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THE INFLUENCE OF TRANSFORMATIONAL AND TRANSACTIONAL LEADERSHIP ON DYADIC TRUST RELATIONSHIPS THROUGH PERCEPTIONS OF FAIRNESS

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ABSTRACT

Leadership and interpersonal trust are critical issues for the survival of organisations. Both aspects have been researched thoroughly, but the role organisational justice might play in this relationship has been largely ignored. The purpose of this study was to investigate the relationship between transformational and transactional leadership and interpersonal trust, and whether organisational justice plays a mediating role. Through LISREL analysis, it was found that interactional justice played a greater role in the relationship between transformational leadership and trust than procedural justice. Distributive justice mediated the relationship between transactional leadership and trust.

OPSOMMING

Leierskap en interpersoonlike vertroue is kritieke vraagstukke vir die oorlewing van organisasies. Beide aspekte is reeds deeglik nagevors, maar die rol wat organisatoriese geregtigheid in hierdie verband kan speel, is grootliks nagelaat. Die doel van hierdie studie was om die verband tussen transformasionele en transaksionele leierskap en interpersoonlike vertroue te ondersoek, en of organisatoriese geregtigheid 'n tussenkomende rol speel. Deur middel van LISREL-ontleding is gevind dat interaktiewe geregtigheid 'n groter rol in die verband tussen transformasionele leierskap en vertroue speel as prosedurele geregtigheid. Verdelende geregtigheid dien as tussenkomende veranderlike in die verband tussen transaksionele leierskap en vertroue.

Economists, psychologists, sociologists and management scientists agree on the importance of trust in interpersonal relationships and management efficiency (Hosmer, 1995). Trust has been found to be a crucial element in developing organisational effectiveness (Gomez & Rosen, 2001). The importance of trust lies in its close relationship with organisational commitment, job satisfaction and organisational citizenship behaviours (Konovsky & Pugh, 1994; Morgan & Hunt, 1994). These three possible outcomes of trust are essential for creating and maintaining a highly effective organisation.

Within the South African context, the concept of trust is of great importance in work relationships. The socio-political history created a social environment that is characterised by extreme mistrust between people in South Africa (Bews, 2000; Blackburn, 1992; Engelbrecht & Cloete, 2000). Fuhr (Blackburn, 1992, p.4) summarises the situation as follows: "this country has been scarred by an ever widening chasm of mistrust and it is safe to say that any company that fails to address that mistrust, is destined to remain firmly rooted in the old South Africa; mistrust is probably the single most formidable obstacle in the way of meaningful change."

The effect of trust has been investigated in many studies (Kramer & Tyler, 1996), but little attention has been given to the integration of leadership and organisational justice with trust, although the relationship between these constructs have been suggested by Pillai, Schriesheim and Williams (1999) and Konovsky and Pugh (1994). Some studies (Konovsky & Pugh, 1994; Lewicki & Bunker, 1996) have established that there is a firm relationship between transformational leadership and trust, but the mediating effects of procedural justice in this relationship have been largely ignored. Additionally, although the relationship between transactional leadership and trust was researched (Konovsky & Pugh, 1994) the mediating effects of distributive justice in this context were not adequately researched.

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Pillai et al. (1999) have developed an integrated model based on the relationship between leadership, organisational justice and interpersonal trust (see Figure 1). The specific purpose of this study was to test the validity of Pillai et al.'s (1999) model in the Southern African context. The present research tried to establish whether there is a relationship between transformational and transactional leadership and interpersonal trust, and whether this relationship is influenced through organisational justice (in terms of procedural and distributive justice). The basic aim of this research was therefore to establish whether procedural justice had a mediating effect on the relationship between transformational leadership and trust, and whether distributive justice had a mediating effect on the relationship between transactional leadership and trust. Another goal of this study was to establish whether there is a direct relationship between transformational leadership and trust.

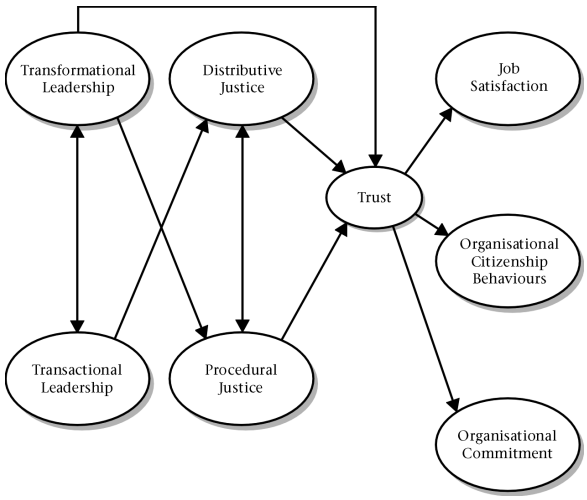

Figure 1: Theoretical model of the relationship between leadership, justice and trust (Pillai et al., 1999)

Transformational Leadership and Procedural Justice
Transformational leadership involves the empowerment of employees, individualised consideration for subordinates and support for their ideas (Bass & Avolio, 1994). Transformational leaders enable employees to influence outcomes of decisions that affect them. Beyond that, transformational leaders motivate their followers to be participants in an equitable relationship. Both these factors are likely to promote procedural justice, because procedural justice incorporates the extent to which a person has a voice in the decision-making process. Selznick (Folger & Bies, 1989) argues that managerial authority is only derived from the employees' acceptance of the psychological contract whereby they agree to have their activities managed. Thus it is significant that managerial responsibility includes enacting decision-making procedures in order to guarantee perceptions of procedural fairness.

