ABSTRACT

Given the importance of the agricultural sector in the South African economy and the emerging importance of game farming, long term sustainability is critical. One way of achieving long term sustainability of game ranches in South Africa is to ensure the effective and efficient management of these ranches. Effective and efficient management is largely determined by managerial competencies and leadership styles. The problem statement addressed in this research can be stated as follows: “Which management competencies and leadership styles are required to assist game ranch managers/owners in the effective and efficient management of their game ranches in the Eastern Cape, South Africa?”

The purpose of this study is to development a framework to assess the management competencies and leadership styles needed by game ranch managers/owners in order to enhance the game ranch’s prospects of survival, continuity and success. To achieve this, the objectives are to identify whether there is a significant relationship between the:

- current and ideal (future required) managerial competencies;
- current managerial competencies, transactional and transformational leadership styles; and
- managerial competencies and selected biographical variables.

Data was collected using a five-point Likert scale questionnaire. The data was analyzed using Statistica V.8. Sample T-testing, Cross Tabulations (Chi Square) and Analysis of Variance (ANOVA) tests were used to assess the research objectives. The reliability and validity the research instrument were also tested by using Cronbach Reliability Analysis and Confirmatory Factor Analyses. It was found that there was a significant difference between current and ideal managerial competencies and that teamwork, planning and administration as well as strategic action needed to be improved. Findings suggest that a strategic relationship exist between gender, current teamwork and self management competencies. Another strategic relationship was found between the number of employees and current strategic action.

1 INTRODUCTION

Worldwide the sharp increase in the economic value of wildlife to proportions beyond reasonable expectation, is often described as a phenomenon that is “at once encouraging and
Game ranching is generally recognised as one of the most important economic activities in the Eastern Cape Province and in the greater parts of South Africa. It has earned itself the position of arguably the fastest growing enterprise in South Africa (Falkena, 2003: 7; Van Niekerk, 2003: 1; Van Niekerk, 2006). There are nearly 5000 game ranches and more than 4000 mixed game and livestock farms in South Africa covering some 13 percent of the country’s total land area. In contrast only three percent of the country is covered by National parks (Falkena, 2003: i).

Historically, game farming was considered complimentary to stock farming. Much emphasis was placed on fresh meat production and by-products such as biltong, skins and leather (Big Five, 2007). Many farmers gradually began to realise that game ranching was economically a more sustainable and viable agricultural enterprise. In its widest sense, game ranching implies all activities on “a large fenced or unfenced privately owned or communal area on which game is extensively managed” for monetary gain through direct utilisation of wildlife products such as hunting, viewing, cropping, live game sales or any other recognised and related systems of management and control (Bothma, 2002: 23).

In the late 1980’s an offshoot from main stream game farming began as many established game farmers began to realise the opportunity to venture into ecotourism. This came about due to a number of issues that affected the game farmers at the time. Firstly, the deregulation of the farming sector, this worldwide trend backed by organisations such as the World Trade Organisation (WTO) was followed by the South African government and as a result, the real input and output prices of the agricultural sector adjusted structurally (Big Five, 2007). Secondly, after full democracy in 1994, there was a great loss of political leverage of the agricultural sector which resulted in the disappearance of many agricultural subsidies and import duties (Big Five, 2007).

Falkena (2003: 7) argues that conversion to game ranching offers some of the answers to the increasing economic risks associated with livestock farming in marginally profitable and low rainfall areas – areas that teemed with wildlife in previous centuries. The superior adaptability of wildlife to the African climate, increasing monetary values being placed on wildlife and the potential for increased earnings of foreign exchange, have caused the numbers of wildlife to dramatically increase. The relatively unregulated nature of the game ranching industry has created the opportunity for operators and game ranchers to develop their own particular brand of enterprises, creating a major challenge with regard to positioning in an ever-changing environment (Van Niekerk, 2003:1). In a sense the achievement of optimum economic and production efficiency is considered essential to ensure sustainability in terms of production, commercial development and social acceptance of this relatively new agricultural enterprise in South Africa (Hoffman, Muller, Schutte & Crafford, 2004: 123).

