5. CHAPTER 5 DISCUSSION

In this final chapter the answers to research questions will be presented and the major findings of the study discussed. Thereafter the implications for management, directions for future research and finally the limitations of the present study will be discussed.

5.1. Research Question 1.

The first research question queries whether in a sample of South African managers, leadership behaviour exist in a three-dimensional form as identified by the CPE model. Thus it implies whether the CPE construct is identifiable in another cultural and environmental setting, that is, in South Africa, with the same leadership behaviour dimensions as found in Scandinavia.

With the application of Exploratory Factor Analysis on the data from the study sample it is confirmed that a similar three-dimensional leadership behaviour model exists in a South African context as was found with the CPE model in Scandinavian countries by Ekvall (1991), Ekvall and Arvonen (1991, 1994), Lindell and Rosenquist (1992) and Skogstad and Einarson (1999). Table 4.1 shows the factor pattern for this study. This illustrates the fact that change and organisational turbulence as experienced by the South African sample also resulted in change-oriented leadership behaviour, as was postulated by the Scandinavian researchers. The change-oriented leadership behavioural dimension is as prominent in South Africa as was found by the other studies.

The comparison of items that loaded on each factor in the three-factor structures for this study and the structures obtained by Ekvall and Arvon's (1991, 1994) are shown in Table 4.2. Item-by-item comparisons between this study's

structure and those of Ekvall and Arvon's (1991, 1994) show that there are significant similarities between the three different structures in terms of item content. Generally, however the order in which the items loaded on each factor differed. This is another indication confirming that the three-dimensional leadership behaviour structure is identifiable in the South African context. The answer to research question one is thus affirmative.

5.1.1. Proposition 1.1

Application of Confirmatory Factor Analysis resulted in promising goodness-of-fit indices of the data to the structural model. Refer to Table 4.6 for the results on Confirmatory Factor Analyses. The goodness-of-fit indices were however not highly satisfactory due to possibly the size of the sample. It is argued that Confirmatory Factor Analysis does not provide satisfactory goodness-of-fit measures when the sample size exceeds 400 to 500 (Hair, Anderson, Tatham & Black, 1995). Hair et al., (1995) state that as the sample size becomes large, as is the case in this study (N = 879) (exceeding the 400 to 500 limit), the Confirmatory Factor Analysis method becomes too sensitive and almost any difference is detected, causing all goodness-of-fit measures to indicate a poor fit. They recommend sample sizes ranging between 100 to 200. In this study the ratio was thus double the recommended sample size for satisfactory goodness-of-fit indices to result. In this study a large sample size was deliberately selected in order to perform sensible cluster analysis.

The matching of structures (Table 4.7) for similarity by means of Confirmatory Factor Analysis (Gorsuch, 1983, p.285) yielded indices indicating high degrees of similarity between the structure obtained in this study and the three-factor structures obtained by Ekvall and Arvonen (1991, 1994).

The values of the coefficients of congruence indicate very high consistency of the factor loading structures found by Ekvall and Arvonen (1991,1994) and the structure accepted in the present study.

These results demonstrate that the measurement scale of Ekvall (1991) has satisfactory portability – at least between the Scandinavian cultural setting and the test sample in South Africa. The results also indicate significant construct validity of the three-dimensional leadership behaviour construct as defined by Ekvall (1991). Further investigations need to be done to demonstrate generalised portability across multiple cultures.

5.1.2. Proposition 1.2

This proposition is concerned with whether similar leadership style groupings exist in this study sample, where each grouping can be identified with a distinctive combination of the three behavioural dimensions, as were found in the Scandinavian studies.