An important aspect of transformational leadership is that it encourages followers to transcend their self-interest for the purpose of the greater collective group (group, organisation, or country) (Bass & Avolio, 1994). This corresponds with procedural justice, which enhances welfare and group solidarity over the long term (Lind & Tyler, 1988). Transformational leaders thus promote procedural justice.

Pillai et al. (1999) found that transformational leadership correlated strongly with procedural justice (Sample 1: $r = 0.59$, Sample 2: $r = 0.56$, $p < 0.01$). They also indicated the structural parameter estimate for this relationship to be 0.74 ($p < 0.01$). This study therefore supports the notion that transformational leaders facilitate perceptions of procedural fairness.

From the above assumptions and findings, the following can be postulated: **Hypothesis 1**: A significantly positive relationship exists between transformational leadership and procedural justice.

Procedural Justice and Trust
The use of procedurally fair leadership practices affects employees' trust in the supervisor and the organisation because the development and use of fair procedures explicitly demonstrates the importance placed on the rights of the individual employees (Pillai et al., 1999). Also, the structural and social components of procedural justice are likely to influence perceived trust (Brockner & Siegel, 1996). Structural aspects of procedural justice tend to be stable over time. The inertial nature of institutional forces causes structures to change slowly. Therefore it is logical to contend that expectations of future behaviour will be formed on the basis of the structure of the decisions (Brockner & Siegel, 1996). People also make trust judgements based on interpersonal behaviour of the parties who implement a decision. Procedures that are structurally and interpersonally fair will promote trust in the system and in the implementers of the decision (normally the leader) (Brockner & Siegel, 1996).

Procedural justice is highly correlated with trust (Konovsky & Pugh, 1994). Studies by Konovsky and Pugh (1994) and Pillai et al. (1999) indicate that procedural justice is a significant predictor of trust in the supervisor. Konovsky and Pugh (1994) found a correlation between procedural justice and trust in the supervisor to be 0.77 ($p < 0.01$). Pillai et al. (1999) confirmed this correlational pattern (Sample 1: $r = 0.63$, Sample 2: $r = 0.52$, $p < 0.01$).

Thus, the following hypotheses can be postulated: **Hypothesis 2**: A significantly positive relationship exists between procedural justice and interpersonal trust. **Hypothesis 3**: Procedural justice has a mediating effect on the relationship between transformational leadership and interpersonal trust.

Transformational Leadership and Trust
Procedural justice may mediate the relationship between transformational leadership and interpersonal trust. But there could also be unmediated effects. That is, transformational leadership may influence trust directly (Pillai et al., 1999). This is so, because transformational leaders have to instil trust for followers to commit to the strategic vision that they propose (Bass in Pillai et al., 1999). Another reason is that transformational leaders try to motivate followers to take risks by intellectually stimulating them. To be able to do that, transformational leaders need to set a personal example to gain the trust of their followers (Pillai et al., 1999).

In addition, transformational leaders engage in activities that promote identification-based trust. Activities that strengthen identification-based trust include developing a collective identity, creating joint products and goals, and committing to commonly shared values (Lewicki & Bunker, 1996). Transformational leaders engage in individualised consideration, in diagnosing individual needs and capacities in order to be able to attend to them. The leader makes a concerted effort to provide followers with direction, attention, structure, advice and feedback. This understanding of follower's needs is analogous with identification-based trust, where the basis of trust is an appreciation of the follower's wants and desires that enables the leader to act effectively on the follower's behalf.

Pillai et al. (1999) found strong, positive correlations between transformational leadership and trust (Sample 1: $r = 0.75$, Sample 2: $r = 0.58$, $p < 0.01$). They also found structural parameter estimates of the relationship between transformational leadership and trust to be 0.66 ($p< 0.01$), indicating that transformational leadership is related to trust.

Hence, it can be postulated that: **Hypothesis 4**: A significantly positive relationship exists between transformational leadership and interpersonal trust.

Transactional Leadership and Distributive Justice
Transactional leadership is based on economic exchange (Bass in Pillai et al., 1999; Graen & Uhl-Bien, 1995). Under transactional leaders, employees are likely to be concerned about the fairness of outcomes. To that, Konovsky & Pugh (1994) contend that "distributive justice is the metric for judging the fairness of the transactional contracts of economic exchanges."

The relationship can be attributed to the fact that one of the norms of distributive justice is that parties reciprocate benefits with the expectation of receiving comparable benefits in the short run (Konovsky & Pugh, 1994). In connections with performance evaluations, Greenberg & Baron (2000) contend that, if they are to be perceived as fair, the instrumentality perceptions of employees should be strengthened, by ensuring that their expectations of the outcomes are related to the work they do. This is in line with transactional leadership. The leaders' function is to clarify instrumentalities for their subordinates (Bass in Pillai et al., 1999), as well as to reward good performance.

Pillai et al. (1999) found that transactional leadership was positively related to distributive justice. This relationship, however, is moderate (Sample 1: $r = 0.41$, Sample 2: $r = 0.50$, $p< 0.01$). The reason for this could be that Pillai et al. (1999) operationalised transactional leadership as contingent reward behaviours only.

Therefore, it is possible to postulate: **Hypothesis 5**: A significantly positive relationship exists between transactional leadership and distributive justice.

