THE INFLUENCE OF CREDIBILITY ON EMPLOYER - EMPLOYEE TRUST RELATIONS

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ABSTRACT

This study investigates the employee-employer relationship, focusing specifically on trust. The trust building relationship is investigated by exploring the current perspective on trust, the elements of trust and the role of a five-factor model on personality (conscientiousness, agreeableness, emotional stability, resourcefulness and extraversion) and managerial practices (credibility, group management, information sharing and work support), singling out credibility as the major influence of the relationship. The empirical component of the study included a stepwise linear regression analysis to evaluate the explanatory power of each of the personality components and of credibility in the trust relationship. It was found that credibility shows the highest correlation with the trust relationship and stands out as the biggest influence on trust, followed by the personality factors, conscientiousness and agreeableness, which contribute significantly to the relationship.

1 INTRODUCTION

In the 1990s relationships in organisations changed as organisations discovered that the "lean and mean" process of the 1980s had unintended consequences (Davis & Landa, 1999). The "learn and mean" process meant that organisations introduced new cost-cutting measures without taking cognisance of the overall effect this would have on their human capital. Stagnant or declining productivity levels, low morale and soaring levels of work-related anxiety and stress are among the consequences. Organisations often failed to anticipate or prevent these consequences because of the pressure to improve short-term bottom-line performance (Davis & Landa, 1999). This led to a lack of trust or a "trust deficit" in the organisation among employees, which seriously affected employee-employer relations (Davis & Landa, 1999).

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In a recent report on their seventh Work USAs survey conducted in 2002, Watson Wyatt Worldwide Research found that a majority of US employees "lacked confidence in senior management at their companies, are unclear about the link between their jobs and their companies' objectives, and rate their companies poorly when it comes to managing business change".

They found that "trust levels between employees and senior management are falling" and that only 39% of employees trusted their senior leaders. Furthermore "the percentage of employees who say they have confidence in the job being done by senior management dropped five points between 2000 and 2002 to 45 percent". The report also highlights that "companies with HR functions that employees perceive as effective are more likely to have dramatically better trust levels, communication, commitment levels and lines of sight. Employees at these companies also are more likely to favourably view their companies' ability to manage business change."

Although these findings were confined to North America, a parallel can easily be drawn with the South African situation where a volatile political and economic environment in the 1980s and 1990s helped establish a culture of mistrust in organisations. After the elections of 1994 the challenges of increasing shareholder value, increasing productivity and managing diversity while competing in an aggressive global market set the stage for South African organisations to face similar trends to those faced by their North American counterparts.

As soon as the trust relationship is disrupted, this becomes evident in the interaction between individuals. Symptoms of such a disruption include a very high labour turnover, unmotivated workers, strikes, sabotage or even the loss of production because employees are willing to deliver only a mediocre input – delivering just enough to stay out of trouble.

2 THE TRUST CONSTRUCT

Shaw (1997) describes trust as the belief that the people in whom you trust will measure up to your expectations. He states that trust is built on the degree to which those expectations are actualised and the degree of integrity within a relationship. A relationship cannot be built and developed if the parties involved in the relationship do not trust each other. According to Reina and Reina (1999:11), trust is "a relationship of mutual confidence in contractual performance, honest communication, expected competence, and a capacity for unguarded interaction". Boss (1978) and Zand (1997) point out that trust also involves vulnerability (having something of importance to lose) and that trust is not taking risks per se, but rather a willingness to take risks. Kee and

Knox (1970) maintain that to appropriately study trust, there must be some meaningful incentives at stake and that the trustor must be cognizant with the risk involved. Zand (1997:91) defines trust as "a willingness to increase your vulnerability to another person whose behaviour you cannot control, in a situation in which your potential benefits are much less than your potential loss if the other person abuses your vulnerability".

According to Mayer, Davis and Schoorman (1995:712), trust is "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. Kreitner and Kinicki (1995:342) define trust as "a reciprocal faith in others' intentions and behaviour". Shaw (1997:21) views trust as "the belief that those on whom we depend will meet our expectations of them", and Robbins (1996:357) defines trust as the "characteristic of high-performance teams where members believe in the integrity, character, and ability of each other". Accordingly Martins (2000) concisely states that various characteristics appear to emerge from the current models and definitions, which focus on features such as integrity, competence, openness, vulnerability, reliability and expectations, and also on the role of the trustee and trustor.

Taking cognisance of the above for the purposes of this study, the authors restricted the role and influence of trust to the field of industrial psychology and specifically to the employer-employee relationship and defined trust as the expressed belief in the positive intent and commitment to mutual gain of all parties involved in the relationship. With this definition of trust in mind, the influence and elements of trust will be dealt with next.

Trust is the main component of any relationship. A relationship is formed when the parties to an understanding decide to take the risk of involving one another to directly influence the personal outcomes of such an understanding (Shaw, 1997).

Butler (1991), Castelfranchi and Falcone (1998), Flory and Mackenzie (1971), Kouzes and Posner (1993), Kramer and Tyler (1996), Bell (2001) and others have examined the components of trust and credibility. In 1997, an unpublished report produced by the Centre for Industrial and Organisational Psychology at the University of South Africa (Martins, Watkins, Von der Ohe & de Beer, 1997) led to the assumption that trust in companies is created by personal factors and managerial practices. The personality factors are agreeableness, conscientiousness, resourcefulness, emotional stability and extraversion and the managerial practices are information sharing, work support, credibility and team management.

Robbins (1996) surmised that five personality characteristics, referred to as the "Big Five" (in this research, referred to as the five-factor model of personality) show a significant prediction of work performance in industrial settings. These characteristics were viewed as possible antecedents of interpersonal trust among managers and employees (Martins et al, 1997). The five personality factors are agreeableness, conscientiousness, resourcefulness (openness to experience), emotional stability and extraversion.

The research done by Martins et al (1997) focused on determining a relationship between personality, managerial practices and trust, on a generic level, but did not empirically address the specific aspects of personality and managerial practices that are at the core of the positive relationship found with trust. Martins (2000), developed a comprehensive model that defines the specific personality attributes or characteristics of the trust relationship, also taking into account specific components of managers' behaviour. For this reason it was thought necessary to examine these relationships in detail and test Martins' (2000) model to enable practitioners in the field of industrial psychology to concentrate on and manage interventions effectively.

