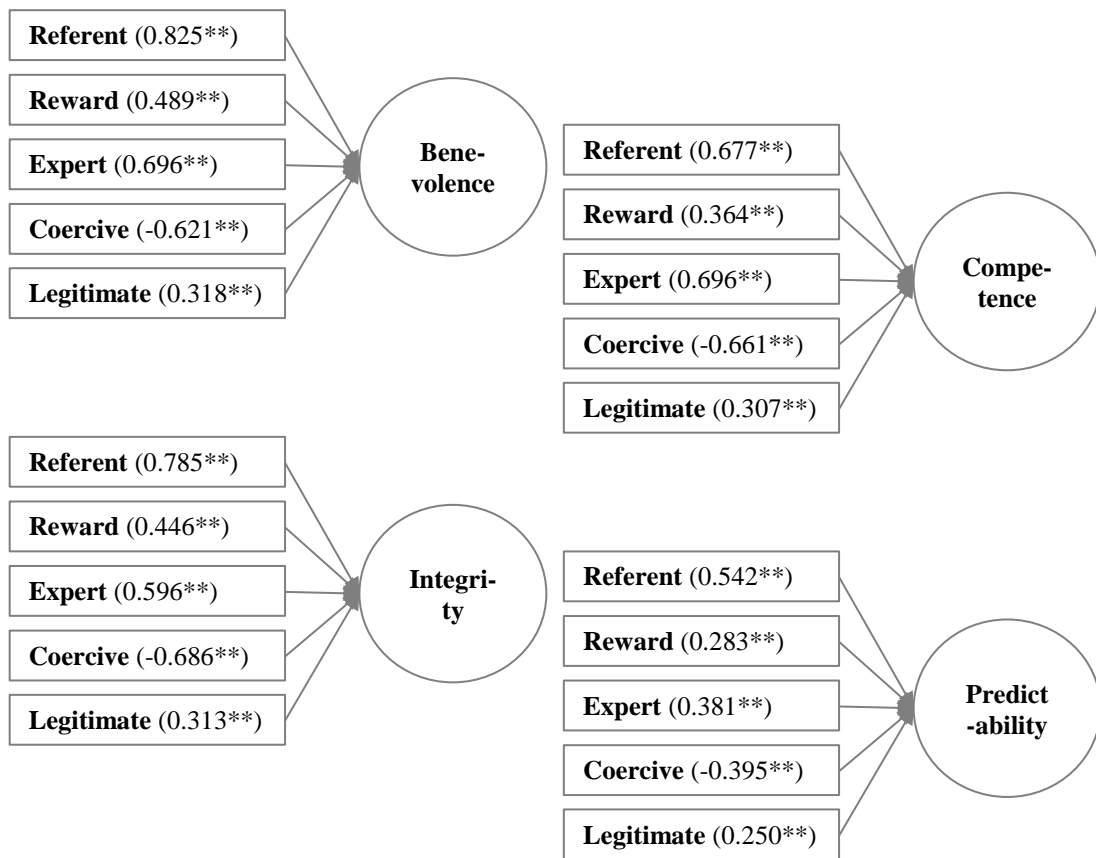
Source: author's research results based on quantitative research

3.7.4 Empirical analysis of the impact of the leadership powers on trust between supervisor and subordinate

Due to the fact that data are not normally distributed, a nonparametric test for the correlation analyses has to be carried out. According Janssen & Laatz³³⁸ non parametric tests are often used at medicine, biology, education and similar than the properties trust and LSP, in social science

³³⁸ Janssen J., Laatz W. (2017) Nicht parametrische Tests. In: Statistische Datenanalyse mit SPSS. Springer Gabler, Berlin, Heidelberg (p.632)

and psychology. Further they say that nonparametric test will be used with data, which are not normal distributed and have small sample sizes.



** . Correlation is significant at the 0.01 level (2-tailed).

Figure 34: Subordinates' leadership power and trust correlation acc. Spearman

Source: author's research results based on quantitative research

Also outlier data are a reason to use nonparametric tests. Fredericks and Nelsen state that "The two most commonly used nonparametric measures of association for two random variables are Spearman's rho and Kendall's tau."³³⁹, which is confirmed by others too.^{340 341} The Pearson test

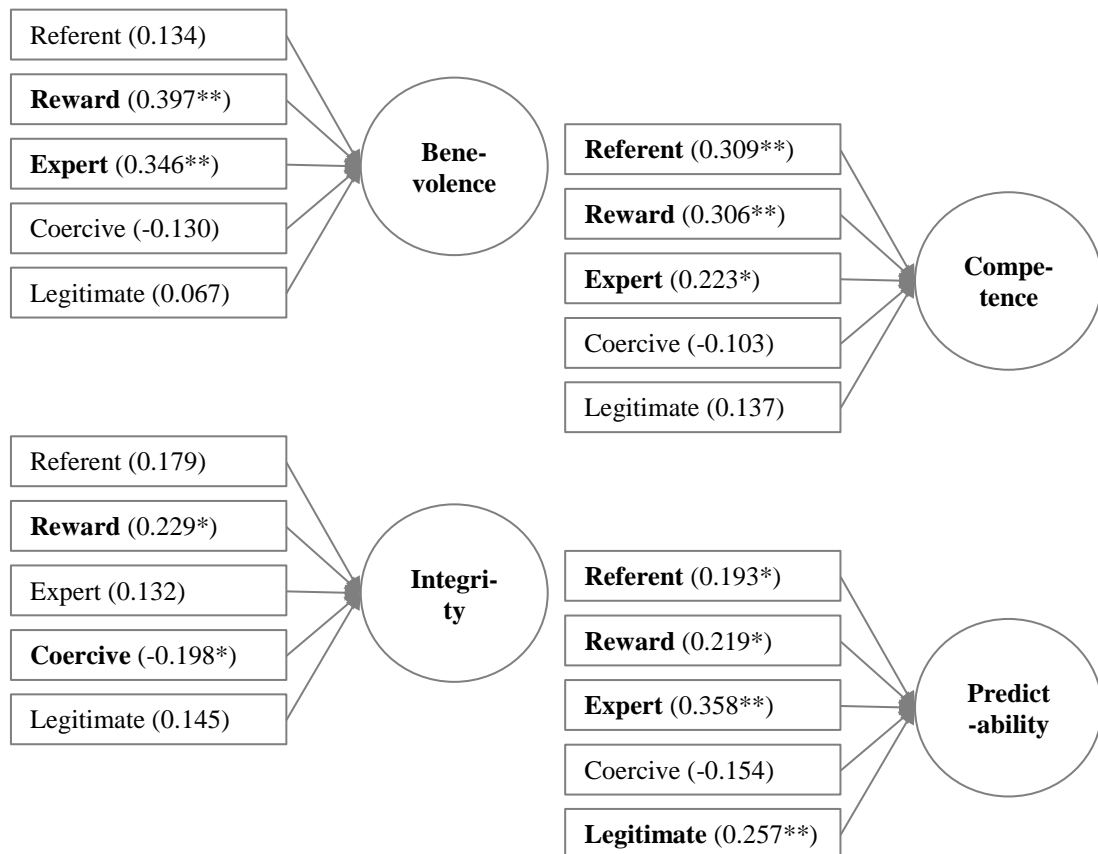
³³⁹ Fredericks, G. A., & Nelsen, R. B. (2007). On the relationship between Spearman's rho and Kendall's tau for pairs of continuous random variables. *Journal of statistical planning and inference*, 137(7), p.2143

³⁴⁰ Bolboaca, S. D., & Jäntschi, L. (2006). Pearson versus Spearman, Kendall's tau correlation analysis on structure-activity relationships of biologic active compounds. *Leonardo Journal of Sciences*, 5(9), p.180

³⁴¹ Chok, N. S. (2010). Pearson's versus Spearman's and Kendall's correlation coefficients for continuous data (Doctoral dissertation, University of Pittsburgh). p.iv

is stated as one of the most often used correlating test^{342 343} and so the data have been analyzed too, but due to the earlier mentioned sources and the fact that the distribution of data are not normal, Spearman and Kendall is preferred.

In both studies, supervisors same as subordinates show significant correlations between the LSP and trust variables. Comparing the values of Spearman's rho, in case of the subordinates (see Figure 34) the correlation is more significant than in the one of the supervisors (see Figure 35).



** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Figure 35: Supervisors' leadership power and trust correlation acc. Spearman

Source: author's research results based on quantitative research

³⁴² Arndt, S., Turvey, C., & Andreasen, N. C. (1999). Correlating and predicting psychiatric symptom ratings: Spearman's r versus Kendall's tau correlation. *Journal of psychiatric research*, 33(2), p.97

³⁴³ Chok, N. S. (2010). Pearson's versus Spearman's and Kendall's correlation coefficients for continuous data (Doctoral dissertation, University of Pittsburgh). p.iii

To classify the effect sizes, Cohen's definition can be used as recommendation to categorize small, medium and large effects³⁴⁴, which is for this analysis for small effect: $r = 0.10$, medium effect: $r = 0.30$ and for a large effect: $r = 0.50$ ³⁴⁵. These values are very alluring, so Erdfelder et al. is warning to use this principle as a standard, because the specified application and part of science has to take into account.³⁴⁶ So these values can be just recommendations or a guideline. In an empiric research, 708 correlations had been analyzed with the result, that only 3% of the studies showed an effect size of $r = 0.50$ or higher. Gignac and Szodorai³⁴⁷ came to the result, that Cohen's recommendation does not reflect the reality in this field of differential psychology and made a new recommendation with small effect: $r = 0.10$, medium effect: $r = 0.20$ and for a large effect: $r = 0.30$ for this special research field. This is just an example to show the dependence of the effect size values to the field of research and for a better weighting of the results inside this research.

These lower values or scale will not be used in this research, because this special kind of differential psychology is researching on the differences of persons, in view of their properties and conditions. In contrast Cohen created his recommended values in social science, which fits better to the economic research field of LSP and trust. In addition, especially the values of the subordinates show that significant higher effect sizes, with a high share are possible and that it is not a problem to reach $r = 0.50$.

Analyzing the results of Spearman's correlation in the direction of effect size and significance (see Table 15), the 100% share of the significant correlation level 0.01 for the subordinates is conspicuous. This is different for the supervisors. The effect can be seen also in the effect size, where only the relation between the legitimate power and predictable trust has no medium or large effect on the subordinate side. On supervisor side, there are just 5 of 20 relations with a medium effect. 6 of 20 relations have significance at the 0.01 level and additional 5 relations at the 0.05 level.

So, the relation between trust and power is much more significant on the subordinate side than on the supervisor side. It is also interesting that the supervisors have a significant correlation between the reward power and each single trust basis, followed by the expert power, where also

³⁴⁴ Smith, R. E., & Bayen, U. J. (2005). The effects of working memory resource availability on prospective memory: A formal modeling approach. *Experimental Psychology*, 52, pp.243-256

³⁴⁵ Cohen, J. (1988). *Statistical power analysis for the social science*, Lawrence Erlbaum Associates, Hillsdale 2. Auflage. in Bortz., J. (2005) *Statistik für Human- und Sozialwissenschaftle*, Springer, Heidelberg pp.167–168

³⁴⁶ Erdfelder, E., Faul, F., & Buchner, A. (2005). Power analysis for categorical methods. In B. S. Everitt & D. C. Howell (Eds.), *Encyclopedia of statistics in behavioral science*, Chichester, U.K.: Wiley. pp. 1565-1570

³⁴⁷ Gignac, G. E., & Szodorai, E. T. (2016). Effect size guidelines for individual differences researchers. *Personality and individual differences*, 102, pp.74-78


3 of 4 trust variables have a significant correlation at min 0.05 level. Going back to the group comparison between supervisors and subordinates, these were exactly the powers with the most significant difference inside their items; 4 of 4 items expert power, 3 of 4 items reward power. But also, as expected, these differences seem to have only a low effect, as calculated and defined before. E.g. the effect size according Cohen of the highest significant difference between supervisors and subordinates was the third item of the expert power with $r=0.33$. Nearly all power items, excluding two, had just a low effect size.


Table 15: Correlation of leadership power and trust

	Subordinate					Supervisor				
	Referent	Reward	Expert	Coercive	Legitimate	Referent	Reward	Expert	Coercive	Legitimate
Benevolence	.825 **	.489 **	.696 **	-.621 **	.318 **	.134	.397 **	.346 **	-.130	.067
Competence	.677 **	.364 **	.696 **	-.661 **	.307 **	.309 **	.306 **	.223 *	-.103	.137
Integrity	.785 **	.446 **	.596 **	-.686 **	.313 **	.179	.229 *	.132	-.198 *	.145
Predictability	.542 **	.283 **	.381 **	-.395 **	.250 **	.193 *	.219 *	.358 **	-.154	.257 **

** . Correlation is significant at the 0.01 level (2-tailed)

* . Correlation is significant at the 0.05 level (2-tailed)

 large effect $r = \text{min. } 0.50$

 medium effect $r = \text{min. } 0.30$

Source: author's research results based on quantitative research

Further the predictability of the subordinates in the eyes of the supervisors is correlating with 4 of 5 LSPs, excluding coercive power. This is an indicator of the importance of the behavior in case of predictability. It correlates significantly with all these powers that have a positive relation to all trust variables. Coercive power, which does not correlate with predictability, is the only power which correlates negatively with all trust variables. This is independently of whether supervisor or subordinate groups are examined.

3.8 Discussion of hypotheses and interpretation of results

For a general basis the importance of trust in a profit-oriented organization has to be analysed. Beginning with the pre-test at 106 employees, where the general trust was simply equated with the five LSPs, trust got the highest share of use in leadership in a direct comparison with the five well known LSPs. Compared with the later defined mid- and high TL, 90% of the respondents stated, that they have a trust based leadership situation with their supervisor on these trust levels. After this first indicator for an existing trust situation and its importance was found on subordinate side, the supervisor side had been checked in the qualitative research of supervisors. The output of this specialist interview was comparable with the other side. 100% of the specialist stated that trust and leadership belong to each other and/or that a leader is not able to lead without trust, which is a further indicator for the importance of trust. Leading without trust is just controlling, which is not efficient, how one specialist is defining trust in a profit-oriented organization between supervisor and subordinate. Due to the complexity of decisions, 75% of these specialists see that the importance of trust is increasing, the higher the management level is. The remaining specialists have the meaning it is equal of the management level, it is a personal attitude or management style, but important at all to win the subordinates of today, as they said. The increase of the trust behavior of the supervisors in relation to the increasing management level is a result out of the quantitative research. Unfortunately is the trust in persons with a higher power smaller, than in persons with same power level.^{348 349} In addition all groups of the different TL show an increase between the real and desired situation, for all four trust categories, same as for subordinate and supervisor. The lower the TL was, the higher the desired TL increases. This situation is also directly stated by the respondents, who gave feedback that getting trust from the opposite position in them, is highly important (91% subordinates, 94% supervisors). Based on these results the first research question can be positive answered. Trust is a relevant item in today's profit-oriented organization between supervisor and subordinate and all four trust categories should be built to a TL of round about 90%.

Creating this high trust situation requires the use of specified LSPs, as stated in the main hypothesis

³⁴⁸ Balliet, D., Mulder, L.B., & Van Lange, P.A.M. (2011). Reward, punishment, and cooperation: A meta-analysis. *Psychological Bulletin*, 137, pp.594-614

³⁴⁹ Kramer, R.M. (1999). Trust and distrust in organizations: Emerging perspectives, enduring questions. *Annual Review of Psychology*, 50, pp.569-598

(H0) The kind of leadership is a predictor for the trust level of a subordinate in a profit-oriented organization between supervisor and subordinate.

For the research of this main hypothesis two general approaches have been analyzed. The first analysis of the real situation showed a clear difference of the used LSPs of the subordinates to the trust level of the subordinates. Based on this analysis, the following statement can be provided:

A balanced share of the leadership powers, which is defined by the common increase of expert, legitimate, referent and reward power, while simultaneous decrease of the coercive power to level higher unequal to 0, creates an increase of the trust level of the subordinate.

This statement is based on the

- correlation analysis between the four trust and five LSP categories of subordinates, which showed a positive significance correlation at the 0.01 level for expert, legitimate, referent and reward power and a negative significance correlation at the 0.01 level for coercive power. There as well large effect sizes in half of the connections were found, 40% with medium effect and only 10% with a low effect size.
- Also, by comparing the powers used by the supervisors with the four trust categories in the correlation analysis, the indicated above general statement can be confirmed, because the figures of the supervisor, divided in the different trust-levels to their subordinates showed the same behavior. Just the significance of the single trust and power connections is not as distinct as for the subordinates. Here 30% of the relations showed a significant correlation at the 0.01 level and 25% a significant correlation at the 0.05 level and only 25% showed a medium effect.

The second analysis, which supports the statement made before in an additional way, is researching the real and desired use of LSPs between the supervisor and the subordinate:

- The different trust-level groups in the real situation display the exact support for the statement given before. The higher the expert, legitimate, referent and reward power and the lower the coercive power, the higher is the trust level of the respondent. This is confirmed for the supervisors, same as for the subordinates.
- Adding the desired use of LSP into the examination, the increase of the expert, legitimate, referent and reward power is the higher the lower the trust level is and the use of the coercive power is the lower the higher the trust level is.

- Also comparing the desired situation shows, that the above mentioned effect can also be seen at the respondent with a still existing high trust level, independent if subordinate or supervisor. Also, for the desired situation the high TL respondents have an increase of expert, legitimate, referent and reward power and a reduction of the coercive power to a certain level.

Based on the following results, the **main hypotheses can be confirmed**. Specified values of the single LSPs to create a maximum of trust, are analyzed separately.

(H1) Trust as a result of leadership in a profit-oriented organization has the same level for supervisor and subordinate, in real and in desired situation.

Based on the literature findings, that trust is a two-sided effect³⁵⁰, it was expected, that the trust of the subordinate in the supervisor cannot exist if the trust does not exist from the other side as well and the hypothesis **H1 can be confirmed** based on the following result:

- Comparing the real situation between supervisor and subordinate, the distribution of the TL of the respondents in both cases has the highest peak at TL =>70-80% which is a similar situation to
- the desired situation, here also the distribution is similar, just the highest peak has increased to TL=>80-90%. This result is also comparable with
- the control questions, here supervisors have TL=79% for the real situation, subordinates have 74%. The desired TL for the subordinates (92%) is nearly the same as for the supervisors (93%). And also, the trust they feel of the counterperson in them displays similar levels compared with their own (subordinate $TL_{real} / TL_{wish} = 74\%/91\%$ and supervisor $TL_{real} / TL_{wish} = 73\%/91\%$).

(H2) Predictability influences the leadership situation in a profit-oriented organization between supervisor and subordinate more than benevolence, integrity and competence.

Predictability, is a very similar category to general trust, which describes the anticipating of the occurrence of a specific future^{351 352}, so the hypotheses was formulated with the idea of some ranking of importance between the different trust categories. The result of the subordinates

³⁵⁰ Zand, D. E. (1981). Trust and the Decision Process. In D. E. Zand (Hrsg.), INFORMATION, ORGANIZATION, AND POWER. Effective Management in the Knowledge Society, New York, St. Louis, San Francisco, pp.i-xii,37-55

³⁵¹ Handfield, R. B., & Bechtel, C. (2002). The role of trust and relationship structure in improving supply chain responsiveness. Industrial marketing management, 31(4), pp.367-382

³⁵² Luhmann, N. (2001). Vertrautheit, Zuversicht, Vertrauen. In M. Hartmann & C. Offe (Hrsg.), Vertrauen. Die Grundlage des sozialen Zusammenhalts, Campus. p.149

showed, that the trust category predictability is a little bit lower than the others in real situation, which could only have the meaning that the trust level to the supervisor is not so high in this category, but also in the desired situation the trust level of predictability is the lowest of all. No particular increase on subordinate or on supervisor side. In addition, predictability has no particular single TL on the supervisor side, where benevolence has a little bit lower level than the others. Also, if the real and desired values of predictability have not displayed distinguished values, the correlation analysis shows beside the overall significant correlation of all trust and power values for the subordinates, predictability as a prominent trust category for the supervisors. The trust category predictability of the subordinates in the eyes of the supervisors is significantly correlating with 4 of 5 LSPs on the 0.05 and the 0.01 level (excluding coercive power), which shows the high influencing behavior of predictability. It significantly correlates with all these powers, which have a positive correlation to all trust variables. With this argument the hypothesis **H2 can be confirmed for the supervisor side and partly confirmed for the subordinate side**, because here predictability has also a high significant correlation at the 0.01 level to all LSPs, but the other trust categories have higher effect sizes.

(H3) A high trust level of an employee has a positive impact on a higher binding to the company. This hypothesis has a limitation to only 33% of the subordinates inside this research. But the more interesting effect is, that only 3.5% of the respondents would change their status to “will not change the company”, if they would be led as they desired. 29.5% would just stay longer in the company, but for the biggest share with 67% it has absolutely no influence, because they would not change the company independently from the power and trust situation with their supervisor. So, based on high share of people, where no effect can be seen, the **hypothesis H3 has to be rejected** in the present study. For a possible confirmation, this hypothesis should be proven only with respondents, who are willing to change the company and / or a higher number of respondents.

(H4) Referent and expert leadership powers have positive impact on the trust level of the subordinate in a profit-oriented organization between subordinate and supervisor.

This hypothesis H4 is a summary of the former analysis of literature, pre-test and specialist interview and can be confirmed only with a limitation. The reason for the limitation is, that referent and expert power have positive significant correlations at the 0.01 level to all trust categories for the subordinate case with large and medium effects. Also the referent power on the supervisor side is the only power, which has positive significant correlations to all trust categories and also referent power has significant relations to competence and predictability,

which are all arguments for the confirmation of H4. On the other side, the isolated use of these powers, without the other LSPs is not analyzed and can have further effects on the trust behavior of the subordinates. That is why the limitation must include all LSPs.

An isolated use or disuse of one more (excluding all) LSP can create a totally new environment, which could lead the respondent to a completely new evaluation of the trust situation. For example, the coercive power has a negative significant effect on the trust behavior, but the respondents, subordinates, same as supervisors, have not provided the feedback that they would not want to lead or to be led without coercive power. There is just a remaining value, that still exists and does not negatively influence the highest trust level. Supervisors have indicated in the specialist interview, that they would like to use coercive power as a last resort and to establish their position in difficult situations. If a supervisor is not acting with coercive power as a last resort, when a subordinate has done something bad repeatedly, the supervisor would lose the (predictable) trust of the subordinates.³⁵³ Also subordinates are anticipating from supervisors the use of coercive power in difficult situations³⁵⁴. So, these arguments show that an isolated use or disuse of a LSP is difficult, perhaps not possible, but nevertheless not analyzed inside this research.

The hypotheses H4 can be confirmed with two limitations:

Limitation 1: No isolated use. All five LSPs have to exist.

Limitation 2: Simultaneous increase of reward and legitimation power.

