Australian Public Sector Executive Leadership Roles: Now and Then

Alison Wyse*
*School of Management, University of South Australia, Adelaide, Australia
Email: pogo@tpg.com.au

Tricia Vilkinas
School of Management, University of South Australia, Adelaide, Australia
Email: tricia.vilkinas@unisa.edu.au
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ABSTRACT  This study examined the current and future executive leadership role preferences of a sample of public sector executive leaders in the Australian Public Service (APS). The competing values framework (CVF) was used as the basis of this comparison of the four executive leadership roles – vision setter, motivator, analyzer and task master – tapped by the 16 role items. The public sector executive leaders completed the instrument via a 360 degree process. The data were analysed using mixed effects, repeat measures MANOVAs. Findings from the analysis identified that the task master and analyzer roles were the most commonly displayed current roles, whereas the analyzer and motivator roles were seen as most important for the future.

Preferred Stream: Public Sector and Non-Profit, Leadership & Governance
Keywords: strategic leadership, public sector & community leadership, new public management, job and work design

INTRODUCTION

The roles of public sector executive leaders in the Australian Public Sector (APS) have not been the focus of previous research, as evidenced by the dearth of published research on this topic. This lack of research attention to public sector leadership has been previously noted (Van Wart, 2003). In contrast, the public administration environment has changed significantly, with substantial new research being available (e.g.: Groot, 2008, Lapsley, 2008 Poole et al, 2006).

The New Public Management paradigm has brought wide-reaching changes to most western public sectors. Within the APS the reform agenda has been ongoing for the last 30 years, covering structural and cultural reforms, workforce planning, culture and engagement challenges. While Australia may have been seen as a leader in public sector reform over this period, this may no longer be the case (Briggs, 2005). The role and responsibility of executive leaders in delivering organisational outcomes, and maintaining the organisation’s status and reputation is undisputed. What it takes senior executives to deliver on this commitment is not as clear. This paper is exploratory in nature, and focusses on identifying and comparing current and future role demands perceived by the senior executive leadership cadre within the APS. The research questions of interest are: What leadership roles do senior Australian Public Servant Executives display and consider important for the future?
LITERATURE REVIEW

To date, little research has been devoted exclusively to executive leadership, notwithstanding findings 20 or more years ago that leadership theories developed at lower levels do not necessarily apply to the executive levels (Day & Lord, 1988; Katz & Kahn, 1978). Most research has focused on executive leadership and its organisation performance impacts at a macro level (Hart & Quinn, 1993; Hogan & Kaiser, 2005; Skipton & Maynard, 2003) or the skills required of an effective executive rather than exploring aspects of the executive role per se.

Discrete studies examining specific roles, like public sector executives (Podger, 2004), the military (Wong, Bliese, & McGurk, 2003), or at the executive level more generally (Hambrick, Finkelstein, & Mooney, 2005a; Hart & Quinn, 1993; Hooijberg & Choi, 2000; Jaques & Clement, 1991; Javidan & Dastmalchian, 1993) have mainly provided descriptions of tasks and responsibilities.

What do executives do?

Key contributors to the identification of comprehensive executive leadership roles have typically focussed their research around what executives do. This has been used as a basis for identifying their organisational impact, skills, capabilities, competencies required for effective performance eg: (Cannella, 2001; Hambrick et al., 2005a; Hambrick, Finkelstein, & Mooney, 2005b; Kotter, 1982, 1990; Mintzberg, 1973, 1975). The work of Mintzberg has, to varying degrees, influenced, subsequent researchers. Mintzberg’s original research (1973) was based on his observations of five CEOs, from which he generalised the ten roles and three groupings that form the basis of executive leadership role typologies. He identified the most significant feature of the ten roles was their inseparability – that they formed a gestalt, or integrated whole.

Very little research has focussed on executive leadership roles, the multiplicity of these roles, or their conflicting requirements (Ahmed, 2005; Sheard & Kakabadse, 2005). Similarly, relatively little attention has been given to the re-examination of traditional management roles, despite recent changes.
in organisations (Pearson & Chatterjee, 2003; Tengblad, 2006). Efforts to refine executive leadership roles (Bartlett & Ghoshal, 1994, 1995; Hout & Carter, 1995) emphasise the conflicting and contradictory aspects of roles, emphasising the need for rapid and appropriate actions coupled with careful and considered strategy. A more comprehensive framework for conceptualising the conflicting and contradictory nature of the executive leadership role is the Competing Values Framework (CVF). The CVF provides a balanced representation of the four fundamental aspects of executive leadership in delivering organisational effectiveness by combining four major management models, the diversity of their focus and their complementarity in providing an integrative model.

**The Competing Values Framework (CVF)**

This framework has two perpendicular axes that create four quadrants. The resultant four executive leadership roles provide an integrated view of the complex nature of the executive leader’s role, constantly challenged to keep all roles in a dynamic balance in response to the particular competing demands of the organisation. These four roles are depicted graphically below in Figure 1

![Figure 1](image-url)

Each of the four roles defined by the quadrants has a specific focus and domain. The vision setter is focused on innovation - the future positioning of the organisation in terms of strategic direction, products and service. The motivator addresses commitment - development and motivation of people and the maintenance of a distinctive identity and value system. The analyzer addresses efficiency - management of ongoing operations and the critical evaluation of alternative projects and programs. The task master is concerned with performance - execution of plans and the achievement of results in the market place.

