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Original Research Article

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THE IMPACT OF SOCIAL CAPITAL ON EMPLOYEE COMPETENCE UTILIZATION IN BUSINESS ORGANIZATIONS

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ABSTRACT

The consideration of company resources is initially oriented towards the question of whether the actual resources are adequate to achieve the defined goals. But with respect to human resources it is not only essential to choose the right employees but also to realize the potential of existing competencies. Therefore it cannot simply be a monetary goal but also an immaterial cultural target to provide an atmosphere that allows the abilities of its organization to unfold. The assumption is made that a culture of trust is the adequate instrument to support employee competence utilization; an aspect being of special interest for strategic management. Based on a new integrative model on the impact of trust on employee competence utilization a survey was directed to employees of selected medium sized organizations with between 49 and 999 employees. For the empirical study a pragmatic mixed methods approach was applied. The purpose of this paper is to test the basic hypothesis whether trust actually has an impact on employee competence utilization was tested with the use of correlation analysis and SmartPLS v. 3.2.3 in various ways. Therefore findings are based on the modelling and testing of trust relations and competence utilization. As a result it can be summarized, that deliberate and elaborate

¹ <http://www.imo-managementforschung.eu/neuert/downloads/002015Bolzern.pdf>

² https://www.researchgate.net/publication/290392598_The_Impact_of_Social_Capital_on_Employee_Compentence_Utilization_in_Business_Organizations

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concepts of social capital approaches, with a particular emphasis on trust, provide fundamental impact on and feedback through improved and increased employee performance.

Keywords: social capital, trust, employee competence utilization

1 THEORETICAL BACKGROUND AND HYPOTHESES DERIVATION

Nadler and Tushman describe the essential elements of an organization as; strategy, task, individual, informal organization and formal organization. The *informal* organization covers emerging arrangements, including structures, processes and relationships.⁶ Like Nadler and Tushman, Scott and Davis also see the informal organization as being decisive in the way the organization operates. This includes the organization's culture, norms, and values, social networks both inside and outside the organization, power and politics and the actions of leaders.⁷ This view thus shows the importance of strategy and opens the perspective on the individual's characteristics and perceptions that are part of the informal organization and its social networks; a perspective the research study focusses on. Both the resource of 'trust' and the resource of 'competencies' are intangible personal resources with a particular character.

Whereas human capital is symbolized by the knots of a network structure constituted by individuals; social capital is located in the relationships of this network.⁸ Trust is seen as an element of social capital in this research study as the core aspects of social capital can be identified independently of their theoretical background as: networks, trust and reciprocity.⁹ Trust is a social resource of a particular character. It is created, changed, recycled and further developed by the interaction process of people. But as Becke states, trust has to be seen as a 'fragile' resource: a positive process promotes this effect; a negative process might lead to devaluation, disturbance and exhaustion.¹⁰ With the topic of this research study in mind, the conceptualization is based on trust within organizations and reflects on trust between management and employees although the individual in the organization develops trust towards individuals, groups, or organizations. With organizations mostly represented by humans, the argumentation is that both personal trust and organizational trust mechanism should be

⁶ Nadler & Tushman (1980), p. 40

⁷ Scott & Davis (2007), p. 24

⁸ Coleman (1990), p. 304

⁹ Putnam (1995), p. 664

¹⁰ Becke et al. (2013), p.149-150

considered.¹¹ Also with respect to the different forms and quality levels of trust, the opinion for this research study is held is that long term sustainable trust needs to be based on relationship specific evidence. As Dietz and Hartog state, real trust is most commonly defined as knowledge based trust and relational based trust is seen to be even more powerful as expectations are vindicated by experience.¹² And so, the approach to the topic is additionally based on the reciprocity assumption in favor of the opportunistic alternative. Based on Luhmann¹³ and Dietz¹⁴ furthermore and also analyzed the aspect of ‘trust action’ is seen to be necessarily implied in the trust definition referring to the potential to realize unused resources. Repeated behavior and shared values are not only an expression of individuals but they also contribute to the reputation of the organization as a whole. This additional aspect is pictured in Luhmann’s concept of system trust¹⁵ which is integrated to the concept accordingly.