Although this situation offers significant opportunities and returns, a great deal of responsibility and risk exists to ensure that all operating systems are functioning efficiently, thereby placing a big premium on game ranch management competencies (Lategan, 2007: 3). Dynamic managers are essential to any organization’s overall success, regardless whether it is a small start-up business, game ranch or a global organization (Hellriegel, Jackson, Slocum, Staude, Amos, Klopper, Louw & Oosthuizen, 2000). Considering the complex and
diverse activities of the game farming industry, managers are needed to ensure that game ranches are run effectively and efficiently. In particular, these managers must possess certain managerial competencies and be aware of which competencies they already possess and whether those match the competencies needed to be successful (Wild, 1994). In addition to these managerial competencies, success also depends on the leadership styles that the manager possesses.

This study proposes the development of a framework which can be used to assess the management competencies and leadership styles needed by game ranch managers and owners in order to enhance the game ranch’s prospects of survival, continuity and success. Given the importance of game ranch management in the Eastern Cape Province in South Africa (Van Niekerk, 2003:113), a pilot study sample was selected from game ranches in the Eastern Cape Province in order to refine a research instrument, contributing towards the development of a framework for assessing managerial competency and leadership styles for game ranch management.

The problem statement is stated as: “Which managerial competencies and leadership styles are required to assist game ranch managers/owners in the effective and efficient management of game ranches in the Eastern Cape?”

2 OPERATIONALISATION OF VARIABLES

2.1 Managerial Competencies

Managerial competencies are defined as sets of knowledge, skills, behaviours and attitudes that a person needs in order to be effective in a wide range of managerial jobs and various types of organisations (Hellriegel, Jackson, Slocum, Staude, Amos, Klopper, Louw and Oosthuizen, 2004:5). Likewise, game ranch managers need to identify their own competencies to be able to understand whether they possess the relevant and adequate competency levels.

Table 1 presents the six key competencies particularly important to be successful in game ranch management (Hellriegel et al, 2004; George and Jones, 2008; Levenson, Van der Stede and Cohen, 2006).
Table 1. Management Competencies for successful game ranch management

<table>
<thead>
<tr>
<th>Management Competencies</th>
<th>Definition</th>
<th>Dimensions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Competency</td>
<td>Effective transfer and exchange of information that leads to a better understanding between the manager and others.</td>
<td>- Informal communication; - Formal communication; - Negotiation.</td>
<td>e.g., De Lange, 1998; George and Jones, 2008; Hellriegel et al, 2004; Katz, 1974</td>
</tr>
<tr>
<td>Planning and Administration Competency</td>
<td>Manager decides what tasks need to be done, determines how they can be done, allocates resources to enable them to be done, and then monitors the progress to ensure that they are done.</td>
<td>- Information gathering, analysis and problem solving; - Planning and organising projects; - Time management; - Budgeting and financial management.</td>
<td>e.g., Badawy, 1982; George and Jones, 2008; Hellriegel et al, 2004</td>
</tr>
<tr>
<td>Strategic Action Competency</td>
<td>Manager understands the overall mission and values of the organisation and ensures that his/her actions and those of his/her employees are aligned with them.</td>
<td>- Understanding the industry; - Understanding the organization; - Taking strategic actions.</td>
<td>e.g., Boyatis, 1982; George and Jones, 2008; Hellriegel et al, 2004</td>
</tr>
<tr>
<td>Teamwork Competency</td>
<td>Accomplishing tasks through small groups of people who are collectively responsible and whose work is interdependent.</td>
<td>- Designing teams properly; - Creating a supportive team environment; - Managing team dynamics appropriately.</td>
<td>e.g., De Lange, 1998; George and Jones, 2008; Hellriegel et al, 2004; Katz, 1974; Mintzberg, 1975</td>
</tr>
<tr>
<td>Self-Management Competency</td>
<td>Manager takes responsibility to solve problems and s/he is able to motivate himself/herself when support is lacking.</td>
<td>- Integrity and ethical conduct; - Personal drive and resilience; - Balancing work/life issues; - Self-awareness and development.</td>
<td>e.g., De Lange, 1998; George and Jones, 2008; Hellriegel et al, 2004</td>
</tr>
</tbody>
</table>

These managerial competencies are transferable from one organisation to another (Hellriegel et al., 2004). The type of competencies possessed by the manager will then influence his/her style of leadership.

