TESTING THE RELATIONSHIP BE TWEEN TRUST AND POSITIVE RELATIONSHIPS WITHIN A TOP MANAGEMENT TEAM: A SECOND-ORDER STRUCTURAL EQUATION MODELING APPROACH

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Abstract

Purpose: The aim of this paper is to investigate the relationships between the following two main concepts: trust within a team and positive interpersonal relationships within a team based on empirical research conducted in top management teams (TMTs).

Design/Methodology/Approach: In accordance with the positive approach in management sciences, positive relationships and trust within teams are crucial resources which allow management teams to face the strategic challenges of the modern market. Based on critical literature review, the theoretical framework of the model was created to test the relationship between antecedents of trust and positive interpersonal relationships within TMTs. The study is based on a survey conducted on a sample of 123 top managers and members of teams in Poland. The verification of the theoretical model was performed based on a second-order structural equation modelling approach.

Findings: This research has shown a significant positive impact of trust on positive interpersonal relationships in TMT. In addition, it was shown that among the analysed antecedents of trust, competence has the strongest impact on positive interpersonal relations, especially connectivity.

Implications/limitations: This study has some limitations, such as the limitation to a quantitative method to focus on one specific aim. The sample size is not large, but nevertheless represents more than a quarter of the population of medium and large companies in the industry under study in which strategic decisions are made by teams. Furthermore, the cross-sectional nature of the study does not authorize causal claims, so future prospective studies are needed to develop knowledge about the nature and direction of the relationship between trust and positive relationships.

Originality/value: Studies of managerial teams in the field of interpersonal relations are rare. This paper contributes to filling this gap by selecting TMT teams as subjects for research. The study

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reported in this paper contributes to current understanding of the nature of relationship between trust and positive relationships in team.

Keywords: trust, positive relationships, top management team (TMT), trust within a team

Paper type: Research paper

1. Introduction

Responsible managerial decisions made by the top management teams (TMTs) in companies require an unconventional approach and creativity. According to the positive approach in management, the condition for the emergence of creative processes in an organization is that people experience positive emotions in the workplace (*e.g*., Cameron *et al.*, 2003; Fredrickson, 2003). The importance of positive phenomena in shaping the success of an organization results from the fact that they are conducive to the development of employees' potential, enrich their individual capabilities, and also allow for the creation of innovative solutions and the achievement of above-average results, both individually and as a team. This potential, enriching the individual capabilities of the organization's members, allows for the creation of innovative solutions and the achievement of above-average results, which, in turn, contribute both to the achievement of personal goals and aspirations of employees, as well as to the development of the entire organization (Roberts, 2007).

Scholars representing a positive trend in management science focus on the processes leading to the flowering of this potential (Dutton *et al*., 2006). The goal is to motivate to achieve excellence and above-average results, broadening the horizons of thinking and creative experimentation. At the same time, the emergence of positive emotions in employees is part of the so-called positive spiral in the organization. Positive emotions are conducive to feeling positive energy, which translates into commitment, increasing the effectiveness of the entire organization, and this, in turn, is a catalyst for further release of good emotions in employees. Positive interpersonal relationships play an important role in this process (Cameron and Spreitzer, 2003, 15; Glińska-Neweś, 2013). Positive interpersonal relationships foster a positive attitude towards people work, employees feel less overloaded and burdened with work, their well-being grows (Ragins and Dutton, 2007; Grant and Parker, 2009). The decision-making system, information flow, as well as instrumental and emotional support, are among the aspects that have an impact on interpersonal relationships (Kram and Isabella, 1985; Carmeli 2008). In the teamwork of senior managers, where the effect of work depends on the results of mutual interactions of the participants, trust is a particularly important element of interpersonal relations.

The literature on trust in the field of business science is now extensive, but relatively little indicates how trust is related to interpersonal relationships

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between team members. Especially rarely are these issues raised in relation to a team consisting of senior managers responsible for making the most important decisions in the company (*e.g.*, Glińska-Neweś *et al*., 2021; Rong *et al.*, 2019).

The aim of this paper is to investigate the relationships between the following two main concepts: trust within a team and positive interpersonal relationships in a team based on empirical research conducted in top management teams (TMTs) in furniture industry companies in Poland.

2. Theoretical background and hypothesis development

2.1. Trust within team

Trust is the foundation of effective teams (Costa *et al*., 2001; De Jong *et al*., *2016*; Mach *et al*., 2010). Thanks to trust, opportunities appear, the use of which leads to gaining a permanent competitive advantage of enterprises, regardless of the domain of their operation. The prevailing mutual trust accelerates all processes of exchange between people, which makes it possible to obtain extraordinary results based on positive relationships.