Distributive Justice and Trust
Although Konovsky and Pugh (1994) hypothesised that distributive justice is less likely than procedural justice to produce attributions of trust, it is evident (Brockner & Bunker, 1996; Pillai et al., 1999) that distributive justice also is related to trust. For trust to be instilled, the outcome of a particular

transaction must be perceived as being fair by followers. That means distributive justice must be perceived. Equity theory (Greenberg & Baron, 2000) demonstrates consequences of inequitable outcomes. Inequitable outcomes present a violation of distributive fairness and may result in trust in the leader and the organisation being hampered.

Homans (Chemers, 1997) contends that the willingness to invest in an employment relationship is dependent on previous experiences and a history of such exchanges. If a person perceives that past investments have been worthwhile, i.e. the exchange was fair, he/she is likely to repeat such an investment. This is analogous with the definition of trust, where it was conceptualised that an individual has confidence in another party, on the grounds of a past relationship, to act in a fair, ethical and predictable manner.

Pillai et al. (1999) found that distributive justice and trust correlated only moderately (Sample 1: $r = 0.40$, Sample 2: $r = 0.46$, $p < 0.01$). Folger and Konovsky (1989) found that distributive justice was only moderately related to trust ($r = 0.35$, $p < 0.01$). Konovsky and Pugh (1994) however, found no significant relationship between distributive justice and trust.

Consequently, the next hypotheses are: **Hypothesis 6**: A significantly positive relationship exists between distributive justice and interpersonal trust. **Hypothesis 7**: Distributive justice has a mediating effect on the relationship between transactional leadership and interpersonal trust.

METHOD

Sample
Employees (N=281) working at twelve different branches of a Namibian bank were selected for this sample. Non-probability sampling, i.e. quota sampling, was used to conduct the study. As accidental choice and not on random sampling was relied on, this study cannot claim to have sampled a representative sub-set of the banking population. Twice as many females (70.5%) as male employees responded to the survey. The average age of employees was 30.5 years. The average length of service in the bank was 8.8 years, while the average total work experience was equal to 10.0 years. The average time a respondent worked under a current supervisor amounted to 2.6 years. The sample consisted predominantly of blacks (79.4%).

Measuring Instruments
The research utilised a combined questionnaire that consists of four sections. Section A measured the ***demographic data*** of the various respondents. Section B measured ***transformational and transactional leadership*** with an adapted version of the Multifactor Leadership Questionnaire (MLQ) (Form 5-45) developed by Bass and Avolio (1995). The sub-scales have consistently demonstrated good internal consistency ($0.58 \leq \alpha \leq 0.93$) (Hartog & Van Muijen, 1997). Confirmatory factor analyses supported the postulated factor structure in some studies (Jung, Avolio & Bass, 1998; Lowe, Kroeck & Sivasubramaniam, 1996), but unstable factor structures were found in other studies (Pillai et al., 1999).

Section C measured ***procedural and distributive justice***. Moorman's (1991) questionnaire for organisational justice was used. Procedural justice was measured according to a 13-item scale with a six-point Likert response alternative. Moorman (1991) found an internal consistency of 0.93 for the scale. Distributive justice was measured according to a five-item scale. Moorman (1991) reported an internal consistency of 0.94 for this scale. With the help of confirmatory factor analysis, Moorman (1991) proved convergent and discriminant validity for this scale. All indicators loaded significantly on the hypothesised latent variables and no cross loadings existed (λs varied between 0.67 to 0.93). The goodness-of-fit was indicated by the comparative fit index (CFI = 0.97).

Section D measured ***interpersonal trust***. Bew's (2000) trust questionnaire was used. In this research the response alternatives were changed from a five- to a six-point response alternative, in order to prevent the problem of centrality. One item was added to the questionnaire, changing it to a 12-item questionnaire. The item that was added states: "I can confide in the person to whom I report." Bews (2000) reports an internal consistency of 0.94 for this instrument.

Statistical Analysis and Results
Structural equation modelling (SEM) was used as the statistical procedure to test the stated hypotheses. SEM was done using LISREL 8.3 (Jöreskog & Sörbom, 1996). SEM includes factor analysis to test hypotheses. It incorporates testing the overall quality of the factor solution and the specific parameters composing the model. It also allows for the specification and testing of complex models, where mediational relationships and causal processes are of interest (Kelloway, 1998). SEM was used in this study because a set of correlations is implied. Additionally, Kelloway (1998, p.6) states, "...if the theory is valid, then the theory should be able to explain or reproduce patterns of correlations found in the empirical data."

Missing Values
Missing values did not represent a problem in this analysis. A total of 306 questionnaires were returned at the time of the analysis, 25 of which had to be rejected, as they were not completed satisfactorily. All questionnaires that were subsequently used in the analysis were fully completed by all the respondents.

Theoretical Approach to the Analysis
For the purpose of the research, it was decided to separate the various leadership dimensions in order to confront the MLQ with a more equitable challenge in so far as the exogenous measurement model now agrees with the original design architecture of the MLQ. This had the additional advantage of permitting a more penetrating analysis of the effect of each leadership dimension on the endogenous latent variables. Preceding the LISREL analysis of the measurement and structural models, dimensionality and item analyses were conducted.

