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THE INFLUENCE OF LEADERSHIP ROLE COMPETENCIES ON ORGANISATION CHANGE OUTCOME IN THE MANUFACTURING INDUSTRY IN SOUTH AFRICA

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ABSTRACT

This article focuses on the influence leadership role congruence has on organisation change within three South African organisations in the manufacturing industry. The research was done in two phases. Phase I investigated the utilisation of leaders in specific leadership change roles. Four leadership change roles (Initiator, Shaper, Monitor, and Assessor) were identified, each for which a set of competencies (competence cluster) was developed. A questionnaire (Leadership Role Competence Questionnaire) measuring the perceived level of competence for each role, was designed. Phase II investigated the influence of the congruence results on organisational change outcome. A questionnaire (Change Outcome Questionnaire) measuring the soft dimensions of organisation change was developed. All three respondent organisations' leaders involved with their organisations' change initiatives were selected for Phase I. A random sample of 120 employees per organisation was used for Phase II. The main findings were that congruence existed for two roles (Initiator and Assessor). In addition to this it was found that role congruence for the Initiator and Assessor roles influenced change outcome positively, and that a lack of congruence for the Shaper and Monitor roles had a negative influence on change outcome.

OPSOMMING

Hierdie artikel fokus op die invloed wat rolkongruensie het op organisasieverandering binne drie Suid Afrikaanse maatskappye in die vervaardigingsektor. Die navorsing is gedoen in twee fases. Fase I het die aanwending van leiers in spesifieke leierskapsveranderingsrolle ondersoek. Vier leierskapsveranderingsrolle (Inisieerder, Vormer, Moniteerder, en Assessor) was geïdentifiseer waarvoor vir elk 'n stel vaardighede (vaardigheidsbondel) ontwikkel is. 'n Vraelys (Leierskaps-Rol-Vaardigheid Vraelys) wat die waargenome vlak van vaardigheid in elke rol meet, is ontwikkel. Fase II het die invloed wat die kongruensieresultate op die organisasieveranderingsresultate gehad het, gemeet. 'n Vraelys (Veranderings-Resultate Vraelys) wat die interpersoonlike dimensies van organisasieverandering meet, is ontwikkel. Al die leiers van die respondent organisasies wat betrokke was met die veranderingsinisiatiewe is geselekteer vir Fase I. 'n Ewekansige steekproef van 120 werknemers per organisasie was gebruik vir Fase II. Die belangrikste bevindinge was dat kongruensie gevind is vir twee rolle (Inisieerder en Assessor). Aansluitend hierby is gevind dat rolkongruensie vir die Inisieerder en Assessor rolle die organisasieveranderingsresultate positief beïnvloed het terwyl 'n gebrek aan kongruensie vir die Vormer en Moniteerder rolle die organisasieveranderingsresultate negatief beïnvloed het.

Albertyn (2001:20) reports that in the year 2000, out of 41 countries assessed, the World Competitiveness Report ranked South Africa last in terms of human resources (*skilled labour; labour relations generally hostile; customer satisfaction not emphasised; industrial disputes; and managers generally lacking a sense of entrepreneurship*). According to Albertyn (2001:20), the authoritative management structures of the South African workforce result in organisations with non-initiative taking, disempowered members. In the 2001 edition of the World Competitiveness Report, South Africa was ranked no 46 out of 49 countries rated (IMD International, 2001:303). Although some improvement occurred, *human resource* is still on the IMD's list of twenty weakest areas for South Africa.

Because they need to initiate, implement, and evaluate change, leadership takes a central position amidst organisation changes. For Tizard (2001:62), the successful managers of change are those that ensure that techniques are put in place to involve and transform individuals through the different change stages as part of normal business.

Fontyn (quoting Olivier) echoes Albertyn's (2001:20) comments on authoritative structures in South African organisations: "Due to a shortage of talent at the top of organisations, there is not enough leadership competency in SA. Many business leaders run their companies purely on numbers, reverting to old models of leadership – like the autocratic model, where authority comes with the position rather than through leadership." (Fontyn, 2001:40).

It is evident that change management and leadership are current issues within the South African organisation context. South Africa is however not the only country experiencing a lack in change management leadership competencies. Many researchers over many decades raised concern over the lack of leadership competence to deal with organisation change. Pettigrew, Woodman, and Cameron (2001:697) refer to a host of researchers who researched this matter over the years. These researchers include Van de Ven and Poole, 1995; Weick and Quinn, 1999; Pettigrew, 1997; Kahn, 1974; Greenwood and Hinings, 1996; Gersick, 1994; and others (Pettigrew *et al*, 2001:697).

As inferred from the quoted references, not only is the lack of change management leadership a universal problem but also a particular issue for South Africa. Among the negative consequences of a lack in change management leadership are a lack of skilled labour, hostile labour relations, employees not identifying with organisation objectives, and a high employee turnover rate.