Trust, as an intangible phenomenon is difficult to define. Differences in the interpretation of the concept of trust constitute a barrier to the development of science in this area (Li, 2012). Inconsistency in defining, operationalizing and applied research approaches makes trust still not comprehensively explored. Since Mayer, Davis and Schoorman (1995) introduced their integrative model of trust, trust is a multidimensional construct understood as 'the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party' (Mayer *et al.,* 1995). According to them, trust is determined by trustworthiness which consists of three dimensions: ability, benevolence, and integrity. Ability is that group of skills, competencies, and characteristics that allow a party to have influence within the domain of interest. Benevolence is the extent to which a trustee is believed to care about the trustor. Integrity is defined as the trustor's perception that the trustee adheres to a set of principles that the trustor finds acceptable. Ability and integrity capture rational reasons to trust rooted in past success and consistency between words, actions, and values. Unlike, benevolence reflects a more emotional reason to trust rooted in past instances of caring and concern (Colquitt *et al*. 2011, 1000). Other scholars enhance that trust is an expectation (Rousseau *et al*., 1998; Zaheer *et al*., 1998) and add dimensions on which confidence can be assessed, like knowledge-based trust which is rooted in past performance and promise keeping (McAllister *et al*., 2006). In this study, trust within a team was measured according to both abovementioned approaches. Scholars highlighting the importance of behavioural factors in trustworthiness perception indicate predictability – measuring

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behavioural consistency and reliability and competence – reduces perceived risk (Whitener *et al.*, 1998; Mayer *et al.*, 1995). However, surprisingly, these play a marginal role in most proposed trust measures. Thus, we decided to develop a hitherto unexplored area.

2.2. Positive interpersonal relationships in team

As defined by Glińska-Neweś (2017), positive relationships in the team are relationships built on interpersonal closeness of employees, expressed in mutual interest, sympathy and willingness to cooperate, contributing to the creation of a positive organizational climate, conducive to effective communication, trust, loyalty and commitment to work. Relationships have a significant impact on employee behaviours therefore their quality is important. The positive relationship in the workplace is the one that supports the employee ability to engage in work (Kahn, 1992; Kahn, 2007). The most beneficial to the teamwork are the relationships between teammates based on multiplex ties, both friendship ties and instrumental ties (LePine *et al.*, 2012). That is because friendship ties often develop in teams, which reflect the formal structure based on instrumental ties (Krackhardt and Hanson, 1993). At the same time friendship ties turn also into decision-making systems, mobilization of resources, information transfer and carrying out other functions closely related to work (Lincoln and Miller, 1979, 196).

Among different elements and characteristics of interpersonal relationships distinguishing by scholars (Carmeli, 2009; Carmeli and Spreitzer 2009; Ragins and Dutton, 2007), we decided to focus on the following three in this study:

– tensility – flexibility meaning the ability to survive the relationship regardless of the circumstances, as well as return to the previous shape also after failures;
– connectivity – interdependence, expressed in openness to new ideas and the influence of the other person;
– familiarity – interpersonal closeness, expressed in sympathy, willingness to joke, interest in the private sphere of life and helping in difficult situations.

Trust is also mentioned as dimensions of relationships but, due to their specific nature, in this research project it is treated as a separate construct.

2.3. Influence of trust antecedents on positive relationships

Trust and interpersonal relationships are interconnected at different levels and in diverse contexts of interpretation. Many authors emphasize the fundamental role of trust in building interpersonal relationships in a work team (*e.g.*, Pratt and Dirks, 2009; Oyster, 2000; Mayer *et al.*, *etc.*). The positivity of trust results from its very essence, because trust means positive expectations about future behaviour or events. At the same time, it expresses good will to cooperate, which

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resonates with the environment and, thanks to the rule of reciprocity, and other anthropological, biological and psychosocial conditions, brings positive effects (Sprenger, 2009; Covey and Merril, 2009; Linget *et al.*, 2013).

It is assumed that trust is a feature of the relationship (Sztompka, 1999). It is hard to imagine positive relationships between people without trust, and *vice versa*, it is impossible to trust another person without being in positive relationships with them. Therefore, it is problematic to unambiguously isolate both phenomena, which in interpersonal practice go hand in hand. Their coexistence is natural. Still it is not explicitly examined how dimensions of trust affect positive interpersonal relationships within the team.

Both constructs are not subject to direct measurement – they cannot be captured in a completely objective way, therefore we need use intermediate dimensions with explanatory variables. Scholars considering trust in a team propose different trust dimensions.

Based on literature review, we propose a theoretical model (Fig 1.) where trust within TMTs is represented by the following three antecedents: predictability, benevolence, and competence of team members, facilitate three aspects of positive relationships in a team.
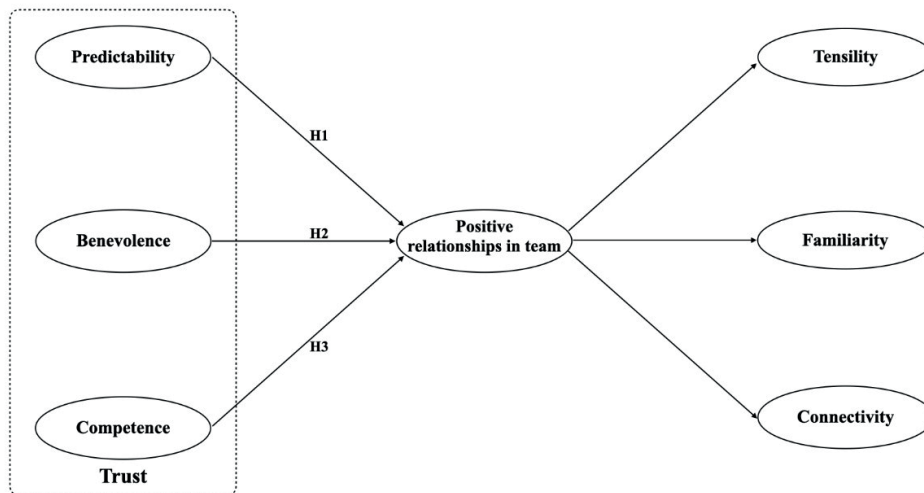

Figure 1.
Hypothetical model

Source: own study.