3 THE DEVELOPMENT OF A FIVE-FACTOR MODEL OF PERSONALITY

Building on the initial work of Cattell (1947), Fiske (1949), Tupes and Christal (1961) and Norman (1963) identified five factors by means of factor analysis. These factors were extraversion, agreeableness, conscientiousness, emotional stability and culture (a mixture of intellectual or cognitive aspects). The development of the five dimensions of personality, later to be called the five-factor model of personality, adapted to illustrate the identification of the five personality factors used by Martins (2000), are depicted in Table 1 (Digman, 1990 and McAdams, 1992). Potkay and Allen (1986) regard these five factors as a universal framework for understanding individual differences in human behaviour.

The five-factor model of personality originated in studies of natural language, referred to as a psycholexical approach (De Raad, 2000), but later studies suggested that the model encompassed dimensions of individual differences derived from many of the major schools of personality psychology (McCrae, 1989).

Table 1 Development of the five-factor model of personality

Author	Extraversion	Agree- ableness	Conscien- tiousness	Emotional Stability	Re- source- fulness
Fiske (1949)	Social adaptability	Conformity	Will to achieve	Emotional control	Inquiring intellect
Cattell (1947)	Exvia	Cortertia	Superego strength	Anxiety	Intelli- gence
Tupes & Christal (1961)	Surgency	Agreeable- ness	Dependa- bility	Emotionality	Culture
Norman (1963)	Surgency	Agreeable- ness	Conscien- tiousness	Emotional	Culture
Guilford (1975)	Social activity	Paranoid disposition	Thinking introversion	Emotional stability	-
Buss & Plomin (1984)	Activity	Sociability	Impulsivity	Emotionality	-
Costa & McCrae (1985)	Extraversion	Agreeable- ness	Conscien- tiousness	Neuroticism	Open- ness
Tellegen (1985)	Positive emotionality		Constraint	Negative emotionality	
Hogan (1983)	Sociability and ambition	Likeability	Prudence	Adjustment	Intellec- tance
Lorr (1986)	Interpersonal involvement	Level of so- cialisation	Self control	Emotional stability	Indepen- dent
Digman (1990)	Extraversion	Friendly compliance	Will to achieve	Neuroticism	Intellect
Goldberg (1990)	Power	Love	Work	Affect	Intellect

Source: Adapted from: Digman (1990) and McAdams (1992).

Allport recognised that natural language trait terms – words that had evolved over the centuries to describe socially significant individual differences in

personality – could be used as the basis of formal systems of personality (Allport & Odbert, 1936). Goldberg (1983), Norman (1963) and Tupes and Christal (1961) identified five factors that consistently appeared to define the basic dimensions of the natural language of personality.

McCrae (1989) contends that the five factors of personality, namely extraversion, agreeableness, conscientiousness, emotional stability and resource-fulness, are applicable to an extraordinarily wide range of personality concepts. The NEO Personality Inventory (NEO-PI) (Costa & McCrae, 1985b) provides a basic measure of these five factors. The five factors can be traced indirectly to Allport and Odbert's (1936) list of English language trait names, as well as to the work of Cattell, who grouped these terms into synonyms and gathered ratings on the resulting clusters and then factored them as the first step in the development of the Sixteen Personality Factor Questionnaire (Cattell, Eber & Tatsuoka, 1970).

Costa and McCrae (1980) factored the 16PF scales and they identified three broad factors of personality, namely neuroticism, extraversion and openness to experience. Later, McCrae (1989) added agreeableness and conscientiousness to their published version of the NEO-PI.

For the purpose of this study, the five factors of conscientiousness, agreeableness, emotional stability, resourcefulness and extraversion (Martins, 2000) are used to examine the influence of credibility of employee-employer trust in organisations.

These factors are discussed next.

Conscientiousness

Martins (2000:29) defines conscientiousness as "persistence, determination, hardworking, as well as dependable, thorough and responsible, with the opposite pole being lazy". De Raad (2000) considers conscientiousness the trait that has been drawn upon as a main psychological resource in situations where achievement plays an important role, situations specifically within the context of work, learning and education.

It can therefore be said that in the context of work, the positive aspects of conscientiousness are being alert, responsible, thorough and industrious, while being careful, stern and conventional/traditional are the negative aspects. The negative aspects denote characteristics typical of behaviour in an environment with low trust.

Agreeableness

Martins (2000:29) describes agreeableness as "being liked, courteous, goodnatured, cooperative, forgiving, and soft-hearted with the opposite being disagreeable". DeRaad (2000) states that agreeableness is mostly related to interpersonal relationships and therefore deals with love and hate, solidarity, conflict, cooperation and kindness. Agreeableness is one of the five main factors of personality, also referred to as conformity by Fiske (1949), and friendly compliance by Digman and Takemoto-Chock (1981) and Hogan (1983).

Emotional stability

Martins (2000:29) describes emotional stability as "the absence of anxiety, depression, anger, worry and insecurity. The opposite pole would be neuroticism." De Raad (2000) states that neuroticism is given priority in the tradition of personality questionnaire construction and is used more frequently in those contexts (often clinical) where neurotic behaviour is considered to be a problem.

• Resourcefulness (Openness to experience)

Martins (2000:29) defines resourcefulness (openness to experience) as "imaginativeness, creativeness, broad-mindedness and intelligence with the opposite pole being close-mindedness". De Raad (2000:97) describes resourcefulness as "intellect and openness to experience". Other definitions of resourcefulness include culture (Tupes & Christal, 1961 and Norman, 1963), intelligence (Hogan, 1983) and imagination (Saucier, 1994).

Extraversion

Jung (1988:140) describes extraversion as "interest in the external object, responsiveness, and a ready acceptance of external happenings, a desire to influence and be influenced by events, a need to join in and get 'with it', the capacity to endure bustle and noise of every kind, and actually find them enjoyable, constant attention to the surrounding world, the cultivation of friends and acquaintances, not too carefully selected, and finally by the great importance attached to the figure one cuts"

Martins (2000:29) defines extraversion as "sociability, friendliness, talkativeness and activity, with the opposite pole being introversion". Martins (2000) considers the presence and validation through behaviour of some or all of these factors as inherent, to a greater or lesser extent, in the trust relationship. One of the objectives of this study was to establish whether a direct link or correlation exists between specific personality characteristics and trust.