Defining Leadership, Competence and Change

Leadership: Introductory thoughts about its definition

There are a variety of different definitions and views on leadership found in the literature. Kanji and Moura E SA

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(2000:701) reviewed the literature on leadership and concluded that there are "almost as many different definitions of leadership as there are researchers who have attempted to define the concept".

In comparing the different views on leadership, there are some similarities in the way leadership is explained. Kanji and Moura E SA (2001: 701) note that every leadership definition inevitably comprises an "*influence*" component.

Tett, Guterman, Bleier and Murphy's (2000:221) study of twelve leadership models reveals that eight of these models referred to leadership as "motivation by persuasion". According to Tett *et al* (2000:221), this was often considered to be the essence of leadership. They also add that in the literature different authors conceptualised the same "leadership type" differently (Tett *et al*, 2000:221). As an example they refer to transformational leadership and note that researchers such as Bass (1985), Burns (1978), Conger and Kanungo (1987), and House (1977) all defined it in different ways (Tett *et al*, 2000:221).

Leadership is defined by Kerfoot (1999:64) as the art and science of leading change effectively. Parsell and Bligh (2000:199) are of the opinion that leadership involves the possession and use of power and authority to bring about change in terms of influencing the thoughts and actions of other people.

Inducing change, getting others to change and upholding change are at the essence of leadership. As such, leadership is linked to transformation. It was therefore concluded that leadership cannot be non-transformational, as leadership implies change.

For the purpose of this research, leadership was defined in terms of the ability to change others' behaviour, or to influence others towards taking action in line with a goal or objective.

Competence: Introductory Thoughts on its Definition
Competence is defined in a number of ways by different authors. Letsinger (1998:40), Nadler (1990:26), and Halley (2001:154) define competence in terms of knowledge, skills, abilities, and behaviours that are required to perform a job successfully.

Hall (1996:33) views competence as a matter of "fitting". He defines competence as follows: "Competence, as a state of adaptive fitness and response readiness, is the sustained capacity of people to respond in a committed and creative fashion to the demands placed on them by their environments" (Hall, 1996:33).

For Spencer and Spencer (1993:9), a competency is "an underlying characteristic of an individual that is causally related to criterion-referenced effective and/or superior performance in a job or situation".

For this research, competencies refer to the knowledge, skills, abilities, and behaviours that are required for success in leadership roles.

Views on Contemporary Leadership Research
According to Gaughan (2001:67), the study of leadership began around the 1930's. The earlier models (situational or contingency models) focused on identifying styles and behaviours that were dependent on a range of situational factors. Later models (post 1980) focused on change and gave rise to a "new" leadership approach, i.e. the paradigm shift towards "transformational" leadership (Gaughan, 2001:67).

Although the research focus has shifted to transformational leadership, authors such as Gaughan (2001:67) and Cross (2001:49) stress the importance of both "transactional" and "transformational" leadership in organisations.

Dering (1998:32) reports that the study of leadership resulted in two distinct paths in the 1990's. One branch was the "Relational Models" and the other the "Contemporary Organisations Models". The "Relational Models" focus on the affective domain in leadership, which includes concepts like caring, stewardship and love. The *Transformational Leader Model* is an example of the "Contemporary Organisations Model", which allows for three critical leadership components, i.e. the needs of the followers, the needs of the organisation, and the change needs of the organisation. The transformational leadership style implies that leaders are only leaders by virtue of the leadership role being sanctioned by their followers (Gaughan, 2001:67).

Although a wide range of different views on leadership and leadership models are identified in the literature, there are more similarities than differences in what authors see as "good" leaders. All of them agree on dimensions such as inspiring people, showing direction, communicating effectively, and solving problems. It is also clear that there is not yet a single, universally accepted, leadership model.

Approaches Towards Leadership Competencies
The views on leadership competencies are as varied as that of leadership itself. The most popular approach to explaining leadership competencies is through expressing competencies in terms of more effective leaders and less effective leaders, called competency theory by Cairns (2000). For Boak and Coolican (2001:212), this is the best way of measuring leadership. The competency theory approach is also preferred by Wright, Rowitz, Merkle, Reid, Robinson, Herzog, Weber, Carmichael, Balderson and Baker (2000:1202) and Fulmer and Wagner (1999:28).

Cairns (2000) advocates an approach that would allow for the development of individuals' own interests, insights, motivations, and capabilities. She is against the competency theory approach and says it will create inhuman monsters (Cairns, 2000). Although not against the competency theory as such, Barner (2000:47) criticises its application as the driver of change instead of the business strategy as the driver of change.

Kanji and Moura E SA (2001:706) call for an approach that will consider the leadership team as a whole rather than just the strengths and weaknesses of the individual leader.