Results reported in Table 4.8 show that ten clusters were identified in line with the clusters Ekvall and Arvonen (1994) and Arvonen (1995) found in their studies and were named accordingly. Differences between the clusters in this study and in Ekvall and Arvonen's (1991) and Arvonen's (1995) studies are that for this study the entrepreneurial and transactional leader profiles could not be established. Instead another profile was identified, (profile 9), named "Charismatic" leaders. These are leaders with high mean scores on the change-oriented and relations-oriented leadership behaviour, but relatively lower mean scores on the structure-oriented leadership behaviour dimension. This profile is thus focusing primarily on change-oriented and relation-oriented leader behaviours, with some, but not complete attention to the task- or production-

oriented behaviours. This description is in line with Conger's (1988) definition of the charismatic leader. According to Conger (1988) charismatic leaders have the ability to promote change, articulate their visions, use advanced skills of communication to portray their visions and empowering people to achieve their visions. The charismatic leaders' ability to engage in task or production-oriented behaviour is not important since the other two behavioural dimensions are strong enough to help him achieve his objectives.

This result indicates that the three-dimensional leadership behaviour scale can be utilised to differentiate between leadership styles of individuals, based on the combination of leadership behaviours along each dimension of the CPE construct.

5.2. Second Research Question.

The second research question is concerned with whether there are relationships between the three-dimensional leadership behaviour styles as identified with the CPE model and EI of leaders, as well as the visioning ability and organisational citizenship behaviour of subordinates.

From the Coefficients of Determination in Table 4.9 it is evident that the leadership behaviour dimensions correlated significantly with emotional intelligence dimensions for the leaders in this study. Employee-centred leadership behaviour was significantly related to all four of the emotional intelligence dimensions for the leader. The highest common variance was for the relation with empathy (56.1%), followed by self-regulation (40,6%), self-motivation (34%) and finally, self-awareness (30,7%).

The change-centred leadership behaviour sub-scale was strongly related to the self-motivation and empathy sub-scales and related to the self-awareness EI

sub-scale for the leader. The common variances were 62.4%, 23.3% and 17.6% respectively.

The production-centred leadership behaviour sub-scale was related to the self-motivation EI sub-scale of the leader (common variance 19.6%).

Similarly, with the application of Step-wise Regression Analysis (Table 4.10), emotional intelligence sub-scales and the total emotional intelligence scale were predicted significantly by means of the employee-oriented leadership behaviour sub-scale as independent variables included in the Step-wise Multiple Regression model. The self-motivation, self-regulation, empathy and self-awareness sub-scales were predicted, 69.7%, 43.2%, 58.9% and 33.9% respectively by the three-dimensional leadership behaviour sub-scales. Total leader emotional intelligence was predicted 60.6% by employee-oriented leadership behaviour.

From these results it appears that the leader's EI behaviour plays a significant role in especially his employee-oriented behaviour. All four dimensions of EI as measured for this sample and perceived by the leaders' subordinates play a significant role in this kind of leader behaviour. It would further appear that a leader's self-motivation, emphatic behaviour and his self-awareness are conceptually significantly related to the leadership change-oriented behaviour as perceived by sub-ordinates. However, only the self-motivation EI behaviour of the leader has a conceptually significant relationship with his perceived task- or production-oriented leader behaviour. Thus the EI dimension of self-motivation has a bearing on all three measured leadership behaviour dimensions.

The three leadership behaviour dimensions showed no conceptually significant relationships or predictions with the visioning ability as well as the organisational citizenship behaviours of the respondents (Table 4.9). This

somewhat unexpected result can be interpreted that in the current sample, leadership behaviour seems not to have significant influence on subordinates' ability to envision the organisation in the future as well as their own futures within the organisation. It would also seem that leaders' behaviour does not influence subordinates' OCB significantly. Another explanation could lie in the way the questionnaire was administered. The respondent assessed his/her leader on leadership behaviour and EI, while he/she did a self-assessment on visioning ability and OCB. Some response bias could have influenced the results.

There was a significant correlation between visioning ability and the loyal-participation dimension of OCB (25% common variance) as measured for this sample (Table 4.9). This is interpreted to mean that respondents with a high degree of loyal-participation in this organisation tend to have a higher ability to envision the organisation's and his own future within that organisation. The opposite may be equally true – that is – someone with a strong ability to envision the organisation's future in a positive light, may also tend to demonstrate a higher degree of loyal-participation within this organisation.

5.3. Third Research Question

The third research question inquires whether the leaders' biographic and organisational variables are related to his/her three-dimensional leadership behaviour style as observed by his/her subordinates.