2.2 Leadership Styles

Leadership is an interpersonal process through which one person (i.e., the leader) is able to influence the activities of individuals or groups (i.e., the followers) towards the attainment of given objectives within a particular situation by means of communication (Covey, 2007; Mullins, 1999; Schilbach, 1983 in Gerber, Nel and Van Dyk, 1996: 343). Leadership styles have evolved to become more democratic (Biddle, 2005; Johnson, 1995). In this regard, two
views of leadership are considered: transactional and transformational leadership (Burns, 1978). The former relates to the task-orientated approach to competencies, which focuses primarily on the management skills component of management competencies (i.e., overt behaviour required for effective job performance, as determined by the nature of managerial work, leading to a specific outcome) (Louw, 1999: 95). The latter relates to the person-centred and change approaches to competencies, incorporating meta-competencies (i.e., competencies inferred from individual covert behaviour) (Louw, 1999: 95).

2.2.1 Transactional Leadership

Bass and Avolio (1997) describe the transactional leadership as being based on traditional bureaucratic authority and legitimacy. Managers applying this style are able to entice subordinates to perform and achieve desired outcomes by promising them contingent rewards, such as recognition and pay increases (Bass, 1990; Bass and Avolio, 2000; Mester, Visser and Roodt, 2003; Senior, 1997) or corrective actions when performances deviate from standards (Erasmus and Van Dyk, 2003; Senior, 1997). These leaders define and communicate the work that must be done by their followers, how it has to be done, and the reward their followers will receive for completing these objectives (Avolio, Waldman and Yammarino, 1991; Meyer and Botha, 2000).

Transactional leaders are suited to a more stable business environment with little competition (Bass, Avolio, Jung, and Berson, 2003; Tichy and Devanna, 1986). However, the current competitive business environment requires a new style of leadership in order to ensure the organisation or the game ranch’s survival and performance, namely transformational leadership (Barbuto, 2005; Bass, 1985; Brand, Heyl and Maritz, 2000).

2.2.2 Transformational Leadership

Burns (1978) defined transformational leadership as, “the process of pursuing collective goals through the mutual tapping of leaders and followers’ motive bases towards the achievement of the intended change”. Transformational leadership concerns the transformation of employees’ beliefs, value, need and capabilities (Brand et al., 2000). In other words, transformational managers encourage subordinates to adopt the organisational vision as their own (Cacioppe, 1997).

They have the ability to change the way their employees think and then act (Louw and Venter, 2006). Transformational leadership theory is seen to be an extension of transactional leadership (Bass and Aviolo, 1994; Pruijn and Boucher, 1994). However, these two leadership styles are not mutually exclusive, as a leader may display a varying degree of transactional or transformational leadership (Bass, 1997; Ristow, 1998) and managerial competencies.

3 PURPOSE OF THE STUDY

The main purpose of this study is development a framework for assessing the management competencies and leadership styles needed by game ranch managers and/or owners. This is essential in order to enhance the prospects of game ranches to survive, grow and succeed.

To achieve this, a pilot-study was undertaken to explore which management competencies and leadership styles are required to assist game ranch managers and/or owners in the
effective and efficient management of their game ranches in the Eastern Cape, South Africa. Consequently, to achieve the purpose of this study, the following objective was stated:

To identify the significance of the relationship between:

- current and ideal (future required) managerial competencies;
- current managerial competencies, transactional and transformational leadership styles;
- managerial competencies and selected biographical variables, namely gender, experience and number of employees.