(H5) Coercive and legitimate leadership powers have negative impact on the trust level of the subordinate in a profit-oriented organization between subordinate and supervisor.

The hypothesis H5 has been created from the result of the pre-research and the classification as “negative” power and their use in a small range, which both are based on the statement of the specialist interview in the qualitative research. This hypothesis H5 is rejected for the legitimate power. For the subordinates, legitimate power has a positive significant correlation to all trust categories at the 0.01 level of significance. This positive correlation to the four trust categories can be also seen for the supervisors, but here just the relation to predictability at the significance level of 0.01 can be observed.

Coercive power is seen by both, supervisor and subordinate, as the only power with a negative correlation to the trust categories, which for the subordinates in all cases is at the significance

³⁵³ anonymous supervisor in the author’s qualitative research “specialist interview”

³⁵⁴ experience of the author, confirmed by different interviews with specialists regarding the item “coercive power”

level of 0.01. The supervisors only display a negative significant correlation with integrity, which has a significance level of 0.05. That coercive power reduces the rational trust in this research field, was expected, because every controlling process, which is coercive, is mostly recognized as a signal of distrust, which creates the start of the distrust circle³⁵⁵. In addition, the possible risks and dangers of the coercive power can be threatening for the subordinate, which also creates a loss of the trust level.³⁵⁶

It is the more interesting that

a.) the fifth, not mentioned reward power, is sometimes compared as a part of the coercive power³⁵⁷ with a negative influence onto trust and which is different to the results of this research. In this research, reward power is positive directed to trust, and

b.) coercive power is not to be reduced to the maximum. The supervisors same as the subordinates see a need of the use in special cases. Otherwise, the TL had been zero or nearly zero, what is not shown in the results. In literature, often just the negatively oriented LSP is seen in the asymmetric between trust and power but independently if only the “negative” (which differs) or all LSPs are meant, coercive power is every time seen and mentioned in this asymmetric. This result of a still existing share of this power in case of a best case trust leadership situation between supervisor and subordinate is a indicator, that trust and power are not contrary, they are complementary, same as the will to use it.³⁵⁸ With this result the **hypothesis H5 has been rejected for the legitimate power and limited for the coercive power**, which it is restricted to a certain level. The effect of no use of coercive power is not researched. This finding for legitimate power is in line with other findings, especially one of the latest studies on trust and power from Håvold & Håvold³⁵⁹, who analyzed the situation in two hospitals.

³⁵⁵ Kirchler, E., Hoelzl, E., & Wahl, I. (2008). Enforced versus voluntary tax compliance: The “slippery slope” framework. *Journal of Economic Psychology*, 29, pp. 210- 225.

³⁵⁶ Castelfranchi, C., & Falcone, R. (2010). Trust theory: A socio-cognitive and computational model. West Sussex: Wiley in Lenhard, M. (2012). *Macht und Vertrauen in Unternehmen (uniwien)*, p.13

³⁵⁷ Lenhard, M. (2012). *Macht und Vertrauen in Unternehmen (uniwien)*, p.9

³⁵⁸ Rother, W. (2016). Wille zur Macht oder Wille zum Vertrauen? *Bulletin der Schweizerischen Gesellschaft für Anthropologie*, (2): p. 34

³⁵⁹ Håvold, J. I., & Håvold, O. K. (2019). Power, trust and motivation in hospitals. *Leadership in Health Services*, 32(2), pp. 195-211.

CONCLUSIONS

Based on the former results of this research, the author has reached the following conclusions:

1. The time to implement and improve trust as a directed output of the management organization is individual and depends on the use of the leadership powers, same as such personal factors as age and time inside the company of supervisors and subordinates, but also the company itself, which is the passive side and reflects each active leadership action by other persons from the environment as an influencing factor.
2. Trust is an important outcome of leadership power and has an influence in solving innovative and complex tasks. Trust in both directions provides loyalty, flexibility, and good working atmosphere and can be steadily observed from the management, by using an independent trust target for an organization.
3. There is no ranking of importance of the single trust categories for the use or the outcome of leadership. The share of the different trust categories does not display a relevant difference between them on supervisor same as on subordinate side. Benevolence, directed from the subordinate to the supervisor is the only one, which shows the effect, that it is a slightly less important trust category for the supervisors.
4. Each category of trust is the higher, the higher the trust level of the employee is. Independently whether supervisor or subordinate, independently if it is the real or the desired situation. Increasing the trust level by using the recommended leadership power will increase all trust categories to similar level.
5. There is a significant correlation between all leadership power and trust variables in every possible connection for the subordinates. This effect cannot be seen in every possible connection on supervisor side, which shows a small gap between supervisor statements and analyses.
6. Reciprocating leadership powers, which are two-sided, same as trust, are not the only positively directed powers for a trust-based leadership. Legitimate power, a direct power, is positively directed too, so that the reciprocity effect is not a clear parameter for defining trust creating leadership powers.
7. The trust level is minor depending on the different profit-oriented organizations in German speaking countries. The actual mid-trust-level status shows space for improvement by leading with positively related leadership power shares. The results of this survey show that they can be extended to other profit-oriented sectors of economic business but cannot be used one by one for other cultures, authority systems with fanatic followers and also not in non-profit organizations.

8. The here researched desired situation of the high-trust-level can be seen as a balanced share of leadership powers to create a trust-based leadership inside a profit-oriented organization. Subordinates and supervisors with a high trust level have only small differences between real and desired use of leadership powers and also low- and mid-trust-level has the same direction to the high- trust-level use of leadership powers.
9. The trust level of the subordinates can be increased by a defined use of the different leadership powers. The maximum trust situation can be created while using a high share of expert, legitimate, referent and reward leadership powers on a similar level and an existing, but low share of the coercive power. **The main hypothesis is confirmed.**
10. In comparison to all other leadership powers, the use of coercive power is much rarer in present day leadership of subordinates in a profit-oriented organization. It is often just used as a last resort strategy, which has a positive impact on the trust level of the subordinates.
11. The trust category predictability of the subordinates, from the view of the supervisor, is correlating with 4 of 5 leadership powers, excluding coercive power which shows the importance of the behavior in case of predictability. It correlates significantly with all these powers, which have a positive relation to all trust variables.
12. The age of the subordinates is not related to the trust level itself and has no influence in the shares of leadership power to create a high trust level. On the other hand, the supervisors have a steadily increasing trust level, positively related to their age.
13. The trust situation of the supervisor and the subordinate, related to their time in the company is oppositely directed. The U-function of the trust level from literature could be confirmed for the subordinates only due to the negatively related trend of the supervisors.
14. There are no general differences between supervisor and subordinate in the researched reality and no general differences in the expectations of the leadership power, which is and shall be used in the future. The share of use is similar, also in the case of the negative directed coercive power. This accordance could show the future of the used leadership power and kind of leadership in general.
15. The definition of positive, same as negative leadership powers used in application to trust in the leadership inside profit-oriented organizations causes certain doubts, because to create the highest trust level, all powers, and not good or bad ones, have to be used in specific shares.

SUGGESTIONS

Based on the research the author gives the following suggestions,

to supervisors, independent of hierarchy level:

1. **Increase the trust level of and to the subordinates to improve your leadership by solving complex tasks faster.** Environment and tasks of the supervisors are getting more complex day by day. Leaders are very clear in their statements, that trust belongs to the present-day leadership. Trust reduces complexity inside processes. This results in a situation that the trust level of and to subordinates has to be increased to improve the output of leadership. While improvement of their own trust in the subordinates, the trust of the subordinates to the supervisors would increase as well and complex problems could be solved faster with higher innovation and less control.
2. **To increase the trust-level of the subordinates increase the predictability of the supervisor.** The predictability as one of the four categories of trust has a high correlation to the leadership powers, independently from supervisor or subordinate view. Predictability has the lowest level and therefore the highest potential to increase the trust level of the subordinates. The supervisor can increase the trust level directly by increasing his/her own predictability. The background of decisions has to be made transparent for the subordinate and the own leadership behavior e.g. the use of leadership style and leadership power has to be continuous and a clear correlation has to be visible for the subordinate. Decisions do not have to be surprising for the subordinate. Not respecting these methods prevents the development of a trustful relationship with subordinates same as with colleagues and business partners.
3. **Reduce the use of coercive power to a maximum, but use it only as the last option to create a trust-based leadership.** Leading with trust does not mean leading without leadership power. In many discussions with supervisors, subordinates and well as in some sources of literature, only the use of coercive power, instead of all leadership powers, is compared with the trust situation. The coercive power is the only power, which is negatively directed to trust, but it does not mean, that a total loss of coercive power would create a high trust situation. The coercive power must exist to create a best case of trust, only the amount of application has to be reduced. Supervisors, who are convinced of the importance of a trust-based leadership, have stated that they need this power as the last option. Subordinates think about supervisors, who do not use coercive leadership power, that they are not good supervisors, because they are anticipating, that coercive power has to be used in extraordinary cases. So, trust and the use of coercive power does not cancel each other in any way, only their use must be well considered.

Use the coercive power only if the use of all other leadership powers has not shown the expected result.

4. **Use the legitimate, referent, expert and reward powers on a common high level to increase the trust behavior of your subordinates.** The use of these leadership powers is positively directed to trust. The higher their use is, the higher is the trust level of the subordinates. Even if separate powers are not used to the full, the total of all powers used in full extent, creates in all cases a full trust behavior, the similar share is the most important item. Unfortunately, this is what makes it difficult for the individual supervisor, because each person has their own skills. So in most cases the individual supervisor will have the tendency to some powers more than others. Here is the main task for a trust-based leadership, the level of the single positively directed leadership powers has to be brought to a common level, to create a higher trust level of the subordinates. In addition, the use of the coercive leadership power has to be used as written before, because for this leadership power only a holistic use is reasonable.
5. **Use a highly trust-based leadership in profit-oriented organizations, because it is more valuable than ever before and its importance will increase in the future.** The respondents have clearly stated, that changes and tasks become more complex day by day. The fast pace of technology development increases the problem that supervisors need to have a wider knowledge basis to understand and decide. But making decisions in complex circumstances cannot be only carried out based on the knowledge of the supervisor. The lack of knowledge, which has to be compensated by the subordinates, will increase. This is one of the most important arguments to improve the personal trust situation for the subordinates. It is a starting point, that trust comes from the subordinates, too.
6. **To create a trust-based leadership, start the circle of creating trust from the supervisor's side.** Trust inside a profit-oriented organization is a process between a supervisor and a subordinate. It starts easily in a hierarchy, if the higher employee in the hierarchy starts the process. This kind of starting point can have different possibilities: reduction of the use of coercive power, increase the use of legitimate, referent, expert and reward powers to a common high level. To increase the trust level directly, increase the supervisor's use of predictability, benevolence, integrity and or competence. Start from the supervisor's side and there is no need to wait for the other side. Trust inside profit-oriented organizations same as many other decisions is a future oriented decision, which includes risk.

7. **Avoid mistrust, because mistrust of the supervisor creates mistrust of the subordinate.** If a trust-related result is not what it has to be, the supervisor has to decide if his/her openness to trust the subordinate is still granted or not. On the other hand, the circle of creating trust is working in the opposite direction in the same way. The only difference is, that the circle of mistrust is faster. So the supervisor has to be careful with the decision not to trust, because it will be noticed from the subordinates mostly in short-term. Just one decrease of the trust categories benevolence, integrity and or competence is enough for detection and will quickly and sustainably destroy the trust level, which has increased over time.
8. **Use trust as an independent target for an organization to create a specified trust situation and to react in short-term with adaptations of the own leadership behavior.** Trust in most cases is just hidden in the employee satisfaction rate, which is an indicator for the company culture only, but the existing trust level can be created in the same way as the employee satisfaction rate, by comparing feedback from employees over time or by using existing measuring methods and questionnaires. In this case trust is an own target for an organization and can be reflected as a direct output of leadership.
9. **Adapt management organization to create a trust-based leadership.** Supervisors same as subordinates must be motivated to trust the other side and therefore a process circle must be initially started by the supervisor. This can be directly started by changing the use of the different leadership powers to improve the trust level with long lasting effects after time and from both sides.
10. **Check your management organization, if the different supervisors have the personal ability to lead in a way that trust can occur.** The necessity of trust as an output of leadership is described. Theoretically every manager can create or improve the level of trust by adapting the use of the different leadership powers in the way described here. On the practical side, it has to be researched by e.g. the human resources departments, if the supervisors have the personal ability and own demand to lead in this way. A separation between transactional and transformational leadership is not result oriented any longer, because both of these styles have shares for a leadership with maximum trust of the subordinates.

to scientists on trust in relation to leadership power in economic view:

11. **In order to find the real value of trust for leadership, investigate the potential of doubling the effect of trust against the normal use of leadership power.** The asymmetric of trust and leadership power in literature, independently if only coercive

or all five leadership powers are meant, does not fully reflect the result of this research in a profit-oriented organization, but the idea that summarizing the two-sided trust level has a higher effect than the use of leadership power alone, has to be investigated. Confirmation leads to a further increase of the relevance of trust in profit-oriented organizations. The doubling effect of trust, which creates a higher leadership level than a normal use of leadership power, is just a theory, based on experience and statements of specialists. It should be researched specifically for finding the real value of trust for leadership.

12. **Develop management methods to adjust the use of leadership powers and trust in an ordinal way.** Defining a distribution of leadership powers to create a high trust level, leads to the task of defining management methods with which these different levels can be adjusted, a multiple mission in many research fields of profit-oriented organizations.
13. **Develop the quantitative effect of trust more deeply to convince supervisors to use trust inside their leadership more easily.** The imaginary value of trust in a profit-oriented organization between the supervisor and the subordinate was manifested by specialists and respondents inside this research. The quantitative value of trust is not finally researched and should be investigated to convince supervisors faster with e.g. a higher EBITDA (“earnings before interest, tax, depreciation, and amortization”) than based on existing positive scientific research.
14. **Investigate the background of the minor value of a desired leadership situation, to understand the value of integrating subordinates meaning in profit-oriented organizations.** The effect of a theoretical, optimal leadership power and trust situation with the potential effect of a lower fluctuation rate has to be researched with a higher number of employees. The high number of respondents inside this research, who are not willing to change in any way is an indicator for the skepticism around the research field of trust and leadership power. If the data will be confirmed, this effect shows a minor relevance of trust as an output of a trust-based leadership but also the value of participation of the subordinates in the leadership. This effect has to be researched in further empirical investigations.
15. **Use the terms trust and confidence very precisely in research, to prevent the mixing of both in future research.** Trust and confidence often have the same meaning in research of non-native English-speaking persons. The definition of the word ‘trust’ same as ‘confidence’ is mixed in many articles, due to different languages of the authors, different areas of research and other reasons. The easiest difference between both is the chronological orientation of decision, which for trust is the past, present and future,

which involves risk. Confidence in contrast is chronologically oriented only in the present and past without having risk. This simple difference has to be considered in future research.

16. **Investigate if trust is a real outcome of leadership power or if it just can be adjusted by the use of leadership power, to get further information on the interaction between both of these leadership terms.** The opposite research direction brings another view on the borders of trust in leadership. If the supervisor uses only coercive leadership power, which creates a very low trust level, whether trust will increase over time as well. The confirmation of this hypothesis means, that trust is not an outcome of leadership power. In this case leadership power can only be a parameter to increase or decrease trust in leadership but it would be created in a separate way.
17. **Investigate the impact of non-usage of coercive power on the trust level of subordinates to understand the impact of coercive power inside leadership.** The decrease of the coercive power to create a higher trust level is often mentioned, but this study shows that a share >0 has to remain present for the highest trust level. The influence of a total loss of coercive power onto the trust level has to be investigated to finally find an answer regarding the influence of coercive leadership power.
18. **Use maximum anonymity to create correct data about leadership and trust.** For valid data in further research of leadership powers and trust, an environment with a maximum anonymity has to be created to confirm or reject high shares of supposed positive statements with critical background, such as “I will not leave the company”. The possibility of an online questionnaire with an anonymous gate has to be used for the next step and further evaluation.
19. **A definition of good, bad, negative or positive powers has to be avoided in the future research of leadership and trust, because the existing results and definitions are too manifold.** The definitions and results depending on their special research field cannot be compared with the situation of different hierarchy levels inside profit-oriented organizations. A definition and comparison of these leadership powers is not sustainable. Such kind of classification suggests, that the single use or single change of such a specific leadership power will change the trust behavior in a desired direction, which is not researched for single differences and just observed by alteration of more than one or all leadership powers.

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APPENDICES

- A. Questionnaire of quantitative research
- B. Scale item definition
- C. Detailed graphs of common data from the respondents of the quantitative research
- D. Descriptive statistics of variables (total sample)
- E. Potential influencing factors of supervisor & subordinate trust
- F. Test of normality (total sample)
- G. Correlation analysis (Pearson)
- H. Correlation analysis (Kendall & Spearman)
- I. Mann-Whitney-U-Test of power variables (subordinate vs. supervisor)
- J. Specialist interview partners
- K. Questions of specialist interview
- L. Detailed results of specialist interviews
- M. Pre-test questionnaire
- N. General and separated research model with typology and legend
- O. Definition of boundary item to trust
- P. General trust models and definitions

A. Questionnaire of quantitative research

The influence of power on trust in a supervisor/subordinate relationship

This is a survey in which I want to ask you about your meaning regarding your daily work. With this questionnaire, should your experience with power and trust inside a supervisor/subordinate-relationship be implemented into my quantitative research.

The first questions are about your personal environment. In the further questionnaire you have the possibility to give your answer in a five scale category, starting from “strongly disagree” up to “strongly agree” with a neutral midpoint.

The questionnaire is separated into three sections:

Section A. has to be filled out from all participants.

Section B. has to be filled out from participants, who have a supervisor. Normally these are all excluding, managing directors, CEO’s and shareholders.

Section C. has to be filled out from participants, who have a leadership position and who are disciplinary responsible for the subordinates. (managing directors, Head of..., managers, group/team leader,...)

In section B. and C. has especially to be considered, that in most questions, two answers are awaited; one answer, that shows the actual situation (REALITY) and one answer, how the situation should look like (WISH).

Answer the questions quickly within 20 minutes and in case of any doubts mark the category, you had at first in your mind.

Please write your name only at the outside of the closed envelope to ensure a purposeful collection of data same as to assure and guarantee the later anonymous evaluation.

In all questions female and male Persons are meant in the same way; due to an easy readable style and clearness, just the male gender form is used.

Thanks a lot for your support

Oliver Menk

A.) General information

1	In what kind of industry do you work?	Auto- motive supplier	manu- factu- ring general	IT	service	consul- tin- g
		2	2	2	2	2
		logistic	others			
		2	2			
2	How many employees work in your company.	< 50	50-249	250-749	750-1999	≥ 2000
		2	2	2	2	2
3	Your company works...	national		inter- national		
		2		2		
4	Your gender is...	female		male		
		2		2		
5	In this company you are...	employee		freelancer		share- holder
		2		2		2
6	How old you are?	< 29	30-39	40-49	50-59	≥ 60
		2	2	2	2	2
7	How often have you changed your company since you are 25 years old.	0	1	2-3	4-9	≥ 10
		2	2	2	2	2
8	How many years you are working inside your actual company?	< 1	1-4	5-10	11-19	≥ 20
		2	2	2	2	2
9	It is highly probable, that you will leave the company in () years.	< 1	1-2	3-5	6-9	≥ 10
		2	2	2	2	2
		2	I don't want to change the company.			
10	You have personnel responsibility?	Yes		No		
		2		2		
	<u>If YES:</u> On what stage....	CEO / managing director	higher manage- ment	mid- manage- ment	lower manage- ment	
		2	2	2	2	
11	The gender of your direct supervisor is.... (If you don't have a supervisor, please mark "none")	female		male		none
		2		2		2
12	The estimated age of your direct supervisor is....	< 29	30-39	40-49	50-59	≥ 60
		2	2	2	2	2

B.) Power & Trust (ONLY if you don't have a supervisor, skip this section and follow on with part C.) Please mark your answer with a X	strongly disagree	rather disagree	neutral	rather agree	strongly agree	strongly disagree	rather disagree	neutral	rather agree	strongly agree
	REALITY					WISH				
1 I have confidence in the motivations of my supervisor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 My supervisor increases my pay level.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 My supervisor makes me feel valued.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 My supervisor gives me undesirable job assignments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 I usually know how my supervisor is going to react.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 My supervisor makes me feel like he/she approves of me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 My supervisor makes me feel that I have commitments to meet.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 My supervisor makes me feel personally accepted.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 I believe my supervisor is fair.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 My supervisor performs his job well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 I believe my supervisor is honest.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 My supervisor makes me feel important.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 My supervisor watches my back.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 I can anticipate what my supervisor will do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 My supervisor has my best interests in mind.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16 My supervisor gives me good technical suggestions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17 I know exactly what my supervisor will do in difficult situations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18 My supervisor makes my work difficult for me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19 My supervisor shares with me her considerable experience and/or training.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20 I have confidence in the abilities of my supervisor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21 My supervisor makes things unpleasant here.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22 My supervisor makes being at work distasteful.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23 My supervisor is capable at his job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24 I can rely on my supervisor to behave predictably.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25 My supervisor is genuinely concerned about my well being.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B.) Power & Trust (ONLY if you don't have a supervisor, skip this section and follow on with part C.) Please mark your answer with a X	strongly disagree	rather disagree	neutral	rather agree	strongly agree	strongly disagree	rather disagree	neutral	rather agree	strongly agree
	REALITY					WISH				
26 My supervisor behaves in a very consistent manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27 My supervisor influences my getting a pay raise.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28 I can depend on the fairness of my supervisor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29 My supervisor is highly skilled.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30 My supervisor makes me feel like I should satisfy my job requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31 My supervisor provides me with needed technical knowledge.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32 My supervisor puts his words into action.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33 My supervisor provides me with special benefits.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34 My supervisor is likely to protect me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35 My supervisor knows what he is doing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36 My supervisor influences my getting a promotion.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37 My supervisor gives me the feeling I have responsibilities to fulfil.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38 My supervisor provides me with sound job-related advice.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39 I know my supervisor will keep his word.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40 My supervisor makes me recognize that I have tasks to accomplish.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41 If my supervisor would lead me as I wished in the questions above, than I would change the company in () years.	< 1	1-2	3-5	6-9	≥ 10					
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
	<input type="checkbox"/> I don't want to change the company.									
42 The trust in my supervisor is in general ...	very low	- REALITY -			very high	very low	- WISH -			very high
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43 The trust of my supervisor into me is probably ...	very low	- REALITY -			very high	very low	- WISH -			very high
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44 If the supervisor has trust in me, is for me ...	very unimportant				very important					
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

C.) Power and trust for supervisors only		strongly disagree	rather disagree	neutral	rather agree	strongly agree	strongly disagree	rather disagree	neutral	rather agree	strongly agree
(Just fill out this section if you are leading employees)											
Please mark your answer with a X		REALITY					WISH				
1	I believe that my subordinates have my best interests in mind.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	I increase the subordinates pay level.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	I make the subordinates feel valued.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	I give the subordinates undesirable job assignments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	I know what to expect from my subordinates.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	I make the subordinates feel like I approve of them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	I make the subordinate feel that they have commitments to meet.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	I make the subordinate feel personally accepted.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	I can depend on my subordinates to be fair.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	My subordinates are capable at their jobs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	My subordinates are honourable people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	I make the subordinate feel important.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	My subordinates are motivated to protect me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	I usually know how my subordinates are going to react.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	I feel that my subordinates work to protect me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	I give the subordinates good technical suggestions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	In times of uncertainty, my subordinates sticks to the plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	I make the work difficult for the subordinates.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	I share with the subordinates my considerable experience and/or training.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	My subordinates know what they are doing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21	I make things unpleasant for the subordinates.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22	I make being at work distasteful for the subordinates.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23	I have faith in the abilities of my subordinates.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24	My subordinates are reliable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25	My subordinates watch my back.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C.) Power and trust for supervisors only (Just fill out this section if you are leading employees) Please mark your answer with a X	strongly disagree	rather disagree	neutral	rather agree	strongly agree	strongly disagree	rather disagree	neutral	rather agree	strongly agree
	REALITY					WISH				
26 My subordinates behave consistently.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27 I influence the subordinates getting a pay raise.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28 My subordinates honour their word.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29 My subordinates are qualified to do their job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30 I make the subordinates feel like they should satisfy their job requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31 I provide the subordinates with needed technical knowledge.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32 My subordinates keep their promises.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33 I provide the subordinate with special benefits.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34 My subordinates look out for me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35 My subordinates communicate well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36 I influence the subordinates getting a promotion.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37 I give the subordinate the feeling they have responsibilities to fulfil.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38 I provide the subordinates with sound job-related advice.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39 My subordinates tell the truth.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40 I make the subordinates recognize that they have tasks to accomplish.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41 My trust in my subordinates is in general...	very low	- REALITY -			very high	very low	- WISH -			very high
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42 The trust of my subordinates into me is probably...	very low	- REALITY -			very high	very low	- WISH -			very high
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43 If the subordinates have trust in me, is for me...	very unimportant				very important					
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

Fragebogen

Der Einfluss von Macht auf das Vertrauen in einer Vorgesetzten/Mitarbeiter Beziehung

Dieses ist eine Befragung in dem ich Sie gerne um Ihre Meinung zu Ihrer täglichen Arbeit bitten möchte. Mit diesem Fragebogen soll Ihre Erfahrung mit Macht und Vertrauen in einer Vorgesetzten/Mitarbeiter-Beziehung in meine quantitative Untersuchung implementiert werden.