Elements of trust

Accordingly to Shaw (1997), trust influences performance on four levels: organisational success, group effectiveness, one-on-one collaboration and individual credibility.

Organisational success: The performance of a firm requires trust in order

to empower individuals and groups to act on a wide range of objectives.

- Group effectiveness: Groups depend on the ability of people to work interdependently in order to realise a common goal. Superior group performance is rarely found without high levels of trust.
- One-on-one collaboration: Working directly with others requires people to trust one another enough to share information, unite behind objectives, take necessary risks, and deal effectively with adversity.
- Individual credibility: The degree to which people are given the autonomy, resources and support needed to perform their job requires that others trust them. This is true of all organisational members, particularly of those in leadership positions. People are more likely to support those whom they believe to be trustworthy. In this study, the researcher focused specifically on the role and influence of credibility in employer-employee trust.

Table 2 The elements of trust

ELEMENT	DESCRIPTION
Authenticity	Genuine intent, credible motives.
Credibility Disposition belief	Competence, right credentials, correct conduct. Other party is able and willing.
Communication	Task information and personal, empathy focus.
Information	Disclosing timely, accurate information.
Influence Dependence belief Fulfilment belief	Exposure to being influenced in decision-making. Goal to be achieved, due to added input from other party and necessity of other party's input.
Control Competence belief	Dependence and vulnerability in belief. Evaluation that the other party's input is necessary.

It is evident from Table 2 that authenticity (Bell, 2001) is found in a perception of genuine intent and credible motives in the relationship. How the parties make decisions and work together towards a common goal would reflect influence (Zand, 1997) and dependence and fulfilment belief (Castelfranchi & Falcone, 1998).

The same elements that are conducive to building trust allow for the trust relationship to diminish or even break down into mistrust. Shaw (1997) confirms this by stating that "trust requires a sufficient level of performance on each of the imperatives. Extremely low levels on one of the imperatives can overwhelm higher levels on the other two."

Credibility defined

The Heritage illustrated dictionary of the English language (1987:311) defines "credit" as "1. Belief or confidence in the truth of something; trust. 2. The quality or state of being trustworthy or credible 3. A reputation for sound character or quality; standing; repute [Old French, from Old Italian credito, from Latin crçditum, "something entrusted", loan from the past participle crçdere, to believe, entrust ...]; "credible" as "adj. 1. Capable of being believed; believable; plausible. 2. Worthy of confidence; reliable. [Middle English, from Latin crçdibilis, from crçdere, to believe, entrust]; "credibility" as "n. worthiness of belief".

According to Kouzes and Posner (1993), when a manager, being the leader of a group of employees makes promises, the employees have to decide whether to believe the promise and act accordingly or not. This credibility check is usually rooted in the manager's past behaviour and has to do with reputation. Kouzes and Posner (1993) describe reputation as human collateral, the security people pledge against the performance of their obligations as leaders, friends, colleagues and subordinates. They also point out that reputation is what supports people's natural instinct to want to trust and a damaged reputation lowers people's estimation of a leader or manager's worth and reduces their motivation to follow that person.

Flory and MacKenzie (1971) state that credibility moves people to want to follow a leader, or contribute their talents. Credibility makes others sit up and listen and has the greatest impact on whether or not people perform, communicate or produce. According to Flory and MacKenzie (1971), in management circles it is presumed that people who perform managerial functions will act in ways that will not destroy but will enhance their credibility. To be believable, managers' actions must be a fair reflection of or must conform with their intentions and motives, both explicit and implicit. Flory and MacKenzie (1971:15) define credibility as "the sum of one's belief, confidence, assurance, reliance, faith and trust. Credibility is largely a perceptual, audience-conferred phenomenon that is relatively uninfluenced by the leader's position or pose". Understanding credibility is critical to future success for anyone in today's highly competitive environment. Credibility needs to fit the context; the leadership context is one of support and partnership. Bell (2001) maintains that, in a leadership context, credibility should enter the relationship as something invited by the follower, not sent by the leader.

Personality, trust and credibility

From the literature review and discussion of personality, trust and credibility, the researchers summarised the elements in a relationship of trust in Figure 1.

Factors inherent in the existence of a trust relationship Martins/Five factor Kouzes and Shaw Mayer et al model of personality Posner Ability Results Benevolence Concern Agreeableness Honesty Integrity Integrity Conscientiousness Resourcefulness Forward looking Emotional stability Extraversion Management Practice Inspiring Credibility Work support Competent Group management Information sharing Organisational success, group effectiveness, one-on-one collaboration, individual credibility

Figure 1 Elements of a relationship of trust

Source: Roode, 2003.

The element of trust, depicted as "ability" by Mayer et al (1995) and "results" by Shaw (1997), corresponds with "conscientiousness" and "resourcefulness", depicted in the five-factor model of personality. The characteristics "agreeableness" and "conscientiousness" from the same model correlate best with Mayer et al's (1995) "benevolence" and Shaw's (1997) "concern" and the element of "integrity" (Mayer et al, 1995; Shaw, 1997) correlates with "agreeableness", "conscientiousness" and "emotional stability". From the discussion above the actual behavioural links between the elements of "personality", "trust" and "credibility" are represented in Table 3 below.

Table 3 Linking personality, trust and credibility

PERSONALITY DIMENSION	BEHAVIOUR PER DIMENSION	ELEMENTS OF TRUST	ELEMENTS OF CRE- DIBILITY
Conscientiousnes s	Persistence, determination, hardworking, dependable, thorough and responsible	Integrity, authenticity, predictability, consistency	Honesty, Intensity
Agreeableness	Being liked, courteous, good-natured, cooperative, forgiving, and soft-hearted	Benevolence, demonstratin g concern, loyalty	Inspiring, Intensity
Emotional stability	The absence of anxiety, depression, anger, worry and insecurity	Inspiring	Inspiring, Intensity
Resourcefulness	Imaginativeness, creativeness, broad- mindedness and intelligence	Competent, achieving results	Forward- looking, competent, clarity
Extraversion	Sociability, friendliness, talkativeness and activity		

In Table 3 above the behaviour provided as evidence in the five-factor model of personality is linked conceptually with the behaviour described in the elements of "trust" and "credibility". From the five-factor model of personality,

a person who is conscientious, for example, could be described as a person who is persistent, acts with determination, is hardworking, dependable, thorough and responsible. Evidence provided for this behaviour can be perceived as an element of trust and is called authenticity (Bell, 2001). Bell (2001) describes a conscientious person as authentic, someone whose motives are perceived to be genuine and known to be true. Mayer et al (1995:719) call this behaviour integrity, described as "the adherence of the trustee to the perception of the trustor to a set of principles that the trustor finds acceptable". Shaw (1997:31) strengthens this by describing integrity as "the honesty in one's words and consistency in one's actions". Pennington (1992) agrees that consistency represents an element of trust in describing a person and that followers rely on consistency to determine their course of action in given situations. Kreitner and Kinicki (1995:344) add the element of predictability, evident in behaviour to "keep both expressed and implied promises".