Dimensionality Analysis
Dimensionality analyses were conducted using SPSS (SPSS, 1990). Unrestricted principal component analyses with Varimax rotation were performed on each sub-scale of the questionnaire. The goal of the dimensionality analyses was to ensure uni-dimensionality of each sub-scale. In the case of the MLQ only one factor was extracted in terms of the eigenvalues greater than one criterion for each of the seven sub-scales. In the case of transformational leadership, item 5 (measuring idealised influence) was removed, because it loaded very low on that factor ($\lambda = 0.368$). In the case of transactional leadership item 15 (measuring management-by-exception passive) has been deleted, because it loaded unsatisfactorily low on that factor ($\lambda = 0.436$). All remaining items had satisfactory ($\lambda \leq 0.62$ and $\lambda \leq 0.65$) factor loadings.

Procedural justice failed the uni-dimensionality test. In this case, however, the problem could not be solved through the deletion of the offending items. The scale presented a clear, interpretable two-factor orthogonal factor structure. The factor fission was found to result in a conceptually meaningful division of the original procedural justice dimension. The two factors that emerged from the factor fission were interpreted as procedural and interactional justice. The former refers to institutional procedures that are being enacted in an organisational setting, while the latter refers to communicating these procedures to individuals in a

transparent and open manner. Principal component analyses were conducted on both newly created scales. All items loaded satisfactorily (λ varied from 0.58 to 0.85) on a single factor.

The inter-item correlations of the interpersonal trust scale could be satisfactorily explained in terms of a single factor. The factor loadings produced satisfactory results (λ varied between 0.75 and 0.85).

Item Analysis

Item analyses were conducted on each sub-scale. Item analyses were performed through the SPSS Reliability Procedure (SPSS, 1990) to identify and eliminate possible items that were not contributing to an internally consistent description of the sub-scales in question. In addition to the deleted items of the dimensionality analyses, item 1 of the procedural justice sub-scale was also removed to increase the α-value of the scale. The item analysis showed high reliabilities for the transformational leadership scales (Idealised Influence, $\alpha = 0.84$; Intellectual Stimulation, $\alpha = 0.72$; Inspirational Motivation, $\alpha = 0.80$; Individualised Consideration, $\alpha = 0.77$). For the transactional leadership scales, satisfactory reliabilities were found (Contingent Reward, $\alpha = 0.74$; MBE Active, $\alpha = 0.68$; MBE Passive, $\alpha = 0.62$). The organisational justice scales demonstrated very high reliabilities (Procedural justice, $\alpha = 0.90$; Interactional justice, $\alpha = 0.91$; Distributive justice, $\alpha = 0.94$). The interpersonal trust scale also showed a very high α of 0.96. Generally, the reliabilities were satisfactorily high, except for management-by-exception (active and passive), where the αvalues lie below the generally accepted value of 0.70 (Nunnally, 1978).

Structural Equation Modelling

Building on the findings of the dimensionality and item analyses, the structural model for the LISREL analysis was redesigned. The path diagram that serves as the basis for the analysis is depicted in Figure 2.

SEM, using LISREL 8.30 (Jöreskog & Sörbom, 1996), was used to perform confirmatory factor analyses (CFAs) on the exogenous and endogenous models. As a result of the separation of the items into their dimensions, all items that have been retained after the dimensionality and item analyses were used as indicator variables.

The schematic representation of the comprehensive LISREL model portrayed in Figure 2 implies the following matrix equations:

$$X = \Lambda_X \xi + \delta \quad (1)$$

Where:
X is a 30 x1 column vector of observable indicator variables,
Λ_X is a 30 x 7 matrix of factor loadings,
ξ is a 7 x 1 column vector of latent leadership facets; and

δ is a 30 x 1 column of measurement errors in X. It indicates systematic non-relevant, as well as random error influences (Jöreskog & Sörbom, 1996).