Neben den zu Beginn begleitenden Fragen zu Ihrem persönlichen Umfeld haben sie weiter die Möglichkeit auf einer Skala mit fünf Kategorien Ihre Antwort zu geben. Die Einteilung erfolgt hier von „trifft überhaupt nicht zu“ bis „trifft völlig zu“ und besitzt einen neutralen Mittelpunkt. Der Fragebogen ist in drei Teile gegliedert.

Teil A. ist von allen Teilnehmern auszufüllen.

Teil B. ist von den Teilnehmern auszufüllen, die einen Vorgesetzten haben. Das sind in der Regel alle, außer Geschäftsführer und Gesellschafter.

Teil C. ist von den Teilnehmern auszufüllen, welche in einer Führungsposition sind und Mitarbeiter disziplinarisch führen (Geschäftsführer, Abteilungsleiter, Gruppenleiter,...)

Im Teil B. und C. ist besonders zu beachten, dass in den meisten Fällen pro Frage zwei Antworten erwartet werden; einmal eine Antwort, wie sich Ihre aktuelle Situation darstellt (REALITÄT), als auch eine Antwort, wie die Situation aussehen sollte (WUNSCH).

Beantworten Sie die Fragen zügig innerhalb von 20 Minuten und kreuzen im Zweifel die Kategorie an, an die Sie zuerst gedacht haben.

Bitte notieren Sie Ihren Namen nur auf der Außenseite des verschlossenen Umschlags, somit ist sowohl eine zielgerichtete Datenerfassung, als auch die spätere anonyme Auswertung der Daten gewährleistet und garantiert. In allen Fragen sind Personen weiblichen und männlichen Geschlechts gleichermaßen gemeint; aus Gründen der einfacheren Lesbarkeit und Übersichtlichkeit wird im Fragebogen nur die männliche Form verwendet.

Vielen Dank für Ihre Unterstützung

Oliver Menk

A.) Allgemeiner Teil

1	In welcher Branche arbeiten sie?	Auto- motive Lieferant	Herstell- ung allgemein	IT	Dienst- leistung	Beratung
		2	2	2	2	2
		Logistik	sonstige			
		2	2			
2	Wieviel Mitarbeiter beschäftigt ihr Unternehmen?	< 50	50-249	250-749	750-1999	≥ 2000
		2	2	2	2	2
3	Ihr Unternehmen arbeitet ...	national		inter- national		
		2		2		
4	Ihr Geschlecht ist ...	weiblich		männlich		
		2		2		
5	In diesem Unternehmen sind sie...	Ange- stellter /Arbeiter		freier Mitarbeit er		Gesell- schafter
		2		2		2
6	Sie sind wieviel Jahre alt?	< 29	30-39	40-49	50-59	≥ 60
		2	2	2	2	2
7	Wie oft haben Sie Ihren Arbeitgeber seit ihrem 25. Geburtstag gewechselt	0	1	2-3	4-9	≥ 10
		2	2	2	2	2
8	Wie viel Jahre arbeiten Sie in Ihrem aktuellen Unternehmen?	< 1	1-4	5-10	11-19	≥ 20
		2	2	2	2	2
9	Es ist sehr wahrscheinlich, dass sie das Unternehmen in ()- Jahren wechseln werden.	< 1	1-2	3-5	6-9	≥ 10
		2	2	2	2	2
		2	ich möchte das Unternehmen nicht verlassen			
10	Sie haben Personalverantwortung...	Ja		Nein		
		2		2		
	<u>Falls ja:</u> Auf der Ebene...	Geschäfts- führung	oberes Manage- ment	mittleres Manage- ment	unteres Manage- ment	
		2	2	2	2	
11	Das Geschlecht Ihres direkten Vorgesetzten ist... (Sollten Sie keinen Vorgesetzten haben, bitte "kein" ankreuzen)	weiblich		männlich		kein
		2		2		2
12	Das geschätzte Alter ihres direkter Vorgesetzten ist...	< 29	30-39	40-49	50-59	≥ 60
		2	2	2	2	2

B.) Macht & Vertrauen (NUR wenn Sie <u>keinen</u> Vorgesetzten haben überspringen Sie diese Sektion und machen bei Teil C. weiter)		trifft über- haupt nicht zu	trifft eher nicht zu	neutral	trifft eher zu	trifft völlig zu	solle über- haupt nicht zu- treffen	solle eher nicht zu- treffen	neutral	solle eher zu- treffen	solle völlig zu- treffen
		REALITÄT					WUNSCH				
Bitte markieren Sie Ihre Antwort mit einem X											
1	Ich habe Vertrauen in die Beweggründe meines Vorgesetzten.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Mein Vorgesetzter erhöht mein Gehaltslevel.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Mein Vorgesetzter erzeugt in mir das Gefühl, dass ich von Ihm geschätzt werde.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Mein Vorgesetzter gibt mir unerwünschte Aufgaben im Job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Gewöhnlich weiß ich wie mein Vorgesetzter reagiert.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Mein Vorgesetzter erzeugt in mir das Gefühl, dass er mich anerkennt.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Mein Vorgesetzter lässt mich spüren, dass ich Vereinbarungen einzuhalten habe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Mein Vorgesetzter erzeugt in mir das Gefühl, dass er mich persönlich akzeptiert.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Ich glaube mein Vorgesetzter ist fair	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Mein Vorgesetzter verrichtet einen guten Job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Ich glaube mein Vorgesetzter ist ehrlich.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	Mein Vorgesetzter erzeugt in mir das Gefühl, dass ich wichtig bin.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	Mein Vorgesetzter hält mir den Rücken frei.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Ich kann voraussehen, was mein Vorgesetzter machen wird.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	Mein Vorgesetzter hat meine Interessen im Sinn.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	Mein Vorgesetzter gibt mir gute technische Ratschläge.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	Ich weiß genau was mein Vorgesetzter in schwierigen Situationen macht.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	Mein Vorgesetzter macht meine Arbeit schwierig für mich.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	Mein Vorgesetzter teilt mit mir seine beträchtliche Erfahrung und/oder Ausbildung.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	Ich habe Vertrauen in die Fähigkeiten meines Vorgesetzten.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21	Mein Vorgesetzter macht Dinge auf der Arbeit unangenehm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22	Mein Vorgesetzter macht es unangenehm auf der Arbeit zu sein.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23	Mein Vorgesetzter ist fähig in seinem Job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24	Ich kann mich auf meinen Vorgesetzten verlassen, dass er sich voraussagbar verhält.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25	Mein Vorgesetzter ist aufrichtig an meinem Wohlergehen interessiert.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B.) Macht & Vertrauen		trifft über- haupt nicht zu	trifft eher nicht zu	neutral	trifft eher zu	trifft völlig zu	solte über- haupt nicht zu- treffen	solte eher nicht zu- treffen	neutral	solte eher zu- treffen	solte völlig zu- treffen
(NUR wenn Sie <u>keinen</u> Vorgesetzten haben überspringen Sie diese Sektion und machen bei Teil C. weiter)											
Bitte markieren Sie Ihre Antwort mit einem X		REALITÄT					WUNSCH				
26	Mein Vorgesetzter verhält sich in einer beständigen Art und Weise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27	Mein Vorgesetzter beeinflusst ob ich eine Gehaltserhöhung bekomme.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28	Ich kann mich auf die Fairness meines Vorgesetzten verlassen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29	Mein Vorgesetzter ist hoch qualifiziert.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30	Mein Vorgesetzter lässt mich spüren, dass ich meine Jobanforderungen einzuhalten habe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31	Mein Vorgesetzter versorgt mich mit dem benötigten technischen Wissen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32	Mein Vorgesetzter lässt seinen Worten auch Taten folgen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33	Mein Vorgesetzter unterstützt mich mit speziellen Bezügen, Leistungen, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34	Mein Vorgesetzter wird mich voraussichtlich beschützen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35	Mein Vorgesetzter weiß was er macht.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36	Mein Vorgesetzter beeinflusst ob ich befördert werde (oder eine Förderung erhalte)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37	Mein Vorgesetzter gibt mir das Gefühl, dass ich übertragene Verantwortung zu erfüllen habe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38	Mein Vorgesetzter gibt mir guten, berufsbezogenen Rat.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39	Ich weiß mein Vorgesetzter hält sein Wort.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40	Mein Vorgesetzter erzeugt bei mir das Verständnis, dass ich Aufgaben zu vollbringen habe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41	Wenn mein Vorgesetzter mich führen würde, wie ich mir das in den obigen Punkten WÜNSCHE, dann würde ich das Unternehmen nach frühestens () Jahren verlassen.	< 1	1-2	3-5	6-9	≥ 10					
		<input type="checkbox"/>	ich möchte das Unternehmen nicht verlassen								
42	Das Vertrauen in meinen Vorgesetzten ist generell...	sehr niedrig	- REALITÄT -			sehr hoch	sehr niedrig	- WUNSCH -			sehr hoch
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43	Das Vertrauen meines Vorgesetzten in mich ist wahrscheinlich ...	sehr niedrig	- REALITÄT -			sehr hoch	sehr niedrig	- WUNSCH -			sehr hoch
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44	Ob mein Vorgesetzter Vertrauen in mich hat ist mir...	sehr un- wichtig				sehr wichtig					
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

C.) Macht und Vertrauen <u>nur für Vorgesetzte</u> (Nur ausfüllen wenn Sie Mitarbeiter führen) Bitte markieren Sie Ihre Antwort mit einem X		trifft über- haupt nicht zu	trifft eher nicht zu	neutral	trifft eher zu	trifft völlig zu	solte über- haupt nicht zu- treffen	solte eher nicht zu- treffen	neutral	solte eher zu- treffen	solte völlig zu- treffen
		REALITÄT					WUNSCH				
1	Ich glaube dass meine Mitarbeiter meine Interessen im Sinn haben.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Ich erhöhe das Gehaltslevel der Mitarbeiter.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Ich lasse die Mitarbeiter fühlen, dass sie geschätzt werden.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Ich gebe den Mitarbeitern unerwünschte Aufgaben im Job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Ich weiß was ich von meinen Mitarbeitern erwarten kann.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Ich lasse die Mitarbeiter fühlen, dass ich sie anerkenne.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Ich lasse die Mitarbeiter fühlen, dass die Vereinbarungen einzuhalten haben.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Ich lasse die Mitarbeiter fühlen, dass ich sie persönlich akzeptiere.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Ich kann mich auf die Fairness meiner Mitarbeiter verlassen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Meine Mitarbeiter sind fähig in ihren Jobs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Meine Mitarbeiter sind ehrenwerte Leute.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	Ich lasse die Mitarbeiter fühlen, dass sie wichtig sind.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	Meine Mitarbeiter sind motiviert mich zu beschützen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Gewöhnlich weiß ich wie mein Mitarbeiter reagieren.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	Ich fühle dass meine Mitarbeiter arbeiten um mich zu schützen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	Ich gebe den Mitarbeitern gute technische Ratschläge.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	In unsicheren Zeiten bleiben meine Mitarbeiter beim Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	Ich mache den Mitarbeitern die Arbeit schwierig.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	Ich teile mit den Mitarbeitern meine beträchtliche Erfahrung und/oder Ausbildung.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	Meine Mitarbeiter wissen was sie machen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21	Ich mache den Mitarbeitern Dinge unangenehm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22	Ich mache es den Mitarbeitern unangenehm auf der Arbeit zu sein.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23	Ich habe Vertrauen in die Fähigkeiten meiner Mitarbeiter.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24	Meine Mitarbeiter sind verlässlich.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25	Meine Mitarbeiter halten mir den Rücken frei.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C.) Macht und Vertrauen <u>nur für Vorgesetzte</u> (Nur ausfüllen wenn Sie Mitarbeiter führen) Bitte markieren Sie Ihre Antwort mit einem X	trifft über- haupt nicht zu	trifft eher nicht zu	neutral	trifft eher zu	trifft völlig zu	solte über- haupt nicht zu- treffen	solte eher nicht zu- treffen	neutral	solte eher zu- treffen	solte völlig zu- treffen
	REALITÄT					WUNSCH				
26 Meine Mitarbeiter verhalten sich beständig.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27 Ich beeinflusse die Mitarbeiter, dass sie eine Gehaltserhöhung bekommen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28 Meine Mitarbeiter stehen zu ihrem Wort.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29 Meine Mitarbeiter sind qualifiziert ihren Job zu machen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30 Ich lasse die Mitarbeiter fühlen, dass sie Ihre Jobanforderungen einzuhalten haben.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31 Ich versorge die Mitarbeiter mit dem benötigten technischen Wissen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32 Meine Mitarbeiter halten Ihre versprechen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33 Ich unterstütze die Mitarbeiter mit speziellen Bezügen, Leistungen, etc....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34 Meine Mitarbeiter passen auf mich auf.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35 Meine Mitarbeiter kommunizieren gut.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36 Ich beeinflusse, ob sie eine Beförderung (oder Förderung) erhalten.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37 Ich gebe den Mitarbeitern das Gefühl, dass sie die übertragene Verantwortung zu erfüllen haben.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38 Ich versorge die Mitarbeiter mit gutem, berufsbezogenen Rat.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39 Meine Mitarbeiter erzählen die Wahrheit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40 Ich lasse die Mitarbeiter verstehen, dass sie Aufgaben zu vollbringen haben.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41 Mein Vertrauen in meine Mitarbeiter ist generell...	sehr niedrig	- REALITÄT -			sehr hoch	sehr niedrig	- WUNSCH -			sehr hoch
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42 Das Vertrauen meiner Mitarbeiter in mich ist wahrscheinlich ...	sehr niedrig	- REALITÄT -			sehr hoch	sehr niedrig	- WUNSCH -			sehr hoch
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43 Ob meine Mitarbeiter Vertrauen in mich haben ist mir...	sehr un- wichtig	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	sehr wichtig

B. Scale item definition

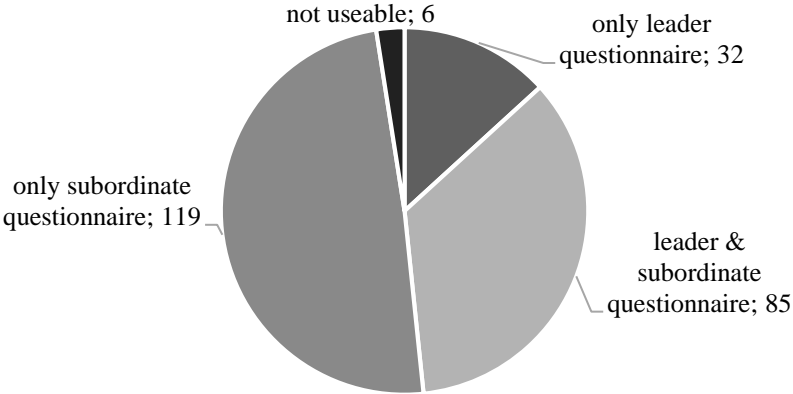
Code	No.	Question
sR-TS-B01	1	I have confidence in the motivations of my supervisor.
sR-TS-B02	13	My supervisor watches my back.
sR-TS-B03	15	My supervisor has my best interests in mind.
sR-TS-B04	25	My supervisor is genuinely concerned about my well being.
sR-TS-B05	34	My supervisor is likely to protect me.
sR-TS-C01	10	My supervisor performs his job well.
sR-TS-C02	20	I have confidence in the abilities of my supervisor.
sR-TS-C03	23	My supervisor is capable at his job.
sR-TS-C04	29	My supervisor is highly skilled.
sR-TS-C05	35	My supervisor knows what he is doing.
sR-TS-I01	9	I believe my supervisor is fair.
sR-TS-I02	11	I believe my supervisor is honest.
sR-TS-I03	28	I can depend on the fairness of my supervisor.
sR-TS-I04	32	My supervisor puts his words into action.
sR-TS-I05	39	I know my supervisor will keep his word.
sR-TS-P01	5	I usually know how my supervisor is going to react.
sR-TS-P02	14	I can anticipate what my supervisor will do.
sR-TS-P03	17	I know exactly what my supervisor will do in difficult situations.
sR-TS-P04	24	I can rely on my supervisor to behave predictably.
sR-TS-P05	26	My supervisor behaves in a very consistent manner.
sR-P-CE01	4	My supervisor gives me undesirable job assignments.
sR-P-CE02	18	My supervisor makes my work difficult for me.
sR-P-CE03	21	My supervisor makes things unpleasant here.
sR-P-CE04	22	My supervisor makes being at work distasteful.
sR-P-EX01	16	My supervisor gives me good technical suggestions.
sR-P-EX02	19	My supervisor shares with me her considerable experience and/or training.
sR-P-EX03	31	My supervisor provides me with needed technical knowledge.
sR-P-EX04	38	My supervisor provides me with sound job-related advice.
sR-P-LE01	7	My supervisor makes me feel that I have commitments to meet.
sR-P-LE02	30	My supervisor makes me feel like I should satisfy my job requirements.
sR-P-LE03	37	My supervisor gives me the feeling I have responsibilities to fulfill.
sR-P-LE04	40	My supervisor makes me recognize that I have tasks to accomplish.
sR-P-RF01	3	My supervisor makes me feel valued.
sR-P-RF02	6	My supervisor makes me feel like he/she approves of me.
sR-P-RF03	8	My supervisor makes me feel personally accepted.
sR-P-RF04	12	My supervisor makes me feel important.
sR-P-RW01	2	My supervisor increases my pay level.
sR-P-RW02	27	My supervisor influences my getting a pay raise.
sR-P-RW03	33	My supervisor provides me with special benefits.
sR-P-RW04	36	My supervisor influences my getting a promotion.
sW-TS-B01	1	I have confidence in the motivations of my supervisor.
sW-TS-B02	13	My supervisor watches my back.
sW-TS-B03	15	My supervisor has my best interests in mind.
sW-TS-B04	25	My supervisor is genuinely concerned about my well being.
sW-TS-B05	34	My supervisor is likely to protect me.
sW-TS-C01	10	My supervisor performs his job well.

sW-TS-C02	20	I have confidence in the abilities of my supervisor.
sW-TS-C03	23	My supervisor is capable at his job.
sW-TS-C04	29	My supervisor is highly skilled.
sW-TS-C05	35	My supervisor knows what he is doing.
sW-TS-I01	9	I believe my supervisor is fair.
sW-TS-I02	11	I believe my supervisor is honest.
sW-TS-I03	28	I can depend on the fairness of my supervisor.
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sW-P-RW03	33	My supervisor provides me with special benefits.
sW-P-RW04	36	My supervisor influences my getting a promotion.
LR-TS-B01	1	I believe that my subordinates have my best interests in mind.
LR-TS-B02	13	My subordinates are motivated to protect me.
LR-TS-B03	15	I feel that my subordinates work to protect me.
LR-TS-B04	25	My subordinates watch my back.
LR-TS-B05	34	My subordinates look out for me.
LR-TS-C01	10	My subordinates are capable at their jobs.
LR-TS-C02	20	My subordinates know what they are doing.
LR-TS-C03	23	I have faith in the abilities of my subordinates.
LR-TS-C04	29	My subordinates are qualified to do their job.
LR-TS-C05	35	My subordinates communicate well.
LR-TS-I01	9	I can depend on my subordinates to be fair.
LR-TS-I02	11	My subordinates are honourable people.
LR-TS-I03	28	My subordinates honour their word.
LR-TS-I04	32	My subordinates keep their promises.
LR-TS-I05	39	My subordinates tell the truth.