A greater specificity of behavioural dimensions in the analysis of leadership competencies is emphasised by Tett et al (2000:212). They express the need for the contextualisation of leadership competencies where the focus is on behaviour and the need to capture the future-oriented nature of prediction and change in a competence model (Tett *et al*, 2000:212).

Change-Management Leadership Competencies
A significant number of authors (Spangenberg, Schroder, and Duvenhage, 1999:117; Dering, 1998; Scholtes, 1999; Graetz, 2000; Kanji and Moura E SA, 2001; Bergman, 1999; and Wright et al, 2000) stress the importance of *Creating a Vision* as an important competency of leadership.

In addition to *Creating a Vision*, the above authors identify a number of "key" or "core" competencies required by leaders to manage change successfully. The following are some examples of the core competencies identified: "*Sense of Mission*"; "*Effective Change Agent*"; "*Strategic Competence*"; "*Conceptual Competence*"; "*Negotiation*"; "*Develop Team-Oriented Structures and Systems*"; "*Communication*"; and "*Developing Self and Others*".

Organisation Change: Introductory Thoughts on its Definition
In defining organisation change, most authors refer to it as a process of transition from one state to another. Veldsman (2002:47) describes organisation change as "the difference in the state of an organisation at two separate locations in time and/or in

space." The earlier location refers to the "what is" state of the organisation and the latter location to its "what should/must be" state. "State" refers to the mode of existence and functioning of the organisation. The change process encompasses the conversion of the "what is" state into the "what should/must be" state.

Schalk, Campbell and Freese (1998:157) describe change as "the deliberate introduction of novel ways of thinking, acting and operating within an organization as a way of surviving or accomplishing certain organization goals". In this sense, "novel" refers to new, different or unique, and as such implicates doing or thinking differently.

Both Cornell (1996:23) and Mink (1998:272) describe change in terms of systems theory. For Cornell (1996:23), there need to be a balance or equilibrium between related factors. Change disrupts this equilibrium and the system will take steps to regain its balance. Change may also be a response to the desire to achieve such equilibrium, if one or other party is not content with the *status quo*. Mink (1998:277) views change as a process and not an event. For him the goal of organisation change is renewal towards becoming an open system (Mink, 1998:277).

According to Applebaum and Wohl (2000:281), there is a difference between change and transformation. Change is the alteration of something that already exists. Transformation refers to a *bona fide* metamorphosis. It is not, like change, improving on what is, but creating something that does not exist. They use the analogy of a caterpillar transforming into a butterfly to explain the difference: "The butterfly is not more caterpillar, or a better or improved caterpillar, or even a changed caterpillar – it is a new and entirely distinct being" (Applebaum and Wohl, 2000:281).

Change, as referred to in this research, is about improvement and not transformation. Change is about movement, indicating direction.

Views on Contemporary Change Management Research

Approaches towards Organisation Change

Organisation change is explained in various ways by different authors. Savolainen (1999:1203) explains change in terms of the "Type" and "Mode". "Type" refers to the speed of change and "Mode" to the means of effecting organisation change. He differentiates "Type" further in terms of incremental (evolutionary) and radical (transformational/revolutionary) change (Savolainen, 1999:1203). He describes the "Mode" of change as a polar type model of collaboration and coercion and stresses that in the polar model the difference does not lie in speed but whether organisations are effecting change on a continuous or on a discontinuous basis (Savolainen, 1999:1203).

Kofoed, Gertsen and Jorgensen (2002:165) describe change in terms of a series of radical and incremental changes (punctuated equilibrium theory). Radical changes (second-order changes) are changes that encompass major, fundamental shifts of organisation systems, culture, and paradigms. Incremental changes or first order changes they define as "the minor modifications that seek to reinforce or converge current practices, processes, culture, paradigms, etc. (Kofoed *et al*, 2002:165). These changes are implemented slowly and gradually over time and require little investment to implement, are based on inductive logic and often involve employee participation and involvement in the planning, directing, and implementing of improvement activities" (Kofoed *et al*, 2002:166).

Radical and incremental changes are referred to in terms of episodic versus continuous change by Pettigrew *et al* (2001:705). Episodic change refers to infrequent, discontinuous, and intentional change. Continuous changes are ongoing, evolving, and cumulative.

Organisation change is also explained as being either a "Planned" or an "Emergent" approach (Burnes, 1996:12; Gillis, 1999:28; and Burke, 1995:159). The "Planned" approach views change as an event where change is planned, implemented and finalised (Gillis, 1999:28). Many authors on organisation change models consider Lewin's (1951) three-step model ("unfreezing", "change", and "refreezing") as the origin and basis of the "Planned" approach (Applebaum and Wohl, 2000:288; Cornell, 1996:26; Burnes, 1996:11; Gillis, 1999:28; and Burke, 1995:159).