Kouzes and Posner (1993:15) maintain that honesty is part of credibility and describe honesty as "being truthful and ethical, being worthy of trust". Kouzes and Posner (1993:49) add "intensity" in their credibility-building process model because "when values are intensely felt, there is greater consistency between words and actions and there is an almost moral dimension to one's actions".

In Table 3, the elements of the five-factor model of personality are conceptually linked to provide more insight into the complexity and interrelationships of the concepts and behaviour necessary to systematically provide a basis for trust.

Aims of study

The research aim was to investigate the role of credibility in the relationship between employer-employee. More specifically, the objectives of the research were

- to investigate the relationship between the personality factors, trust relationship and credibility
- to determine the most important explanatory variable of trust

4 METHOD

Participants

Martins (2000) selected a sample of 6 528 employees from twenty-two South African companies. The participants ranged from executive management to operational employees with all language groups and qualification levels included. Of the respondents, 40,1% gave their home language as Afrikaans,

22,0% as English and the rest as an African language. 60% of the participants were male and 40% were female. All levels were included in the survey, 2,15% indicated their levels as Executive Management, 9,97% as Management, 24,04% as Supervisors and 63,84% as operational and professional staff.

Note that of the total sample of questionnaires, some did not include all the items necessary for the purposes of this research and only approximately 760 questionnaires could be utilised, therefore only these questionnaires were included in the empirical analysis for this study.

The research instrument

The objective of the research instrument was to gather views on the existence of a trust relationship, correlated with personality, as measured by the five-factor model of personality and correlated with managerial practices and behaviour as a whole. The dimensions measured in Martins' (2000) questionnaire were personality as defined by the five-factor model of personality, trust and managerial practices.

Personality

The personality construct, as defined by the five-factor model of personality, has been included as comprising the following:

Conscientiousness – This includes traits such as persistence, determination, hardworking, as well as dependability, thoroughness and responsibility. The opposite pole of this would be careless or irresponsible behaviour.

Agreeableness – This reflects being liked, courteous, good-natured, cooperative, forgiving and softhearted. The opposite pole of this would be cold, rude, unkind and independent.

Emotional stability – This reflects the absence of anxiety, depression, anger, worry and insecurity. The opposite pole would be neuroticism.

Resourcefulness (openness to experience) – This reflects imaginativeness, creativeness, broad-mindedness and intelligence. The opposite pole would be closed-mindedness and unimaginative and conventional behaviour.

Extraversion – This reflects sociability, friendliness, talkativeness and activity. The opposite pole of this dimension would be introversion, quietness, shyness and reserve.

Managerial practices construct

The managerial practices dimension measured the following managerial dimensions:

Credibility – This includes a willingness to listen, consider proposals, allow others the freedom to express feelings, tolerate mistakes and ensure that employees enjoy prestige and credibility in the organisation.

Team management - This dimension refers to the effective management of team and individual goal accomplishments and the handling of conflict within groups.

Information sharing – This dimension indicates willingness to give individual feedback on performance and to reveal company-related information in an honest manner.

Work support – This dimension deals with willingness to support employees when needed and to provide job-related information for the accomplishment of objectives.

Trust relationship

The trust relationship dimension in the questionnaire was directly related to the trust dimension and measured by five questions dealing with various aspects of trust between employees and their immediate supervisors. The trust relationship dimension reflects the relationship with the immediate supervisors in terms of openness, honesty, fairness and intention to motivate employees.

Validity and reliability of the questionnaire

The goodness-of-fit index (GFI) was 0,95, the adjusted-goodness-of-fit index (AGFI) was 0,91 and the parsimony-goodness-of-fit index (PGFI) was 0,50 (Martins, 2000). The goodness-of-fit test is performed in order to determine whether a set of observed data corresponds to some theoretical distribution (Downie & Heath, 1983). A GFI with a value of close to 0,90 reflects a good fit, an AGFI with a value of 0.90 reflects a good model fit and PGFI varies between 0 (no fit) to 1 (perfect fit). It could therefore be deduced that a good model fit was established (Martins, 2000).

The reliability of the questionnaire, which indicates how accurately the questionnaire measures what it is supposed to measure, was shown to be highly satisfactory with alpha coefficients ranging between 0,82 and 0,95 for the five-factor model of personality characteristics as well as managerial practices (Martins, 2000). Table 4 represents the results.

Table 4 Results of the item analysis (reliability)

DIMENSIONS	NO. OF QUESTIONS	CRONBACH'S ALPHA
Conscientiousness	8	0,929
Agreeableness	8	0,947
Emotional stability	5	0,870
Resourcefulness	7	0,871
Extraversion	7	0,887
Credibility	13	0,939
Group management	9	0,888
Information sharing	4	0,841
Work support	3	0,824
Trust relationship	5	0,908

Source: Martins (2000:29)

Structural equation modelling (SEM) was used to assess the validity of the conceptual model of the manifestation of trust. SEM is a linear cross-sectional statistical modelling technique, which includes confirmatory factor analysis, path analysis and regression analysis (Kline, 1998). The EQS software program was utilised to test the trust model, using structural equation modelling (Martins, 2000).

A confirmatory factor analysis was conducted, following the procedure outlined by Schumacher and Lomax (1996), to determine whether the data were compatible with the assumption that each of the proposed latent variables represented separate constructs (Martins, 2002).