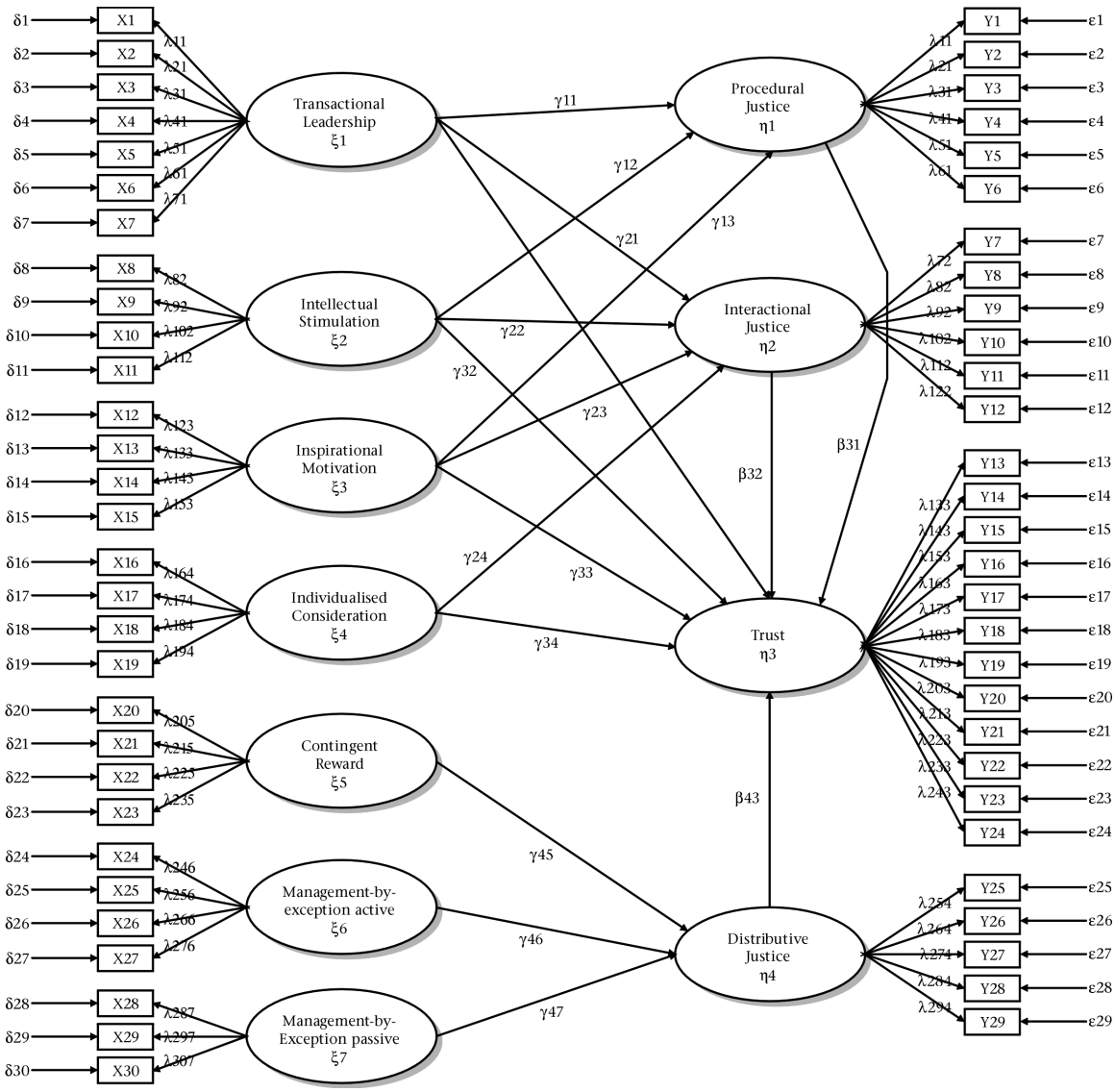

Figure 2: LISREL path diagram

$Y = \Lambda_y \eta + \varepsilon$ _____(2)

Where:
Y is a 29 x 1 column vector of observable indicator variables,
Λ_y is a 29 x 4 matrix of factor loadings,
η is a 4 x 1 column vector of latent endogenous variables;
ε is a 29 x 1 column of measurement errors in Y. It indicates systematic non-relevant and random error influences (Jöreskog & Sörbom, 1996).

The goal of CFA is to explicitly test the ability of the hypothesised measurement model or factor structure to reproduce the observed correlation/covariance matrix. It tests the overall quality of the factor solution and the specific parameters (factor loadings) composing the model (Kelloway, 1998). In CFA, the exogenous (X model) and endogenous (Y model) measurement models are of interest. The X model is a seven-factor model measured by thirty observed variables, while the Y model is a four-factor model measured by 29 observed variables. In both cases, the factors, the regression of the observed variables on the latent variables, and the errors of measurement are of primary interest and not the impact of ksi (ξ) on eta (η). As such CFA tries to determine whether the specific hypothesised paths could have created the observed correlation/covariance matrix Σ.

Information on parameters for the Measurement Models
CFA were performed on the MLQ, organisational justice questionnaire and trust questionnaire to determine the fit of the measurement models. The data obtained in the indicator variables was read into PRELIS (Jöreskog & Sörbom, 1996) to compute the polychoric correlation matrix to serve as input for the LISREL analysis. The data was normalised on PRELIS before computing the correlation matrix. Normalisation had the advantage that the fit to the data was increased. The use of a correlation matrix simplifies interpretations of the results. Additionally, the results are more conservative estimates of parameter significance, which is desirable in statistical analysis (Kelloway, 1998).

An Assessment of multiple fit indices of the measurement models
The assessment of absolute and comparative fit is essential in this analysis. The chi square (χ^2) was used to test the null hypothesis, shown as equation 3.

Ho: $\Sigma = \Sigma(\theta)$_____(3)

Where:
Σ is the population covariance matrix of the observed variables;
$\Sigma(\theta)$ is the covariance matrix implied by a specific model and;
θ is a vector containing the free parameters of the model (Bollen & Long, 1993).

If the model had been specified correctly, one could use a χ^2 test statistic, following an asymptotically χ^2 distribution, to test the null hypothesis that the specified model would lead to a reproduction of the population covariance matrix of the observed variables. A significant test statistic would make the model specification doubtful. This implies that a non-significant χ^2 indicates model fit, in that the model can reproduce the population covariance matrix (Bollen & Long, 1993; Kelloway, 1998). Chi-square is a measure of overall fit of the model to the data. It measures the distance between the sample covariance or correlation matrix and the fitted covariance/correlation matrix. Zero chi-square corresponds to good fit (Jöreskog & Sörbom, 1996). The p values ($p < 0.05$) associated with the χ^2 values indicate highly significant test statistics.

The χ^2, however, is sensitive to sample size. It is therefore unlikely to obtain an insignificant χ^2 in large samples, even if the model fits the data, although the approximation of the χ^2 distribution occurs only in large samples ($N \geq 200$). Chi-square must increase with an increase in sample size, which makes a non-significant χ^2 unlikely in large samples (Kelloway, 1998). In an effort to try and avoid this problem, it was suggested that the χ^2 should be expressed in terms of its degree of freedom (Kelloway, 1998). A value of 2.622 results for transformational and transactional leadership, while the χ^2/df ratio is 2.193 for the endogenous variables. Generally, good fit is indicated by values between 2 and 5. A value less than 2 indicates over-fitting (Kelloway, 1998). When evaluated against these standards, both measurement models seem to fit the data well.