To test how dimensions of trust within a top management team impacts positive relationships in the team, we formulated the following three hypotheses:

H1: predictability, as the dimension of trust within a top management team, has a positive impact on positive interpersonal relationships in the team;

H2: benevolence, as the dimension of trust within a top management team, has a positive impact on positive interpersonal relationships in the team;

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H3: competence, as the dimension of trust within a top management team, has a positive impact on positive interpersonal relationships in the team.

Benevolence, in the very essence of its meaning, seems to influence positive interpersonal relationships because it shows a positive attitude toward the partner of relation.

3. Research Methodology

3.1. Sample

To achieve the research goal the questionnaire survey was conducted in medium and large enterprises operating in the furniture industry in Poland in 2019. Using CATI technique, we collected 123 interviews from top managers, members of teams making strategic decisions, holding positions such as president, CEO, member of the board, owner, co-owner. The selection of the research sample was not random but diversified to some extent so as to maintain the structure of the defined population in terms of the proportion of large and medium-sized enterprises.

As is shown in Table 1, the sample was clearly dominated by men (60.2%), aged 31-39 (48.8%), with non-economic education (68.3%), mainly with technical industry education (sector-related studies 35.8%), definitely having some experience in the strategic decision-making team (from one to three years or more than three years). Respondents were members of TMTs comprised of between two and eight persons with the majority of teams of five members (41%).

	n	%		n	%
Gender			**Education**		
Female	49	39.8%	economic	36	29.3%
Male	74	60.2%	noneconomic	87	70.7%
			including:		
			- technical industry	54	43.9%
			- non-sector technical	17	13.8%
			- humanistic	15	12.2%
			- other	1	0.8%
Age			**Work experience in the team**		
Less than 31	25	20.3%	less than 1 year	25	20.3%
31 – 39	60	48.8%	1 – 3 years	52	42.3%
40 – 49	26	21.1%	more than 3 years	45	36.6%
50 – 59	10	8.1%	no data	1	0.8%
60 and more	2	1.6%			

Table 1.
Characteristics of the respondents

Source: own study.

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3.2. Measures

Trust within TMTs was measured using the twenty-item Revised Team Trust Scale developed and validated by Adams and Sartori (2006). The scale consists of three subscales: team benevolence, team predictability, team competence. Each of these includes five items and is also analysed as a separate construct. All items were measured with a 5-point scale ranging from 1 ('Completely Disagree') to 5 ('Completely Agree'). Sample items include: 'I believe that my teammates have my best interests in mind' and 'I usually know how my teammates are going to react' in random order. The *alpha* reliability coefficients of predictability, benevolence and competence in this study were 0.64, 0.67, and 0.74 respectively.

To measure positive relationships in TMTs, we used a thirteen-item scale of connection capacity based on Dutton and Heaphy's (2003) operationalisations proposed and validated by Carmeli *et al*. (2009) and Carmeli (2009). The scale consists of three sub-dimensions: emotional carrying capacity, tensility, familiarity, and connectivity. Sample item was 'my co-workers and I do not have any difficulty expressing our feelings to each other', 'we cope well with the conflicts we experience at work'. The items are measured with a 5-point scale ranging from 1 ('Completely Disagree') to 5 ('Completely Agree'). The *alpha* reliability coefficient of the second-order factor of positive relationships in this study was 0.78.

3.3. Data analysis

To test the proposed model (see Figure 1), structural equation modelling using Mplus 8.3 (Muthén and Muthén, 2018) was conducted. As shown in Figure 1, this study proposed a structural model in which three subcomponents of trust (*i.e*., predictability, benevolence, and competence) were examined as predictors of the second-order factor of positive relationship in team. Then, this study also examined whether sub-dimensions of trust indirectly emphasize tensility, familiarity, and connectivity within positive relationships in a team. More specifically, this study checked the common method variance and compared hypothesized model with a series of alternative models to conduct a confirmatory factor analysis (CFA), in order to check convergent and discriminant validity of construct measures (Landis *et al*., 2000; Podsakoff *et al*., 2003). Then, the indirect effects were examined additionally using the bias corrected and accelerated bootstrapping method (Preacher and Hayes, 2008) based on 5,000 bootstrapping samples in this study. The bootstrapping method is preferred because it offers increased power and reasonable control over the type I error rate, especially when multivariate normality cannot be assumed (Mausbach *et al*., 2012). Parameters were estimated using maximum likelihood estimation, and missing data were handled using full information maximum likelihood, in order to decrease bias (Enders, 2001). 95%