As shown before, intangible personal resources and their unique usage are a decisive element of an organization’s strategy and competitive advantage. But whilst resources are the source of a firm’s competencies, competencies are the main source of competitive advantage.¹⁶ The core of all approaches towards competencies can be found in the ‘abilities and dispositions’ to cope with context specific requirements.¹⁷ Eberl subsumes, that the connecting bracket on competence definitions has to be seen in three basic bonding elements. These basic bonding elements are the emphasis on practice, the self-organization-disposition thought and the relevance of learning.¹⁸ These incorporate the abilities and willingness of the individual applied to specific situations in order to manage complex problems through ‘realized abilities’.¹⁹ Especially the element of ‘willingness’ builds the core for the utilization of employee competencies in this research. With respect to the research study essential elements of individual competencies can be divided into ‘latent ability’ and ‘ability in use’. Only when willingness’ is involved is ability ‘in use’. Consequently it can be assumed that in order to solve complex problems successfully, ‘willingness’ is needed to transform ability into used competence. This is exactly what employee competence utilization symbolizes. Thus, with the intention of focusing on the ‘ability in use’ and based on the assumption that employees’ qualifications match the requirements of the company

¹¹ Gillespie in: Lyon (2012), p. 176

¹² Dietz & Hartog (2006), p. 563

¹³ Luhmann (2014), p. 38

¹⁴ Dietz & Hartog (2006), p. 560

¹⁵ Bohn (2007), p. 32

¹⁶ Grant (1991), p. 119



¹⁷ HRK Hochschulkonferenz (2012), p. 12

¹⁸ Eberl (2009), p.29

¹⁹ HRK Hochschulkonferenz (2012), p. 12-13

as they have been selected adequately in advance and the basic competence level is taken as optimal. For this reason the concept of employee competence utilization used in this research study is part of the combination ‘I can and I want to’²⁰, which Schmitz introduces reflecting the concurrence of motivation and ability.²¹ Based on these illustrations it becomes obvious that it is a valuable strategic task to consolidate the resource of trust with the resource of competence.

2 RESEARCH METHODOLOGY AND MODEL DERIVATION

Based on the given conceptual framework the new integrative trust model is tested against empirical evidence. The underlying hypothesis is: The higher the level of (perceived) trust, the higher the level of employee competence utilization. The core data being used to test this hypothesis is gathered based on a quantitative employee questionnaire with a sample size of 206. The selected view for the main empirical study considers the trust level of employees with regard to management as another individual and collectively as a group and the organization itself. Though the viewpoint is that of the individual in the organization, who develops trust towards other individuals or systems represented by individuals; personal and institutional trust mechanisms are affected. The concept of the research model basically integrates the trustee (management ) and the trustor (employee ) in one picture. The intention is to measure the perception of the trustor’s trust level towards the trustee. Thus the employee evaluates its management. A second measurement is executed of the level of the trustor’s competence utilization. In this case the employee evaluates its own release of potential. Also, in order to reflect on the individual in the organizational context, both interpersonal and institutional mechanisms are of importance. Consequently personal characteristics, relationship elements and the situational context are integrated within the trust concept.

Trust is described as a ‘risky performance made in advance under conditions of vulnerability, complexity, uncertainty, risk and dependence. Therefore fairness, networks and relationships, clear goals and communication as well as the freedom of action are needed in order to reduce factors that may limit competent action. ‘Fairness’ touches on the perceived characteristics of the trustee, ‘network structure’ reflects on relationship notion, ‘clear goals and transparency’ refer to relationship aspects and simultaneously approach the contextual framework and ‘delegation level’ is a prerequisite and constituent of a framework of allowance for trust-

²⁰ Schmitz (2005), p. 48

²¹ For further information see Bolzern-Konrad, Egger, Šumilo (2015)

based-action. These indicators are effective as catalyzers for competent action. Competent action is described as abilities and willingness to cope successfully and be self-organized with context specific requirements. Therefore willingness, self-organization, and successful performance are seen to be relevant outcomes of a competent action based on a culture of trust. Employee competence utilization, ‘retention’, ‘over obligatory performance’, ‘productivity per employee’ and ‘satisfaction level’ are the elements of choice. Exceptional performance as well as satisfaction level directly reflect on the willingness to perform and thus are emotionally attached to the perception of trust. Productivity and retention are additional factual and measurable outcomes along with these emotional elements. The resulting structural equation model is shown in figure 1.