The "Emergent" approach towards organisation change views change as a process that unfolds through the interplay of multiple variables (context, political processes and consultation) within an organisation (Burnes, 1996:13).

Planned and Emergent Change Models

The distinguished authors of these approaches have proposed various "Planned" and "Emergent" models. Amongst the "Planned" change models are the seven-staged "Change Cycle Model" (Heifetz, 1993:4), the four-phase "Culturally Sensitive Restructuring Model" (Bate, Khan, and Pye, 2000:204), a three-stage transition model proposed by St-Amour (2001:21), and a three-step change model described by Qubein (2001:17). All of these models are based on the Lewin (1951) model of "unfreeze", "change", and "refreeze".

The dynamic non-linear "Emergent" models focus on the understanding of how and why change happens in individuals, groups and organisations (Lichtenstein, 2000:526).

Typical "Emergent" models are the "Continuous Improvement" model (Savolainen, 1999:1216), the "4-D Model of Appreciative Inquiry" (Whitney, 1998:316), the "Targeted Culture Modelling Process" (Shields, 1999:107), the "Business and Computing Support Co-Evolution" model (Bustard and He, 1998:370), the "Improvement Journey" (Connolly and Connolly, 2000:63), the "Learning Based Change Initiative" (Sugarman, 2001:65), the "Consolidated Change" model (Jay and Smith, 1996:3) and the "Integrated Change Navigation Approach" (Veldsman, 2002:49).

In choosing a change model the change initiator is faced with many choices and options. The main concern will be the probability of successful implementation. A constraint in deciding on an approach is the scarcity of research findings. Schalk *et al* (1998:157) report that little empirical research had been done on the effect of organisation change, specifically on the implementation of change on employee behaviour. Pettigrew *et al* (2001:706) agree by declaring the "Emergent" approach a "rare approach to change research".

St-Amour (2001:22) reports on a study by the Conference Board of Canada who found that 66 percent of organisations that completed restructuring initiatives (based on the "Planned" approach) showed no immediate increase in productivity. More than 50 percent realised no short-term profit improvements and only 30 percent reported a lowering of costs.

The impact of "planned" interventions is described as "little more than a rearrangement of the existing structure chart, or the roll-out of a large scale training programme" by Butcher and Atkinson (2001:22). Burnes (1996:12) agrees and adds that since the 1980's, the "Planned" approach has come under increased criticism.

Pettigrew *et al* (2001:706) refer to studies by Sitkin, Sutcliffe and Weick (1998), Sahlin-Andersson (1996), and Moorman and Miner (1998) where successes of the "Emergent" approach were reported. Success was measured in terms of small, uninterrupted adjustments, created simultaneously across units, creating cumulative and substantial change.

Success for the "Emergent" approach were also reported by Sugarman (2001:72) and Whitney (1998:318). Kofoed et al

(2002:167) declare their "Emergent" change initiative (a "Continuous Improvement" process implemented over three years in a mid-size Danish processing company) a failure and proclaim "Learning Processes" and actions to be "predictably unpredictable".

Both the "Planned" and "Emergent" approaches to organisation change resulted in success. Equally so, both also resulted in some failures. Neither approach can be declared as being undeniably superior. The approach selected for this research was based on the "Emergent" approach.

Leadership Change Roles

The visionary role of change leadership is recognised by most authors, amongst others Burke (1995:161), Applebaum and Wohl (2000:284), Potter (2001:54), Chapman (2002:18) and Graetz (2000:550). Tasks associated with the visionary role centre around leaders' planning skills and abilities to envisage and communicate a better future.

Tizard (2001:62), Besecker (2001:31) and St-Amour (2001:20) are amongst the authors who emphasise the implementer role within the context of change leadership. The leader's ability to ensure that the change takes place by transitioning individuals through the different stages of the change process forms the core of the implementer role.

The leader's ability to deal with individuals' discomfort and resistance is also described as a key role by authors such as Cornell (1996:29), Shields (1999:105) and Potter (2001:56).

The final phase of organisation change centres around the evaluation of the change effort. The need for leaders to assess and measure organisation change processes is emphasised by Applebaum and Wohl (2000:290), Jay and Smith (1996:66) and Sugarman (2001:66).

Four leadership change roles were identified for this research, i.e. *Initiator*, *Shaper*, *Monitor*, and *Assessor*. A competence cluster was developed for each leadership change role. The *Initiator* cluster contained competencies associated with setting a vision, communicating the vision and obtaining support for it. The competencies associated with the *Shaper* role focussed on inducing and reinforcing the change initiative, the development of employees' competence to meet the change requirements, and the empowerment of employees to meet the change requirements. The *Monitor* cluster contained competencies associated with employee consultation, the handling of emotional reactions, and the eliminating of resistance and conflict. The *Assessor* cluster contained competencies linked to measuring and assessing change outcomes and the provision of focus areas for future change initiatives.