	M	SD	1	2	3	4	5	6	7
1. Predictability	3.41	0.74	**0.64**						
2. Benevolence	3.37	0.64	0.17	**0.67**					
3. Competence	4.01	0.51	0.14	0.11	**0.74**				
4. Tensility	3.55	0.66	0.14	0.13	0.14	**0.73**			
5. Familiarity	3.56	0.60	0.16	0.16	0.16	0.13	**0.73**		
6. Connectivity	3.61	0.57	0.21	0.20	0.20	0.16	0.19	**0.70**	
7. Positive relationships in team	3.58	0.33	0.14	0.13	0.14	0.11	0.13	0.16	**0.78**

Table 2. Descriptive statistics, bivariate correlations and Cronbach's alpha

Note: N = 123. Diagonal bold values are Cronbach's alphas. All correlations are significant at the 0.001 level (2-tailed).

Source: own study.

bias-corrected bootstrapped confidence intervals were also reported to examine statistical significance.

4. Results

4.1. Preliminary analysis

Means, standard deviations, correlations and scale reliabilities of study variables are provided in Table 2. As suggested by Conway and Lance (2010), a pragmatic approach was utilized to address the potential risk of common method variance (CMV). Firstly, based on the framework of social cognitive theory, self-reports are important and necessary, as they could reflect how individuals perceive measured constructs and subsequently process them cognitively in arriving at the most desirable response. Secondly, CFA of measurement models was used in this study to verify construct validity. Based on presumed theoretical dimensions, this study ran a hypothesized four-factor structure (positive relationships in a team as the second-order factor) where all latent constructs were represented by their respective scale items. The results of four-factor model (see Table 3) reported a good fit to the data ($\chi^2 = 251.12$, df = 143, χ^2/df = 1.76, CFI = 0.82, TLI = 0.79, RMSEA = 0.08, SRMR = 0.08). This study also contrasted this hypothesized four-factor model to alternative models with different numbers of factors (see Table 3).

Compared to the four-factor model (positive relationships in a team as the single-order factor), the hypothesized four-factor model reported the significantly better model fit indices ($\Delta\chi^2 = 68.56$, Δdf = 3, p = 0.00), supporting that the hypothesized second-order factor of positive relationships was right and necessary.

In Table 4, all factor loadings were significant and varied between 0.50 to 0.87. Composite reliability (CR) was all greater than 0.60 (varying from 0.64 to 0.74), indicating the high internal consistency possessed in each construct (Chin *et al.*, 1997). In addition, common method variance (Harman's single factor test; Podsakoff *et al.*, 2003) and multicollinearity (VIF and tolerance; Kock and Lynn, 2012) were examined and achieved the recommended criteria in this study. Thus, these results provide clear evidence of preliminary analysis of measurement models in this study.

	ΔX²(df)	X²(df)	CFI	TLI	RMSEA	SRMR
1a. 4-factor model (PRW is the second-order factor): BENE+PRED, COMP, PR		251.12 (143)	0.82	0.79	0.08	0.08
1b. 4-factor model (PRW is the single-order factor): BENE, PRED, COMP, PR	68.56 (3)***	319.68 (146)	0.72	0.67	0.10	0.09
2. 3-factor model: BENE+PRED, COMP, PR	27.31 (3)***	346.99 (149)	0.68	0.63	0.10	0.10
3. 2-factor model: BENE+PRED+COMP, PR	44.78 (2)***	391.77 (151)	0.61	0.56	0.11	0.10
2. 1-factor model	12.51 (1)***	404.28 (152)	0.59	0.54	0.12	0.10

Table 3. Results of confirmatory factor analysis

Note: Abbreviations: BENE is benevolence, PRED is predictability, COMP is competence, PR is positive relationships in team. *p < .05; **p < .01; ***p < .001.

Source: own study.

Construct	Item	Unstd.	S.E.	Z	p	Std.	CR
Predictability	pred1	1.00				0.73	0.64
	pred2	0.75	0.26	2.91	0.00	0.64	
Benevolence	bene1	1.00				0.79	0.68
	bene2	0.69	0.16	4.28	0.00	0.56	
	bene3	0.65	0.14	4.65	0.00	0.55	
Competence	comp1	1.00				0.56	0.74
	comp2	1.41	0.27	5.14	0.00	0.71	
	comp3	1.57	0.30	5.29	0.00	0.74	
	comp4	0.93	0.21	4.53	0.00	0.56	
Tensility	ten1	1.00				0.82	0.73
	ten2	0.89	0.23	3.85	0.00	0.70	
Familiarity	fam1	1.00				0.59	0.73
	fam2	1.28	0.28	4.60	0.00	0.70	
	fam3	1.02	0.24	4.24	0.00	0.61	
	fam4	1.00	0.20	5.05	0.00	0.64	
Connectivity	conn1	1.00				0.64	0.70
	conn2	0.98	0.19	5.29	0.00	0.62	
	conn3	1.00	0.19	5.25	0.00	0.62	
	conn4	1.00	0.21	4.69	0.00	0.55	
Second-order construct							
Positive relationships in team	Tensility	1.00				0.50	0.72
	Familiarity	1.16	0.38	3.04	0.00	0.65	
	Connectivity	1.47	0.41	3.60	0.00	0.87	

Table 4. Factor loadings of measurement models

Note. Unstd. is the unstandardized coefficient. Std. is the standardized coefficient. CR is composite reliability.