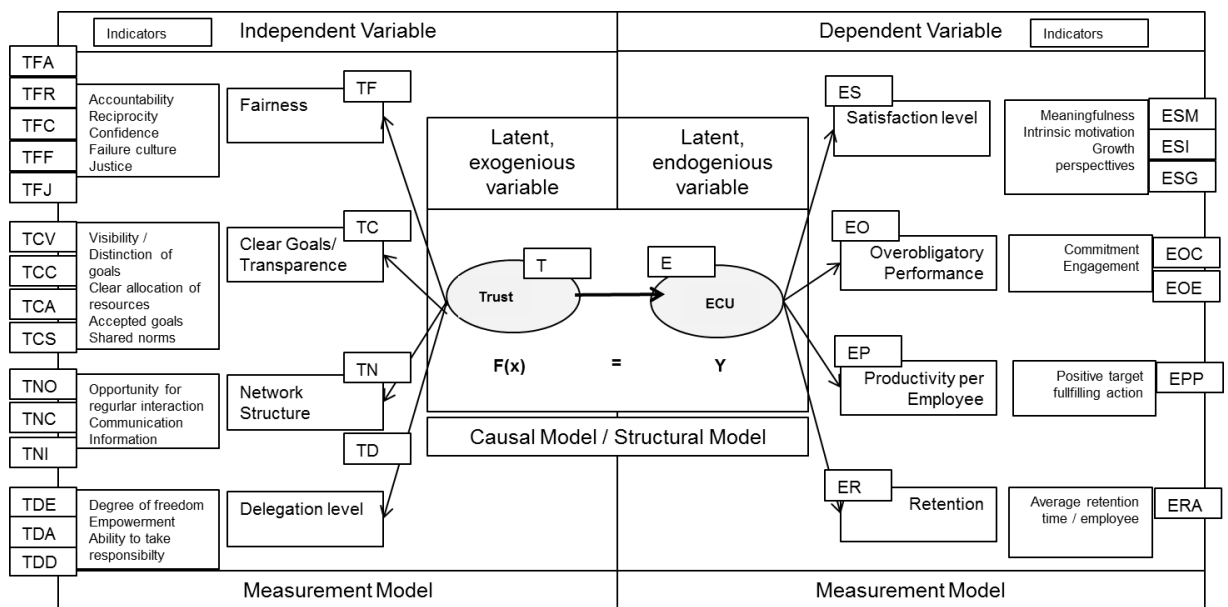


Figure 1: The research's structural equation model ^{22,23}

The model takes a combined view on the concept of trust and the concept of competence utilization. Not before the behavioral part is included competence utilization is visible throughout a positively performed action.

²² Bolzern-Konrad & Sumilo (2014a), p. 69

²³ Bolzern-Konrad & Sumilo (2014b), p. 1133

3 EMPIRICAL DESIGN

The basic methodology of this research work follows a pragmatic approach and makes use of mixed methods in order to cope with the complex and dynamic character of trust and competencies. This approach considers also the sociological background and the complexity of the trust concept and challenges the model not only on the basis of the resulting coefficients of determination but also based on theoretical reasoning. But in order to allow the comparability of results the study focusses on a quantitative survey in the main empirical section.

As an outcome of the pre-studies the decision was made to base the pre-selection of companies for the main empirical study on a qualitative approach. On this basis the companies finally involved in the main study were well-defined and selected. As a result a sample of 206 employees constituted the correlation analysis between the indicators of trust and the indicators of employee competence utilization. A written online self-completion questionnaire was the preferable instrument of data collection. All quantitative resulting data was filled in an online questionnaire system 'Questback', available in Excel as well as sav/port file of the IBM SPSS Statistics 21. The correlation analysis also was executed with the statistical software of IBM SPSS 21. The impact on employee competence utilization was also tested with the use of SmartPLS v. 3.2.3 in various ways.

4 RESULTS AND INTERPRETATION OF BIVARIATE ANALYSES

To explore the correlation between the variables, Spearman's rho as the nonparametric measure of choice was assessed.²⁴ Nevertheless with regard to basic correlation analysis in the management and employee study both the Pearson measurement and the Spearman's rho has been tested.²⁵ The dependence between trust and employee competence utilization was measured based on the correlation coefficient r in order to define the relationship between both variables.