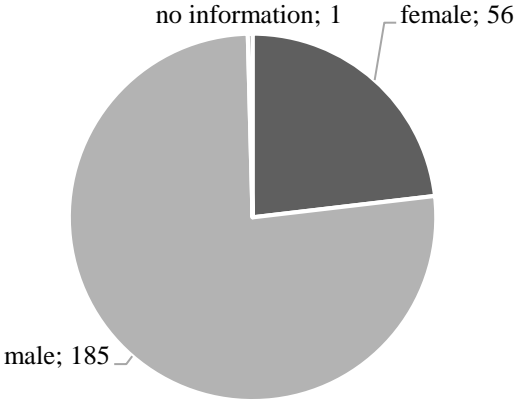
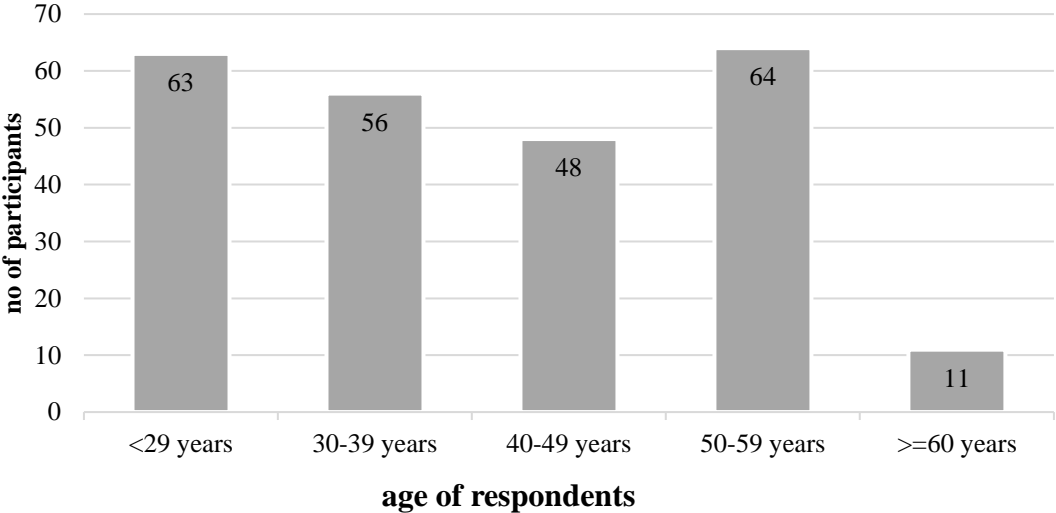
LR-TS-P01	5	I know what to expect from my subordinates.
LR-TS-P02	14	I usually know how my subordinates are going to react.
LR-TS-P03	17	In times of uncertainty, my subordinates sticks to the plan.
LR-TS-P04	24	My subordinates are reliable.
LR-TS-P05	26	My subordinates behave consistently.
LR-P-CE01	4	I give the subordinates undesirable job assignments.
LR-P-CE02	18	I make the work difficult for the subordinates.
LR-P-CE03	21	I make things unpleasant for the subordinates.
LR-P-CE04	22	I make being at work distasteful for the subordinates.
LR-P-EX01	16	I give the subordinates good technical suggestions.
LR-P-EX02	19	I share with the subordinates my considerable experience and/or training.
LR-P-EX03	31	I provide the subordinates with needed technical knowledge.
LR-P-EX04	38	I provide the subordinates with sound job-related advice.
LR-P-LE01	7	I make the subordinate feel that they have commitments to meet.
LR-P-LE02	30	I make the subordinates feel like they should satisfy their job requirements.
LR-P-LE03	37	I give the subordinate the feeling they have responsibilities to fulfill.
LR-P-LE04	40	I make the subordinate recognize that they have tasks to accomplish.
LR-P-RF01	3	I make the subordinates feel valued.
LR-P-RF02	6	I make the subordinates feel like I approve of them.
LR-P-RF03	8	I make the subordinate feel personally accepted.
LR-P-RF04	12	I make the subordinate feel important.
LR-P-RW01	2	I increase the subordinates pay level.
LR-P-RW02	27	I influence the subordinates getting a pay raise.
LR-P-RW03	33	I provide the subordinate with special benefits.
LR-P-RW04	36	I influence the subordinates getting a promotion.
LW-TS-B01	1	I believe that my subordinates have my best interests in mind.
LW-TS-B02	13	My subordinates are motivated to protect me.
LW-TS-B03	15	I feel that my subordinates work to protect me.
LW-TS-B04	25	My subordinates watch my back.
LW-TS-B05	34	My subordinates look out for me.
LW-TS-C01	10	My subordinates are capable at their jobs.
LW-TS-C02	20	My subordinates know what they are doing.
LW-TS-C03	23	I have faith in the abilities of my subordinates.
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LW-TS-I01	9	I can depend on my subordinates to be fair.
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LW-TS-I03	28	My subordinates honor their word.
LW-TS-I04	32	My subordinates keep their promises.
LW-TS-I05	39	My subordinates tell the truth.
LW-TS-P01	5	I know what to expect from my subordinates.
LW-TS-P02	14	I usually know how my subordinates are going to react.
LW-TS-P03	17	In times of uncertainty, my subordinates sticks to the plan.
LW-TS-P04	24	My subordinates are reliable.
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LW-P-CE01	4	I give the subordinates undesirable job assignments.
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LW-P-EX02	19	I share with the subordinates my considerable experience and/or training.
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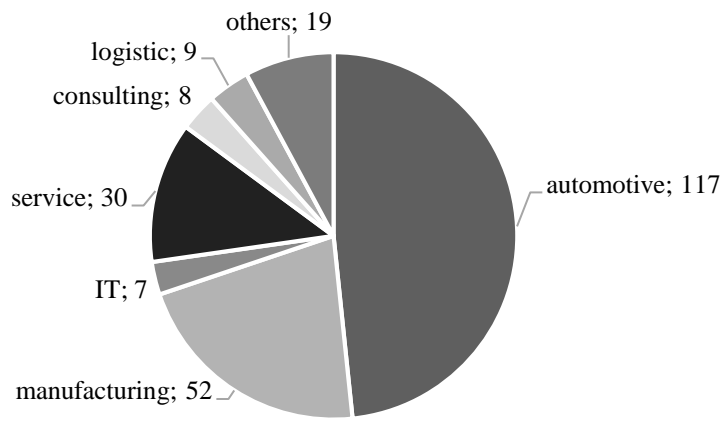
C. Detailed graphs of common data from the respondents of the quantitative research



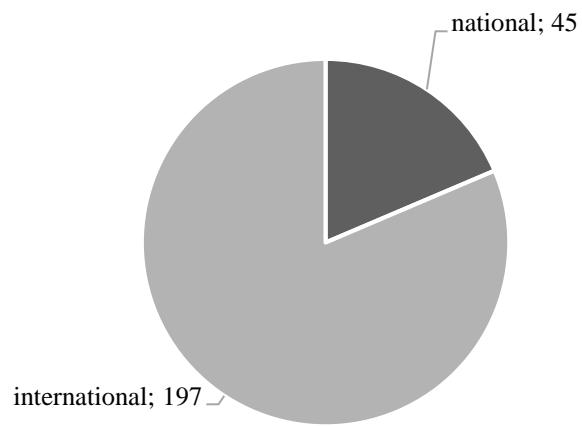
returned questionnaires (total: 242)



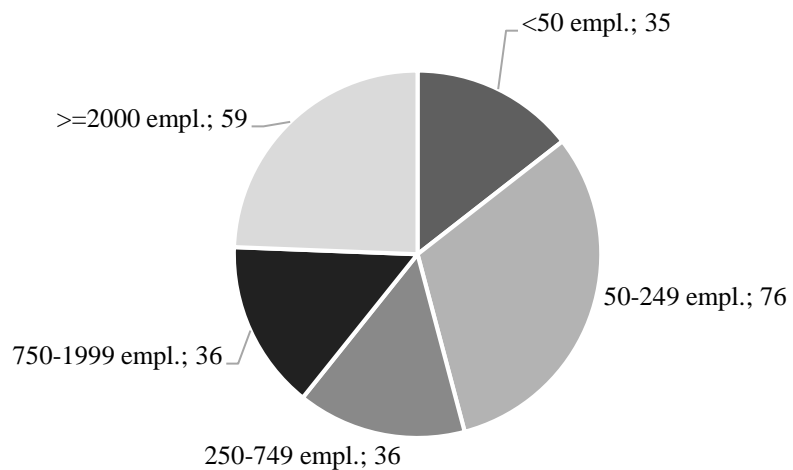
gender



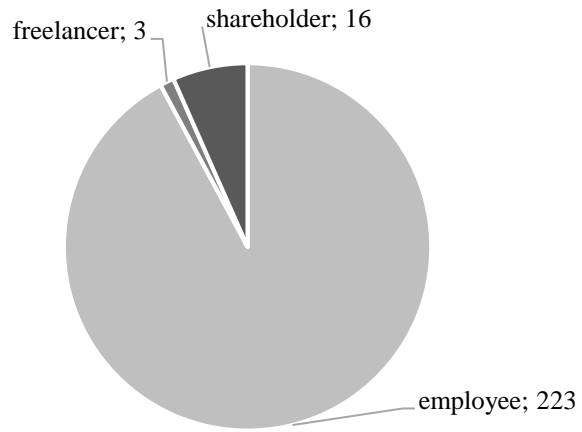
kind of business I



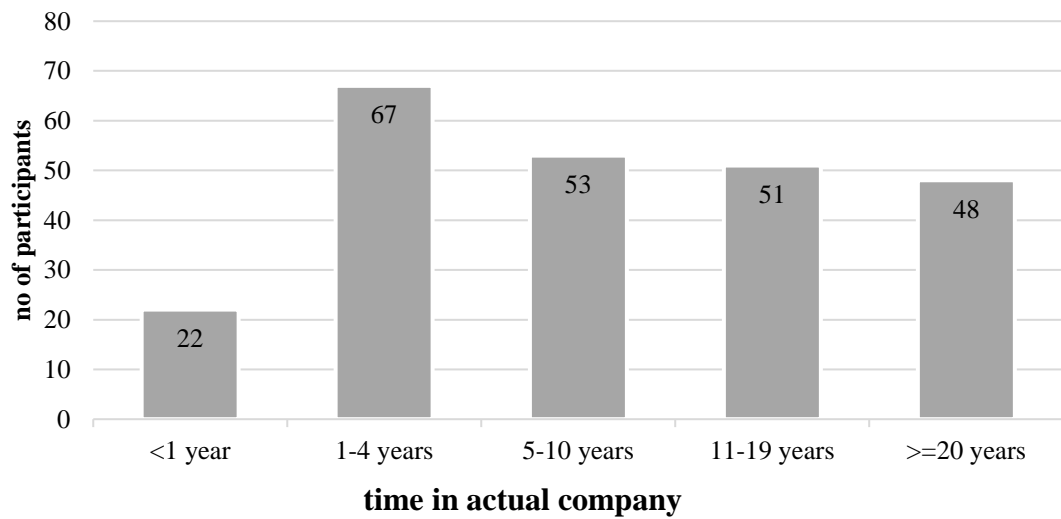
kind of business II



size of company



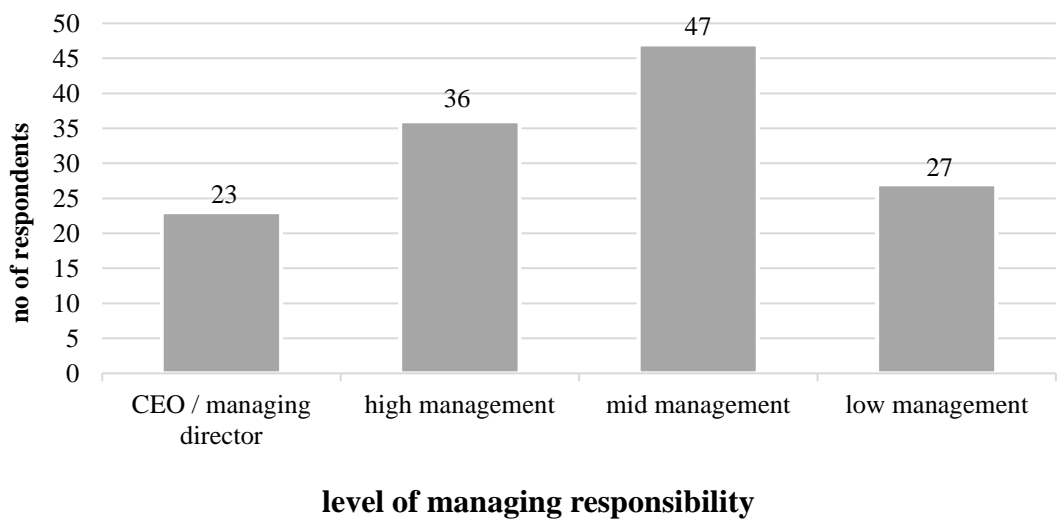
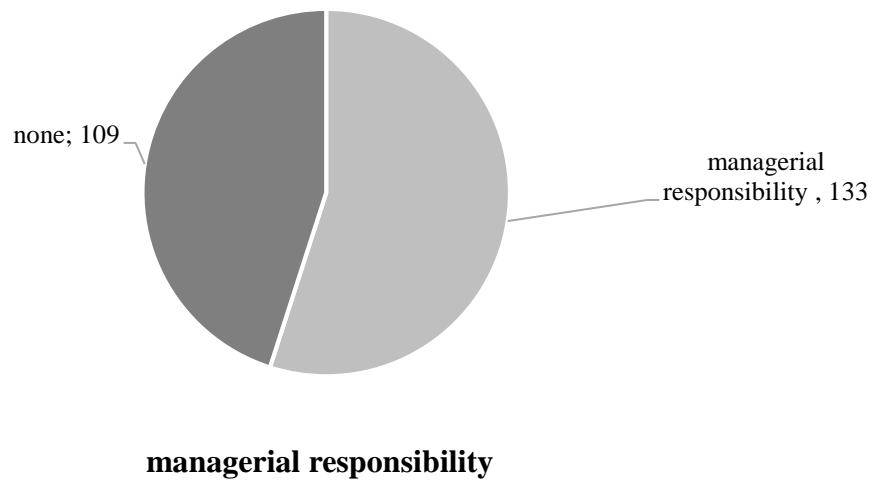
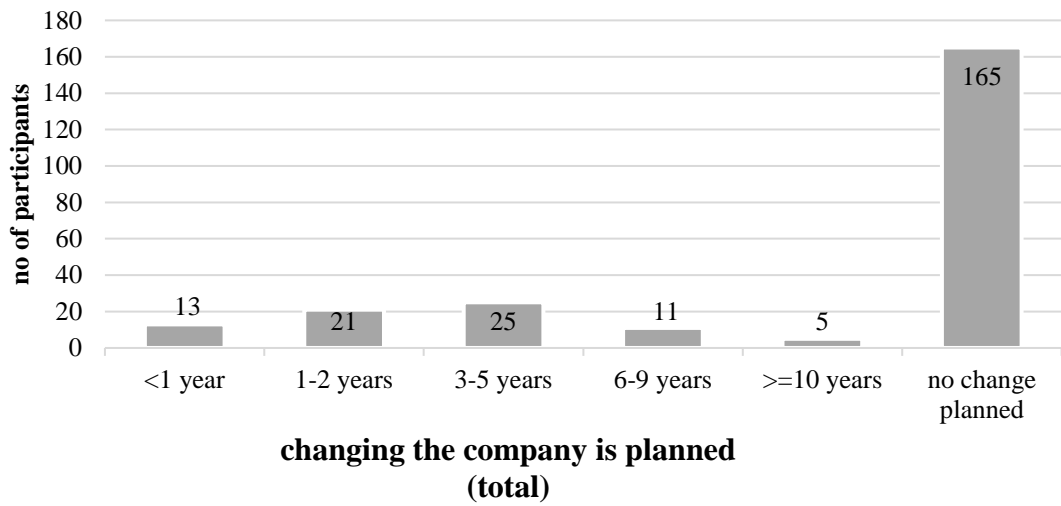
status of employment

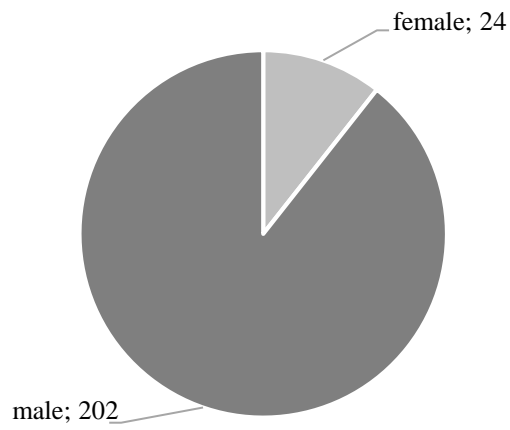


time in actual company

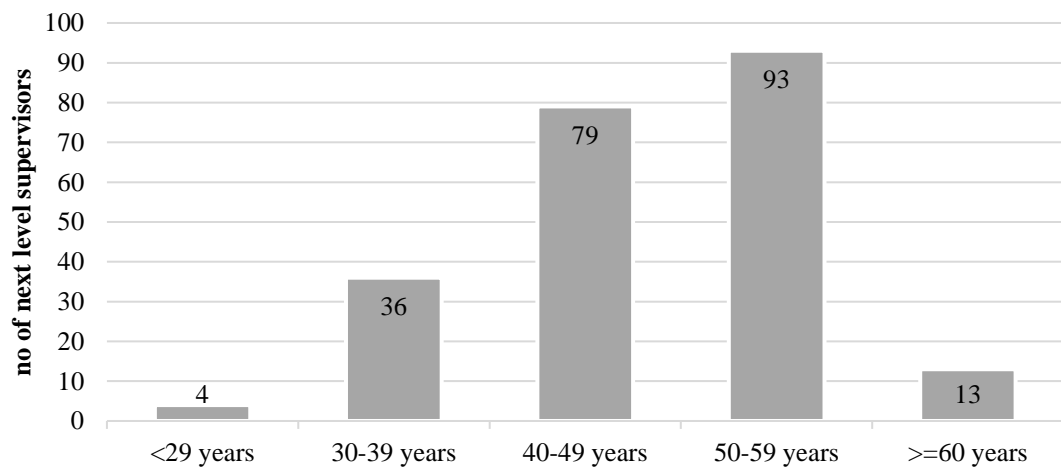


company changed after 25th birthday





gender of next level supervisor



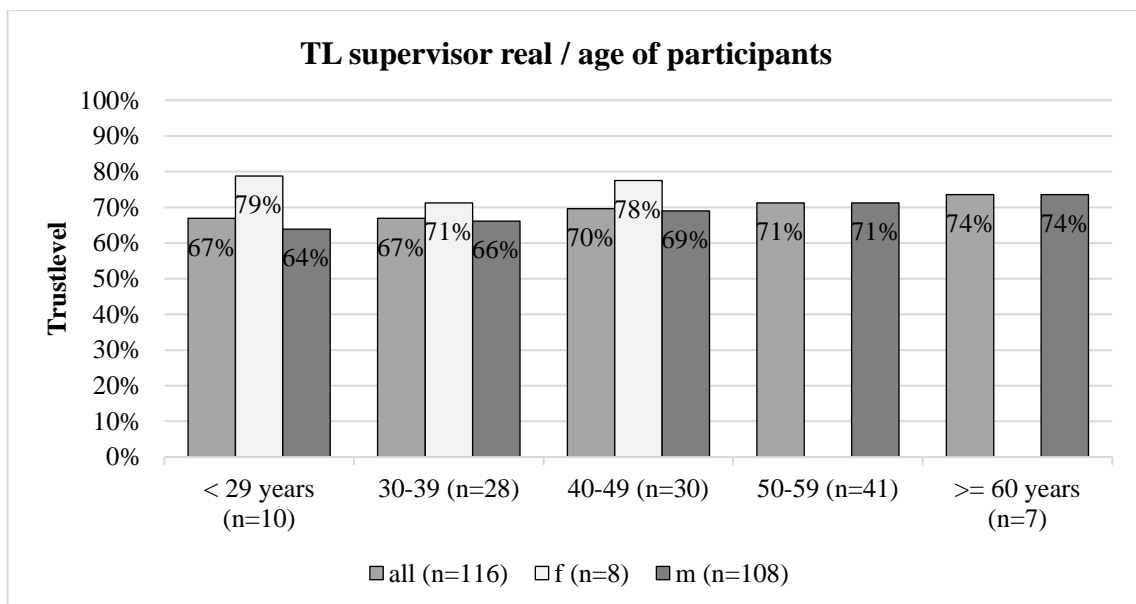
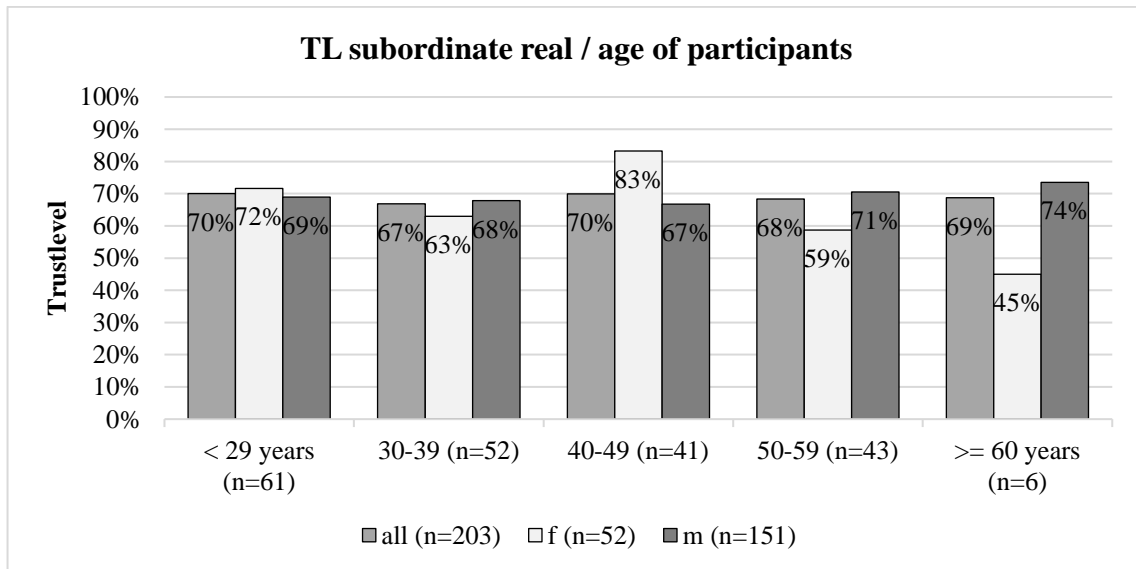
estimated age of next level supervisors