Source: own study.

4.2. Hypothesis testing

Model fit indices of structural model showed a good fit between the data and the proposed model (χ^2 = 251.12, df = 143, χ^2/df = 1.76, CFI = 0.82, TLI = 0.79, RMSEA = 0.08, SRMR = 0.08). The standardized coefficients and significance of direct relationships were given in Figure 2. In Table 4, Hypothesis 1 was rejected as the insignificant relationship related with predictability and positive relationships in a team. Hypothesis 2 and 3 were supported leading benevolence (B = 0.18, β = 0.34, CI [0.01, 0.36]) and competence (B = 0.38, β = 0.59, CI [0.13, 0.64]) to positive relationships in a team.

The indirect effects of the second-order factor were tested as additional analysis using bias corrected and accelerated bootstrap estimation procedure (a bootstrap sample of 5,000 was specified). Results (see Table 5) reported the indirect relationships between competence and all factors within positive relationships in

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a team. More specifically, competence within trust indirectly emphasized tensility (B = 0.38, β = 0.30, bias-corrected CI [0.14, 0.78]), familiarity (B = 0.44, β = 0.38, bias-corrected CI [0.11, 0.97]), and connectivity (B = 0.56, β = 0.51, bias-corrected CI [0.22, 1.04]).

Figure 2.
Empirical model
with standardized
coefficients

*, **, *** coefficient
is statistically
significant at p <
0.05, p < 0.01, p <
0.001, respectively.

Source: own study.
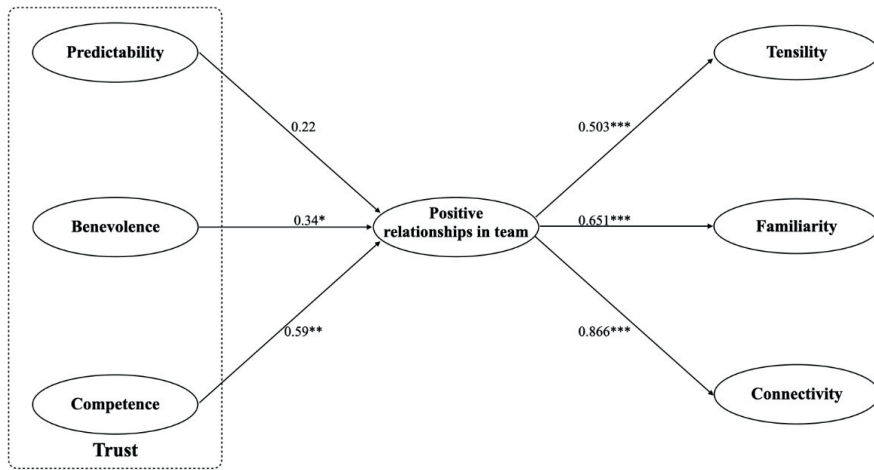
Indirect & Direct effect (N = 468)	B	SE	Z	p	β	95% Confidence interval		Hypothesis	Results
						Lower	Upper		
Hypothesized relationship									
Predictability → Positive relationships in team	0.10	0.07	1.44	0.15	0.22	-0.04	0.24	H1	Reject
Benevolence → Positive relationships in team	0.18	0.09	1.98	*	0.34	0.01	0.36	H2	Support
Competence → Positive relationships in team	0.38	0.13	2.97	**	0.59	0.13	0.64	H3	Support
Indirect relationships on first-order factor									
Predictability → Positive relationships in team → Tensility[a]	0.10	0.09	1.07	0.28	0.11	-0.04	0.33		
Predictability → Positive relationships in team → Familiarity[a]	0.12	0.12	0.98	0.33	0.15	-0.04	0.42		
Predictability → Positive relationships in team → Connectivity[a]	0.15	0.15	1.02	0.31	0.19	-0.07	0.47		
Benevolence → Positive relationships in team → Tensility[a]	0.18	0.13	1.44	0.15	0.17	0.00	0.51		
Benevolence → Positive relationships in team → Familiarity[a]	0.21	0.15	1.43	0.15	0.22	0.00	0.57		
Benevolence → Positive relationships in team → Connectivity[a]	0.27	0.17	1.59	0.11	0.30	-0.01	0.62		
Competence → Positive relationships in team → Tensility[a]	0.38	0.16	2.41	*	0.30	0.14	0.78		
Competence → Positive relationships in team → Familiarity[a]	0.44	0.22	2.03	*	0.38	0.11	0.97		
Competence → Positive relationships in team → Connectivity[a]	0.56	0.21	2.66	*	0.51	0.22	1.04		

Table 5. Results for direct and indirect relationships

Note: *p < .05; **p < .01; ***p < .001. [a.] The indirect
relationship was examined using bias-corrected
bootstrapping 5,000 times, as well as 95% bias-
corrected confidence interval.