²⁴ Collis (1994), p. 270, In general they explain, that if you have non-parametric data for two variables measured on a ratio, interval or ordinal scale, you can use the correlation coefficient Spearman's rho to measure the linear association between the variables. This overcomes the problem that the data are non-parametric by placing data values in order of size and then examining differences in rankings of the one variable compared to the other. Spearman's rank-order correlation coefficient is therefore a rank-based version of the Pearson's correlation coefficient. If you have parametric data for two continuous variables, you can use Pearson's product-moment correlation coefficient to measure the linear association between the variables. It must be based on a ratio or interval scale where the data can take any value within a given range. With this Pearson's correlation coefficient is a common measure between two continuous variables. It is defined as the ratio of covariance of the two variables to the product of their respective standard deviation.

²⁵ Chok (2010), p. v-29, in this work it is mentioned that Pearson's correlation coefficient could offer a substantial improvement in statistical power even for distributions with moderate skewness or excess kurtosis. This statement is given because he found that Pearson correlation better reflects the degree of concordance and discordance of pairs of observations for some type of distributions. Disadvantages of the Person product moment correlation seem to be mostly due to its known sensitivity to outliers.

As a second measure the coefficient of determination r^2 was calculated in order to explain the probability of a linear correlation and with this the quality of adaption. Being based on pure statistically results, the empirical study has shown that the correlation between trust and employee competence utilization can be assumed with $r = 0,455^{**}$ based on Spearman rho. (The respective results of the Pearson analysis even result in $r = 0,584^{**}$.) Therefore the relation between trust and employee competencies is not contingent, based on a probability of 99 percent. Being founded on a sample of 206 questionnaires the hypothesis ‘*the higher the level of (perceived) trust, the higher the level of employee competence utilization*’ was not falsified.

Based on these results it can be stated that a high level of trust supports sustainably the willingness of the employee to unfold his or her full potential resulting in a performing action. This conclusion can be made within the context of the research study, referring to the underlying trust concept that was placed in the organizational field and a business excellence context. Consequently these results imply that, where trust is existent, new and unused possibilities arise and higher complexity is tolerated. In a sense trust can be seen as a catalyzer for employee competence utilization. Being initialized by trust, the same can thus be seen as a ‘catalyzer’ for potential realization. Figure 2 has been developed in order to illustrate this idea.