Integrated Role Competence Cluster Model

The identified roles (*Initiator*, *Shaper*, *Monitor*, and *Assessor*) and competencies were integrated in a particular model, the "Integrated Role Competence Cluster Model (IRCCM)". Figure 1 is a graphic illustration of this model. This model depicts the change process as a continuous four-phase cycle, integrating leadership change roles with associated competencies.

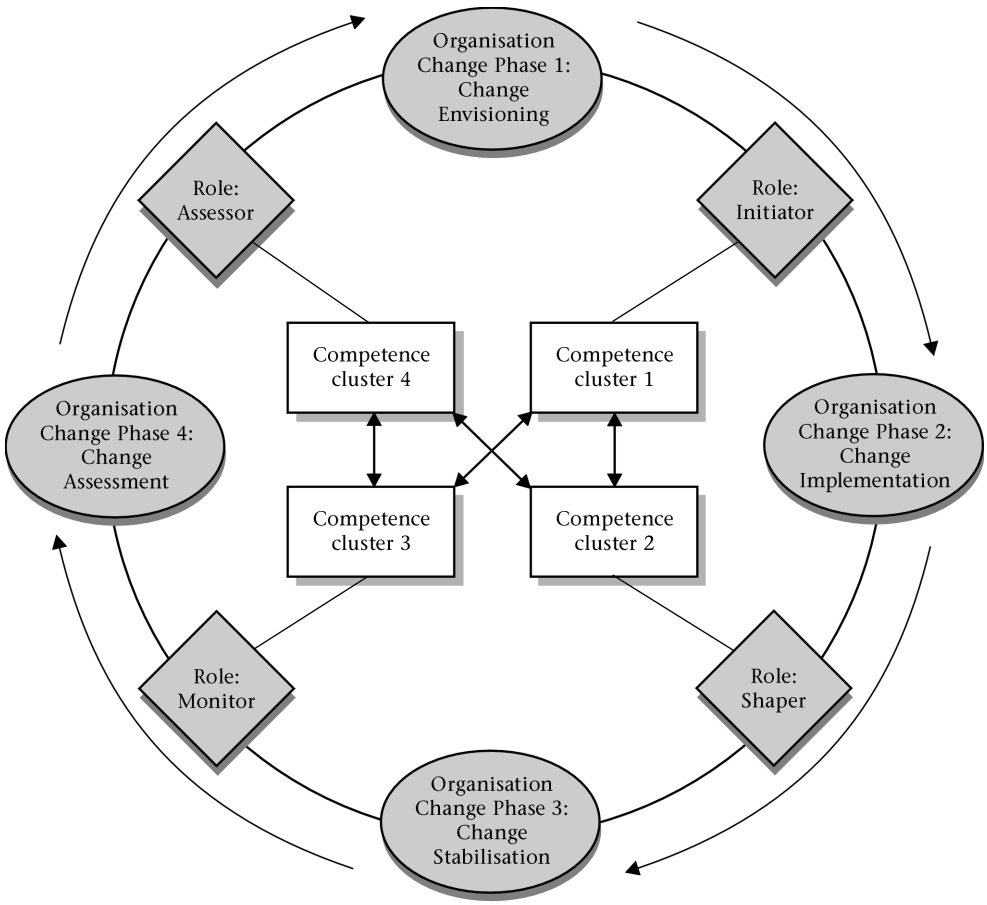


Figure 1: Integrated role competence cluster model

Measuring Organisation Change
Authors such as Burke (1995:177) and McAdam and Bannister (2001:89) plead for measurement of change in terms of "soft" (culture, antecedents, etc.) measurements as the "hard" data (net income, return on investment and stock price) seem to be the only measurements in most studies. The "lagging" financial performance measures have long been recognised for their inadequacy in the context of change management measurement (McAdam and Bannister, 2001:89).

The "soft" measurements are also called for by Burke (1995:177), McAdam and Bannister (2001:321), Kanji and Moura E SA (2001:709), Potter (2001:54) and Tizard (2001:62). The increasing demand for "soft" measurements regarding organisation change was the reason for it to be the focus of this research. The following items are examples of the "soft" measurement items used in this research: "The extent to which employees' knowledge and understanding of the company's vision is linked to the change initiative"; "The extent to which employees are informed and updated with progress regarding the change initiative"; and "The extent to which employees changed behaviour as a result of the change initiative".

EMPIRICAL RESEARCH METHODOLOGY

Research Design
The design utilised for this research was quasi-experimental ex post facto: post test/observation only. The research was implemented in two phases. Phase I consisted of determining the congruence between leaders' utilisation in a particular role and their perceived competence in the competencies allocated to that role. Phase II investigated the influence of higher/lower levels of congruence on organisational change outcome.