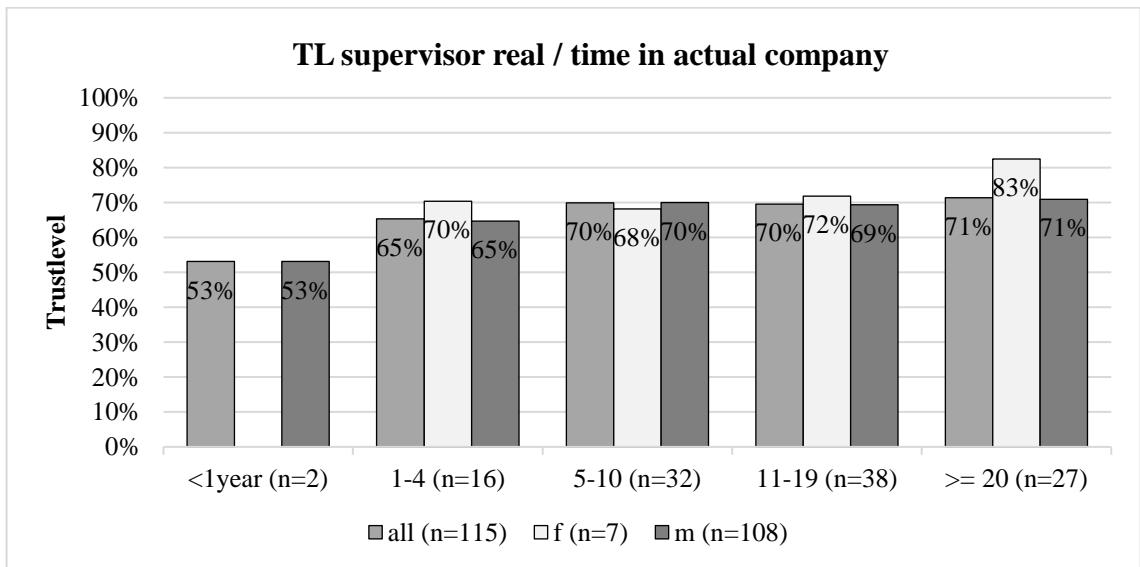
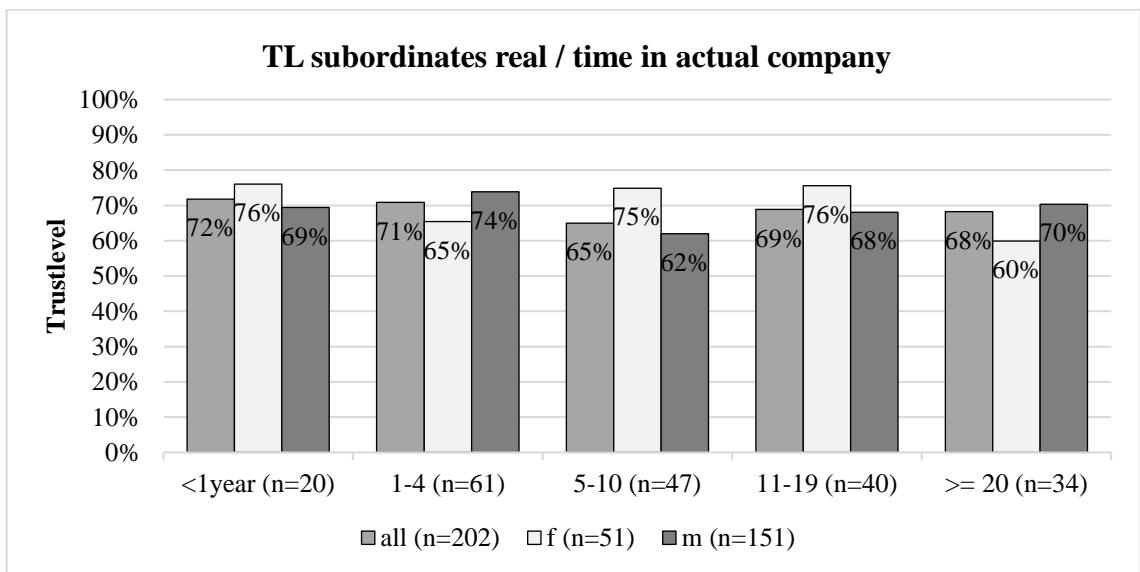
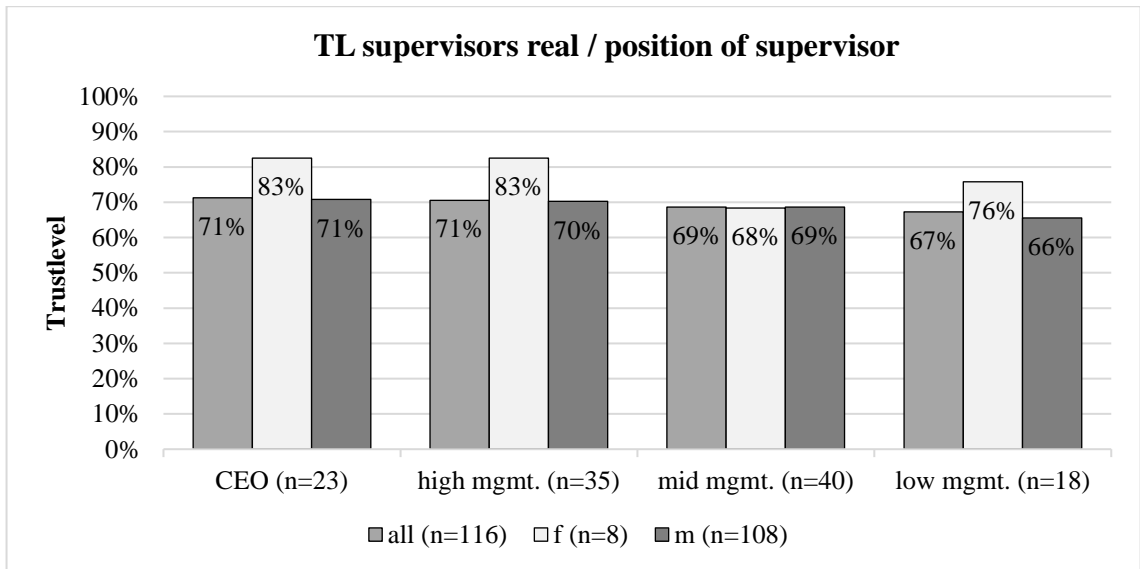
D. Descriptive statistics of variables (total sample)

	N	Minimum	Maximum	Mean	Std. Deviation
P_CE01	321	1	5	2.91	.954
P_CE02	321	1	5	2.17	1.037
P_CE03	320	1	5	2.14	1.057
P_CE04	321	1	5	1.71	.982
P_EX01	320	1	5	3.58	1.039
P_EX02	318	1	5	3.69	.973
P_EX03	319	1	5	3.62	.963
P_EX04	321	1	5	3.84	.846
P_LE01	321	1	5	3.95	.828
P_LE02	320	1	5	3.73	.870
P_LE03	321	1	5	4.02	.698
P_LE04	320	1	5	3.99	.695
P_RF01	320	1	5	4.09	.901
P_RF02	321	1	5	4.15	.836
P_RF03	319	1	5	4.28	.804
P_RF04	320	1	5	4.03	.879
P_RW01	319	1	5	3.13	1.167
P_RW02	317	1	5	3.58	1.133
P_RW03	320	1	5	3.13	1.146
P_RW04	320	1	5	3.67	1.090
TS_B01	320	1	5	3.80	.884
TS_B02	320	1	5	3.42	1.001
TS_B03	318	1	5	3.10	.916
TS_B04	321	1	5	3.64	.935
TS_B05	320	1	5	3.34	1.014
TS_C01	321	1	5	3.95	.830
TS_C02	321	1	5	3.99	.840
TS_C03	320	1	5	4.12	.776
TS_C04	320	1	5	3.96	.852
TS_C05	320	1	5	3.81	.938
TS_I01	320	1	5	3.92	.898
TS_I02	320	1	5	4.05	.939
TS_I03	320	1	5	3.91	.861
TS_I04	319	1	5	3.78	.864
TS_I05	321	1	5	3.92	.916
TS_P01	320	1	5	4.04	.746
TS_P02	321	1	5	3.60	.893
TS_P03	319	1	5	3.34	.887
TS_P04	321	1	5	3.73	.793
TS_P05	320	1	5	3.77	.842
Valid N (listwise)	291				

E. Potential influencing factors of supervisor & subordinate trust

All research results based on quantitative research.





F. Test of normality (total sample)

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
P_CE01	.193	291	.000	.898	291	.000
P_CE02	.271	291	.000	.853	291	.000
P_CE03	.245	291	.000	.854	291	.000
P_CE04	.323	291	.000	.734	291	.000
P_EX01	.233	291	.000	.890	291	.000
P_EX02	.236	291	.000	.880	291	.000
P_EX03	.241	291	.000	.888	291	.000
P_EX04	.259	291	.000	.863	291	.000
P_LE01	.286	291	.000	.838	291	.000
P_LE02	.303	291	.000	.851	291	.000
P_LE03	.315	291	.000	.792	291	.000
P_LE04	.324	291	.000	.795	291	.000
P_RF01	.271	291	.000	.807	291	.000
P_RF02	.262	291	.000	.801	291	.000
P_RF03	.283	291	.000	.779	291	.000
P_RF04	.251	291	.000	.834	291	.000
P_RW01	.181	291	.000	.913	291	.000
P_RW02	.209	291	.000	.887	291	.000
P_RW03	.186	291	.000	.912	291	.000
P_RW04	.231	291	.000	.878	291	.000
TS_B01	.292	291	.000	.855	291	.000
TS_B02	.202	291	.000	.901	291	.000
TS_B03	.249	291	.000	.881	291	.000
TS_B04	.211	291	.000	.887	291	.000
TS_B05	.205	291	.000	.897	291	.000
TS_C01	.270	291	.000	.847	291	.000
TS_C02	.294	291	.000	.825	291	.000
TS_C03	.277	291	.000	.806	291	.000
TS_C04	.269	291	.000	.838	291	.000
TS_C05	.230	291	.000	.875	291	.000
TS_I01	.241	291	.000	.858	291	.000
TS_I02	.226	291	.000	.831	291	.000
TS_I03	.290	291	.000	.842	291	.000
TS_I04	.294	291	.000	.856	291	.000
TS_I05	.246	291	.000	.863	291	.000
TS_P01	.321	291	.000	.781	291	.000
TS_P02	.311	291	.000	.841	291	.000
TS_P03	.258	291	.000	.867	291	.000
TS_P04	.302	291	.000	.836	291	.000
TS_P05	.334	291	.000	.813	291	.000

a. Lilliefors Significance Correction

G. Correlation analysis (Pearson)

a.) subordinate

		V_P_CE	V_P_EX	V_P_LE	V_P_RF	V_P_RW
V_P_CE	Pearson Correlation	1	-.499**	-.078	-.585**	-.222**
	Sig. (2-tailed)		.000	.266	.000	.001
	N	204	204	204	204	204
V_P_EX	Pearson Correlation	-.499**	1	.256**	.532**	.310**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	204	204	204	204	204
V_P_LE	Pearson Correlation	-.078	.256**	1	.170*	.327**
	Sig. (2-tailed)	.266	.000		.015	.000
	N	204	204	204	204	204
V_P_RF	Pearson Correlation	-.585**	.532**	.170*	1	.417**
	Sig. (2-tailed)	.000	.000	.015		.000
	N	204	204	204	204	204
V_P_RW	Pearson Correlation	-.222**	.310**	.327**	.417**	1
	Sig. (2-tailed)	.001	.000	.000	.000	
	N	204	204	204	204	204
V_TS_B	Pearson Correlation	-.662**	.699**	.263**	.833**	.470**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	204	204	204	204	204
V_TS_C	Pearson Correlation	-.642**	.706**	.268**	.667**	.369**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	204	204	204	204	204
V_TS_I	Pearson Correlation	-.695**	.605**	.271**	.796**	.407**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	204	204	204	204	204
V_TS_P	Pearson Correlation	-.403**	.392**	.226**	.587**	.243**
	Sig. (2-tailed)	.000	.000	.001	.000	.000
	N	204	204	204	204	204

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

		V_TS_B	V_TS_C	V_TS_I	V_TS_P
V_P_CE	Pearson Correlation	-.662**	-.642**	-.695**	-.403**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	204	204	204	204
V_P_EX	Pearson Correlation	.699**	.706**	.605**	.392**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	204	204	204	204
V_P_LE	Pearson Correlation	.263**	.268**	.271**	.226**
	Sig. (2-tailed)	.000	.000	.000	.001
	N	204	204	204	204
V_P_RF	Pearson Correlation	.833**	.667**	.796**	.587**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	204	204	204	204
V_P_RW	Pearson Correlation	.470**	.369**	.407**	.243**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	204	204	204	204
V_TS_B	Pearson Correlation	1	.802**	.862**	.558**
	Sig. (2-tailed)		.000	.000	.000
	N	204	204	204	204
V_TS_C	Pearson Correlation	.802**	1	.813**	.406**
	Sig. (2-tailed)	.000		.000	.000
	N	204	204	204	204
V_TS_I	Pearson Correlation	.862**	.813**	1	.576**
	Sig. (2-tailed)	.000	.000		.000
	N	204	204	204	204
V_TS_P	Pearson Correlation	.558**	.406**	.576**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	204	204	204	204

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

b.) supervisor

		V_P_CE	V_P_EX	V_P_LE	V_P_RF	V_P_RW
V_P_CE	Pearson Correlation	1	-.193*	.135	-.055	.158
	Sig. (2-tailed)		.037	.148	.557	.089
	N	117	117	117	117	117
V_P_EX	Pearson Correlation	-.193*	1	.480**	.495**	.210*
	Sig. (2-tailed)	.037		.000	.000	.023
	N	117	117	117	117	117
V_P_LE	Pearson Correlation	.135	.480**	1	.502**	.234*
	Sig. (2-tailed)	.148	.000		.000	.011
	N	117	117	117	117	117
V_P_RF	Pearson Correlation	-.055	.495**	.502**	1	.205*
	Sig. (2-tailed)	.557	.000	.000		.027
	N	117	117	117	117	117
V_P_RW	Pearson Correlation	.158	.210*	.234*	.205*	1
	Sig. (2-tailed)	.089	.023	.011	.027	
	N	117	117	117	117	117
V_TS_B	Pearson Correlation	-.171	.307**	.062	.179	.411**
	Sig. (2-tailed)	.065	.001	.509	.054	.000
	N	117	117	117	117	117
V_TS_C	Pearson Correlation	-.075	.202*	.106	.293**	.378**
	Sig. (2-tailed)	.419	.029	.255	.001	.000
	N	117	117	117	117	117
V_TS_I	Pearson Correlation	-.186*	.122	.104	.179	.267**
	Sig. (2-tailed)	.045	.190	.262	.053	.004
	N	117	117	117	117	117
V_TS_P	Pearson Correlation	-.133	.332**	.180	.176	.257**
	Sig. (2-tailed)	.152	.000	.052	.058	.005
	N	117	117	117	117	117

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

		V_TS_B	V_TS_C	V_TS_I	V_TS_P
V_P_CE	Pearson Correlation	-.171	-.075	-.186*	-.133
	Sig. (2-tailed)	.065	.419	.045	.152
	N	117	117	117	117
V_P_EX	Pearson Correlation	.307**	.202*	.122	.332**
	Sig. (2-tailed)	.001	.029	.190	.000
	N	117	117	117	117
V_P_LE	Pearson Correlation	.062	.106	.104	.180
	Sig. (2-tailed)	.509	.255	.262	.052
	N	117	117	117	117
V_P_RF	Pearson Correlation	.179	.293**	.179	.176
	Sig. (2-tailed)	.054	.001	.053	.058
	N	117	117	117	117
V_P_RW	Pearson Correlation	.411**	.378**	.267**	.257**
	Sig. (2-tailed)	.000	.000	.004	.005
	N	117	117	117	117
V_TS_B	Pearson Correlation	1	.526**	.609**	.513**
	Sig. (2-tailed)		.000	.000	.000
	N	117	117	117	117
V_TS_C	Pearson Correlation	.526**	1	.636**	.528**
	Sig. (2-tailed)	.000		.000	.000
	N	117	117	117	117
V_TS_I	Pearson Correlation	.609**	.636**	1	.508**
	Sig. (2-tailed)	.000	.000		.000
	N	117	117	117	117
V_TS_P	Pearson Correlation	.513**	.528**	.508**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	117	117	117	117

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

H. Correlation analysis (Kendall & Spearman)

a.) subordinate

			V_P_	V_P_E	V_P_L	V_P_	V_P_R	V_TS_	V_TS_	V_TS_	V_TS_
			CE	X	E	RF	W	B	C	I	P
Kendall's tau_b	V_P_C	Correlation	1.000	-.374**	-.081	-.422**	-.163**	-.475**	-.507**	-.535**	-.298**
	E	Coefficient									
		Sig. (2-tailed)	.	.000	.119	.000	.001	.000	.000	.000	.000
		N	204	204	204	204	204	204	204	204	204
V_P_E	X	Correlation	-.374**	1.000	.203**	.401**	.248**	.538**	.545**	.458**	.284**
		Coefficient									
		Sig. (2-tailed)	.000	.	.000	.000	.000	.000	.000	.000	.000
		N	204	204	204	204	204	204	204	204	204
V_P_L	E	Correlation	-.081	.203**	1.000	.167**	.239**	.240**	.228**	.239**	.188**
		Coefficient									
		Sig. (2-tailed)	.119	.000	.	.001	.000	.000	.000	.000	.000
		N	204	204	204	204	204	204	204	204	204
V_P_R	F	Correlation	-.422**	.401**	.167**	1.000	.339**	.680**	.529**	.642**	.424**
		Coefficient									
		Sig. (2-tailed)	.000	.000	.001	.	.000	.000	.000	.000	.000
		N	204	204	204	204	204	204	204	204	204
V_P_R	W	Correlation	-.163**	.248**	.239**	.339**	1.000	.366**	.270**	.323**	.208**
		Coefficient									
		Sig. (2-tailed)	.001	.000	.000	.000	.	.000	.000	.000	.000
		N	204	204	204	204	204	204	204	204	204
V_TS_	B	Correlation	-.475**	.538**	.240**	.680**	.366**	1.000	.655**	.696**	.398**
		Coefficient									
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.	.000	.000	.000
		N	204	204	204	204	204	204	204	204	204
V_TS_	C	Correlation	-.507**	.545**	.228**	.529**	.270**	.655**	1.000	.670**	.320**
		Coefficient									
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.	.000	.000
		N	204	204	204	204	204	204	204	204	204
V_TS_	I	Correlation	-.535**	.458**	.239**	.642**	.323**	.696**	.670**	1.000	.431**
		Coefficient									
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.	.000
		N	204	204	204	204	204	204	204	204	204
V_TS_	P	Correlation	-.298**	.284**	.188**	.424**	.208**	.398**	.320**	.431**	1.000
		Coefficient									
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.
		N	204	204	204	204	204	204	204	204	204
Spearman's rho	V_P_C	Correlation	1.000	-.500**	-.112	-.557**	-.228**	-.621**	-.661**	-.686**	-.395**
	E	Coefficient									
		Sig. (2-tailed)	.	.000	.111	.000	.001	.000	.000	.000	.000
		N	204	204	204	204	204	204	204	204	204

V_P_E	Correlation	-.500**	1.000	.280**	.529**	.335**	.696**	.696**	.596**	.381**
X	Coefficient									
	Sig. (2-tailed)	.000	.	.000	.000	.000	.000	.000	.000	.000
	N	204	204	204	204	204	204	204	204	204
V_P_L	Correlation	-.112	.280**	1.000	.220**	.317**	.318**	.307**	.313**	.250**
E	Coefficient									
	Sig. (2-tailed)	.111	.000	.	.002	.000	.000	.000	.000	.000
	N	204	204	204	204	204	204	204	204	204
V_P_R	Correlation	-.557**	.529**	.220**	1.000	.462**	.825**	.677**	.785**	.542**
F	Coefficient									
	Sig. (2-tailed)	.000	.000	.002	.	.000	.000	.000	.000	.000
	N	204	204	204	204	204	204	204	204	204
V_P_R	Correlation	-.228**	.335**	.317**	.462**	1.000	.489**	.364**	.446**	.283**
W	Coefficient									
	Sig. (2-tailed)	.001	.000	.000	.000	.	.000	.000	.000	.000
	N	204	204	204	204	204	204	204	204	204
V_TS_	Correlation	-.621**	.696**	.318**	.825**	.489**	1.000	.798**	.836**	.516**
B	Coefficient									
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.	.000	.000	.000
	N	204	204	204	204	204	204	204	204	204
V_TS_	Correlation	-.661**	.696**	.307**	.677**	.364**	.798**	1.000	.812**	.421**
C	Coefficient									
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.	.000	.000
	N	204	204	204	204	204	204	204	204	204
V_TS_	Correlation	-.686**	.596**	.313**	.785**	.446**	.836**	.812**	1.000	.555**
I	Coefficient									
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.	.000
	N	204	204	204	204	204	204	204	204	204
V_TS_	Correlation	-.395**	.381**	.250**	.542**	.283**	.516**	.421**	.555**	1.000
P	Coefficient									
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.
	N	204	204	204	204	204	204	204	204	204

** . Correlation is significant at the 0.01 level (2-tailed).

b.) supervisor

			V_P_	V_P_E	V_P_L	V_P_	V_P_R	V_TS_	V_TS_	V_TS_	V_TS_
			CE	X	E	RF	W	B	C	I	P
Kendall's tau_b	V_P_C E	Correlation	1.000	-.202**	.001	-.076	.133	-.092	-.078	-.147*	-.119
		Coefficient									
		Sig. (2-tailed)	.	.004	.994	.282	.055	.179	.265	.033	.087
		N	117	117	117	117	117	117	117	117	117
	V_P_E X	Correlation	-.202**	1.000	.401**	.394**	.188**	.261**	.180*	.098	.283**
		Coefficient									
		Sig. (2-tailed)	.004	.	.000	.000	.007	.000	.011	.161	.000
		N	117	117	117	117	117	117	117	117	117
	V_P_L E	Correlation	.001	.401**	1.000	.429**	.207**	.051	.116	.110	.213**
		Coefficient									
		Sig. (2-tailed)	.994	.000	.	.000	.004	.475	.109	.127	.003
		N	117	117	117	117	117	117	117	117	117
	V_P_R F	Correlation	-.076	.394**	.429**	1.000	.180*	.102	.249**	.134	.144*
		Coefficient									
		Sig. (2-tailed)	.282	.000	.000	.	.011	.147	.001	.058	.044
		N	117	117	117	117	117	117	117	117	117
	V_P_R W	Correlation	.133	.188**	.207**	.180*	1.000	.300**	.243**	.175*	.166*
		Coefficient									
		Sig. (2-tailed)	.055	.007	.004	.011	.	.000	.000	.012	.017
		N	117	117	117	117	117	117	117	117	117
	V_TS_ B	Correlation	-.092	.261**	.051	.102	.300**	1.000	.395**	.454**	.386**
		Coefficient									
		Sig. (2-tailed)	.179	.000	.475	.147	.000	.	.000	.000	.000
		N	117	117	117	117	117	117	117	117	117
	V_TS_ C	Correlation	-.078	.180*	.116	.249**	.243**	.395**	1.000	.494**	.409**
		Coefficient									
		Sig. (2-tailed)	.265	.011	.109	.001	.000	.000	.	.000	.000
		N	117	117	117	117	117	117	117	117	117
	V_TS_ I	Correlation	-.147*	.098	.110	.134	.175*	.454**	.494**	1.000	.379**
		Coefficient									
		Sig. (2-tailed)	.033	.161	.127	.058	.012	.000	.000	.	.000
		N	117	117	117	117	117	117	117	117	117
	V_TS_ P	Correlation	-.119	.283**	.213**	.144*	.166*	.386**	.409**	.379**	1.000
		Coefficient									
		Sig. (2-tailed)	.087	.000	.003	.044	.017	.000	.000	.000	.
		N	117	117	117	117	117	117	117	117	117
Spearman's rho	V_P_C E	Correlation	1.000	-.265**	.003	-.092	.174	-.130	-.103	-.198*	-.154
		Coefficient									
		Sig. (2-tailed)	.	.004	.976	.325	.060	.162	.271	.032	.097
		N	117	117	117	117	117	117	117	117	117
	V_P_E X	Correlation	-.265**	1.000	.490**	.500**	.251**	.346**	.223*	.132	.358**
		Coefficient									