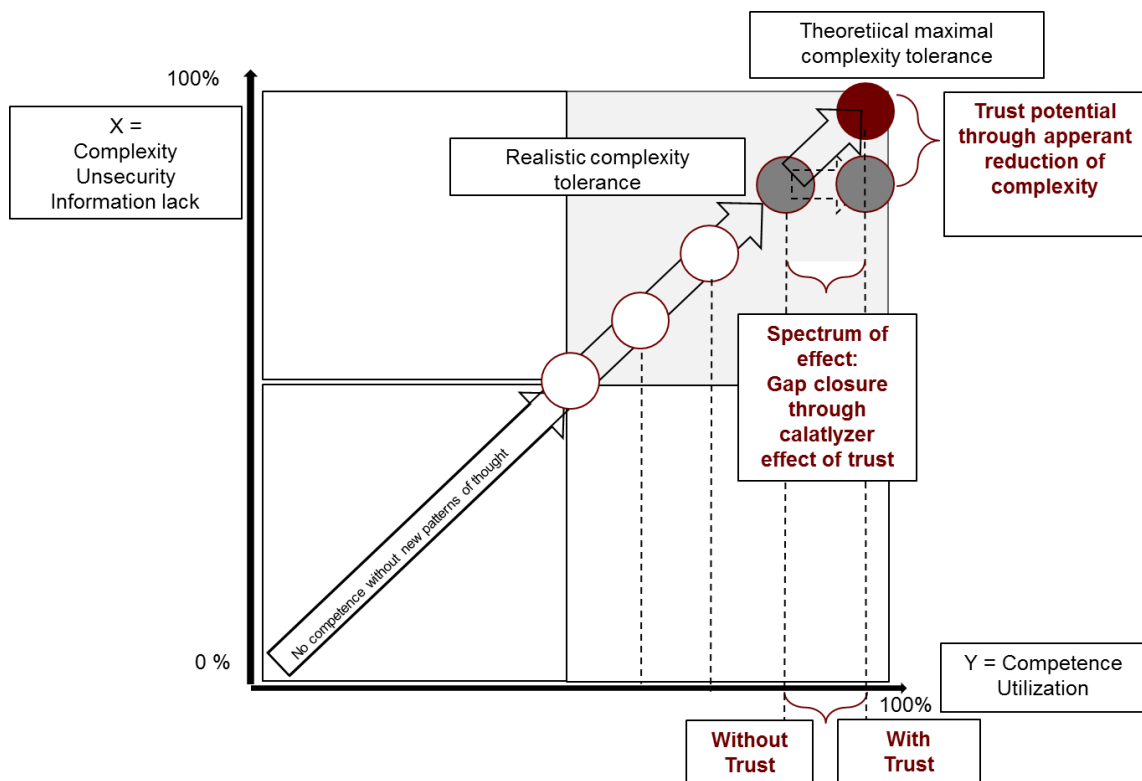


Figure 2: The catalyzer gap (Figure created by the author Bolzern-Konrad)

The diagram is intended to illuminate the maximal spectrum of trust effects on employee competence utilization (ECU). The underlying consideration is, that a 100 percent usage of competence fails because of our limited capacity to respond to maximum complexity. The interesting question thus is how we can manage to reduce this gap. Trust reduces perceived complexity, insecurity and unmanageable overload. Given an explanatory power of trust on employee competence utilization of 20 percent ($r=0,455^{**}$, $r^2=0,20^{**}$), the catalyzer gap illustrates the possible volume potential that can be achieved through the impact of trust. This is the potential \square for reduction of perceived complexity to a level that allows maximum employee competence utilization. Being initialized by trust, the same can thus be seen as a ‘catalyst’ for potential realization. Even if a 100 percent trust level is regarded as a desirable goal with respect to the resulting potential realization, it may neither be assumed nor should be sought. Not only have theoretical results shown that trust is never the only impact factor, results also indicate that elements of control and distrust should always be involved in order to avoid blind trust. Further to this strategic management is embedded in internal and external factors, influenced by macro- and microenvironment that are expected to significantly impact the ‘ability in use’ as well. Here to name the competitive environment, basic technological developments, new substitution products in the field on the macro level, and even more employees’ qualification level, process technology, the organization’s structure and systems in place on the micro level, are expected to significantly impact the ‘ability in use’. As a consequence a level of 20 percent being the outcome of the empirical study might not be unrealistic in terms of relative influence weight. However, these results have to be challenged and interpreted along with the theoretical insights being established before.

5 EMPIRICAL FINDINGS AND INTERPRETATION OF THE MULTIVARIATE SEM ANALYSES

Eventually, with the use of SmartPLS v. 3.2.3, the basic hypothesis whether trust actually has an impact on employee competence utilization was tested in various ways. Therefore, due to statistical requirements, the causal model was slightly modified by separating the latent independent variable of trust (T) into the four manifest sub-variables of fairness (TF), clear goals/transparency (TC), network structure (TN) and delegation level (TD). Also, the latent dependent variable of employee competence utilization (E) was split up into the manifest sub-variables of satisfaction level (ES), over-obligatory performance (EO), productivity per employee (EP) and employee retention (ER). The modified structural equation model is displayed in figure 3.