The simplest fit index provided by LISREL is the root mean squared residual (RMR). This is the square root of the mean of the squared discrepancies between the implied and observed covariance matrices. The lower bound of the index is 0, and low values are taken to indicate good fit. LISREL also provides a standardised RMR, which has a lower bound of 0 and an upper bound of 1. Values less than 0.05 are interpreted as indicating a good fit to the data (Kelloway, 1998). The RMR for both measurement models indicates good fit. The RMR value of 0.064 was obtained for leadership, while the RMR for the endogenous variables is 0.044. The root mean squared error of approximation (RMSEA) is also reported by LISREL. It is based on the analysis of residuals, with smaller values indicating a better fit to the data. Steiger (1990) contends that a value lower than 0.10 indicates a good fit, while a value lower than 0.05 indicates a very good fit and values below 0.01 indicate outstanding fit to the data. The RMSEA indicates good fit for both measurement models (exogenous variables: RMSEA = 0.080, $p < 0.05$, N = 281 / endogenous variables: RMSEA = 0.067, $p < 0.05$, N = 281). Judged in terms of these three fit indices, acceptable model fit is suggested for both measurement models.

The goodness-of-fit index (GFI) is "based on a ratio of the sum of the squared discrepancies to the observed variance" (Kelloway, 1998, p.27). The GFI ranges from 0 to 1, with values exceeding 0.90 indicating a good fit to the data. The adjusted goodness-of-fit index (AGFI) adjusts the GFI for degrees of freedom in the model. This measure also ranges from 0 to 1, with values above 0.9 indicating a good fit to the data (Kelloway, 1998). When evaluating goodness-of-fit in accordance with these standards, both measurement models do not achieve the 0.9 level. It was found that the GFI for leadership is 0.80 and the AGFI is 0.75. For organisational justice and trust, the GFI and AGFI are somewhat higher, namely 0.83 and 0.80, respectively. Kelloway (1998) warns that the GFI has no known sampling distribution, which implies that standards as to what constitutes good fit to the data is somewhat arbitrary.

Comparative fit chooses a baseline model for comparison. Comparative fit is based on a comparison of the measurement models with the independence model that provides poorest fit possible to the data. Relevant in this analysis is the normed fit index (NFI), non-normed fit index (NNFI), the incremental fit index (IFI), the comparative fit index (CFI) and the relative fit index (RFI). All these indices assume values between 0 and 1, while good fit is indicated by a value above 0,90. The values for all the comparative fit indices for leadership do not achieve values higher than 0.90, although the NNFI, CFI and IFI come close to the 0.90 goodness-of-fit mark. The endogenous variables seem to indicate much better fit, when comparing comparative fit indices to the target value of 0.90.

Taking all fit indices into account, it seems reasonable to contend that acceptable fit has been achieved on both endogenous and exogenous measurement models.

Examining the obtained solution
All estimated factor loadings λ in Λx differ significantly from zero. The fit of the models would therefore deteriorate if any of the existing paths in Figure 2 would be eliminated, thus fixing the corresponding parameters in Λx to zero. None of the existing paths should be removed, as all items appear to reflect the leadership, organisational justice and trust dimensions they were designed to measure.

Overall results suggest that the factor loadings have been satisfactory for both the X and the Y model. The t values are all higher than 1.96, indicating that the items are significant. The Λx and Λy indicate that the items measure what they were designed to measure. The diagonal elements of the θ_δ matrix indicate that the random or systematic non-relevant influences on transformational and transactional leadership are moderate to high, while moderate to low for the endogenous variables. The squared multiple correlations, that should be interpreted as estimates of the item reliability ρ_{ii}, are moderate for transformational leadership (varying from 0.23 to 0.65) and rather low for transactional leadership (varying from 0.20 to 0.60). This indicates that only a moderate proportion of the variance in leadership indicator variables can be explained in terms of the designated latent variable. The squared multiple correlations are high for organisational justice and trust (varying from 0.53 to 0.82).

Evaluation of the full LISREL model
The structural model that served as a basis for this research is depicted in Figure 2. This structural model presents a more detailed account of the nature of the relationship between leadership, organisational justice and interpersonal trust than was implied by the literature study. Additional paths are implied through the addition of interactional justice as a separate dimension. Reporting of the results of the structural model fit is based on the guidelines of Raykov, Tomer and Nesselroade (1991).

The design and structure of this conceptual model implies a specific structural equation. The revised structural model relevant to this study is shown in matrix form in equation 4.

$$\eta = B\eta + \Gamma \xi + \zeta \quad \text{(4)}$$

Where:
η is a 4 x 1 column vector of latent endogenous variables,
B is a 4 x 4 matrix of path/regression (β) coefficients of the η – variables in the structural relationship (β has zeros in the diagonal),
Γ is a 4 x 7 matrix of path/regression (γ) coefficients of regression of η on ξ,
ξ is a 7 x 1 column vector of latent leadership facets, and
ζ is 4 x 1 vector of equation errors in the structural relationship between ξ and η (Jöreskog & Sörbom, 1996).

Assessing Goodness-of-fit of the Structural Model
The logic underlying assessment of fit of the structural model is the same as that of the measurement models. Consequently, the same structure will be followed in analysing fit.