4 RESEARCH METHODOLOGY

The research questionnaire consisted of two sections. Section A consisted of 12 closed questions canvassing biographical data. These included questions on management level, experience, age, gender, race, level of education and more in depth questions like ownership of the game reserve, number employees, size of game reserve, services provided, number of visitors and annual turnover.

Section B focused on managerial competencies (adapted from Hellriegel, Jackson and Slocum, 2002:32) and leadership styles. A 5-point Likert scale was used to measure the managerial competencies (Leedy and Ormrod, 2005: 26). The statements were linked to a response continuum of 1 to 5, where 1 = Poor and 5 = Excellent. The current (i.e. actual) level of competencies were recorded in column A and the relative importance of competencies that managers deemed to be necessary for managing the game ranch for the next ten years (i.e. ideal) where recorded in column B.

This section B consisted of 31 questions aimed at addressing the competency dimension of the game ranch managers/owners and 10 questions which aimed at gathering information on the transactional and transformational leadership characteristics of the respondents.

The research questionnaire was administered to randomly selected managers/owners at 100 different game ranches in the Eastern Cape Province to ensure an accurate sample of the entire population. The questionnaires were distributed by means of personal delivery and collection by fax machine, mail or email. The required response time was three weeks.

Respondents were encouraged to complete the questionnaire and reminders were also sent out to ensure timely responses. Despite efforts to collect as much data as possible, 40 questionnaires were successfully returned, giving a response rate of 40 per cent. The data collected was found to be sufficient for inferential statistics to be carried out as a pilot study (Johnson and Wichern 1998).

The data was analyzed using Statistica V.8. Sample T-testing, Cross Tabulations (Chi Square) and Analysis of Variance (ANOVA) tests were used to assess the research objectives. The reliability and validity the research instrument were also tested by using Cronbach Reliability Analysis and Confirmatory Factor Analysis.

In this pilot study, Cronbach alpha reliability coefficients were used to assess the internal consistency of the all the construct scales, applying the cut-off point of 0.60. According to Hair, Anderson, Tatham and Black (1998:449) 0.70 is the generally acceptable lower limit for Cronbach alpha coefficients, however in the case of exploratory research, as is the case in this pilot study, it may be lowered to 0.60.
Table 2 shows that half of the constructs are reliable ($\alpha > 0.6$), namely Transactional Leadership ($\alpha = 0.715$), Teamwork Current ($\alpha = 0.667$), Teamwork Ideal ($\alpha = 0.623$), Strategic Action Ideal ($\alpha = 0.620$), Self Management Current ($\alpha = 0.611$) and Self Management Ideal ($\alpha = 0.707$).

Table 2. Cronbach Alpha Coefficients for managerial competencies and leadership styles

<table>
<thead>
<tr>
<th>Leadership</th>
<th>Communication</th>
<th>Planning and Admin</th>
<th>Teamwork</th>
<th>Strategic Action</th>
<th>Self Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transactional</td>
<td>Transformation</td>
<td>Current</td>
<td>Ideal</td>
<td>Current</td>
<td>Ideal</td>
</tr>
<tr>
<td>Cronbach</td>
<td>0.715</td>
<td>0.490</td>
<td>0.487</td>
<td>0.504</td>
<td>0.509</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ideal</td>
<td>0.552</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.667</td>
<td>0.623</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.544</td>
<td>0.620</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.611</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.707</td>
</tr>
</tbody>
</table>

* Exhibit construct validity

These findings contribute towards refining the research instrument for future research and enable the development of a framework for assessing managerial competencies and leadership styles of game ranch managers/owners.

In this regard, and to accomplish the objectives of this research, the relationships between the managerial competency constructs, leadership styles and selected biographical variables (gender, experience and number of employees) are tested statistically in order to provide a preliminary idea of the managerial competency and leadership profile trends in game ranch management in the Eastern Cape Province of South Africa.

In terms of the validity, only Current Teamwork and Ideal Self Management competencies exhibited construct validity as their Confirmatory Factor Analyses (CFA) parameters loaded (factor loadings of greater than 0.4 with corresponding $T$-statistics greater than 2.5) significantly onto their respective factors at the 95 percent confidence level.