The results of the N-Par One-way Analysis-of-Variance (Table 4.11 to Table 4.26), showed that only three demographic variables were significantly related to the employee-centred leader behaviour variable. These demographic variables were the respondent's race group (Table 4.16), the respondent's hierarchical level (Table 4.18), and the leader's functional group (Table 4.25).

Numerically white respondents saw their leaders as demonstrating more employee-oriented leadership behaviour, than their Asian, coloured or black peers. Numerically respondents on the 3rd hierarchical level perceived their leaders as demonstrating employee-oriented behaviour to the highest degree relative to the other hierarchical levels, followed by respondents on the 4th hierarchical level. Respondents on the 2nd level perceived their leaders as demonstrating numerically the least employee-oriented behaviour.

The functional group the leader is responsible for seems to possibly play a role in the degree to which it is perceived he or she demonstrates employee-oriented leadership behaviour. Leaders responsible for corporate services, research and development, engineering, design, and project management and general management functions (in that order) seems to demonstrate the most employee-oriented leadership behaviour, while leaders in production, marketing, human resources and information technology (in that order) seems to demonstrate the less employee-oriented leadership behaviour.

Eight demographic variables were significant predictors of variability in the change-oriented leader behaviour variable. These demographic variables were the respondent's race group (Table 4.16), the leader's hierarchical level (Table 4.17), the respondent's hierarchical level (Table 4.18), the leader's educational level (Table 4.19), the leader's number of subordinates (Table 4.21), the subordinates number of subordinates (Table 4.22), the leader's number of people they are directly and indirectly responsible for (Table 4.23), and the leader's functional group (Table 4.25).

White respondents saw their leaders as demonstrating more change-oriented leadership behaviour on a numerical scale, than their Asian, coloured or black peers.

Numerically leaders on the 3rd hierarchical level were perceived as demonstrating change-oriented behaviour to higher degrees than the leaders at other hierarchical levels, followed by respondents on the first hierarchical level. Leaders on the second level were perceived by their respondents as demonstrating numerically the least change-oriented behaviour. Respondents on the sixth level numerically perceived their leaders as demonstrating change-oriented behaviour to the lowest relative degree.

There was an almost linear relationship between the leader's educational level and the respondents' perceptions of their degree of change-oriented leadership behaviour. The higher the level of education of the leader the more the leader was perceived to demonstrate change-oriented behaviour on a numerical scale. The exemption was leaders with doctoral degrees who were rated second to leaders with master's degrees.

There was an almost linear relationship between the leaders' number of direct subordinates and the respondents' perceptions of their degree of change-oriented leadership behaviour. The higher the number of direct subordinates, the higher the leader was perceived to demonstrate change-oriented behaviour on a numerical scale. The exemption was leaders with more than 21 subordinates who were measured second lowest and leaders with 1 to 5 subordinates lowest. Also, there was an almost linear relationship between the respondent's' number of direct subordinates and the respondents' perceptions of their leaders' degree of change-oriented leadership behaviour. The higher the number of respondent's direct subordinates, the higher numerically the respondents perceived their leaders to demonstrate change-oriented behaviour. The exception was respondents with no subordinates, whose perception of the degree of their leaders' change-oriented behaviour was the second lowest of the different groups. Respondents with 1 to 3

subordinates numerically rated their leaders the lowest on change-oriented behaviour.

Also, there was an almost linear relationship between the number of direct and indirect people the leader is responsible for and the respondents' perceptions of their leaders' degree of change-oriented leadership behaviour. The higher the number of direct and indirect people the leader is responsible for, the stronger numerically the respondents perceived their leaders to demonstrate change-oriented behaviour. The exception was leaders who were responsible for 1 to 13 direct and indirect people, who were rated by their respondents as second lowest on change-oriented behaviour. Leaders responsible for 14 to 50 direct and indirect people, were rated the lowest on change-oriented behaviour, by their respondents.

The functional group the leader is responsible for seems to play a significant role in the degree to which he or she is perceived to demonstrate change-oriented leadership behaviour. Leaders responsible for human resources, information technology, corporate services and general management functions (in that order) seems to be perceived to demonstrate more change-oriented leadership behaviour, while leaders in marketing, financial and commercial and maintenance services (in that order) seems to demonstrate the least change-oriented leadership behaviour.