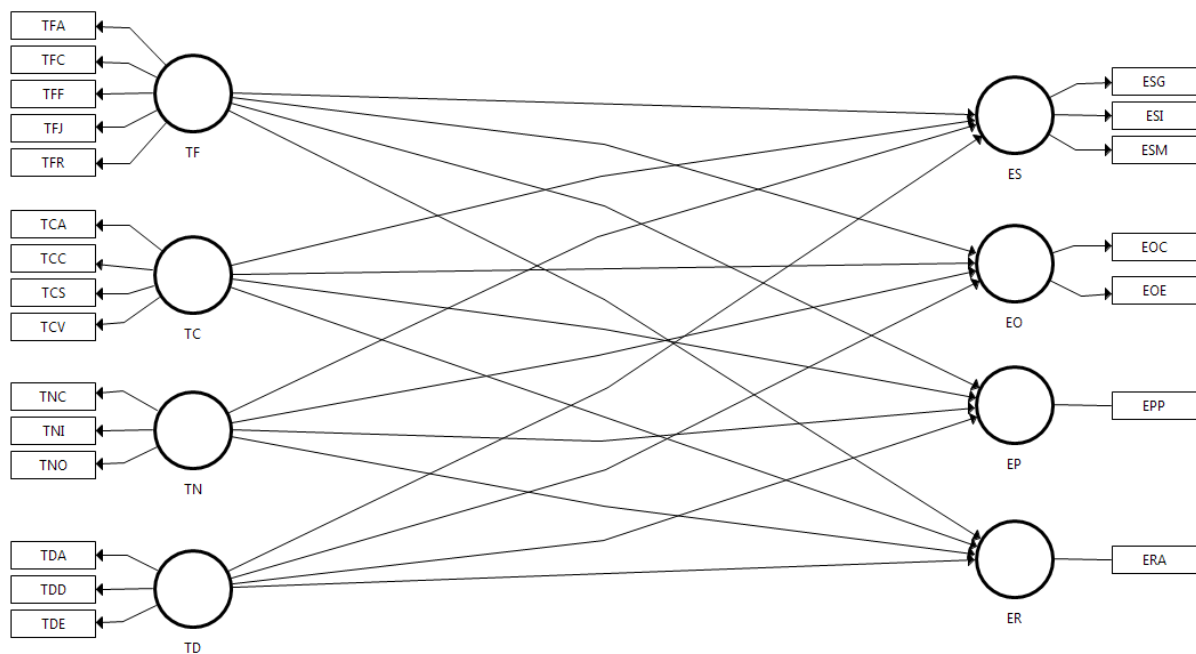


Figure 3: Modified structural equation model (Figure created by the authors)

Thus, the dependent and independent sub-variables are forming an operational measurement model, which allows for correlating and regressing each manifest independent variable with each manifest depended variable. In order to achieve that operation, the indicator items for the original measurement of the dependent and the independent variables were amalgamated by assigning the respective mean values as the measurement indicators for each independent and dependent manifest variable, as described above.

The statistical procedures ultimately provided the following findings:

Obviously, the amalgamated variable of trust (accumulating the values for fairness (TF), clear goals/transparency (TC), network structure (TN) and delegation level (TD)) show a strong and mostly highly significant impact on the employee competence utilization variables of satisfaction level (ES) and over-obligatory performance (EO).²⁶ The impact of the trust variables on the dependent variables of productivity per employee (EP) and employee retention (ER) however is remarkably lower, even though still positive.²⁷ These results are corroborated by the statistical levels of significance, which show a highly significant relationship between the independent trust variables of fairness (TF), clear goals/transparency (TC), delegation level (TD) (p-value=0,000; 0,005 and 0,000) and the dependent variable satisfaction level (ES), whereas the trust variable impact of network structure (TN) on the dependent variable satisfaction level (ES) cannot be considered as significant (p-value =0,458).²⁸ The impact of the trust variables fairness (TF) and clear goals/transparency (TC) on the dependent variable of over-obligatory performance (EO) are also highly significant (p-value=0,000), whereas the impact of network structure (TN) and delegation level (TD) cannot be considered as significant (p-values=0,692; 0,836). The impact of the trust variable of delegation level (TD) on the dependent variable of productivity per employee (EP) is also significant (p-value=0,012), whereas the remaining variable relationships (TF; TC; TN → EP) in this context are not significant (p-values=0,762; 0,579; 0,870). Finally, the impact of the trust variable of fairness (TF) on the dependent variable of employee retention (ER) shows an acceptable statistical significance (p-value=0,012), not so for the other variables (TC; TN; TD → ER) (p-values=0,079; 0,071; 0,875).

In sum, it can be stated that the basic hypothesis of a positive relationship between trust (T) and employee competence utilization (E) has been substantiated mostly in terms of presumed causal effects between fairness (TF), clear goals/ transparency (TC) and delegation level (TD) on the one side, and satisfaction (ES) level and over-obligatory performance (EO) on the other side.

In addition, this finding is also supported by some more statistical indicators (Average Variance Extracted (AVE), Composite Reliability and Cronbach's alpha).²⁹

²⁶ Coefficient of determination: $r^2 = 0,714$ and $0,582$, meaning that the independent variable explains the variation of the dependent variables to a degree of more than 70 resp. nearly 60%. See Appendix 1.