The p-value of the chi-square statistic is significant ($p < 0.001$). Following the earlier logic, a non-significant χ^2 indicates model fit in that the model can reproduce the observed covariance matrix (Bollen & Long, 1993; Kelloway, 1998). In this case the model is not able to reproduce the observed covariance matrix to a degree of accuracy that could be explained in terms of sampling error only.

The evaluation of fit on the basis of the χ^2/df (5315.42/1614 = 3.29) for the structural model indicated good fit when evaluated against the standard that good fit assumes values between 2 and 5.

The RMSEA value of 0.079 supports the notion of good fit, where good fit is indicated by a value of less than 0.10. The RMR also indicates good fit (0.071). When analysing the GFI (0.65) and AGFI (0.62) a less satisfactory result is revealed. Good fit in this case would be indicated by a value higher than 0.90. Comparative fit is also not satisfactory. The NFI (0.70), NNFI (0.75), CFI (0.76), IFI (0.77) and RFI (0.68) all show values lower than 0.90.

Assessing Parameter Estimates of the Structural Model
The parameter estimates for the measurement models were evaluated. Here the completely standardised solutions were evaluated. The results obtained in the full LISREL analysis agree with the results reported earlier for both the exogenous and endogenous measurement models.

An analysis of the structural relationships
The analysis of the structural relationship reveals whether the theoretical model, and thus the hypotheses, can be confirmed. The relevant matrices for the direct effects between the constructs are the beta (B) and gamma (Γ) matrices. The matrices are depicted in Tables 1 and 2, respectively.

TABLE 1
GAMMA (Γ) MATRIX

	Idealised Influence	Intellectual Stimulation	Inspirational Motivation	Individual Consideration	Contingent Reward	MBE Active	MBE Passive
Procedural Justice	6.81 (3.63) 1.87	-4.62 (2.88) -1.60	-1.89 (1.11) -1.69	–	–	–	–
Interactional Justice	2.53 (1.06) 2.37*	-1.92 (0.80) -2.38*	-0.87 (0.45) -1.92	0.75 (0.17) 4.33*	–	–	–
Distributive Justice	–	–	–	–	0.52 (0.09) 5.68*	-0.12 (0.08) -1.36	0.07 (0.06) 1.13
Trust	6.92 (21.15) 0.33	-4.46 (14.75) -0.30	-1.98 (5.68) -0.35	-0.01 (0.14) -0.08	–	–	–

* t-values greater than |1.96| indicate significant path coefficients

From t values in the gamma (Γ) matrix, it can be derived that the relationships between the transformational leadership facets and procedural justice are insignificant ($p > 0.05$). Research Hypothesis 1 is thus not corroborated, as no significant relationship exists between transformational leadership and procedural justice. There are, however, significant ($p < 0.05$) relationships between idealised influence, intellectual stimulation, individualised consideration and interactional justice. Inspirational motivation, however, is not significantly ($p > 0.05$) related to interactional justice. This implies that transformational leaders do not directly influence the perception concerning the procedures itself. The focus lies rather on how these procedures are communicated to followers in order to enhance the quality of interpersonal treatment during the enactment of these procedures. The explanations of decisions are apparently more instrumental in affecting perception of fairness than the procedures themselves. In this study, no significant ($p > 0.05$) relationship could be found between transformational leadership and trust. Research Hypothesis 4 therefore is not corroborated. At the same time, procedural justice has no significant mediating effect on the relationship between transformational leadership and interpersonal trust. Consequently, research Hypothesis 3 is not corroborated. Such a mediating role must, given the aforementioned findings, rather be ascribed to interactional justice.

A positive and significant ($p < 0.05$) relationship was found between contingent reward and distributive justice, but an insignificant ($p > 0.05$) relationship was evident between both facets of management-by-exception and distributive justice. A possible explanation for this finding can be that the exchange of follower resources for valued rewards instils a perception of distributive fairness. The valence that the person attaches to a specific reward is linked to a specific level of performance, indicating a perception of fairness at the outcome level. Management-by-exception involves the monitoring of performance and intervening when problems become serious and thus are not directly linked to the perception of distributive fairness. As a result, Hypothesis 5 can only be partly accepted, as transactional leadership as a whole is not related to distributive justice.

Additionally, the mediating effect of distributive justice in the relationship between transactional leadership and trust can be referred back to contingent reward. Thus Hypothesis 7 is only partly accepted.

TABLE 2
BETA (B) MATRIX

	Procedural Justice	Interactional Justice	Distributive Justice
Trust	-0.75	0.38	0.13
	(2.65)	(0.14)	(0.04)
	-0.28	2.80*	3.36*

* t-values greater than |1.96| indicate significant path coefficients

From the beta matrix it can be inferred that the relationship between procedural justice and trust is insignificant ($p \geq 0.05$). Consequently, research Hypothesis 2 is not confirmed. There is, however, a significant, positive relationship between interactional justice and trust. Following the argument explicated earlier, it can be deduced that trust is only instilled when leaders communicate decisions concerning procedures in a sensitive manner. Trust thus only results when procedures are communicated in an open and honest way without ulterior motives. The focal point once again is not the procedure itself, but the way it is communicated to followers. Additionally, a significant relationship ($p < 0.05$) is found between distributive justice and trust. Thus trust is promoted when fairness of outcomes prevail. Inequitable outcomes present a violation of distributive fairness, resulting in trust in the leader and organisation being reduced. As a result of this finding, research Hypothesis 6 is supported.