Source: own study.

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5. Discussion

The research conducted showed a significant positive impact of trust on positive interpersonal relationships in TMTs. This is in line with the existing assumptions that trust is a factor stimulating positive relationships, and thus leading to better functioning of the team (Pratt and Dirks, 2009). In particular, our results show that benevolence and competence, as subdimensions of trust has a positive impact on positive relationship in the team. Similarly, as Elsbach's research (2004) confirmed that competence and benevolence enhance perceptions of trustworthiness (Elsbach, 2004) which is closely related to trust. When trusting others, one expects them to reciprocate – be trustworthy (Hardin, 2002).

Competence, based on our results, positively relates with tensility, familiarity and connectivity through positive relationships in a team. Moreover, competences turned out to be the component of trust that has the strongest impact on positive interpersonal relationships, and in particular on their connectivity. It could mean that in order to gain openness to new ideas and the willingness to take into account the influence of the other person in the team, it is necessary to ensure confidence in the competence and appropriate qualifications of team members. The statement that team members take into account the opinions of others if they consider them competent in a given area seems logical and supports the theory relating to the cognitive aspect of trust (McAllister, 1995; Chopra, 2015).

6. Conclusion

In this paper, we have developed an alternative model that describes which antecedents of trust impact specific dimensions of positive relationships within TMTs and identified their relative importance as drivers of relationships' tensility, familiarity, and connectivity. This research has shown a significant positive impact of trust on positive interpersonal relationships in TMT. In addition, it was shown that among the analysed antecedents of trust, competence has the strongest impact on positive interpersonal relations, especially connectivity. Due to the lack of previous empirical research on the impact of trust on positive interpersonal relationships in a team, and taking into account the research limitations of which the authors are aware, the described conclusions are a starting point for further research in the future.

7. Limitations and future research

This study has some limitations that should be noted. First, due to editorial requirements regarding the length of the text, we use here only quantitative methods to focus on the one specific aim. However, it is the part of larger project consisting of several stages. For example, we carried out the expert session to identify with whom the decision makers in companies (*e.g*., owners, CEO) make group decisions, who can be included in the TMTs. Second, the size of the sample

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is not big, nonetheless, it represents more than a quarter of the population of medium-sized and large companies of the furniture industry, where strategic decisions are made in teams. Moreover, like in any surveys, common method bias could be the issue (Krosnick, 1999). To reduce this concern, we mixed the order of items measuring the same construct and improved the item wording after pretesting the questionnaire. We also assured the respondents of the anonymity of their answers, while asking for honesty, which should mitigate the respondents' tendency to give socially desirable and consistent answers throughout the questionnaire (Podsakoff *et al*., 2003).

Finally, our study was cross-sectional in nature and causal statements are not warranted. Thus, prospective research is needed to develop knowledge about the nature of the direction of the relationship between trust and positive relationships. Further in-depth research should be conducted to determine the nature and strength of the relationship between trust and positive relationships in the top management team. Also, a longitudinal study could be considered in the future, which would provide a more comprehensive view of the long-term influence of trust antecedents on specific dimensions of positive relationships in TMTs.

Acknowledgements

References

Cameron, K.S., Spreitzer, G.M. (2003), "Introduction: What is positive about positive organizational scholarship?", in: Cameron, K.S., Spreitzer, G.M. (Eds.), *The Oxford Handbook of Positive Organizational Scholarship*, University Press, Oxford, pp. 1-15.

Carmeli, A. (2008), "Top management team behavioural integration and the performance of service organizations", *Group Organization Management*, Vol. 33 No. 6, pp. 712-735. DOI: 10.1177/1059601108325696

Carmeli, A. (2009), "Positive work relationships, vitality, and job performance", in: Härtel, C.E.J., Ashkanasy, N.M., Zerbe, W.J. (Eds.), *Emotions in groups, organizations and cultures*, Vol. 5, Emerald Group Publishing Limited, pp. 45-71.

Carmeli, A., Brueller, D., Dutton, J.E. (2009), "Learning behaviours in the workplace: The role of high quality interpersonal relationships and psychological safety", *Systems Research and Behavioral Science*, Vol. 26 No. 1, pp. 81-98.

Carmeli, A., Spreitzer, G.M. (2009), "Trust, connectivity, and thriving: Implications for innovative behaviours at work", *The Journal of Creative Behaviour*, Vol 43 No. 3, pp. 169-191. DOI: 10.1002/j.2162-6057.2009.tb01313.x

Chin, W.W., Gopal, A., Salisbury, W.D. (1997), "Advancing the theory of adaptive

Barbara Józefowicz
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Rodrigo Martin-Rojas

structuration: The development of a scale to measure faithfulness of appropriation'', *Information Systems Research*, Vol. 8 No. 4, pp. 342-367. DOI: 10.1287/isre.8.4.342

Chopra, P.K. (2015), "The place of human contestability in positive management", *Journal of Positive Management*, Vol. 5 No. 4, pp. 3-27. DOI: 10.12775/JPM.2014.021.