The results revealed a chi-square of 4 404,511 based on 33 degrees of freedom with a probability value of less than 0,001. The normal theory chi-square for this solution is 3 538,303. Additionally, the comparative fit index (CFI) = 0,890, the Bentler and Bonet normed fit index (BDNFI) = 0,889 and the Bentler and Bonet non-normed fit index (BBNNFI) = 0,850 were all very close to the recommended perfect fit, 0 (no fit) to 1 (perfect fit) (Martins, 2002).

5 RESULTS

Martins (2000) identified five personality factors that were closely related to trust and credibility, namely conscientiousness, agreeableness, emotional stability, resourcefulness and extraversion.

Martins found a positive relationship between trust and managerial practices (0,56). The results also indicated that credibility, group management and work support are directly associated with managerial practices and that information sharing does not, however, appear to be directly associated with managerial practices. From the results of the item analysis, the highest Cronbach alpha coefficient (0,939) was found in the relationship between credibility, as a management practice, and trust. The number of questions on the dimension of credibility is 13, the largest number of questions on one dimension in the questionnaire.

In the present study, the construct validity of these constructs was accepted. The internal consistency reliabilities of these constructs were calculated, however, and the Cronbach alpha coefficients are reported in Table 5.

Table 5 Reliability coefficients of the constructs (N = 758)

CONSTRUCT	NO. OF ITEMS IN SCALE	CRONBACH'S ALPHA
Trust relationship	4	0,93
Credibility	13	0,95
Agreeableness	8	0,95
Conscientiousness	8	0,93
Extraversion	7	0,89
Resourcefulness	13	0,87
Emotional stability	5	0,91

From Table 5 it appears that the internal consistency reliability of all the constructs is high.

It was decided to scale each of the constructs so that the score of any respondent on the scale ranged from 0 (least) to 100 (most). The descriptive statistics for these scales for the total sample are given in Table 6.

Table 6 Means and standard deviations of constructs

DESCRIPTION	N	MEAN	STANDARD DEVIATION
Trust relationship	763	64,9345	26,75707
Credibility	714	60,1002	25,39335
Agreeableness	750	69,5083	22,20050
Conscientiousness	749	73,4083	21,42466
Extraversion	742	70,3119	18,92892
Resourcefulness	747	67,0754	19,09823
Stability	758	67,0910	23,03717

Two of the constructs in Table 6 deserve special attention as they played a central role in the present study, namely "trust relationship" and "credibility". "Trust relationship" and "credibility" were subjected to a factor analysis using the maximum likelihood method and rotating the factor solutions obliquely according to the promax criterion. A two-factor solution was also obtained. The object of this exercise was to ascertain whether these two constructs could be considered distinct. The "scree" plot of eigenvalues is given in Figure 3, followed by the two-factor pattern solution in Table 9.

Figure 2 Scree plot of eigenvalues - trust relationship and credibility

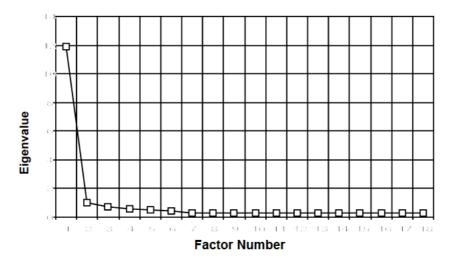


Table 7 Two-factor pattern Matrix performed on items of the trust relationship and credibility scales

QUESTION NUMBER	ITEM	FACTOR 1	FACTOR 2
Q48	Credibility	0,881	(a)
Q49	Credibility	0,816	
Q68	Credibility	0,750	
Q63	Credibility	0,667	
Q53	Credibility	0,623	
Q61	Credibility	0,606	
Q41	Credibility	0,597	
Q67	Credibility	0,591	
Q66	Credibility	0,588	
Q46	Credibility	0,559	
Q42	Credibility	0,547	0,318
Q62	Credibility	0,446	0,395
Q43	Credibility	0,416	0,385
Q40	Trust relationship		0,860
Q36	Trust relationship		0,847
Q37	Trust relationship		0,830
Q39	Trust relationship		0,782
Q38	Trust relationship		0,753

⁽a) All factor loadings smaller than 0,30 in absolute size have been omitted to ease the interpretation of the factors.

From the scree plot in Figure 2 it appeared that the graph dropped considerably after factor 1. There was clearly a strong general single factor underlying the data. However, the "scree" (a straight-line with downward slope) really started from factor 3, which meant that there might be a second factor present.

When the factor loading was considered, it appeared that two distinct factors could be identified. Table 8 indicates that these two factors are highly intercorrelated.

Table 8 Factor correlation matrix

FACTOR	CREDIBILITY	TRUST-RELATIONSHIP
1	1,000	0,819
2	0,819	1,000

Extraction Method: Maximum Likelihood. Rotation Method: Promax with Kaiser Normalisation.

The nature and strength of the relationships were investigated by means of several alternative and complementary statistical strategies, as follows:

- 1. The calculation of the Pearson product moment correlations between each pair of constructs.
- 2. Stepwise linear regression analysis with "trust relationship" as the dependent variable first and then "credibility" as the dependent variable, while the personality constructs were treated as the independent variables. Finally, an analysis was also performed with "trust relationship" as the independent variable, as well as "credibility" and the personality constructs.
- 3. The partial correlation between "trust relationship" and "credibility" with the personality variables partialled out was calculated.

It is clear from Table 9 that all the variables are highly correlated with each other. The highest correlation is found between "trust relationship" and "credibility", namely 0,849, which indicates that these two constructs have much in common.