The null hypothesis for Phase I was that there was no statistical difference between the average competence scores leaders received on the different roles, i.e. they would receive similar average ratings for all four roles. The null hypothesis for Phase II was that there was no statistical difference in terms of change outcome for roles where congruence was obtained as compared to roles for which congruence was not obtained.

Participants
Three organisations in the manufacturing industry were selected. These organisations were representative of the food industry, the motor industry and the metal industry. Two different populations were used for the respective phases. The reason for choosing two populations was that utilising the first population (Phase I population) for also determining the change outcome (Phase II) would have resulted in respondent bias, i.e. by being involved with the implementation of the change initiative, their assessment on its success would have been subjective.

For Phase I all the leaders who were utilised in change roles during the implementation of their organisation's change initiative were selected. The leaders were rated by means of a 360-degree assessment. Themselves, their managers, a peer, and a subordinate assessed the identified leaders. The sample sizes for Phase I for all three organisations were small because all three organisations utilised only a limited number of leaders in the change roles. The response rates were as follows: for Organisation A, 49 (68%), for Organisation B, 36 (45%), and for Organisation C, 45 (70%). Only 9 leaders (overall) received a complete (own, manager, peer, and subordinate) set of ratings.

For each organisation a random sample of 120 literate employees was used for Phase II. The response rates were as follows: 75 (62%) responses for Organisation A, 78 (65%) for Organisation B, and 35 (29%) for Organisation C.

Measurement Instruments
A questionnaire (Leadership Role Competence Questionnaire) measuring the perceived level of competence for each of the four leadership change roles identified (Initiator, Shaper, Monitor, and Assessor), was developed for Phase I. To avoid biased responses in the questionnaires, competencies were not linked to their identified clusters but randomly positioned in the questionnaire. Items were rated on a four point Likert scale. Scale values were "Very Competent" (1), "Competent" (2), "Not competent" (3), and "Not at all competent" (4). The following items are examples of the items used in the Leadership Role Competence Questionnaire:
Item 9. *Explaining the vision in understandable terminology.*
Item 25. *Demonstrating how employees will gain personally from change outcomes.*
Item 40. *Applying continuous improvement principles through the identification of new change focus areas.*

A questionnaire (Change Outcome Questionnaire) measuring the "soft" dimensions of organisation change was developed for Phase II. Items were rated on a four point Likert scale. Scale values were "Strongly disagree (4)", "Disagree (3)", "Agree (2)" and "Strongly Agree (1)". Values of 3 and 4 indicated an unsuccessful change outcome and values of 1 and 2 a successful change outcome. A mean value of 2.5 was chosen as cut-off point for success. The following items are some examples of items used in the Change Outcome Questionnaire:
Item 17. *The majority of employees in this company support the change initiative.*
Item 39. *Employee participative forums regarding this change initiative are not trusted by employees.*
Item 63. *The changes resulting from this change initiative are causing inefficiencies in work processes.*

Analytical Procedure
Both questionnaires were given to three leadership and change management specialists for content validation. A Cronbach alpha was calculated for both questionnaires to determine reliability. The Leadership Role Competence Questionnaire was found to be reliable and valid. The Change Outcome Questionnaire was found not to be reliable. The unreliability of the Change Outcome Questionnaire caused conflict as the instrument was validated in terms of content validation. A valid instrument should be reliable. In order to resolve this reliability dilemma of the Change Outcome Questionnaire, the constructs and their items were factor analysed to determine the underlying validity of constructs (please refer to paragraph entitled "Results of Instrument Validation" below).

A correspondence analysis was used to determine role congruence by mapping the roles leaders were utilised for onto the average competence ratings leaders received for those roles. A cross table was used to analyse and compare the data. As a result of the small sample sizes for Phase I, a Cramer's V test was done to assess the effect of sample size on tests. Similar results (no significant differences) for the three organisations would allow for the comparison of Phase I results with the results of Phase II.

An ANOVA was done on the results of the Change Outcome Questionnaire (Phase II) to determine whether any significant differences existed between the three organisations' results. To determine whether any significant differences existed within organisations, non-parametric t-tests were done for Organisations B and C and a Kruskal-Wallis test for Organisation A.

To determine the influence of role congruence on change outcome the results obtained in Phase I were compared to the results of the administration of the Change Outcome Questionnaire.

Results of Instrument Validation

The Leadership Role Competence Questionnaire was found to be reliable and valid. The Alpha values obtained for each role were: *Initiator*: 0.97, *Shaper*: 0.94, *Monitor*: 0.88, and *Assessor*: 0.93. The instrument was also content validated by the change management experts, as discussed earlier.