	Sig. (2-tailed)	.004	.	.000	.000	.006	.000	.016	.156	.000
	N	117	117	117	117	117	117	117	117	117
V_P_L	Correlation	.003	.490**	1.000	.521**	.258**	.067	.137	.135	.257**
E	Coefficient									
	Sig. (2-tailed)	.976	.000	.	.000	.005	.476	.141	.145	.005
	N	117	117	117	117	117	117	117	117	117
V_P_R	Correlation	-.092	.500**	.521**	1.000	.231*	.134	.309**	.179	.193*
F	Coefficient									
	Sig. (2-tailed)	.325	.000	.000	.	.012	.149	.001	.054	.037
	N	117	117	117	117	117	117	117	117	117
V_P_R	Correlation	.174	.251**	.258**	.231*	1.000	.397**	.306**	.229*	.219*
W	Coefficient									
	Sig. (2-tailed)	.060	.006	.005	.012	.	.000	.001	.013	.017
	N	117	117	117	117	117	117	117	117	117
V_TS_	Correlation	-.130	.346**	.067	.134	.397**	1.000	.508**	.579**	.504**
B	Coefficient									
	Sig. (2-tailed)	.162	.000	.476	.149	.000	.	.000	.000	.000
	N	117	117	117	117	117	117	117	117	117
V_TS_	Correlation	-.103	.223*	.137	.309**	.306**	.508**	1.000	.603**	.506**
C	Coefficient									
	Sig. (2-tailed)	.271	.016	.141	.001	.001	.000	.	.000	.000
	N	117	117	117	117	117	117	117	117	117
V_TS_	Correlation	-.198*	.132	.135	.179	.229*	.579**	.603**	1.000	.480**
I	Coefficient									
	Sig. (2-tailed)	.032	.156	.145	.054	.013	.000	.000	.	.000
	N	117	117	117	117	117	117	117	117	117
V_TS_	Correlation	-.154	.358**	.257**	.193*	.219*	.504**	.506**	.480**	1.000
P	Coefficient									
	Sig. (2-tailed)	.097	.000	.005	.037	.017	.000	.000	.000	.
	N	117	117	117	117	117	117	117	117	117

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

I. Mann-Whitney-U-Test of power variables (subordinate vs. supervisor)

	S_L	N	Mean Rank	Sum of Ranks
P_CE01	Subordinate	204	140.84	28731.00
	Supervisor	117	196.15	22950.00
	Total	321		
P_CE02	Subordinate	204	160.78	32799.50
	Supervisor	117	161.38	18881.50
	Total	321		
P_CE03	Subordinate	203	160.38	32558.00
	Supervisor	117	160.70	18802.00
	Total	320		
P_CE04	Subordinate	204	160.83	32809.00
	Supervisor	117	161.30	18872.00
	Total	321		
P_EX01	Subordinate	204	146.66	29918.00
	Supervisor	116	184.84	21442.00
	Total	320		
P_EX02	Subordinate	202	141.50	28584.00
	Supervisor	116	190.84	22137.00
	Total	318		
P_EX03	Subordinate	202	137.92	27860.00
	Supervisor	117	198.12	23180.00
	Total	319		
P_EX04	Subordinate	204	148.57	30309.00
	Supervisor	117	182.67	21372.00
	Total	321		
P_LE01	Subordinate	204	152.76	31163.00
	Supervisor	117	175.37	20518.00
	Total	321		
P_LE02	Subordinate	204	153.39	31291.00
	Supervisor	116	173.01	20069.00
	Total	320		
P_LE03	Subordinate	204	158.27	32288.00
	Supervisor	117	165.75	19393.00
	Total	321		
P_LE04	Subordinate	203	155.01	31467.50
	Supervisor	117	170.02	19892.50
	Total	320		
P_RF01	Subordinate	203	159.29	32336.50
	Supervisor	117	162.59	19023.50

	Total	320		
P_RF02	Subordinate	204	159.74	32587.50
	Supervisor	117	163.19	19093.50
	Total	321		
P_RF03	Subordinate	203	153.33	31125.00
	Supervisor	116	171.68	19915.00
	Total	319		
P_RF04	Subordinate	203	143.79	29190.00
	Supervisor	117	189.49	22170.00
	Total	320		
P_RW0 1	Subordinate	202	148.44	29984.00
	Supervisor	117	179.97	21056.00
	Total	319		
P_RW0 2	Subordinate	204	173.41	35375.50
	Supervisor	113	132.99	15027.50
	Total	317		
P_RW0 3	Subordinate	203	149.53	30354.00
	Supervisor	117	179.54	21006.00
	Total	320		
P_RW0 4	Subordinate	204	160.25	32690.50
	Supervisor	116	160.94	18669.50
	Total	320		

	P_CE01	P_CE02	P_CE03	P_CE04
Mann-Whitney U	7821.000	11889.500	11852.000	11899.000
Wilcoxon W	28731.000	32799.500	32558.000	32809.000
Z	-5.393	-.059	-.031	-.049
Asymp. Sig. (2-tailed)	.000	.953	.975	.961

	P_EX01	P_EX02	P_EX03	P_EX04
Mann-Whitney U	9008.000	8081.000	7357.000	9399.000
Wilcoxon W	29918.000	28584.000	27860.000	30309.000
Z	-3.717	-4.845	-5.917	-3.390
Asymp. Sig. (2-tailed)	.000	.000	.000	.001

	P_LE01	P_LE02	P_LE03	P_LE04
Mann-Whitney U	10253.000	10381.000	11378.000	10761.500
Wilcoxon W	31163.000	31291.000	32288.000	31467.500
Z	-2.282	-1.984	-.799	-1.612
Asymp. Sig. (2-tailed)	.022	.047	.424	.107

	P_RF01	P_RF02	P_RF03	P_RF04
Mann-Whitney U	11630.500	11677.500	10419.000	8484.000
Wilcoxon W	32336.500	32587.500	31125.000	29190.000
Z	-.332	-.349	-1.865	-4.556
Asymp. Sig. (2-tailed)	.740	.727	.062	.000

	P_RW01	P_RW02	P_RW03	P_RW04
Mann-Whitney U	9481.000	8586.500	9648.000	11780.500
Wilcoxon W	29984.000	15027.500	30354.000	32690.500
Z	-3.042	-3.896	-2.893	-.067
Asymp. Sig. (2-tailed)	.002	.000	.004	.946

a. Grouping Variable: S_L

J. Specialist interview partners

(in alphabetic order)

Pos.	Name	Management - Level	location	experience	no. of subordinates	kind of company
x	Mr. Dr. M. Chen	CEO	China	>20 years	1500	manu- facturing
x	Mr. T. Connemann	CEO	Germany	>20 years	3200	manu- facturing
x	Mr. J. Krug	CEO & Owner	Germany	>20 years	270	manu- facturing
x	Mr. B. Kummer	CEO & Owner	Germany	>20 years	420	manu- facturing
x	Mr. W. Lutz	CEO & Owner	Germany	>30 years	145	manu- facturing
x	Mrs. S. Martinelli	CEO & Owner	Italy	>30 years	60	manu- facturing
x	Mr. F. Müschenborn	CEO & Owner	Germany	>30 years	23	manu- facturing
x	Mr. A. Rams	CEO -2	Germany	>20 years	12 (of 8500)	consulting
x	Mr. T. Selzer	CEO & Owner	Germany	>20 years	800	manu- facturing
x	Mr. M. Steiner	CEO -2	Germany	>10 years	420 (of 1700)	service provider
x	Mr. E. Uenishi	CEO -1	Japan	>30 years	250 (of 800)	manu- facturing
x	Mr. H. Wächter	CEO & Owner	Germany	>20 years	140	manu- facturing

K. Questions of specialist interview

Q0: First general introduction into the research and the meaning of trust & leadership.

Q1: What are your first impressions about trust in a supervisor/subordinate leadership. Please give me 5-10 items.

Q2: Have you had a trust based leadership situation with one of your (former) supervisors? If yes, what can you tell me about it?

Q3: What do you think are the advantages / disadvantages to have a faithful, means trust based leadership situations to your direct subordinate? – Please think also at the time where you were the subordinate of someone.

Q4: Please tell me if you agree / disagree, that the different categories of trust are important in the relation to your subordinate. Why? (scale 1-7: completely disagree is “1”/ completely agree is “7”)

a.) Benevolence: e.g. I believe that my subordinate has my best interest in mind. My subordinate is motivated to protect me. My subordinate watches my back.

b.) Integrity: e.g. I can depend on my subordinate to be fair. My subordinates are honorable people. My subordinates honor their word. My subordinates keep their promises. My subordinate is telling the truth.

c.) Predictability: e.g. I know what to expect from my subordinate. I usually know how my subordinate is going to react. My subordinate is reliable.

d.) Competence: e.g. My subordinate knows what he/she is doing. My subordinate is qualified to do its job. My subordinate communicates well.

Q5: Do you agree, that it is important for you, that the subordinate will have the following meaning from you. Why? (scale 1-7: completely disagree is “1”/ completely agree in “7”)

a.) Benevolence: e.g. I have trust in the motivations of my leader. My leader watches my back. My leader has my best interests in mind.

b.) Integrity: e.g. I believe my leader is fair. I believe my leader is honest. I can depend on the fairness of my leader.

c.) Predictability: e.g. I usually know, how my leader is going to react, I can anticipate what my leader will do.

d.) Competence: e.g. My leader performs his job well. My leader is capable at his job. My leader knows what he/she is doing.

Q6: When we talk about leading, and leading power, what kind of powers do you use normally: - referent (leader role)

- reward (bonus)
- specialist (knowledge)
- coercive (threat and punishment)
- legitimate (“make the job because I’m the supervisor”)

Q7: Do you think trust is a missing power in the above mentioned leadership powers?

Q8: Do you think you can influence the trust level to your subordinate using just specific powers?

Q9: Do you think trust is in some leadership situations more important than in other? Please think in horizontal about different business groups and in vertical from top management to production.

Q10: What do you think about the cultural aspect for a trust based leadership?

Q11: What are top leadership problems today, and how do you solve them.

Q12: Do you think that subordinates have more or less trust in its supervisor, if the leader is also the owner of the company? Please tell why also, when you think it has no influence?

Q13: Is there something special you want to add when you think about the two words “trust” and “leadership”

L. Detailed results of specialist interviews

Expert	Q1	q11 trust and leader	q12 no leader and leader	Q2	no information/exp	no former confiden	grows over time	yes (proof)
1	-Trust is important. -Trust in leadership gives loyalty (in both directions), flexibility, good salary, good working atmosphere		1	trust did not come from former supervisor, but given to subordinate.		1		
2	-Trust and leadership belong to each other -no leader can lead without trust.	1	1	no information	1			
3	-Trust is essential for leadership, otherwise must have to control (not efficient) -Trust and leadership belong to each other -Trust doesn't mean we have to be buddies, but actions have to have same strategy.	1	1	-a trust based relation was given, -supervisor was same as mentor -only first level trust (what he says/acts good for me)				1
4	-Trust and leadership belong to each other -Trust grows over time	1		It took 5-6 years time to get the trust of the supervisor. The subordinate is proud to have the trust of the supervisor.			1	1
5	sample: how to employ people: -knowledge, personality, marks, etc. but if there is no trust all other points are not relevant.		1	-a common view for supervisor and subordinate must be given, -employee must have the possibility to develop himself. => this needs trust				1
6	-Trust and leadership belong to each other, it's very important, to have good relationship to be better and faster, to increase efficiency	1		no experiences	1			
7	-Trust and leadership belong to each other	1		in the 80's the trust top/down system, no trust from supervisor		1		
8	-Trust and leadership belong to each other -honesty is needed -Trust is important on CEO level (Q7)	1	1	no experiences	1			
9	-Trust and leadership belong to each other	1		no experiences	1			
10	-Trust and leadership belong to each other -employee will leave company if there is no trust.	1	1	trust grew in a. a. 2 months due to daily open discussion about private and business details.			1	1
11	-Trust and leadership belong to each other -Trust grows over time	1		-sympathy based, -supervisor took care about him from the beginning.			1	1
12	-People in subordinate position understand or know his/her supervisor in few days or weeks, but opposite is always not. -share your goal -make partner -Trust is important in official and private		1	Yes, positive was that judgement are always "cool" and fast and the subordinate could see the vision/reason behind of the supervisor				1

Expert	Q3	no disadvantage	yes but not relevant	Q4a benevolence	Q4b integrity	Q4c predictability	Q4d competence	Q5a benevolence	Q5b integrity	Q5c predictability	Q5d competence
1	+motivation (salary is not important) +loyalty (grows out of trust) -misuse of trust (experience in both directions)			6	6	2	7	6	7	4	7
2	just disadvantage if you don't have trust in the employee to do their job	1		7	7	7	5,5	7	7	7	7
3	-trust relationships can be positive and negative. (rope-team: if you are in the wrong team you will have/get no success) -supervisor gets more critical from subordinate, if trust based.			2,5	7	6	4,5	6,5	7	6,5	6,5
4	trust of the supervisor can be exploited by the subordinate, to enforce its own interests by its colleagues.			4	7	4	7	5	7	1	4
5	-misuse of trust possible, but never seen.		1	7	7	5	6	5	7	4	7
6	don't see disadvantages with the use of trust	1		7	7	7	6	7	7	7	7
7	-misuse of trust possible, so timely control is necessary -no blind confidence			7	6,5	7	7	7	7	7	7
8	-no disadvantages, but private things just for longer relationships	1		7	7	3	7	7	7	4	7
9	-negative consequences in staff items take too long time. The leader will act slower, the subordinate gets more chances.			5,5	6	7	4	6	5,5	3	3
10	-no disadvantages, -advantage: efficiency (but lose contact due to trust level) has no advantage, at substance (primary) decisions.	1		2	7	7	7	7	7	7	7
11	-misuse of trust possible, so timely control is necessary -no blind confidence			5,5	7	6	7	7	7	4	7
12	-no disadvantages, -sometimes misunderstandings, makes disadvantages (e.g. trust from supervisor and obey from employee is not always in line as sometimes different basis) -advantage: effective, output and improvement can be expected.	1		2	1	7	7	1	7	2	7

Expert	Q6Ref	Q6Rew	Q6Exp	Q6Coe	Q6Leg	Q7	Q8
1	100%	0%	100%	no	no	no information	yes: Positive: Referent, expert power
2	100%	100%	100%	only last exit	no	yes, (trust is a must have)	yes: Positive: Referent, reward, expert power
3	100%	0%	50%	50%	no	yes (is essential, other powers based on this)	yes: Positive: Referent, expert power
4	100%	0%	50%	only last exit	no	yes	yes: Positive: Reward (if the subordinate, combines good things with the supervisor, trust increases)
5	100%	100%	100%	only last exit	only last exit	yes (if there is no trust all other points are not relevant)	yes: Positive: Referent, reward, expert power negative: Legitimation and coercive
6	100%	50%	0%	only last exit	no	yes	yes: Positive: Referent
7	100%	100%	100%	no	no	yes, (trust is a basis to convince people)	yes: Positive: Referent, reward, expert power negative: Legitimation and coercive
8	100%	100%	100%	no	(50%) sometimes, no best	yes	yes: Referent negative: Legitimation
9	100%	50%	50%	only last exit	no	yes	yes: Positive: Referent, reward, expert power negative: Legitimation and coercive
10	100%	50%	100%	no	no (only necessary at customer relationship, due to consulting)	yes, (trust is a must have)	yes: Positive: Referent negative: Coercive
11	100%	100%	50%	only last exit	no	yes	yes: Positive: Referent power negative: Legitimation and coercive
12	100%	100%	100%	no	50%	yes, (trust is a must have)	yes: Positive: Referent

Expert	Q8Ref pos.	Q8Rew pos.	Q8Exp pos.	Q8Coe neg.	Q8Leg neg	Q9	level no	Level yes
1	1		1			trust is the more important, the more complex, the higher the management level)		1
2	1	1	1			trust based leadership is a leadership style and makes no difference of level.	1	
3	1		1			trust is the more important, the more complex, the higher the management level)		1
4		1				trust is the more important, the more complex, the higher the management level)		1
5	1	1	1	-1	-1	-trust leadership is depending on personal structure.	1	
6	1					trust is always important, but if complexity increases, trust level must raise		1
7	1	1	1	-1	-1	trust is the more important, the more complex, the higher the management level)		1
8	1				-1	-no difference, same important. -trust leadership is depending on personal structure.	1	
9	1	1	1	-1	-1	trust is the more important, the more complex, the higher the management level)		1
10	1			-1		trust is the more important, the more complex, the higher the management level), but beginning with a complex level, there is no more difference. It's just unimportant, if the worker is easy to replace.		1
11	1			-1	-1	trust is the more important, the more complex, the higher the management level)		1
12	1					-Especially to get trust from subordinate is one of the best way to get good business results and happiness for life, -level by level is different and each position need different power to get trust from subordinate or supervisor. (Which one is not clear)		1

Expert	Q10	cultural no	cultural yes	Q11
1	no experiences	0	0	-missing trust into employee -the fast pace of today's time lead to less personal relationships
2	not difference due to culture, but to people. In China also often motivation with punishment. But trust based leadership is typical in China for intellectual leader	1		leaders are not good at change. More transformational leadership. Leaders have to be adaptable for change.
3	Asia: hierarchy (Top down, trust not so important) western culture is more self dependend, that's why we need trust		1	the expectations to leader: -has to make things right, has to motivate, has to be consequent (act same way everytime)
4	ASIA: Hierarchy leading is more present. Distance (respect) to CEO or Owner is more given. Family and age of the person gives trust to people. US: All people are same level (is said, but not reality)		1	clear targets, to discuss statements from outside, knowledge and leading performance in one person instead of "best of class will get the manager-job" -relationship to persons is more important than leading skills.
5	It can irritate Chinese worker to give him much trust (and less clear borders)		1	switch from old to young leaders (next generation)
6	business/life balance -> home office, work in groups, => basis of confidence!		1	employee has to see the CEO as a reference (referent/leader role) For this the CEO must be close to the worker.
7	no experiences	0	0	-Industry 4.0 -further reduction of 5h work week / work/life balance
8	no experience but with: but to build up trust in other countries is more difficult, because the persons have another behavior than awaited.	0	0	-requirements are increasing
9	-sees family father as a better leader. has trust in Lithuania and Slovakia but not in Romania.	0	0	employee are paralyzed, because they fear to make failures. Leaders have to allow failures.
10	yes, difference can be seen in high developed countries: there we have confidence. And in low cost countries (easy work, workers are easy to replace). Here we have a more hierarchy system.		1	modern employee wanted to have more freedom, we have skill shortage and that's why we have to go more and more to a personal relationship
11	China and Amerika is more patriarchy		1	-communication (not too less, not too much) -to find out how much subordinate will be led
12	no information	0	0	-have vision of future and take action to realize it with colleagues -dramatical changes in automotive industry -leadership makes future -always try to forget today and yesterday -throw away existing success stories.

Expert	Q12	more trust in owner	no difference	more confidence	Q13
1	It makes no difference, because trust must grow, the supervisor must earn it while the years.		1		If (low education) employees are led by personality, they will have a high trust level to the manager.
2	-more trust in owner, because of longer time periods in company (instead of a 5 year contract of CEO)	1			-
3	-more trust in owner, because of longer time periods in company (instead of a 5 year contract of CEO)	1		1	-
4	The skills of the leader can't be evaluated from the employee, independent of owner or not.		1		-
5	-more trust in owner, because of longer time periods in company (instead of a 5 year contract of CEO)	1		1	-
6	makes no difference. It depends on the leader, if people will follow.		1		-
7	-more trust in owner, because of longer time periods in company (instead of a 5 year contract of CEO)	1		1	the more confidence, the more things can be delegated. Not every time 100% the same result if you would do this by your own, but 90% is OK, too. (Not to be perfect is OK, have trust in worker.)
8	-more trust in owner, because of longer time periods in company (instead of a 5 year contract of CEO)	1		1	
9	The CEO must be present at the employees, so no difference in general, but if we have just 3 year (Interim-) Manager, there will be no trust.		1		-
10	both versions seen in reality, can be both		1		Respect without reserve and just hierarchy are leadership advantages from the past. Today leaders must win the subordinate. This can be done only with trust. It's same than teacher and student from generation 'Y' who are not thinking what can do for the.
11	-more trust in owner, because of longer time periods in company (instead of a 5 year contract of CEO)	1		1	-
12	Yes, there are huge influence of the supervisor to the owner. The subordinate has more trust. -The owner is the king of there.	1			both words are the key of the business world -w/o these two, we could not get good results.

M. Pre-test questionnaire

Evaluation of the Leadershipbehavior of the Manager

Question A: How is your Manager leading you? (from, subjective feeling.)

- my Manager is leading me by—
- fits less fits more
- threat / punishment
You get threatened or are punished, if something isn't ok
- legitimation
The manager arguments with its role as a supervisor to push its interests and wanted actions. ("I'm the boss, things have to be done as I say!")
- information & knowledge
The manager is an expert in its business and has a lot of knowledge and experience.
- gratification
Your manager gives you positive feedback for your work. Beside positive feedback this could be also additional sparetime/holiday or something financial (higher salary or an additional onetime payment), if target have been reached.
- trust
The daily work is based and works on a two-sided trust-based relationship.
- personality
The manager is in private and/or business life a paradigm for you. He broadcasts something positive for you.

Question C: What do you think, how much trust your manager has in you and your daily work?

- none less neutral or you have no idea I think the manager has mostly trust in me the manager has trust in me

Question B: How should a manager lead from your point of view?

- I would like to be leaded by—
- fits less fits more
- threat / punishment
You get threatened or are punished, if something isn't ok.
- legitimation
The manager arguments with its role as a supervisor to push its interests and wanted actions. ("I'm the boss, things have to be done as I say!")
- information & knowledge
The manager is an expert in its business and has a lot of knowledge and experience.
- gratification
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- trust
The daily work is based and works on a two-sided trust-based relationship.
- personality
The manager is in private and/or business life a paradigm for you. He broadcasts something positive for you.