Table 9 Pearson product moment correlations

		CREDIBILITY	TRUST RELATIONSHIP	AGREEABLENESS	CONSCIENTIOUSNESS	EXTRAVERSION	RESOURCEFULNESS	EMOTIONAL STABILITY
CREDIBILITY	Pearson correlation	1						
	Sig. (2-tailed)	0,000						
	N	714						
TRUST RE- LATIONSHIP	Pearson correlation	0,849	1					
	Sig. (2-tailed)	0,000	0,000					
	N	705	763					
AGREE- ABLENESS	Pearson correlation	0,776	0,760	1				
	Sig. (2-tailed)	0,000	0,000	0,000				
	N	697	742	750				
CONSCIEN- TIOUSNESS	Pearson correlation	0,769	0,781	0,790	1			
	Sig. (2-tailed)	0,000	0,000	0,000	0,000			
	N	694	741	737	749			
EXTRA- VERSION	Pearson correlation	0,567	0,550	0,602	0,585	1		
	Sig. (2-tailed)	0,000	0,000	0,000	0,000	0,000		
	Ν	690	734	733	730	742		
RESOURCE- FULNESS	Pearson correlation	0,687	0,664	0,689	0,709	0,715	1	
	Sig. (2-tailed)	0,000	0,000	0,000	0,000	0,000	0,000	
	Ν	697	739	735	731	730	747	
EMOTIONAL STABILITY	Pearson correlation	0,719	0,691	0,830	0,732	0,637	0,715	1
	Sig. (2-tailed)	0,000	0,000	0,000	0,000	0,000	0,000	0,000
	N	702	749	745	744	736	741	758

This correlation possibly overestimates the relationship between these two constructs because all items in the questionnaire were scaled in the same direction and it is possible that the response set may be responsible for some of the covariance between these two scales. Similarly, the correlations between the personality constructs appear to be higher than one would theoretically expect and this casts some doubt on the divergent validity of the scales. The highly significant correlation outcomes may be due to the large sample size, as it is known that statistical significance is the function of sample size. A study with a larger effect size is more likely to come out significant, therefore the practical significance of the research should also be considered (Downie & Heath, 1983). When the actual sizes of the correlations in Table 9 are inspected, however, the correlations appear to vary between 0,637 (moderate effect size) and 0,849 (large effect size).

The extent to which the personality constructs could explain the construct "trust relationship" was investigated by means of stepwise regression analysis and the results are summarised in Table 10. The inclusion criteria on the "probability-of-F-to-enter" were set at 0,05, while the exclusion criteria were set to "probability-of-F-to-remove" = 0.10.

Table 10 Explaining "trust relationship" (the dependent variable) from personality constructs (N = 704)

MODEL		UNSTANDAR- DISED COEFFICIENTS	STANDARDISED COEFFICIENTS			CORRELATIONS			COLINEARITY STATISTICS	
	·	В	BETA	t	Sig	ZERO- ORDE R	PAR- TIAL	PART	TOLE- RANCE	VIF
1	(Constant)	-7,426		-3,276	0,001					
	CONSCIEN	0,983	0,781	33,187	0,000	0,781	0,781	0,871	1,000	1,000
2	(Constant)	-12,275		-5,793	0,000					
	CONSCIEN	0,585	0,465	13,352	0,000	0,781	0,450	0,288	0,385	2,600
	AGREE	0,492	0,404	11,602	0,000	0,768	0,401	0,250	0,385	2,600
3	(Constant)	-15,868		-7,078	0,000					
	MCONCIEN	0,510	0,406	11,013	0,000	0,781	0,384	0,235	0,334	2,990
	MAGREE	0,431	0,354	9,801	0,000	0,768	0,347	0,209	0,348	2,876
	MRESOUR	0,197	0,140	4,447	0,000	0,668	0,166	0,095	0,459	2,179

MODEL SUMMARY

MODEL	œ	R SQUARE	ADJUSTE D	STD ERROR OF THE ESTIMATE	CHANGE	F df		df2	Sig F change	Durbin- Watson
					R SQUARE CHANGE					
1	0,781	0,611	0,610	16,69599	0,611	1101,391	1	702	0,000	
2	0,821	0,673	0,673	15,30313	0,063	134,605	1	701	0,000	
3	0,826	0,682	0,681	15,10217	0,009	19,780	1	700	0,000	1,920

It is apparent from Table 12 that the personality construct "conscientiousness" has the most explanatory power, followed by "agreeableness" and then "resourcefulness". It should be noted that an R-value of 0,826 was achieved in the case of model 3. Although this is a high multiple correlation, it is still lower than the correlation between "trust relationship" and "credibility" (r=0,849) found in Table 9.

The explanatory power of the personality constructs with regard to credibility was also considered. The results are summarised in Table 11.

Table 11 Explaining "credibility" (the dependent variable) from personality constructs (N=601)

MODEL		UNSTANDAR- DISED COEFFICIENTS	STD	STANDARDISED COEFFICIENTS			CORRELATIONS			COLINEARITY STATISTICS	
		В	σш	BETA	t	Sig	ZERO- ORDE R	PAR- TIAL	PART	TOLE- RANCE	VIF
1	(Constant)	-1,957	2,029		-0,965	335					
	MAGREE	0,896	0,028	0,780	32,073	0,000	0,780	0,780	0,780	1,000	1,000
2	(Constant)	-12,000	2,040		-5,881	0,000					
	MAGREE	0,519	0,041	0,452	12,601	0,000	0,780	0,441	0,279	0,382	2,617
	MCONSCIEN	0,493	0,042	0,418	11,640	0,000	0,773	0,413	0,258	0,382	2,617

						(Table 11 cont)					
3	(Constant)	-16903	2,129		-7,939	0,000					
	MAGREE	0,438	0,042	0,382	10,423	0,000	0,780	0,376	0,225	0,347	2,886
	MCONCIEN	0,390	0,044	0,331	8,817	0,000	0,773	0,325	0,190	0,330	3,026
	MRESOUR	0,268	0,042	0,202	6,320	0,000	0,698	0,239	0,136	0,455	2,198
4	(Constant)	-16,699	2,121		-7,873	0,000					
	MAGREE	0,364	0,051	0,317	7,188	0,000	0,780	0,270	0,154	0,237	4,221
	MCONCIEN	0,381	0,044	0,323	8,631	0,000	0,773	0,319	0,185	0,329	3,044
	MRESOUR	0,233	0,044	0,176	5,272	0,000	0,698	0,201	0,113	0,414	2,416
Γ	MSTABLE	0,118	0,045	0,107	2,610	0,009	0,726	0,101	0,056	0,275	3,642

MODEL SUMMARY

					Change statistics						
MODEL	ĸ	R SQUARE	ADJUSTED R SQUARE	STD ERROR OF THE ESTIMATE	R SQUARE CHANGE	F CHANGE	df1	df2	Sig F change	Durbin- Watson	
1	0,780	0,609	0,609	15,84335	0,609	1028,694	1	660	0,000		
2	0,822	0,676	0,675	14,44018	0,067	135,449	1	659	0,000		
3	0,833	0,694	0,693	14,03151	0,019	39,946	1	658	0,000		
4	0,835	0,698	0,696	13,96995	0,003	6,812	1	657	0,009	1,939	

It could again be deduced that "conscientiousness" has the most explanatory power, followed by "agreeableness" and "resourcefulness" as in the case of Table 12, where "trust relationship" was the dependent variable. In this instance, a fourth variable was entered into the equation, namely the personality construct "stability". The R of 0,835 achieved in model 4 is still lower than the correlation between "trust relationship" and "credibility" (r=0,849) found in Table 9.