5 EMPIRICAL FINDINGS

5.1 Biographical variables of respondents

A frequency analysis the biographical characteristics of the respondents are reported in Table 3.
Table 3 indicates that 37.5 percent of the respondents are owner/managers of the game ranches. The majority of managers/owners (47.5 percent) had 16 years or more experience in their current positions. In this study, 100 percent of the respondents were from the white population with 15 percent female.

Game ranches in the Eastern Cape generally seemed to employ relatively few employees with 67.5 percent of respondents indicating they employ between 0 and 15 employees on the game ranch and only 10 percent of respondents employing over 40 employees. Most of the managers (72.5 percent) had post-matriculation qualifications.

5.2 Managerial competency profile and profile gap

A t-test was run to identify if the difference between each current and ideal competency was statistically significant at the 95 per cent confidence level (p < 0.05). In doing so the “gap” between current and ideal managerial competencies were established. This “gap” is represented by the current managerial competency score minus the ideal managerial competency score as shown in Table 4.
Table 4. T-test between current and ideal management competencies

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean current</th>
<th>Mean ideal</th>
<th>Diff</th>
<th>T-Value</th>
<th>Df</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>3.605</td>
<td>4.255</td>
<td>-0.650</td>
<td>-7.187</td>
<td>78</td>
<td>0.000</td>
</tr>
<tr>
<td>Planning and Admin</td>
<td>3.716</td>
<td>4.554</td>
<td>-0.837</td>
<td>-9.449</td>
<td>78</td>
<td>0.000</td>
</tr>
<tr>
<td>Team Work</td>
<td>3.460</td>
<td>4.335</td>
<td>-0.875</td>
<td>-7.977</td>
<td>78</td>
<td>0.000</td>
</tr>
<tr>
<td>Strategic action</td>
<td>3.575</td>
<td>4.410</td>
<td>-0.835</td>
<td>-8.024</td>
<td>78</td>
<td>0.000</td>
</tr>
<tr>
<td>Self Management</td>
<td>4.029</td>
<td>4.483</td>
<td>-0.454</td>
<td>-5.293</td>
<td>78</td>
<td>0.000</td>
</tr>
</tbody>
</table>

From Table 4 it is evident that the relative importance rating of the most well developed current managerial competencies, in order of importance, included self management, planning and administration, communication, strategic action and teamwork.

On the other hand, the relative importance ratings of the ideal management competencies, in order of importance, included planning and administration, self management, strategic action, teamwork and communication. The findings, displayed in Table 4, also indicate that there is a statistically significant difference, at the 95 percent confidence level, between all current and ideal managerial competencies, indicating the need for development in all the competencies.

5.3 Relationship between managerial competencies and leadership styles

Even though it was not possible to establish a statistically significant relationship between managerial competencies and leadership styles at the 95 percent confidence level, there is an indication that both transactional and transformational leadership styles are dependent on the current managerial competencies and that transformational leadership skills needed to be improved. Based on this finding, the relationship between management competencies and leadership styles requires further analyses.

5.4 Relationship between the current management competency constructs and selected biographical variables

Even though the relationship between all the current management competencies and selected biographical variables were analysed, for the sake of brevity only the significant relationships are shown in Table 5.

Table 5. Relationship between current management competency constructs and selected biographical variables.

<table>
<thead>
<tr>
<th>RELATIONSHIPS</th>
<th>Cross Tabulation</th>
<th>ANOVA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Chi-Square</td>
<td>p-value</td>
</tr>
<tr>
<td>Current Teamwork Competency and Gender (Reliable</td>
<td>6.8534</td>
<td>0.0325</td>
</tr>
<tr>
<td>and valid)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Self Management and Gender (Reliable but</td>
<td>2.8045</td>
<td>0.24605</td>
</tr>
<tr>
<td>not valid)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Strategic Action Competency and Number of</td>
<td>4.8418</td>
<td>0.56778</td>
</tr>
<tr>
<td>employees (Not reliable)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
From Table 5 it is evident that significant relationships exist between gender and Current Teamwork as well as Self Management competencies. It must be noted, however, that even though there are significant relationships between these competencies and gender, it has to be cautioned that this finding could be biased because the number of female respondents were in the minority, influencing the validity. Even though most of the relationships were not reliable, it points to the importance of further investigation based on a larger sample. In all instances the female respondents indicated that their competencies were more “under developed” than those of the male respondents.