Finally, six demographic variables were significantly related to variance in the production-oriented leader behaviour variable. These demographic variables were the respondent's age group (Table 4.12), the respondent's gender (Table 4.14), the respondent's level of education (Table 4.20), the respondent's number of subordinates (Table 4.22), the number of people the leader is directly and indirectly responsible for (Table 4.23), and the respondent's functional group (Table 4.26).

There was an almost linear relationship between the respondents' age group and the respondents' perceptions of their leader's degree of production-oriented leadership behaviour. The higher the age of the respondent the lower the leader tended to be perceived to demonstrate production-oriented behaviour. The exception was that respondents with ages higher than 55 saw their leaders to be in the middle of the range, and those aged between 31 to 35 rated their leaders lowest in production-centred leader behaviour.

Compared to female participants male respondents perceived their leaders as demonstrating significantly more production-oriented behaviour.

There was an inverse and almost linear relationship between the respondents' educational level and their perceptions of their leader's degree of production-oriented leadership behaviour. The higher the level of education of the respondent the lower the leader tended to be perceived to show production-oriented behaviour on a numerical scale. The exception was respondents with masters degrees who saw their leaders as numerically lower on production oriented behaviour than respondents with doctoral degrees did.

There was an inverse and almost linear relationship between the respondent's number of direct subordinates and their perceptions of their leaders' degree of production-oriented leadership behaviour. The higher the number of direct subordinates, the lower the leader was perceived to present production-oriented behaviour. The exception was respondents with no subordinates who rated their leaders second lowest and respondents with 1 to 3 subordinates who rated their leaders lowest.

Also, there was a linear relationship between the number of direct and indirect people the leader is responsible for and the respondents' perceptions of their leaders' degree of production-oriented leadership behaviour. The higher the

number of direct and indirect people he/she is responsible for, the more the respondents perceived their leaders to demonstrate production-oriented behaviour.

The functional group in which the respondent is active seems to be related to the degree to which the respondent perceives his or her leader exhibiting production-oriented leadership behaviour. Respondents active in maintenance services, financial and commercial, and production functions (in that order) seem to perceive their leaders as demonstrating higher levels of production-oriented leadership behaviour. Respondents in general management, research and development, and engineering, design and project management (in that order) seem to perceive their leaders as demonstrating lower levels of production-oriented leadership behaviour.

The remaining demographic variables did not seem to show significant relations to the three-dimensional leadership behaviours.

5.4. A change-centred leadership style profile

From the answers to these research questions it would therefore seem that the profile of a leader who can exhibit a significant degree of change-oriented behaviour would firstly, have well-developed EI behaviour skills. Secondly, one would find such leaders most probably, in the human resources, information technology, corporate services and general management functions. Thirdly, they would most likely have a large number of direct subordinates and people they are indirectly responsible for. Fourthly, their level of education would probably be at the masters degree level, and, finally, they would probably function at the highest middle to top management levels (Level 3 in this sample).

This leadership profile makes intuitive sense because the types of functions in this profile are typically those that deal with the most degrees of freedom from

an organisational perspective. For example, human resources functions a deal with people with ever changing needs, demands, values and desires. The information technology functions deals with ever changing technology in a fast paced environment rive with competition. The corporate service functions are typically those that render internal consulting services, such as environmental legislation, legal services, and personal relations – mostly executed by professionals in fields that are changing constantly. Finally, general management functions are by nature daily involved in a wide variety of activities and would therefore be fertile ground for cultivating change-oriented leadership behaviour.

The leaders with a strong change-oriented behaviour profile are typically responsible for larger numbers of people and larger numbers of people report to them. This kind of managerial environment with large spans of control would of necessity demand more flexibility and change-oriented behaviour of leaders in such positions. Rigid approaches to work and changing circumstances would render such leaders ineffective. The higher level of education possessed by leaders with this style profile probably makes them more capable to deal with the turbulent kind of environments they are functioning in. These leaders may function to a higher degree in the change-oriented style because they have the skills and confidence to do so due to their higher level of education. Finally, the higher middle management levels (Level 3 in this study) may demonstrate more change-oriented leader behaviour because they are on the boundary between strategy formulation (typically a top echelon activity) and strategy implementation (typically lower echelon activities). This boundary spanning responsibility typically requires a flexible approach to planning, resources, people and changing circumstances and demands between the bottom and the top of the organisation.