²⁷ Coefficient of determination: $r^2 = 0,166$ and $0,046$. See Appendix 1.

²⁸ See Appendix 2 for all p-values.

²⁹ See Appendix 3 for AVE, Composite Reliability and Cronbach's alpha values.

6 CONCLUSIONS

Our theoretical analyses and statistical findings described and outlined above allow for the following summarizing remarks and implications:

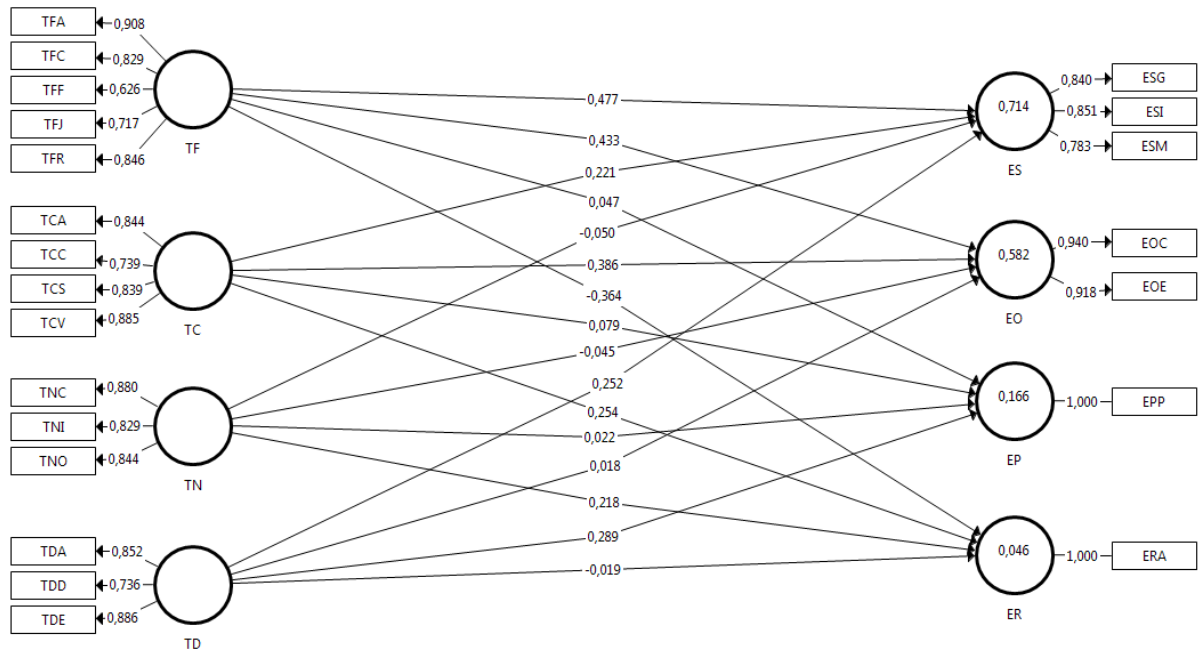
- The state of the art of social capital research in connection with employee performance supposes a strong causal relationship between trust and employee competence utilization in business organizations.
- In this context, a cause-effect-model was developed by separating the latent independent variable of trust into the manifest independent sub-variables of fairness, clear goals/transparency, network structure and delegation level as the main elements of trust.
- Accordingly, the latent dependent variable of employee competence utilization was separated into the manifest dependent sub-variables of satisfaction level, overall-obligatory performance, productivity per employee and employee retention.
- Statistical bivariate analyses provided results, which support the hypothesis of acceptable and significant relationships between trust and employee competence utilization in general.
- An additional, more refined statistical analysis, based on an SEM model revealed more precisely the following significant outcomes: Especially the trust elements of fairness and clear goals/transparency do have a remarkable positive impact on the employee satisfaction level and over-obligatory performance of employees.

Overall, it can be summarized that deliberate and elaborate concepts of social capital approaches, with a particular emphasis on trust, provide a fundamental impact on and feedback through improved and increased employee performance.