The only other significant relationship was between Current Strategic Action Competency and the number of employees at the 95 percent confidence level. However, this construct was not reliable ($\alpha \leq 0.6$). It can, however, be inferred that the greater the number of employees, the greater the need to have well developed strategic action competencies.

6 CONCLUSIONS AND RECOMMENDATIONS

This pilot-study identified that self management was the most developed current competency while team work was the least developed current competency. In other words, many managers of the game ranches industry are self-motivated and responsible in their work. Conversely, they show weak communication and teamwork skills.

This could indicate that managers conceive their work as mostly individualistic. They are the leaders and their employees have to follow their decision. This behaviour is characteristic of a transactional leadership. However, this study failed to establish a statistically significant link between competencies and leadership due to lack of consistency of the leadership style constructs.

Despite this, there is an indication, even though a statistically weak relationship, that both transactional and transformational leadership styles are dependent on the current managerial competencies and that transformational leadership skills needed to be improved. Further research will need to assess the strength of the relationship between managerial competencies and transactional and transformational leadership styles. Even though this research instrument, adapted from Hellriegel, et al. (2002) has previously been tested in the United States of America, the question could be posed as to whether the instrument should be adapted for application in South Africa and more specifically within the context of the game ranch industry.

The gap analysis indicated that there was a significant difference between all current and ideal managerial competencies. Specifically, it was found that managers were aware of their lack of team work competency. They indicated that this dimension should develop drastically overtime (0.875). Other managerial competencies that required development include planning and administration (0.837) as well as strategic action (0.835).

This is supported by the respondents indicating that the planning and administration competency was considered as the most important competency in the future. Indeed, because of the growth of the number of tourists visiting the game ranches and the importance of this industry to the economic prosperity of the Eastern Cape Province, and South Africa, in general, sound planning and administrative competencies would be key to the success of this industry. Thus, there seems to be awareness amongst the respondents that they need to
develop certain managerial competencies further. For instance, the team work can be developed through workshops and team building sessions.

Significant relationships exist between gender and Current Teamwork as well as Self Management competencies. This indicates the importance of further investigation based on a larger sample. In all instances the female respondents indicated that their competencies were more “under developed” than those of the male respondents. The only other significant relationship was between Current Strategic Action Competency and the number of employees. This suggests that increased numbers of employees increase the need for well developed strategic action competencies.

Finally it can be concluded that a framework towards assessing managerial competencies has been established but that a framework assessing transactional and transformational leadership styles needs further refinement.

Based on the findings of this research, the following recommendations are made for future research:

1. Refinement and contextualisation of the research instruments to the game ranch industry.
2. Investigate the influence of biographical variables such as gender, the number of employees employed and managerial experience on managerial competencies and leadership styles.
3. Investigate the possibilities of design managerial training programmes to develop the competencies as highlighted by the “gap” analysis.

Based on the findings of this pilot study, the following hypotheses are proposed for further investigation:

\[
H_0^1: \text{There is no statistically significant difference between the current managerial competencies and the ideal managerial competencies.}
\]

\[
H_0^2: \text{There is no statistically significant relationship between current managerial competencies and transactional leadership style.}
\]

\[
H_0^3: \text{There is no statistically significant relationship between current managerial competencies and transformational leadership style.}
\]

\[
H_0^4: \text{There is no statistically significant relationship between selected biographical variables, such as gender, experience and number of employees and transactional leadership style.}
\]

\[
H_0^5: \text{There is no statistically significant relationship between selected biographical variables, such as gender, experience and number of employees and transformational leadership style.}
\]

REFERENCES


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