Contingent reward is the only sub-dimension of transactional leadership that is related to distributive justice. Evidently subordinates perceive fairness in the economic exchange process. They receive valued rewards for their efforts. The fairness of that outcome influences trust in the leader or organisation. A violation of distributive fairness will thus inevitably lead to a feeling of mistrust.

DISCUSSION

The path: transformational leadership, procedural justice and trust

Transformational leaders empower people to exert extra effort for the collective group and gradually elicit higher order needs from subordinates. They formulate and communicate extraordinary visions. For them to get people to become committed to their visions, they have to instil trust in their subordinates (Bass & Avolio, 1994). The hypothesis thus stated that there is a significant relationship between transformational leadership and trust, but this hypothesis did not find support in this research. It was hypothesised that transformational leaders make use of procedural justice to elicit trust in subordinates. This hypothesis could also not be supported. A new insight has, however, been gained. Interactional justice, a sub-component of procedural justice, seems to play a greater role in the relationship between transformational leadership and trust. Interactional justice refers to the communication of procedures in a sensitive and honest manner. Interactional justice seems to elicit perceptions of fairness in subordinates and not the procedure itself. This corresponds to the argument of social exchange on which transformational leadership is based. For transformational leaders to instil trust, they have to treat employees in a sensitive and considerate manner. The interaction is the focal point of achieving trust and not the procedure per se. This is an important insight into the conceptual network of how transformational leadership may function.

This study does not confirm the findings of Pillai et al. (1999) that transformational leadership is related to procedural justice. The notion that transformational leaders facilitate perceptions of interactional justice rather is supported. In this study no confirmation is found for the relationship between procedural justice and interpersonal trust. The findings of Folger and Konovsky (1989), Konovsky and Pugh (1994) and Pillai et al. (1999) are not supported by this study. It is confirmed, however, that interactional justice is related to interpersonal trust. In addition, the finding of Pillai et al. (1999) and Podsakoff et al. (1996) that transformational leadership is directly related to interpersonal trust cannot be supported.

The path: transactional leadership, distributive justice and trust

Contingent reward indicates an economic exchange process. Valued rewards are exchanged for performance. Rewards are thus linked to performance. Rewards are the outcome of the exchange and thus distributive justice is an issue. Fairness is perceived when the outcomes are equitable. This research supports the notion that contingent reward is positively associated with distributive justice. In this regard it is found that transactional leadership is related to distributive justice. Both facets of management-by-exception are not significantly

related to distributive justice. Management-by-exception is concerned with monitoring performance and correcting mistakes that deviate from standards. Management-by-exception could not be related to distributive justice, although the outcome of the performance could have had an impact on the perception of fairness. Perceptions of fairness concerning the outcome level are positively related to interpersonal trust. This notion has been supported in this study. The consequences of outcomes are of crucial importance to instil interpersonal trust in subordinates. Subordinates are willing to invest in an exchange process when they perceive the outcome of this process as fair. This investment is an act of trust. Distributive justice plays an important role in the relationship between transactional leadership and interpersonal trust.

This study supports the Pillai et al. (1999) finding that contingent reward is related to distributive justice. The correlation between contingent reward and distributive justice ($r = 0.52$, $p < 0.05$) is similar to Pillai et al.'s (1999) correlation ($r = 0.50$, $p < 0.01$) for this relationship. This study also confirms the findings of Pillai et al. (1999) and Folger and Konovsky (1989) that distributive justice is related to interpersonal trust. The findings of Konovsky and Pugh (1994), that distributive justice is not related to trust, could not be supported by this study.

CONCLUSIONS

The study tested the relationship between transformational and transactional leadership and interpersonal trust through perceptions of fairness, and was based on a model proposed by Pillai et al. (1999). The objective of this study was to investigate the different implied theoretical relationships between the constructs contained in the model in the Southern African context.

Various insights have been gained as a result of a comprehensive series of statistical analyses that underlie this study. Resultant from the principal component analyses, uni-dimensionality has been assured on all sub-scales of the questionnaire. In this process, the items of the original organisational justice sub-scale evidently loaded on two orthogonal factors, necessitating the inclusion of interactional justice as a separate dimension in the LISREL model. The item analysis produced satisfactory results, except in the cases of the management-by-exception active and passive sub-scales. The subsequent confirmatory factor analyses that have been performed on LISREL indicated that factors loaded satisfactorily on the dimensions they were set out to measure. The confirmatory factor analyses also revealed acceptable fit for the measurement models. Subsequently, the structural model was tested on LISREL. The structural model indicated reasonable fit for the model.

Although this study did not confirm all the hypothesised relationships between transformational leadership, procedural justice and trust, an important insight was gained into the positive role interactional justice plays in this context. The positive relationship between transactional leadership, distributive justice and trust implies the importance of perceived fairness in the outcome of a reward. The results of the study have important implications for changing the general wellbeing of organisations if leaders recognise the importance of perceptions of fairness in instilling trust in leaders. Leaders must realise that mutual trust is an important mediator affecting organisational effectiveness and, as such, plays a crucial role.

To validate the full theoretical model that underlies this study, it is recommended that an in-depth study be undertaken to investigate the relationship between leadership, trust and organisational citizenship behaviours, as well as job satisfaction and organisational commitment (see Figure 1). The leader-member-exchange (LMX) theory could also be utilised to explain these relationships (Howell & Hall-Merenda, 1999). Additionally, the life-cycle theory could be used to shed light on the impact of life cycle stages of organisations on leadership (transformational versus transactional) and trust levels.

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