Name / Group	optional information	
gender	<input type="radio"/> f <input type="radio"/> m	
group leader	<input type="radio"/> yes <input type="radio"/> no	

Bewertung des Führungsverhaltens des Vorgesetzten

Frage A: Wie werden sie geführt? (eigene, subjektive Empfindung)

- Ich werde geführt durch...
- Bedrohung / Bestrafung
Sie werden bedroht und oder werden bestraft, wenn etwas nicht in Ordnung ist. Führung durch Abschreckung.
- Legitimation
Der Vorgesetzte beruft sich immer wieder auf seine formelle Vorgesetztenfunktion um seine Interessen durchzusetzen. ("Ich bin der Chef, hier wird gemacht was ich sage!")
- Wissen
Der Vorgesetzte ist ein Experte auf seinem Gebiet und besticht durch sein Wissen und seine Erfahrung. Deshalb folgen Sie seinen Anweisungen.
- Belohnung
Sie werden für Ihre Arbeit in Form von Zuspruch, Lob, Freizeit oder finanziellen Mitteln (Lohnerhöhung/Einmalzahlung) bei Erreichung der Ziele belohnt.
- Vertrauen
Die Bearbeitung der täglichen Aufgaben erfolgt auf einem beiderseitigem Vertrauensverhältnis.
- Persönlichkeitswirkung
Der Vorgesetzte stellt im privaten und/oder berufl. eine Vorbildfunktion für Sie dar. Er strahlt etwas für Sie positives aus.

trifft
wenig
zu

trifft
viel
zu

Frage C: Was denken sie wieviel Vertrauen Ihr Vorgesetzter in Sie und Ihre tägliche Arbeit hat?

- gar keines
- eher weniger
- neutral oder
keine Ahnung
- ich vermure er vertraut
- er vertraut mir

Frage B: Wie sollte ein Vorgesetzter aus Ihrer Sicht führen.

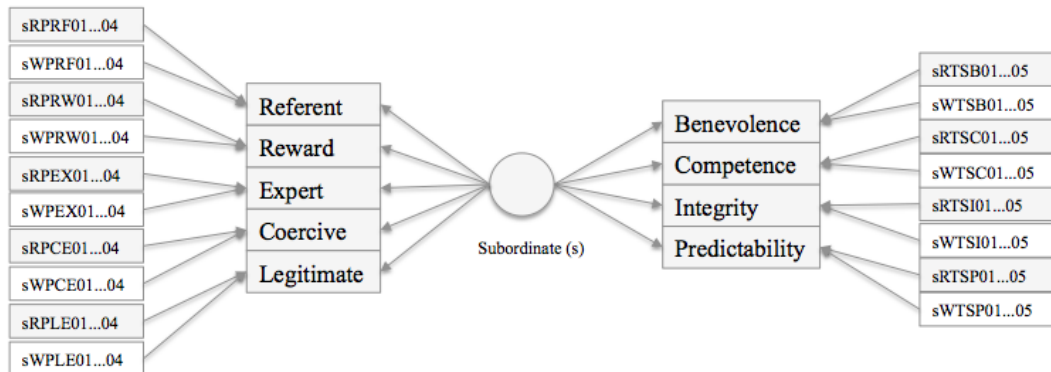
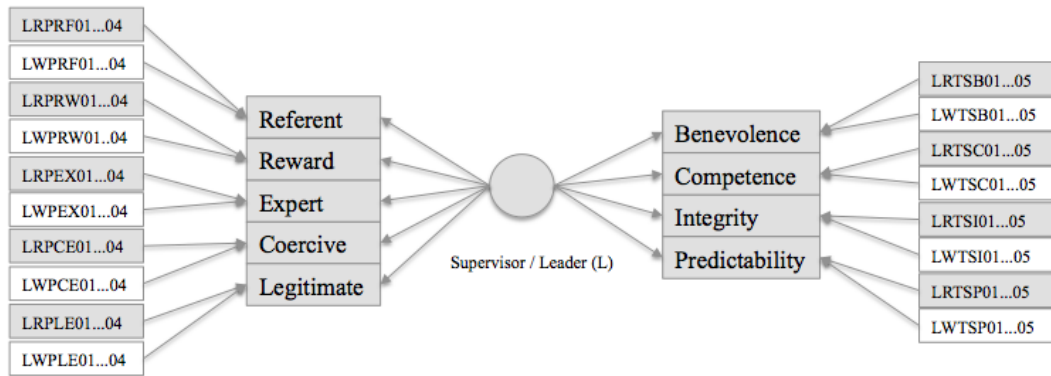
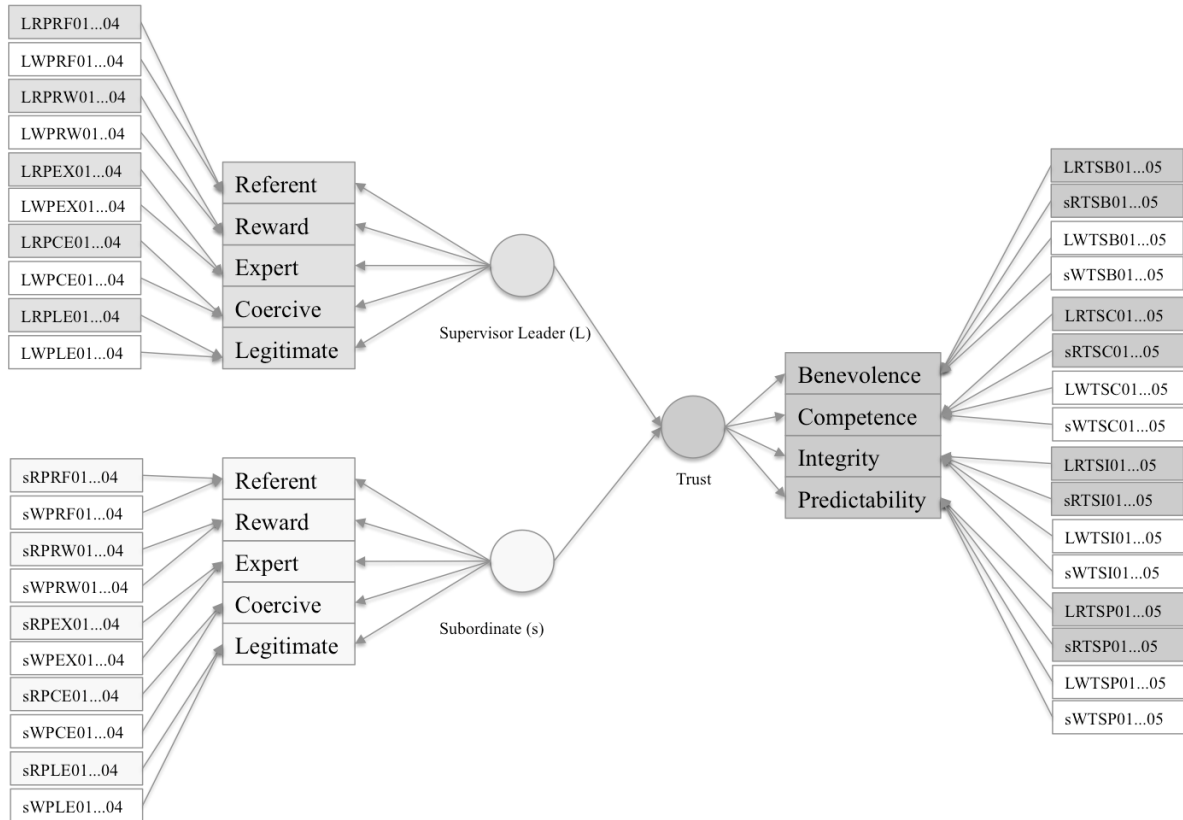
- Ich würde gerne geführt werden durch...
- Bedrohung / Bestrafung
Sie werden bedroht und oder werden bestraft wenn etwas nicht in Ordnung ist.
- Legitimation
Der Vorgesetzte beruft sich immer wieder auf seine formelle Vorgesetztenfunktion um seine Interessen durchzusetzen. ("Ich bin der Chef, hier wird gemacht was ich sage!")
- Wissen
Der Vorgesetzte ist ein Experte auf seinem Gebiet und besticht durch sein Wissen und seine Erfahrung. Deshalb folgen Sie seinen Anweisungen.
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Sie werden für Ihre Arbeit in Form von Zuspruch, Lob, Freizeit oder finanziellen Mitteln (Lohnerhöhung/Einmalzahlung) bei Erreichung der Ziele belohnt.
- Vertrauen
Die Bearbeitung der täglichen Aufgaben erfolgt auf einem beiderseitigem Vertrauensverhältnis.
- Persönlichkeitswirkung
Der Vorgesetzte stellt im privaten und/oder berufl. eine Vorbildfunktion für Sie dar. Er strahlt etwas für Sie positives aus.

trifft
wenig
zu

trifft
viel
zu

optionale Angaben	
Name / Bereich	
Geschlecht	<input type="radio"/> w <input type="radio"/> m
Gruppenleiter	<input type="radio"/> ja <input type="radio"/> nein

N. General and separated research model with typology and legend



Position	Type	Description
1	L	supervisor (leader)
	s	subordinate
2	R	real
	W	wish
3	P	LSP
	T	trust
4+5	RF	referent power
or only 4.	RW	reward power
	EX	expert power
	CE	coercive power
	LE	legitimate power
	B	benevolence (trust)
	C	competence (trust)
	I	integrity (trust)
	P	predictability (trust)
Last 2 digits	01-04/05	question number of the specified variable of trust or LSP

O. Definition of important boundary item to trust

Confidence

Trust and Confidence could be translated from a German person in similar way.

Trust = “Vertrauen” which is the active variant and means: “You trust in somebody.” – similar to Luhmann, who said that “Vertrauen” is future oriented³⁶⁰ and so there is a part of risk or in the literature the so called “leap of faith”^{361 362} from what is known and not known.

Confidence = “Zuversicht” which is the more passive or next stage variant and which means “I trust because of experiences of the past”.

On the other hand, if both German words were translated online, in both cases the first and highest hit is every time the word confidence. The second hit in the revise translation is for “Vertrauen” the word “trust” and for “Zuversicht” the word reliance, which is not widespread in the trust or confidence based articles.

The English-English translation showed as a result, that the definition is different, but the meaning itself is similar.

Confidence³⁶³ in British English: 1. A feeling of trust in a person or thing (I have confidence in his abilities) // 2. Belief in one’s own abilities; self-assurance // 3. Trust or a trustful relationship (take me into your confidence) // 4. Something in confided or entrusted; secret

Trust³⁶⁴ in British English: 1. Reliance on and confidence in the truth, worth, reliability, etc., of a person or thing; faith // 2. A group of commercial enterprises combined to monopolize and control the market for any commodity: illegal in the US // 3. The obligation of someone in a responsible position (a position of trust) // 4. custody, charge, or care (a child placed in my trust) // 5. A person or thing in which confidence or faith is placed // 6. Commercial credit // 7a. An arrangement whereby a person to whom the legal title to property is conveyed (the trustee) holds such property for the benefit of those entitled to the beneficial interest / 7 b. Property that is the subject of such an arrangement / 7c. the confidence put in the trustee // 8. (in the British

³⁶⁰ Luhmann, N., (2000) Vertrauen. Stuttgart: Lucius & Lucius, p.23

³⁶¹ Nikolova, N., Möllering, G., & Reihlen, M. (2015). Trusting as a ‘leap of faith’: Trust-building practices in client–consultant relationships. *Scandinavian Journal of Management*, 31(2), pp.232-245

³⁶² Rempel, J., Holmes, J., & Zanna, M. (1985). Trust in close relationships. *Journal of Personality & Social Psychology*, 49(1), pp.95-112

³⁶³ Collins English Dictionary (2019) <https://www.collinsdictionary.com/dictionary/english/confidence> (10.01.2019)

³⁶⁴ Collins English Dictionary (2019) <https://www.collinsdictionary.com/dictionary/english/trust> (10.01.2019)

National Health Service) a self-governing hospital, group of hospitals, or other body providing health-care services, which operates as an independent commercial unit within the NHS // (...) // 15. To extend business credit to (transitive)

Ullmann-Margalit³⁶⁵ makes a different between trust and confidence, because she wants to involve the imputing of intentions, and says that she has confidence in things and persons, but makes a different to trust, which she has only in people.

There is not a general different meaning, if different international authors wrote about confidence and trust, excepted the active / passive part, which is similar specified by Adams³⁶⁶, who made a theoretical paper work to distinguish the concept of trust and confidence. Nevertheless she sees also that the confusion of the terms trust and confidence hampers the development of the trust, as well the behavioral decision making literature.³⁶⁷ The chronological orientation of the decision can be in case of confidence, the present and the past. In case of trust it can be the past and present too, but the future is definitely involved and includes a part of risk. Due to the reason, that the status between supervisor and subordinate is something, which can change steady, where everyday at a minimum one of them has to take the risk, that the person will be disappointed, the result is clear that inside this document the discussion has to be done about trust and not confidence. Based on the before defined difference, in most cases inside this document the term trust is used, independent of its earlier used wording, to get a clear orientation inside the thesis.

Predictability

³⁶⁵ Ullman-Margalit, E. M. (2004). Trust, distrust and in between. In R. Hardin (ed.). *Distrust*. Russell Sage Foundation: New York, pp.60-82

³⁶⁶ Adams, B.D., (2005) *Trust vs. Confidence*. DRDC Toronto No. CR-2005-203, Department of national defence, Defence Research and Development Canada, Toronto, p.iii

³⁶⁷ Adams, B.D., (2005) *Trust vs. Confidence*. DRDC Toronto No. CR-2005-203, Department of national defence, Defence Research and Development Canada, Toronto, p.11

Mayer et al. is referring to six earlier studies (Rotter (1967)³⁶⁸, Gabarro (1978)³⁶⁹, Lewis and Weigert (1985)³⁷⁰, Dasgupta (1988)³⁷¹, Gambetta (1988)³⁷², Good (1988)³⁷³), in which the meaning of predictability is near to the meaning of trust. Both terms take expectations to a happening in the future, but the difference is that trust includes the factor risk. So if something is predictable, then there is no need to trust, because there is no risk, that the expectations will not be fulfilled.³⁷⁴

Loyalty

The general difference of loyalty compared with trust is, that loyalty can be the output of trust. Loyalty is the willingness to speak in positive word or to act in positive way, when a situation is available, in that a person is asked about another person or organization.

Student loyalty e.g. is the combination between student willingness to provide positive words about the institution and recommendation concerning educational institution to family, friends, employers, and organizations whenever opportunities are. Athiyaman³⁷⁵, Helgesen & Nettet³⁷⁶, Mohamad³⁷⁷ and Thomas³⁷⁸ refer this definition for the loyalty of a student after its time at the educational institution.

³⁶⁸ Rotter, J. B. (1967). A new scale for the measurement of interpersonal trust. *Journal of Personality*, 35 (4), pp.651-665

³⁶⁹ Gabarro, J.J.,(1978) The development of trust, influence and expectations. In A.G. Athos, & J.J. Gabarro (Eds.), *Interpersonal behaviour: Communication and understanding in relationships*, Englewood Cliffs, NJ: Prentice Hall, pp.290-303

³⁷⁰ Lewis, J.D., Weigert, A. (1985) Trust as a social reality, *Social forces* 63(4), pp.967-985

³⁷¹ Dasgupta, P., (1988) Trust as a commodity, Gambetta (Ed.)*Trust*, New York: Basil Blackwell, pp.49-72

³⁷² Gambetta, D.G. (1988) Can we trust "trust"?, Gambetta (Ed.), *Trust: Making and Breaking Co-Operative Relations*, New York, NY: Basil Blackwell, pp.213-237

³⁷³ Good, D. (1988), Individuals, interpersonal relations and trust, Gambetta (Ed.), *Trust: Making and Breaking Co-Operative Relations*, New York, NY: Basil Blackwell, pp.131-185

³⁷⁴ Mayer, R.C., Davis, J.H., Schoorman, F.D. (1995) An integrative model of organizational trust. *Academy of management review*, 20(3), p.714

³⁷⁵ Athiyaman, A. (1997). Linking student satisfaction and service quality perceptions: The case of university education. *European Journal of Marketing*, 31(7), pp.528-540

³⁷⁶ Helgesen, Ø., & Nettet, E. (2007). Images, satisfaction and antecedents: Drivers of student loyalty? A case study of a Norwegian University College. *Corporate Reputation Review*, 10, pp.38-59

³⁷⁷ Mohamad, M. (2009). Building corporate image and securing student loyalty in Malaysian higher learning industry. *The Journal of International Management Studies*, Vol. 4 No.1, p.30

³⁷⁸ Thomas, S. (2011, April). What drives student loyalty in university: An empirical model for India. *International Business Research*, 4 (2), pp.183-192

Moorman et al.³⁷⁹, Michell et al.³⁸⁰, Henning-Thurau et al.³⁸¹, Rojas-Mendez et al.³⁸² and Chu et al.³⁸³ stated that trust is very important, to develop loyalty. Many empirically validated studies have shown the direct correlation between student trust and student loyalty. Kunanusorn & Puttawong researched loyalty and trust inside student culture and came to the result that trust is a direct antecedent of loyalty and a prerequisite variable of loyalty.³⁸⁴ They describe trust as a predictor of student loyalty and show in their result that the trust of the student is beside the university image, the personal perceived value and its own satisfaction, one variable of the student loyalty with a statistical significant level of 0.05.

Möller's³⁸⁵ research in trust to organizations shows similar information. She is referring to a study the "Centers of Work-Life-Policy", which is showing, that between 2007 and 2008 the loyalty of an employee to its employer is decreased from 95% to 39%. In the same time, the share of employees decreased, who are in line to trust its employer. Here the share decreased from 79% to 22%.

Familiarity

In the eyes of Luhmann is familiarity a precondition for trust³⁸⁶ and this is not something which just can come from a person with human interactions only. Regarding Gefen³⁸⁷ this familiarity can also occur from a standard machine, similar as a website in the internet. A person is familiarity with a special website or application and so it influences and builds the behavior to

³⁷⁹ Moorman, C., Deshpande, R. & Zaltman, G. (1993). Factors affecting trust in market research relationships. *Journal of Marketing*, 57 (January), pp.81-101

³⁸⁰ Michell, P., Reast, J., & Lynch, J. (1998). Exploring the foundations of trust. *Journal of Marketing Management*, 4, pp.159-172

³⁸¹ Henning - Thurau, T., Langer, F.M., & Hansen, U. (2001, May). Modeling and managing student loyalty : An approach based on the concept of relationship quality. *Journal of Service Research*, 3 (4), pp.331-344

³⁸² Rojas-Méndez, J. I., Vasquez-Parraga, A. Z., Kara, A., & Cerda-Urrutia, A. (2009). Determinants of student loyalty in higher education: A tested relationship approach in Latin America. *Latin American Business Review*, 10, pp.21-39

³⁸³ Chu, P-Y., Lee, G-Y., & Chao, Y. (2012). Service quality, customer satisfaction, customer trust, and loyalty in an e-banking context. *Social Behavior and Personality*, 40(8), pp.1271-1284

³⁸⁴ Kunanusorn, A. & Puttawong, (2015). THE MEDIATING EFFECT OF SATISFACTION ON STUDENT LOYALTY TO HIGHER EDUCATION INSTITUTION. 4th International Scientific Forum, ISF 2015, 2-4 September, Oxford, United Kingdom Proceedings Vol.1, pp.449-454

³⁸⁵ Möller, H. (2012). Vertrauens- und Misstrauenskulturen in Organisationen. In *Vertrauen in Organisationen*, VS Verlag für Sozialwissenschaften, p. 14

³⁸⁶ Luhmann N. (1979) Trust and power. Chichester, UK: Wiley in Gefen, D. (2000). E-commerce: the role of familiarity and trust. *Omega*, 28(6), p.725

³⁸⁷ Gefen, D. (2000) E-commerce: the role of familiarity and trust, Department of Management, LeBow College of Business, Drexel University, *Omega* 28, Elsevier Science Ltd., USA, p.733

trust – same as ability, integrity, and intentions.³⁸⁸ Also other kind of non-personal things can create familiarity in a profit-oriented organization. E.g. can a buyer get familiarity if his standard contracts are signed from a new, potential or also well known supplier. Also this will increase the trust of the buyer into the supplier from the experiences of the author. Unfortunately, the hypothesis that the presence of detailed signed contracts will increase the buyer's perceived level of trust in the supplier³⁸⁹ is checked but not supported by the results of Handfield & Bechtel.

³⁸⁸ Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of management review*, 20(3), pp.709-734.

³⁸⁹ Handfield, R. B., & Bechtel, C. (2002). The role of trust and relationship structure in improving supply chain responsiveness. *Industrial marketing management*, 31(4), pp.367-382

P. General trust models and definitions

Lewis and Weigert³⁹⁰ came to the question if trust is based more on emotional side or is more affect based. Ten years later Mc Allister³⁹¹ makes a clear separation of possible trust cases. On the one side he saws cognitive based trust, which is based on experience or knowledge. This is divided in three cases:

- a.) to know that the person is reliable,
- b.) the person has same culture or ethic background,
- c.) the person has well known references.

For the affect based trust, he sees the following two reasons:

- a.) how much work a person does, what is not part of its contract, in literature often so called “Organizational Citizen Behavior” and
- b.) the number of interactions between the two persons.