Colquitt, J.A., Scott, B.A., LePine, J.A. (2007), "Trust, trustworthiness, and trust propensity: a meta-analytic test of their unique relationships with risk taking and job performance", *Journal of applied psychology*, Vol. 92 No. 4, pp. 909-927. DOI: 10.1037/0021-9010.92.4.909

Conway, J.M., Lance, C.E. (2010), "What reviewers should expect from authors regarding common method bias in organizational research", *Journal of Business and Psychology*, Vol. 25, pp. 325-334. DOI: 10.1007/s10869-010-9181-6

Costa, A.C., Roe, R.A., Taillieu, T. (2001), "Trust within teams: The relation with performance effectiveness", *European Journal of Work and Organizational Psychology*, Vol. 10 No. 3, pp. 225–244. DOI: 10.1080/13594320143000654

Covey, S.M.R., Merrill, R.R. (2006), *The speed of trust: the one thing that changes everything*, Free Press, New York.

De Jong, B.A., Dirks, K.T., Gillespie, N. (2016), "Trust and team performance: A meta-analysis of main effects, moderators, and covariates", *Journal of Applied Psychology*, Vol. 101 No. 8, pp. 1134-1150.

Dietz, G., Den Hartog, D.N. (2006), "Measuring trust inside organizations", *Personnel Review*, Vol. 35 No. 5, pp. 557-588. DOI: 10.1108/00483480610682299

Dutton, J.E., Glynn, M.A., Spreitzer, G. (2006), "Positive organizational scholarship", in: Greenhaus, J., Callanan, G. (Eds.), *Encyclopaedia of Career Development*, Sage, Thousand Oaks, pp. 641-650.

Dutton, J.E., Heaphy, E.D. (2003), "The power of high-quality connections", in: Cameron, K.S., Dutton, J.E., Quinn, R.E. (Eds.), *Positive organizational scholarship. Foundation of a new discipline*, Berrett-Koehler Publishers, San Francisco, pp. 263-278.

Elsbach, K.D. (2004), "Managing images of trustworthiness in organizations", in: Kramer, R.M., Cook, K.S. (Eds.), *Trust and distrust in organizations: Dilemmas and approaches*, Russell Sage Foundation, New York, pp. 275-292.

Enders, C.K. (2001), "The impact of non-normality on full information maximum-likelihood estimation for structural equation models with missing data", *Psychological Methods*, Vol. 6 No. 4, pp. 352-370. DOI: 10.1037/1082-989X.6.4.352

Fredrickson, B.L. (2003), "Positive emotions and upward spirals in organizations", in: Cameron, K.S., Dutton, J.E., Quinn, R.E. (Eds.), *Positive Organizational Scholarship: Foundations of a New Discipline*, Berrett-Koehler Publishers, San Francisco, pp. 163-173.

Glińska-Neweś, A. (2013), "Employee interpersonal relationships", in: Stankiewicz, M.J. (Ed.), *Positive management: Managing the key areas of positive organisational potential for company success*, Dom Organizatora, Toruń, pp. 125-154.

Glińska-Neweś, A. (2017), *Pozytywne relacje interpersonalne w zarządzaniu*, Wydawnictwo Naukowe Uniwersytetu Mikołaja Kopernika, Toruń.

Glińska-Neweś, A., Barabasz, A., Escher, I., Fu, Y. (2022), "Defence Mechanisms as Predictors of Trust and Positive Relationships in Top Management Teams", *Human Systems Management*, Vol. 41 No. 5, pp. 567-581. DOI: 10.3233/HSM-211562

Barbara Józefowicz
Yusheng Fu
Rodrigo Martin-Rojas

Hardin, R. (2002), *Trust and trustworthiness*, Russell Sage Foundation, United States.

Kahn, W.A. (1992), "To be fully there: Psychological presence at work", *Human Relations*, Vol. 45, pp. 321-349.

Kahn, W.A. (2007), "Meaningful Connections: Positive Relationships and Attachments at Work", in: Dutton, J.E., Ragins, B.R. (Eds.), *Exploring Positive Relationships at Work: Building a Theoretical and Research Foundation*, Lawrence Erlbaum, New York, pp. 189-206.

Kock, N., Lynn, G. (2012), "Lateral collinearity and misleading results in variance-based SEM: An illustration and recommendations", *Journal of the Association for information Systems*, Vol. 13 No. 7, pp. 546-580. DOI: 10.17705/1jais.00302

Krackhardt, D., Hanson, J.R. (1993), "Informal Networks: The Company Behind the Chart", *Harvard Business Review*, Vol. 71, pp. 104-111.

Kram, K.E., Isabella, L.A. (1985), "Mentoring alternatives: The role of peer relationships in career development", *Academy of Management Journal*, Vol. 28 No. 1, pp. 110-132. DOI: 10.2307/256064

Krosnick, J.A. (1999), "Survey research", *Annual Review of Psychology*, Vol. 50 No. 1, pp. 537-567. DOI: 10.1146/annurev.psych.50.1.537

Landis, R.S., Beal, D.J., Tesluk, P.E. (2000), "A comparison of approaches to forming composite measures in structural equation models", *Organizational Research Methods*, Vol. 3 No. 2, pp. 186-207. DOI: 10.1177/109442810032003

LePine, J.A., Methot, J.R., Crawford, E.R., Buckman, B.R. (2012), "A Model of Positive Relationships in Teams: The Role of Instrumental, Friendship, and Multiplex Social Network Ties", in: Turner de Tormes Eby, L., Allen, T.D. (Eds.), *Personal Relationships: The Effect on Employee Attitudes, Behaviour, and Well-being*, Routledge, New York, pp. 173-194.