Leaders demonstrating a strong change-oriented behaviour style can be found in the clusters named 'creative', 'humanist', 'charismatic' and 'super leaders' for this sample.

5.5. Implications for Management

The results from this study may lead to the following implications for organisational management:

The CPE model has been demonstrated to exist in the South African context and it is possible to group managers and leaders according to their different leadership behaviour profiles into different clusters. The CPE model thus allows the integration of a variety of previous and well-known leadership theories into a concise framework. The implication is that organisations should be cautious to rely on leadership development models based upon only one or two leadership theories such as, for example, contingency theory, visionary leadership, or transformational leadership theory. Leadership behaviour encompasses more than what any single theory addresses. The CPE model could be a valuable tool to evaluate an organisation's leadership behaviour profiles and according to the assessed results a leadership development program could be devised to address the areas where certain leadership behaviours lack.

Secondly, using the CPE model as a leadership development tool may sensitise the 'student' to the importance of change-oriented behaviour as a separate but very important leadership dimension. In today's leadership development courses much attention is given to, for example, employee-centred behaviour skills, visionary leadership and the alignment of the organisation with its strategy, resources, visions, etc. (this is much the same as the 'Initiation of structure' behaviour identified by the Michigan studies). Adding the change-

oriented leadership behaviour dimension in leadership development sessions would focus specific attention on the change dynamics in organisations and the environment and would suggest how the leader is supposed to behave under such circumstances.

The results also pointed out that for the study sample at least, a certain demographic and organisation variable profile could be identified for leaders that demonstrate strong change-centred leadership behaviours. These demographic profiles can be used as a proxy to search for leadership potential suitable for turbulent and competitive organisational environments.

Finally, the very strong correlation between leadership behaviour and leaders' EI behaviour variables point in the direction that organisations should also pay close attention to the development of their leaders' and potential leaders' emotional intelligence behaviours. This may enhance the leaders' leadership behavioural skills and therefore render them more effective as leaders in contemporary and future organisations.

5.6. Directions for future Research

This study could be classified as an 'exploratory research study' because modest work has been done on the CPE construct, as well as the interrelations of leadership with other constructs such as EI, OCB, and visioning ability. The field for future work in this area is therefore wide open.

Future research directions could include, among others;

- Longitudinal studies within the same sample to study the effect of time and change on the behavioural profiles of leaders.

- Replication of this kind of study in other cultural settings, such as the USA and the Far East – to test the generalisability of the CPE construct and to verify the portability of the CPE measurement scale.
- Further work to refine the concept of clustering leadership groups according to leaders' behavioural styles, and relating that to other leadership theories. This notion is in its infancy but could have valuable implications for leadership development if one could statistically prove the validity of such findings. It will also make the CPE model an integrative theory on leadership behaviour – encompassing many of the well-known theories into one concise model.
- The CPE model needs to be studied in relation to various organisational outcomes in other cultural settings as well. Outcomes such as, leader effectiveness, organisational success criteria, cultural change, etc. to determine which leader behaviour profile renders better results under certain circumstances.

5.7. Limitations of this Study

Important limitations of this study are the following:

- The sample was, due to budgetary constraints, drawn from one large group of companies in South Africa and not from a variety of organisations. Clearly the findings can not be generalised across the whole country or to other organisational settings.
- The method used to gather the data was mailed questionnaires that needed to be filled in by respondents. This could clearly lead to mono-method bias in the responses gathered

- The questionnaires also consisted out of four different scales which made the total questionnaire somewhat long. This could have caused some response set in the responses received.
- Due to the fact that a large sample was necessary to perform a good cluster analysis, the results from Confirmatory Factor Analysis are difficult to interpret. Future studies could limit sample sizes for CFA purposes and aggregate samples for enhanced Cluster Analyses.