But cognitive based trust can exist alone and has influence on affect based trust. Affect based trust cannot exist without cognitive based trust. He explains this, that for every trust based relationship, there must have been a minimum expectation, that the other person must reliable and respectable. In the view of Giddens, trust is also more effective in persons than in systems. He is telling, that this is the primary learned trust, the “facework commitment”, which can be only achieved in a direct communication.^{392 393} Shamir and Lapidot³⁹⁴ researched the differences between interpersonal trust and systemic trust, same as systems or objects. They stated that people make trust judgments not only on interpersonal or systemic side. The trust judgment is based on both, because leaders or other people are affected by systems or organizations and also the other way around, this can be seen from supervisor to subordinate side but also from subordinate to subordinate. For example a group meaning can influence a person who should make a trust judgment of its supervisor. Sztompka is coming to the result, that a culture of trust exists, which is a result of a continuous process of positive experiences, when a person trusts and had been trusted by another side.³⁹⁵ So trust is absolutely necessary to

³⁹⁰ Lewis, J.D., Weigert, A. (1985) Trust as a social reality, *Social forces* 63(4), pp.967-985

³⁹¹ McAllister, D. J. (1995). Affect-and cognition-based trust as foundations for interpersonal cooperation in organizations. *Academy of management journal*, 38(1), pp.24-59

³⁹² John, R. (2004). *Vertrauen in Organisationen sozialen Engagements: Berichte aus dem SFB 536. IPP-Arbeitspapiere: Bd. 2. München*, p.12

³⁹³ Endress, M. (2002). *Vertrauen. Einsichten*. Bielefeld: Transcript-Verl., p.40

³⁹⁴ Shamir, B., & Lapidot, Y. (2003). Trust in organizational superiors: Systemic and collective considerations. *Organization Studies*, 24, pp.463-491

³⁹⁵ Sztompka, P. (1999). *Trust: A sociological theory*. Cambridge cultural social studies. Cambridge: Cambridge University Press. In Endress, M. (2002). *Vertrauen. Einsichten*. Bielefeld: Transcript-Verl., p.46

build and maintain long-term relationships, as Singh & Sirdeshmukh said, too.³⁹⁶ One of the most popular concepts of trust is based on the deep psychological development model of Erikson. He has the meaning, that without trust a stable personality can't be developed (self-identity) and that the "primary trust" is the cornerstone of a healthy personality.³⁹⁷ Trust depends on early infantile experiences, especially on the quality of the mother-child-relationship. Unnecessary refusals, threats and personal unreliability prohibits trust.³⁹⁸ Rotter, an American psychologist who is working on the development of a social learning theory is the meaning, that trust is based on the expectations of persons or group, who gave each other a positive or negative, verbal or written promise.³⁹⁹ ⁴⁰⁰Deutsch, also an American psychologist and conflict-scientist, has the thesis that trustful acting shows an increasing of the own vulnerability against persons who are not under their personal / own control, in a situation, where the damage who can possibly occur is higher than the benefit that could happen.⁴⁰¹ ⁴⁰²Jäckel⁴⁰³ same as Schweer & Thies⁴⁰⁴ sees in Deutsch and Rotter the general differences of trust concepts. The first one (e.g. Rotter, 1967) sees trust as a character property, the second concept (e.g. Deutsch, 1962) sees trust as a situation depending decision. Mayer et al.⁴⁰⁵ sees trust as an issue in the presence of risk, uncertainty, vulnerability and the need of interdependency with another person. Kegan & Rubenstein defined trust by that: "Trust may be conceived as a preconscious condition or attitude permitting one to enter a situation with minimal

³⁹⁶ Singh, J., & Sirdeshmukh, D. (2000). Agency and trust mechanisms in customer satisfaction and loyalty judgments. *Journal of the Academy of Marketing Science*, 28 (1), pp.150-167

³⁹⁷ Petermann, F. (1992). *Psychologie des Vertrauens*. München. p.12

³⁹⁸ Erikson, E. H. (1963). *Wachstum und Krisen der gesunden Persönlichkeit*. Stuttgart: Klett, inside Petermann, F. (1992). *Psychologie des Vertrauens*. München. p.15

³⁹⁹ Rotter, J. B. (1967). A new scale for the measurement of interpersonal trust. *Journal of Personality*, 35 (4), pp.651-665

⁴⁰⁰ Rotter, J. B. (1971). Generalized expectancies for interpersonal trust. *American Psychologist*, 26, pp.443-452.

⁴⁰¹ Deutsch, M. (1962). Cooperation and Trust: Some Theoretical Notes. In M. R. Jones (Hrsg.), *Nebraska Symposium on Motivation 1962 (Current theory and research in motivation)* Lincoln Neb.: Univ. of Nebraska Press., pp.275-319

⁴⁰² Petermann, F. (1992). *Psychologie des Vertrauens*. München. p.15

⁴⁰³ Jäckel, A.(2018), *Gesundes Vertrauen in Organisationen*. Wiesbaden: Springer, p.24

⁴⁰⁴ Schweer, M. K., & Thies, B. (2003). *Vertrauen als Organisationsprinzip: Perspektiven für komplexe soziale Systeme*. Bern: Huber. p.3

⁴⁰⁵ Mayer, R.C., Davis, J.H., Schoorman, F.D. (1995) An integrative model of organizational trust. *Academy of management review*, 20(3), pp.709-734

defensiveness.”⁴⁰⁶ Graeff⁴⁰⁷ means to this, that the reduction of control opportunities will only work, if the person is the meaning that this situation will be not exploited by another person. Griffin and Tversky⁴⁰⁸ described trust as a degree of belief in a given hypothesis. Here they separated the main components into the given hypothesis and the level of belief that person has in this hypothesis or decision. Hurley⁴⁰⁹ based his model on the result of Deutsch, but also on his own research, tested with more than 100 top managers. He developed 10 factors, which are relevant that a supervisor can trust the subordinate. Three of these factors concern to the person, who should trust, the remaining 7 factors depending on the situation in which the person, who should trust, is. The three personal factors are based

- 1.) on the readiness to assume risk of the person, who should trust,
- 2.) how adjusted he is to its environment and
- 3.) how the size of its power is.

The other seven ones are relevant for the situation itself,

- 1.) how both persons feel,
- 2.) how many commonalities they have,
- 3.) if they have same interests,
- 4.) if the person, who should get the trust, shows a sympathetically interest,
- 5.) if the person, who should get the trust is competent,
- 6.) if the acting of the person, who should get the trust is foreseeable and
- 7.) if the communication is good between both parties.

So especially in the daily business life are many factors that can influence the decision of trust and mistrust, but most of them can be influenced by management. Levering calls bureaucracy as an organized mistrust, when he refers to the environment of trust.

⁴⁰⁶ Kegan, D. L. & Rubenstein, A. H. (1973). Trust, effectiveness, and organizational development: A field study in R & D. *The journal of applied behavioral science*, 9 (4), p.499

⁴⁰⁷ Graeff, P. (1997). *Vertrauen zum Vorgesetzten und zum Unternehmen: Modellentwicklung und empirische Überprüfung verschiedener Arten des Vertrauens, deren Determinanten und Wirkungen bei Beschäftigten in Wirtschaftsunternehmen*. Dissertation, Rheinische Friedrich-Wilhelms-Universität zu Bonn. Bonn, p.11

⁴⁰⁸ Griffin, D., Tversky, A. (2002). The weighing of evidence and the determinants of confidence. In Gilovich, T., Griffin, D. (2002). *Heuristics and biases: The psychology of intuitive judgment*. New York, NY, US: Cambridge University Press. pp. 230-249

⁴⁰⁹ Hurley, R. F. (2006). So schaffen Sie mehr Vertrauen: Vertrauen zwischen Managern und Mitarbeitern ist kein Gottesgeschenk. *Harvard-Business-Manager*, November 2006, pp.62-73

Ross & LaCroix⁴¹⁰ added the model of Shapiro et al.⁴¹¹ with the research data of Lewicki & Bunker⁴¹² and came to its concept, which is based in the situation of negotiations. Trust is developed step by step over three phases and with each step the trust level is raising: 1.Phase: calculated trust. 2.Phase: knowledge based trust 3.Phase: identification based trust-

Butler⁴¹³ sees the following requirements as a positive condition to get a trust between employees in organizations: to fulfill promises, loyalty, honesty, openness, discrete handling of secrets, responsiveness for ideas and meanings, cooperative behavior instead of competition, long-lasting relationship, comprehensive, stimulant, important relationship, high social identity, respectful and recognizable behavior of the supervisor, respectful and valuable behavior in the group, valuable interpersonal relationship and transparency in decision, acting and motivation. Doney et al.⁴¹⁴ has the understanding, that the development of trust is categorized in five sequential items of behavior to get a both sided trust. So the development comes step by step, but often find its maximum after the first two steps.

1.) Calculation: the behavior of the partner is the same as "calculated", because just so the person will get a reward or otherwise the person will get a punishment.

2.) Forecast: forecast of future behavior out of former experiences - knowledge based trust.

3.) Intentionality: common targets, similar way of thinking and experiences will be supposed

4.) Competence: estimation, if the partner is able to fulfill the expectations. Known skills and performance are important factors.

5.) Transfer: known skills and performances, out of own or third party experiences will be suggested on unknown skills or performances.

Mc Knight et al.⁴¹⁵ created a model for the initial trust development. This model is based on three components: disposition of trust, cognitive processes and trust in institutions, whereby the initial development of trust is based only on two basics:

⁴¹⁰ Ross, W.&La Croix, J. (1996). Multiple Meanings of trust in negotiation theory and research: A literature review and integrative model. *International Journal of Conflict Management*, 7 (4), pp. 314-360.

⁴¹¹ Shapiro, D., Sheppard, B. H. & Charskin, L. (1992). Business on handshake. *Negotiation Journal*, 8, pp.365-377.

⁴¹² Lewicki, R.J. & Bunker, B.B. (1996). Developing and Maintaining Trust in Work Relationships. In T.R. Tyler & R.M. Kramer, *Trust in Organizations: Frontier of Theory and Research*, New Dehli: Sage Publications, pp.114-139

⁴¹³ Butler, J.K.Jr (1991), Toward understanding and measuring conditions of trust: Evaluation of conditions of trust inventory. *Journal of Management*, 17, pp.643-663

⁴¹⁴ Doney, P.M., Cannon, J.P., & Mullen, M.R. (1998), Understanding the influence of national culture on the development of trust. *Academy of Management Review*, 23(3), pp.601-620.

⁴¹⁵ McKnight, H., Cummings, L.L., & Chervany, N. (1998). Initial trust formation in new organizational relationship. *Academy of Management Review*, 23(3), pp.473-490

1.) Trust-conviction (due to goodwill, fairness, competence and that the personal behavior can be calculated / forecasted, the partner can be convinced from the reliability) and

2.) Trust-intention (willingness to trust in a specific situation on another person).

Bierhoff, who is a social psychologist, investigates items as moral, courage, excuses, trust, social responsibility and others in the society, sees also trust as a risk to be disappointed.^{416 417}

Petermann works on the psychology of trust and made an overview about the results of research.

In addition he makes deeper analysis of the trust status between therapist and patient.⁴¹⁸ The

following 3-Phases-Models are Petermanns outcome of pair therapies between two persons and the rise and loss of trust. Trust is similar to business life one of the most important daily subjects.

a.) 3 phases of creating trust⁴¹⁹

Phase 1: Establishing of an understandingly communication; give the partner your full attention; give special attention due to empathy ("I know what you mean...").

Phase 2: Delete menacing acting; describe your own acting, so that it's understandable and calculate able for your partner; give your partner feedback of its behavior for orientation.

Phase 3: Defined build-up of trust; hand over competence to your partner with important tasks; growing success supports self-confidence as requirement for trust.

Creating of trust is a longer process, but the loss of trust can be much faster:

b.) 3 phases of loosing trust

Phase 1: Destroying of an understandingly communication; the self-manifestation is too high, the position and condition of the partner will be insufficient observed; paternalism of the partner and high restriction of its authority to decide.

Phase 2: Choose of menacing actions; the behavior is not foreseeable for its partner or too high / low amount of suggestions or remark; non or just one-sided feedback brings disorientation or menace.

Phase 3: Defined destroying of trust; cynicism and degradation of the competences of the partner; growing helplessness and passiveness, which causes a loss of self-confidence.

⁴¹⁶ Bierhoff, H.-W. (1992). Trust and trustworthiness. In L. Montada, S.-H. Filipp & M. J. Lerner (Hrsg.), *Life crises and experiences of loss in adulthood*, Hillsdale, N.J. etc.: Erlbau, pp.411–433

⁴¹⁷ Bierhoff, H.-W. & Herner, M. Jürgen. (2007). *Vertrauen: Trust*. In H. Schuler & K. Sonntag (Hrsg.), *Arbeits- und Organisationspsychologie*, Göttingen; Bern; Wien; Paris; Oxford; Prag: Hogrefe Verlag, pp.300–305

⁴¹⁸ Petermann, F. (1997). *Vertrauen im therapeutischen Kontext*. In M. K. W. Schweer (Hrsg.), *Interpersonales Vertrauen*, Opladen [u.a.]: Westdt. Verl., pp.155–164

⁴¹⁹ Petermann, F. (1992). *Psychologie des Vertrauens*. Göttingen: Hogrefe, 3.Auflage, p.117

The theory of Schottlaender, a German philosopher, is that trust is a result of own experience and the hope of goodness inside the human.⁴²⁰ Sloterdijk, also philosopher, sees trust as the basis of cohabitation and that the future society is fated to trust.⁴²¹

Kassebaum developed a tool to measure the general trust of a person, the trust in the social environment and in his partnership. Kassebaum founded five categories⁴²²: trust in friends, trust in partner, general trust, trust in the neighbor and trust in the psychotherapist. Hartmann sees trust risky and uncertain: "We don't know exactly, if the other person the trust, what was evinced in him, fulfills or not. Due to this we call trust risky and uncertain."⁴²³ Trust in the eye of Habermas⁴²⁴ is a concept of validity, which is similar as truth, never belongs solely to the judging person or the judged object or person alone, only in combination. Lane⁴²⁵ is the meaning, that most concepts of personal trust share three items: a.) dependence of persons who give and gets trust, b.) assumption, that trust provides a way to cope with risk or uncertainty and c.) belief or expectation, that vulnerability, resulting from the acceptance of risk, will not be taken as an advantage from the opposite person. Evans & Krüger⁴²⁶ consider the characteristics of the specific individuals and the situation before they defined the trust situation of a person: "Trust is calculated by weighing risks and benefits. Identification-based trust, in contrast, emerges through empathy and identification with another person's intentions and desires. The characteristic and strength of trust depends on whether the relationship is primarily economic (calculus-based) or intimate (identification-based)". Möllering⁴²⁷ sees in his concept of trust the check of the routine, the reason and the reflexivity. Same as others he stated, that the more routine is available the less the actions will be rechecked and it will be accepted as it is. This is also something that feels the person trustful in something. The reason itself is same relevant. The person has to understand why something has to be done. The last item of Möllering is the

⁴²⁰ Schottlaender, R. (1957). *Theorie des Vertrauens*. Berlin: de Gruyter. In Petermann, F. (1992). *Psychologie des Vertrauens*. München. p.15

⁴²¹ Sloterdijk, P. (2001). *Nicht gerettet: Versuche nach Heidegger*. Frankfurt a.M, Suhrkamp. p.233

⁴²² Kassebaum, U. Bernd. (2004). *Interpersonelles Vertrauen - Entwicklung eines Inventars zur Erfassung spezifischer Aspekte des Konstrukts*. Dissertation. Hamburg, pp.226, 229

⁴²³ Hartmann, M. (2002). *Aussichten auf Vorteile? Grenzen rationaler Vertrauensmodelle in der Politikanalyse*. ÖZP - Österreichische Zeitschrift für Politikwissenschaft (4: Vertrauen. Mikrofundierung sozialer und politischer Ordnungen), p.383 in Bartelt, D. (2011). *Wertschätzende, kompetente und ethische Führung – Das Vertrauen der Mitarbeiter in Ihre Führungskräfte* Dissertation, Universität Duisburg-Essen, p.22

⁴²⁴ Habermas, J. (2003): *Truth and Justification*. UK, Cambridge: Polity Press, p.90

⁴²⁵ Lane, C., & Bachmann, R. (Eds.). (1998). *Trust within and between organizations: Conceptual issues and empirical applications*. Oxford University Press, p.3

⁴²⁶ Evans, A. M., Krüger, J. I. (2009) *The psychology (and economics) of trust*. *Social and Personality Psychology Compass*. 27, 3/6, pp.1003-1017.

⁴²⁷ Möllering, G. (2006), *Trust: Reason, Routine, Reflexivity*. Oxford : Elsevier Ltd., 2006. p.111

reflexivity, which is nothing else than the personal experience a person has made in a same or similar situation. Independent of this, the person who has to trust is in the situation, that (s)he has to make the first or next step because (s)he thinks it comes to a positive end, which is similar to Osterloh & Weibel⁴²⁸. In their concept trust exists as a trust spring, on positive expectations and vulnerability. On the other side, if a person is not trusting another person, then the person mistrusts or better called is suspicious, as Covey & Merrill⁴²⁹ say. This is also understandable, because to trust a person means every time to take a risk as Geramanis⁴³⁰ said. The person who gives trust, goes into a not fully defined and potential not controllable situation. The person is in dependence of the person who gets the trust. Miller and Rempel⁴³¹ researched married couples, they found out, that a high trust in another person in the beginning of a relationship is directly related to the interpretation of more positive behavior of the other over time. The second important finding is that trust in a person grows better, when both persons had gone through a hard time together. People, who had not such a happening, also didn't have such a significant increase of the trust level. This kind of happening, independent if between couples or two other persons, can be at one side a situation, where the person can calculate if (s)he trusts the partner in front of the situation or if it is a happening, which cannot be foreseen, there are no alternatives and the action has to be done⁴³². Thomas separated the general trust definition into etymologic deduction, from scientist view and without culture specific elements.⁴³³ Especially his general trust definition from scientist view, which is based on Peterman⁴³⁴, gives a comprehensive overview of the complexity of definition:

a) Trust is a result of own experience and the hope of goodness inside the human.⁴³⁵

⁴²⁸ Osterloh, M., Weibel, A. (2006), Investition Vertrauen. Prozesse der Vertrauensentwicklung in Organisationen. Wiesbaden : Betriebswirtschaftlicher Verlag Dr. Th. Gabler / GWV Fachverlage GmbH, p.70

⁴²⁹ Covey, S.M.R., Merrill, R.R. (2009), Schnelligkeit durch Vertrauen: Die unterschätzte ökonomische Macht. Offenbach : GABAL Verlag GmbH, p.19

⁴³⁰ Geramanis, O. (2002). Drei Wege moderner Organisationen das Vertrauensproblem zu umgehen. Personalarbeit der Zukunft. Managementkonzepte Band 27 München/Mehring, p.143

⁴³¹ Miller, P.J.E., & Rempel, J.K. (2004). Trust and partner-enhancing attributions in close relationships. Personality & Social Psychology Bulletin, 30, pp.695-705

⁴³² Hartmann, M., Offe, C. (2001), Vertrauen: Die Grundlagen des sozialen Zusammenhalts. Frankfurt / New York: Campus Verlag, p.34

⁴³³ Thomas, A. (2005) Vertrauen im interkulturellen Kontext aus Sicht der Psychologie. p.4, 27.04.2016 http://www.psychologie.uni-regensburg.de/Thomas/aktuell/Vertrauen_im_interk_Kontext.PDF

⁴³⁴ Petermann, F. (1992). Psychologie des Vertrauens. München. p.15

⁴³⁵ Schottlaender, R. (1957). Theorie des Vertrauens. Berlin: de Gruyter. In Petermann, F. (1992). Psychologie des Vertrauens. München. p.15

- b) Trust reduces the complexity of human acting, expands in the same time the possibility of experience and acting and gives safety.⁴³⁶
- c) Trust depends on early infantile experiences, especially on the quality of the mother-child-relationship. Unnecessary refusals, threats and personal unreliability prohibit trust.⁴³⁷
- d) Trust is based on the expectations of persons or group, who gave each other a positive or negative, verbal or written promise.⁴³⁸
- e) The trust on human basis has the result that a person counts on another in a risk situation with complex circumstances and consequences, says Bierhof,
- f) Trust is the faith, that the other one is doing some day that, what you have done for him.⁴³⁹
- g) Trustful acting shows behavior, that (1) increases the own vulnerability, (2) happens against persons who are not under their personal / own control and (3) is chosen in a situation, where the damage which can possibly occur is higher than the benefit that could happen.⁴⁴⁰
- h) Trust between two persons is visible on the following verbal and movement indicators: “Here-and-now statements”, self explorative comments, wants to have or give feedback, asks for help in problems, spontaneous and unbidden participation and alternate boosting.⁴⁴¹
- i) Trust is shown in the willingness, to talk about topics, that could generate potential degradation and rejection, so that represent a risk for the client.⁴⁴²
- j) Trust is developed in partnerships three steps: predictability, reliability and reliance (=loyalty)⁴⁴³

⁴³⁶ Luhmann, N. (1973) Vertrauen. Ein Mechanismus der Reduktion sozialer Komplexität (2. Aufl.) Stuttgart: Enke In Petermann, F. (1992). Psychologie des Vertrauens. München. p.15

⁴³⁷ Erikson, E. H. (1963). Wachstum und Krisen der gesunden Persönlichkeit. Stuttgart:Klett, in Petermann, F. (1992). Psychologie des Vertrauens. München. p.15

⁴³⁸ Rotter, J. B. (1967). A new scale for the measurement of interpersonal trust. *Journal of Personality*, 35 (4), 651-665. and Rotter, J. B. (1971). Generalized expectancies for interpersonal trust. *American Psychologist*, 26, 443-452. in Petermann, F. (1992). Psychologie des Vertrauens. München. p.15

⁴³⁹ Jackson D.D. (1980). Familienregeln: Das eheliche Quid pro Quo. In P.Watzlawick & J.M. Weakland (Hrsg.), *Interaktion* (p. 47-61). Bern: Huber in Petermann, F. (1992). Psychologie des Vertrauens. München. p.15

⁴⁴⁰ Deutsch, M. (1962). Cooperation and Trust: Some Theoretical Notes. In M. R. Jones (Hrsg.), *Nebraska Symposium on Motivation 1962 (Current theory and research in motivation)* Lincoln Neb.: Univ. of Nebraska Press, pp.275–319

⁴⁴¹ Krumboltz, J.D. & Potter, B. (1980). Verhaltenstherapeutische Techniken für die Entwicklung von Vertrauen, Kohäsion und Zielorientierung in Gruppen. in Petermann, F. (1992). Psychologie des Vertrauens. München, p.15

⁴⁴² Johnson, D.W.& Matross R.P. (1977). Interpersonal influence in psychotherapy: A social psychological view. In A.S. Gurman & A.M. Razin (Eds.) *Effective psychotherapy*. New York: Pergamon in Petermann, F. (1992). Psychologie des Vertrauens. München. p.15

⁴⁴³ Rempel, J., Holmes, J., & Zanna, M. (1985). Trust in close relationships. *Journal of Personality & Social Psychology*, 49(1), pp.95-112.

k) Trust obtains on future acts of other persons, who are not under control of yourself and so they recover uncertainty and risk.⁴⁴⁴

Specific trust is based on direct experiences with other persons or in defined situations. General trust will be build up over time, while experiences in different situations of common expectations aggregate together with the trustworthiness of persons or situations. That is why the general trust is the more important in new situations, than the specific one.⁴⁴⁵

⁴⁴⁴ Schlenker, B.R., Helm, B. & Tedeschi, J.T. (1973). The effects of personality and situational variables on behavioral trust. *Journal of Personality and Social Psychology*, 25, pp.419-427. in Thomas, A. (2005) *Vertrauen im interkulturellen Kontext aus Sicht der Psychologie*. p.5, 27.04.2016 http://www.psychologie.uni-regensburg.de/Thomas/aktuell/Vertrauen_im_interk_Kontext.PDF

⁴⁴⁵ Clases, C. & Wehner T. (2005) *Vertrauen in Wirtschaftsbeziehungen* in D. Frey, L. von Rosenstiel, Graf Hoyos (Hrsg.). *Wirtschaftspsychologie*, Weinheim: Beltz. pp.397-401