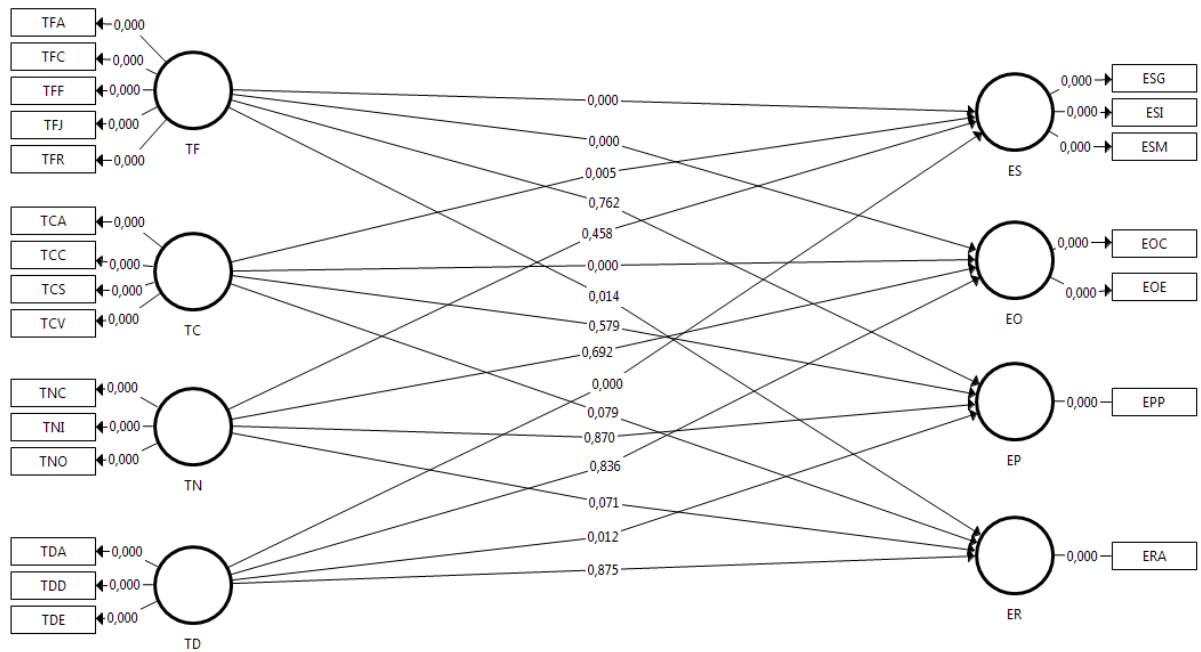
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Appendix 1: SEM loadings and r²



Appendix 2: SEM p-values



Appendix 3: SEM AVE, composite reliability and Cronbach's alpha values

	Average Variance Extracted (AVE)	Composite Reliability	Cronbach's Alpha
ES	0,681	0,865	0,766
EO	0,863	0,926	0,842
TF	0,626	0,892	0,845
TC	0,686	0,897	0,846
TN	0,725	0,888	0,811
TD	0,685	0,866	0,770
EP	---	---	---
ER	---	---	---

Appendix 4: List of abbreviations

BE	Business excellence
ECU	Employee Competence Utilization
EOC	Employee competence utilization -Over-obligatory performance-Commitment
EOE	Employee competence utilization -Over-obligatory performance-Engagement
EPP	Employee competence utilization -Productivity per Employee-Positive target fulfilling Action
ERA	Employee competence utilization -Retention-Average Retention time/employee
ESG	Employee competence utilization -Satisfaction-Growth Perspectives
ESI	Employee competence utilization -Satisfaction-Intrinsic Motivation
ESM	Employee competence utilization -Satisfaction-Meaningfulness
SC	Social Capital
SME	Small and medium sized enterprises
T	Trust
TCA	Trust-Clear Goals-Accepted Goals
TCC	Trust-Clear Goals-Clear allocation of resources
TCS	Trust-Clear Goals-Shared Norms
TCV	Trust-Clear Goals-Visibility/Direction of Goals
TDA	Trust-Empowerment-Ability to take responsibility
TDD	Trust-Degree of freedom-Delegation level
TDE	Trust-Delegation-Empowerment
TFA	Trust – Fairness – Accountability

TFC	Trust-Fairness-Confidence
TFF	Trust-Fairness-Failure Culture
TFJ	Trust-Fairness-Justice
TFR	Trust – Fairness – Reciprocity
TNC	Trust-Network Structure-Communication
TNI	Trust-Network Structure-Information
TNO	Trust-Network Structure-Opportunity for regular interaction