Lincoln, J.R., Miller, J. (1979), *Work and Friendship Ties in Organizations: A Comparative Analysis of Relational Networks*, "Administrative Science Quarterly", Vol. 24, pp. 181-199.

Ling, F.Y.Y., Dulaimi, M.F., Chua, M. (2013), "Strategies for managing migrant construction workers from China, India, and the Philippines", *Journal of Professional Issues in Engineering Education and Practice*, Vol. 139 No. 1, pp. 19-26. DOI: 10.1061/(ASCE)EI.1943-5541.0000124

Mach, M., Dolan, S., Tzafrir, S. (2010), "The differential effect of team members' trust on team performance: The mediation role of team cohesion", *Journal of occupational and organizational psychology*, Vol. 83 No. 3, pp. 771-794. DOI: 10.1348/096317909X473903

Mausbach, B.T., Roepke, S.K., Chattillion, E.A., Harmell, A.L., Moore, R., Romero-Moreno, R., Bowie, C.R., Grant, I. (2012), "Multiple mediators of the relations between caregiving stress and depressive symptoms", *Aging & Mental Health*, Vol. 16 No. 1, pp. 27-38. DOI: 10.1080/13607863.2011.615738

Mayer, R.C., Davis, J.H., Schoorman, F.D. (1995), "An integrative model of organizational trust", *Academy of Management Review*, Vol. 20 No. 3, pp. 709-734. DOI: 10.2307/258792

Muthén, L.K., Muthén, B.O. (2018), *Mplus user's guide*, Los Angeles.

Oyster, C.K. (2000), *Grupy*, Wydawnictwo Zysk i S-ka, Poznań.

Barbara Józefowicz
Yusheng Fu
Rodrigo Martin-Rojas

Ping Li, P. (2012), "When trust matters the most: The imperatives for contextualising trust research", *Journal of Trust Research*, Vol. 2 No. 2, pp. 101-106. DOI: 10.1080/21515581.2012.708494

Podsakoff, P.M., MacKenzie, S.B., Lee, J.-Y., Podsakoff, N.P. (2003), "Common method biases in behavioural research: a critical review of the literature and recommended remedies", *Journal of Applied Psychology*, Vol. 88 No. 5, pp. 879-903. DOI: 10.1037/0021-9010.88.5.879

Pratt, M.G., Dirks, K.T. (2009), "Rebuilding trust and restoring positive relationships: a commitment-based view of trust", in: Dutton, J.E., Ragins, B.R. (Eds.), *Exploring positive relationships at work: Building a theoretical and research foundation*, Psychology Press, East Sussex, New York, pp. 117-136. DOI: 10.4324/9781315094199

Preacher, K.J., Hayes, A.F. (2008), "Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models", *Behaviour Research Methods*, Vol. 40 No. 3, pp. 879-891. DOI: 10.3758/BRM.40.3.879

Ragins, B.R., Dutton, J.E. (2007), "Positive relationships at work: An introduction and invitation", in: Dutton, J.E., Ragins, B.R. (Eds.), *Exploring positive relationships at work: Building a theoretical and research foundation*, Lawrence Erlbaum, New York, pp. 3-25.

Roberts, L.M. (2007), "From proving to becoming; how positive relationships create a context for self-discovery and self-actualization"*,* in: Dutton, J.E., Ragins, B.R. (Eds.), *Exploring positive relationships at work: Building a theoretical and research foundation*, Laurence Erlbaum Associates, New York, pp. 29-45.

Rong, P., Li, C., Xie, J. (2019), "Learning, trust, and creativity in top management teams: Team reflexivity as a moderator", *Social Behaviour and Personality*, Vol. 47 No. 5, pp. 1-14. DOI: 10.2224/sbp.8096

Rousseau, D.M., Sitkin S.B., Burt, R.S., Camerer, C. (1998), "Not so different after all: A cross-discipline view of trust", *Academy of Management Review*, Vol. 23 No. 3.

Sprenger, R.K. (2007), *Trust: The best way to manage*, Campus Verlag.

Sztompka, P. (1999), *Trust: A sociological theory*, Cambridge University Press, United Kingdom.

Whitener, E.M., Brodt, S.E., Korsgaard, M.A., Werner, J.M. (1998), "Managers as initiators of trust: An exchange relationship framework for understanding managerial trustworthy behaviour", *Academy of Management Review*, Vol. 23 No. 3, pp. 513-530. DOI: 10.5465/amr.1998.926624

Zaheer, A., McEvily, B., Perrone, V. (1998), "Does trust matter? Exploring the effects of interorganizational and interpersonal trust on performance", *Organization Science*, Vol. 9 No. 2, pp. 141-159.