It was subsequently decided to include "credibility" as an explanatory (independent or predictor) variable together with the personality constructs and to repeat the stepwise regression analysis with "trust relationship" as the dependent variable. The results of this analysis are summarised in Table 12.

Table 12 Explaining "trust relationship" (the dependent variable) from personality constructs as well as "credibility" (N=655)

MODEL		UNSTANDAR- DISED COEFFICIENTS STANDARDISED COEFFICIENTS			CORRELATIONS				COLINEARITY STATISTICS		
		В	STD ERRO R	BETA	t	Sig	ZERO- ORDE R	PAR- TIAL	PART	TOLE- RANCE	VIF
1	(Constant)	10,423	1,416		7,360	0,000					
	MCREDIB	0,907	0,022	0,853	41,759	0,000	0,853	0,853	0,853	1,000	1,000
2	(Constant)	-3,177	1,835		-1,731	0,084					
	MCREDIB	0,648	0,032	0,609	20,451	0,000	0,853	0,625	0,386	0,402	2,488
	MCONSCIEN	0,398	0,038	0,315	10,578	0,000	0,786	0,382	0,200	0,402	2,488
3	(Constant)	-5,615	1,884		-2,980	0,003					
	MCREDIB	0,577	0,035	0,543	16,580	0,000	0,853	0,545	0,308	0,323	3,096
	MCONCIEN	0,312	0,042	0,247	7,516	0,000	0,786	0,282	0,140	0,320	3,124
	MAGREE	0,187	0,041	0,153	4,582	0,000	0,769	0,177	0,085	0,312	3,206

MODEL SUMMARY

					Change statistics							
MODEL	œ	R SQUARE	ADJUSTED R SQUARE	STD ERROR OF THE ESTIMATE	R SQUARE CHANGE	F CHANGE	df1	df2	Sig F change	Durbin- Watson		
1	0,853	0,727	0,727	14,07419	0,727	1743,846	1	654	0,000			
2	0,876	0,767	0,766	13,01395	0,040	111,902	1	653	0,000			
3	0,880	0,774	0,773	12,81917	0,007	20,994	1	652	0,000	2,022		

According to Table 12, the most important explanatory variable of "trust relationship" is "credibility". The personality variables "conscientiousness" and "agreeableness" still contribute significantly to the explanation of "trust relationship". Clearly, from a practical point of view, the added explanatory

power of these personality constructs is small. As a result of the large sample size and therefore power of the statistical tests, it was possible to show that the contributions of these personality constructs to the explanation of the trust relationship are highly significant (p<0.000).

From the above discussion and results, it is clear that personality factors relate to both "trust relationship" and "credibility". It could therefore be surmised that much of the correlation between "trust relationship" and "credibility" is spurious. The partial correlation between these two variables was subsequently calculated, specifying that the personality variables were to be held constant. This correlation was found to be 0,5286 (N=649). This gives an R-square of 0,28 or 28 percent common variance. Compared with an R-square of 0,849 x 0,849 (see Table 9 for the zero-order correlation) = 0,72 or 72 percent common variance, it is clear that 28 percent represents a considerable drop.

• Discussion and conclusion

In line with the first objective of this study, trust relationship and credibility were singled out to ascertain whether these two constructs were distinct. The most important explanatory variable of trust was credibility (0,849).

It was found that all the variables (dimensions) were highly correlated with each other. There was a possibility, however, that the high correlation between "credibility" and "trust relationship" could be overestimated because of the influence of some personality factors. Stepwise linear regression analysis was used to explore this possible influence. From the stepwise linear regression analysis, it became evident that the personality factors of "conscientiousness" and "agreeableness" had the highest explanatory power in the trust relationship. The analysis then considered the explanatory power of the personality constructs with regard to credibility. Again, "agreeableness" and "conscientiousness" had the highest correlation.

It was therefore concluded that although credibility has the highest correlation with the trust relationship and does stand out as the biggest influencer of the trust relationship, the personality factors of conscientiousness and agreeableness contribute significantly to the relationship.

The perceived personality traits of managers contribute to the explanation of the trust relationship over and above the explanation that can be obtained from the credibility variable. The perceived personality trait of "conscientiousness" has the most explanatory power, followed by "agreeableness" and "resourcefulness" (second objective).

The element of credibility has the highest correlation with the trust relationship and stands out as having the greatest effect on the trust relationship, but the personality factors of conscientiousness and agreeableness contribute significantly to the relationship. It is therefore important for **South African** managers/supervisors to recognise the importance of traits such as being organised and hardworking as well as dependable, **thorough** and responsible. The opposite can lead to a perception of lack of trust in a manager/supervisor and a low level of credibility being associated with that person. In addition, it is important for managers/supervisors to realise that agreeableness also contributes to a positive trust relationship in an organisation. Managers/supervisors should therefore avoid being perceived as cold, rude and unkind.

The high correlation between credibility and trust relationships again highlights the role of listening skills, decision-making and allowing freedom to employees to express feelings, tolerating mistakes and ensuring that employees enjoy prestige and credibility in the organisation. The above supports the view of Robbins, Odendaal and Roodt (2003) that trust appears to be a primary attribute associated with leadership. The continuous organisational changes in South Africa, such as globalisation, mergers, take-overs, rationalisation and unstable international political environments compel managers/supervisors to pay attention to their personality factors, credibility and trust relationships.

The process of building positive relationships between managers/ supervisors and subordinates is thus based on a link between personality, credibility and trust. The South African manager/supervisor who intends to be successful as a leader needs to ensure that their development not only focuses on technical training but also on a good understanding of the interplay between personality, credibility and trust.

The challenges facing South African society place an enormous burden on all relationships. The most important relationship in the field of industrial psychology is that between the employer and employees. The erosion of employer-employee trust, with the ever-widening trust gap, stresses the urgent need to develop a strategy to establish and uphold employer-employee trust.