As indicated earlier, the Change Outcome Questionnaire was found to be unreliable, yet was content validated. To resolve this dilemma, a factor analytical procedure was applied. A factor analysis was done on the Change Outcome Questionnaire in terms of a first order PAF with Varimax rotation. The KMO value was 0.77 (significance < 0.001). The factor analysis resulted in fifteen factors with Eigen values higher than 1, explaining 71% of total variance. This necessitated a second round PAF by means of an Oblimin with Kaiser Normalisation as rotation method. The test for sampling adequacy resulted in a KMO value of 0.85 (significance < 0.001). The second round PAF resulted in three factors with Eigen Values higher than 1, explaining 57% of total variance. These results are presented in Table 1 below.

TABLE 1
TOTAL VARIANCE EXPLAINED AFTER SECOND ROUND PAF

Factor	Total (Eigen values)	% of variance
Change Buy-In and Support	4.5	31.80
Resistance to Change	2.41	17.21
Personal Work Advantages	1.16	8.28

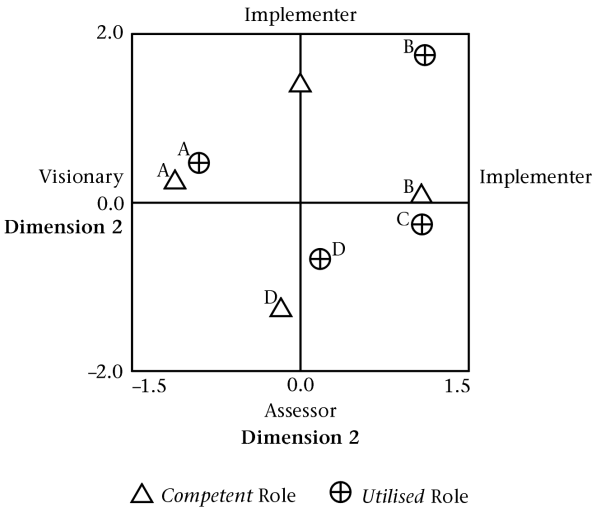
The three factors extracted were: *Change Buy-In and Support*, *Resistance to Change* and *Personal Work Advantages*. The third factor, *Personal Work Advantages*, was eliminated on the grounds that it only represented one item in the Change Outcome Questionnaire. A Cronbach test was done on the two remaining factors. The *Change Buy-In and Support* factor obtained an Alpha value of 0.95 and the Resistance to Change factor an Alpha value of 0.84. The factor analysis procedure's results satisfactorily addressed the conflict emanating from the content validation of the Change Outcome instrument on the one hand and the lack of reliability on the other hand.

EMPIRICAL RESEARCH RESULTS

Phase I Results

The cut-off point for congruence was set at 40 %. Two roles (*Initiator* and *Assessor*) achieved congruence while the other two (*Shaper* and *Monitor*) did not achieve congruence. The results of the correspondence analysis are presented in Table 2 below.

Seventy-one percent (10 of 14) of the leaders utilised in the *Initiator* role were also assessed as being most competent for that role. Only two (15%) of the thirteen leaders who were utilised for the *Shaper* role were rated most competent for that role. Just one out of ten leaders (10%) utilised for the *Monitor* role was assessed as being most competent for that role. Seven out of fourteen (50%) of the leaders utilised for the *Assessor* role were assessed as being most competent for that role.



Legend:
A: Initiator role
B: Shaper role
C: Monitor
D: Assessor role

Figure 2: Symmetrical normalisation graph (correspondence analysis) for role congruence between utilised roles and competent roles

TABLE 2
ROLE COMPETENCE AND ROLE UTILISATION CROSS TABULATION

Role utilisation	Count (Number of leaders for whom an average rating was calculated)	Competent: Role A Initiator	Competent: Role B Shaper	Competent: Role C Monitor	Competent: Role D Assessor	Total
Utilisation:	Count	10		1	3	14
Role A	**% within role**	**71.4%**		7.2%	21.4%	100.0%
Initiator	% within competent	45.5%		11.1%	18.8%	27.5%
Utilisation:	Count	2	2	5	4	13
Role B	**% within role**	15.4%	**15.4%**	38.5%	30.8%	100.0%
Shaper	% within competent	9.1%	50.0%	55.6%	25.0%	25.5%
Utilisation:	Count	5	2	1	2	10
Role C	**% within role**	50.0%	20.0%	**10.0%**	20.0%	100.0%
Monitor	% within competent	22.7%	50.0%	11.1%	12.5%	19.6%
Utilisation:	Count	5		2	7	14
Role D	**% within role**	35.7%		14.3%	**50.0%**	100.0%
Assessor	% within competent	22.7%		22.2%	43.8%	27.5%
Total	Count	22	4	9	16	51
	% within role	43.1%	7.8%	17.6%	31.4%	100.0%
	% within competent	100.0%	100.0%	100.0%	100.0%	100.0%

From Figure 2 it can be seen that the *Visionary vs. Implementer* axis indicated a relationship between *utilised* and *competent Initiator* roles and between *utilised Shaper*, *competent Shaper* and *competent Monitor* roles. The Implementer vs. Assessor axis indicates relationships between *utilised* and *competent Assessor* roles and between *utilised Monitor* and *competent Shaper* roles.