In future studies, the questionnaire used in gathering the data should be further developed to clarify the possible contamination effect caused by the fact that the behaviour resulting from credibility and trust is very similar. Perceptual differences regarding credibility and trust could be dealt with and examined in more detail. Further studies could also explore organisational trust as an element of the organisational culture and the effect on employee morale, customer perception of success and ethical decision making in the organisation.

REFERENCES

Allport, GW. & Odbert, HS. 1936. Trait names: a psycho-lexical study. *Psychological Monographs* 47.

Bell, C. 2001. Elements of trust. Executive Excellence 18(4):10.

Boss, RW. 1978. Trust and managerial problem solving revisited. *Group and Organization Studies* 3: 331-342.

Butler, JK. 1991. Toward understanding and measuring conditions of trust: evolution of a conditions of trust inventory. *Journal of Management* 17(3): 643-663

Castelfranchi, C & Falcone, R. 1998. Social trust: cognitive anatomy, social importance, quantification and dynamics. In *Proceedings of the workshop on deception, fraud and trust in agent societies*, Autonomous Agents Conference held in St Paul, MN, 9 May 1998.

Cattell, RB, Eber, HW & Tatsuoka, MM. 1970. *The handbook for the sixteen personality factor questionnaire*. Champaign, IL: Institute for Personality and Ability Testing.

Cattell, RB. 1947. General psychology. Cambridge, MA: Sci-Art Publications.

Costa, PT, Jr & McCrae, RR. 1980. Still stable after all these years: personality as a key to some issues in adulthood and old age. In *Life span development and behaviour*, Vol. 3, edited by PB Baltes and OG Brim, Jr. NY: Academic Press.

Davis, T & Landa, MJ. 1999. The trust deficit. Worklife Report 11 (4): 6-7.

De Raad, B. 2000. The Big Five Personality Factors. Bern: Hogrefe & Huber.

Digman, JM. 1990. Personality structure: emergence of the five-factor model. *Annual Review of Psychology* 41: 417-440.

Digman, JM & Takemoto-Chock, NK. 1981. Factors in the natural language of personality: re-analysis and comparison of six major studies. *Multivariate Behavioural Research*, 16: 149-170.

Downie, NM & Heath, RW. 1983. Basic statistical methods. NY: Harper & Row.

Fiske, DW. 1949. Consistency of the factorial structures of personality ratings from different sources. *Journal of Abnormal and Social Psychology* 4:329-344.

Flory, CD & MacKenzie, RA. 1971. *The credibility gap in management.* NY: Van Nostrand Reinhold.

Goldberg, LR. 1983. The magical number five, plus or minus two: some conjectures on the dimensionality of personality descriptions. Paper presented at a research seminar held at the Gerontology Research Center, Baltimore, Maryland.

Jung, CG. 1988. *The essential Jung.* Princeton, NJ: Princeton University Press.

Kee, HW & Knox, RE. 1970. Conceptual and methodological considerations in the study of trust and suspicion. *Journal of Conflict Resolution* 14: 357-366.

Kline, R. 1998. *Principles and practice of structural equation modelling*. NY, Guilford Press.

Kouzes, JM & Posner, BZ. 1993. Credibility: how leaders gain and lose it, why people demand it. San Francisco, Jossey-Bass.

Kramer, RM & Tyler, TR. 1996. *Trust in organizations: frontiers of theory and research.* Thousand Oaks, CA: Sage.

Kreitner, R & Kinicki, A. 1995. Organizational behaviour. Chicago: Irwin.

Martins, N. 2000. Developing a trust model for assisting management during change. *South African Journal of Industrial Psychology* 26(3): 27-31.

Martins, N, Watkins, M, Von der Ohe, H & de Beer, M. 1997. *Trust audit summary report*. Centre for Industrial and Organisational Psychology, Department of Industrial Psychology, Pretoria: University of South Africa.

Mayer, RC, Davis, JH & Schoorman, FD. 1995. An integrative model of organisational trust. *Academy of Management Review* 20(3): 709-734.

McAdams, DP. 1992. The five-factor model in personality: a critical appraisal. *Journal of Personality* 60: 329-361.

McCrae, RR. 1989. Why I advocate the five-factor model: joint factor analyses of the NEO-PI with other Instruments, edited by DM Buss and N Cantor. *Personality Psychology: recent trends and emerging directions.* NY: Springer-Verlag.

Norman, WT. 1963. Toward an adequate taxonomy of personality attributes: replicated factor structure in peer nomination personality ratings. *Journal of Abnormal and Social Psychology* 66: 574-583.

Pennington, R. 1992.

http://www.penningtongroup.com/articles/integDrivenLoad.asp

Potkay, CR & Allen, BM. 1986. *Personality: theory, research and applications*. Monterey, CA: Brooks/Cole.

Reina, DS & Reina, ML. 1999. Trust and betrayal in the workplace. San Francisco, CA: Berrett-Koehler.

Robbins, SP. 1996. *Organizational behaviour: concepts, controversies and applications.* Englewood Cliffs, NJ: Prentice-Hall.

Robbins, S.P, Odendaal, A & Roodt, G. 2003. *Organisational behaviour: global and Southern African perspectives.* Cape Town: Pearson Education.

Roode, MM. 2003. The influence of credibility on employer-employee trust in the workplace. *Unpublished master's thesis*. University of South Africa, Pretoria.

Saucier, G. 1994. Trapnell versus lexical factor: more ado about nothing? *European Journal of Personality* 8: 291-298.

Schumacher, RE & Lomax, RG. 1996. A beginner's guide to structural equation modelling. Mahwah, NJ: Erlbaum.

Shaw, RB. 1997. Trust in the balance. San Francisco, CA: Jossey-Bass.

The Heritage Illustrated Dictionary of the English Language. 1987. International edition. NY: American Heritage.

The Watson Wyatt Worldwide Research Report, Work USAs 2002. Weathering the storm: a study of employee attitudes and opinions. http://www.watsonwyatt.com/research/resrender.asp?id+w-557&page=1

Tupes, EC & Christal, RC. 1961. *Recurrent personality factors based on trait ratings*. USAF ASD Technical Report No. 61-97. Lackland Air Force Base, TX: US Air Force.

Zand, D. 1997. The leadership triad. NY: Oxford University Press.