For Phase I the null hypothesis was rejected. There was a statistical difference between the average scores leaders received on the different roles.

Phase II Results

The ANOVA done to determine whether any significant differences existed between the three respondent organisations showed that no significant differences existed (see Table 3 below). The results for the three organisations could therefore be combined. A successful result was determined for the *Change Buy-In and Support* factor (mean: 2.34) and an unsuccessful result for the *Resistance to Change* factor (mean: 2.63).

Table 3

Anova on success outcomes for factor a – change buy-in and support and factor b – resistance to change

a) FACTOR A – CHANGE BUY-IN AND SUPPORT					
SOURCE	ss	ms	F	df	Significance
Between Groups	0.9	.04	.30	2	.75
b) FACTOR B – RESISTANCE TO CHANGE					
SOURCE	ss	ms	F	df	Significance
Between Groups	0.74	.24	1.82	2	.17

Legend:
ss: sum of squares
ms: between and within mean squares
F: coefficient of variance
df: degrees of freedo

The Cramer's V tests for congruence indicated that no significant differences existed between the three organisations in their congruence results (organisation A: 0.5; organisation B: 0.4, and organisation C: 0.4). The ANOVA on the change outcome results also indicated that no significant differences existed between the three organisations. It was therefore possible to compare the results obtained from the two questionnaires.

The comparison of the congruence results with the change outcome results (for both the *Change Buy-In and Support* and the *Resistance to Change* factors) indicated that as a result of the similarity in the results it was not possible to determine any form of correlation. There was thus no significant statistical evidence to accept or reject the null hypothesis for Phase II. The influence of role congruence on change outcome could therefore not be determined statistically. It was however possible to derive at conclusions by means of deductive logic, as can be seen in the next section entitled "DISCUSSION".

DISCUSSION

The competencies associated with the *Initiator* and *Assessor* roles corresponded to the items that measured change results in terms of the *Change Buy-In and Support* factor. *Change Buy-In and Support* was found to be a successful factor in terms of organisation change outcome (as per the results of the factor analysis). The deduction is made that congruence for these roles resulted in a positive change outcome in terms of support and buy-in as these roles' competencies corresponded with the items that measured change results in terms of the *Change Buy-In and Support* factor in the Change Outcome Questionnaire. The *Initiator* role measured leader's competence to formulate and share their vision as well as to inspire their followers. The *Assessor* role measured leaders' competence to measure, analyse and interpret the impact of the change initiative on the organisation and its employees, as well as leaders' competence in setting future change goals for the organisation. The highest level of congruence was achieved for the *Initiator* role. The second highest level of congruence was achieved for the Assessor role.

The competencies associated with the *Shaper* and *Monitor* roles corresponded with the items that measured *Resistance to Change* on the Change Outcome Questionnaire. There was resistance to change. It was deduced that low congruence obtained for the *Shaper* and *Monitor* roles lead to resistance to change.

Leaders utilised for the change initiative were selected by their respective organisations on their perceived competence in "leadership", i.e. their ability to envision and to inspire. In these organisations no appropriate match took place in terms of the change roles identified for implementing the organisation change initiatives. The interrelationship between the *Shaper* and *Monitor* roles showed a lack of congruence (see Figure 2). Leaders who were rated most competent for the *Shaper* role were utilised in the *Monitor* role, and *vice versa*. The results also indicated that leadership competence per se does not result in successful organisation change. Leadership change competencies needed to be specified for specific behavioural dimensions. The different leadership change roles are typical behavioural dimensions. Congruence between role utilisation and role competence resulted in successful organisation change. No congruence resulted in unsuccessful change.

RECOMMENDATIONS

Further research for this research topic is recommended, as statistical evidence for the hypothesis test for Phase II was inconclusive. It is recommended that a true experimental design where pre and post tests are done on control and experimental research subjects be applied.

Organisational leaders need to be assessed on their competence to manage change successfully. This assessment should be done for each of the change roles (*Initiator*, *Shaper*, *Monitor*, and *Assessor*) identified in this research. The Leadership Role Competence Questionnaire is recommended as an instrument to measure perceptions of leaders' role competence. Organisations should apply assessment results to accurately allocate change roles to leaders as well as to identify development needs for less competent leaders. Leaders should be utilised in change roles for which they are most competent in to allow for maximum congruence.

This research identified a lack amongst leaders on the competencies associated with the *Shaper* and *Monitor* roles. Organisations should give specific attention to the development of leaders in these roles.

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