**PURPOSE**

The purpose of this study was to explore changes from the present to the future in perceptions of Australian Public Service (APS) executive leadership roles. This comparison was based on assessments by role holders, their peers, bosses and subordinates, in the light of the changing public sector environment.
METHODOLOGY

This research was limited to members of the APS Senior Executive Service (SES), their immediate subordinates, their peers and their bosses, using a 360 degree approach. A sample of 300 potential respondents was approached to complete a questionnaire to explore their perceptions of current skill demands and those likely for the future using the competing values framework role items developed by Hart and Quinn (1993).

The sample

A probably proportional to size sample was drawn from 25 APS departments with more than 20 SES staff. Of the 300 questionnaires mailed out, 220 were returned, giving a response rate of 73 percent.

The population studied

The sample of respondents was representative of the parent APS population, with most respondents (77%) being male; at the SES band 1 level (40%); and having only one layer of management between them and the Chief Executive Officer (CEO) (34%). The majority (64%) were graduates, with an additional 16 percent holding a master’s degree or doctorate. While most respondents (52%) had been in the APS for more than 20 years, and a significant proportion (23%) had been in the SES for more than 10 years. Most respondents (65%) had been in their current roles for 2 years or less. Approximately one third (32%) indicated they had some private sector experience.

The questionnaire

Four separate questionnaires were developed and colour-coded for each of the members of the 360-degree set. However, the content of all questionnaires was identical, with only minor rewording of instructions to ensure that the assessment of current role demands related to the respondent. The Hart & Quinn (1993) 16 executive leadership role items (see Appendix A) were used, with minor modifications. Respondents were asked to assess each item against a 6-point -type scale (see Appendix A) anchored by from never (1) and always (6). A 6-point scale was used to avoid the response option
of the mid-point serving as the ambivalent, indifferent, or uncertain option (Hodge & Gillespie, 2003). These 16 executive leadership role items were used to measure both the focal person’s current role as well as perceived general APS executive leadership demands for the future. These role items were originally designed to tap the four executive leadership roles: Vision Setter, Motivator, Analyzer and Task Master, with four questions designed to specifically tap each of these roles. In addition to the Hart and Quinn items, an ‘Other’ option was provided to capture role aspects not covered by the items offered. The use of the Hart & Quinn executive leadership role items as a measure of both current and future leadership roles provided items with reported validity and reliability.

DATA ANALYSIS

A mixed-effects, repeated measures multivariate analysis of variance (MANOVA) was performed separately for both current and future roles. Prior to undertaking the MANOVA, correlations between all of the leadership roles, for each of the rater populations considered, were examined to ensure at least moderate correlation.

For current roles, total respondents, correlations between most roles were significant at $p=0.01$ for all role combinations for the different rater sub-groups. For the task master role low and insignificant correlations with the other three roles occurred for the focal person (self). The task master also did not correlate with the vision setter for Boss and staff in the task master and motivator for self. Given that the majority of correlations between current roles were significant for raters, the MANOVA was viable.

For future roles, total respondents, correlations between roles were significant at $p<0.01$ for all role combinations. Correlations between the motivator and vision setter roles were significant at $p<0.01$ for all role combinations. Similar results are evident for the analyzer, vision setter and motivator roles, with all correlations being significant at $p<0.01$ for all role combinations for all raters except the analyzer and vision setter role for peers, which was significant at $p<0.05$. Non-significant correlations

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1 Details of validity and reliability are available from the authors.
occurred between three of the four roles for the focal person and for peers. For the task master role, low and non-significant correlations occurred for the focal person (self) with both the vision setter and motivator roles. For peers the correlation between the task master and motivator roles was also low and non-significant. However, the majority of correlations were moderate in size and significant for raters, indicating viability of the proposed MANOVA.

RESULTS

Current executive leadership role preferences

Descriptive statistics for current role scores are shown in table 1, below. All raters, except subordinate staff, identified the task master role as the most frequently displayed role. Alpha coefficients indicate adequate internal consistency for all roles except vision setter for exploratory research of this nature.

INSERT TABLE 1 HERE

The MANOVA was performed with two between-subjects factors and one within-subjects factor with four levels (leadership role – vision setter, motivator, analyzer, task master). The between-subjects factors were ‘rater’, with four levels (boss, self, peer and staff); and ‘gender’, with two levels (male or female). The overall test for the multivariate effect was significant – $F (3, 522) = 52.146, p < .001$. The results are provided in Table 2.

INSERT TABLE 2 HERE

One significant main effect resulted: leadership role, such that there were differences between each of the observed roles (ie vision setter, motivator, analyzer and task master). Post hoc tests were not significant. This may be due to post hoc tests not taking into account correlation between dependent variables. The main effect for gender indicates there was no significant difference between the role scores by males or females. There was also a non-significant main effect for rater indicating that there was no significant difference between the role scores by rater.

Using aggregated data for the leadership roles, the task master role was scored highest (mean=4.30, sd=.67), followed by the analyzer (mean=4.28, sd=.75), motivator (mean =4.01, sd=.78) and vision setter (mean=3.53, sd=.69). Pairwise comparisons between each of the leadership roles indicated significant mean differences at the .05 level for all role combinations, excluding the analyzer and task
master. These are presented in Table 3 below. This means that the task master and analyzer roles are not significantly different, and will tend to be rated similarly by respondents.

**INSERT TABLE 3 HERE**

There was one significant two-way interaction between leadership role and rater – F(9,522)=1.904, p=.049. The vision setter role was rated significantly lower than all other roles for bosses, respondent (self) and staff. Both the vision setter and motivator roles are significantly lower than other roles for peers. Respondent current role differentiation could be summarised as: task master > analyzer > motivator > vision setter.

The two-way interactions between rater and gender, leadership role and gender were not significant, nor were the three-way interaction of leadership role, rater and gender.

**Executive leadership roles important for the future**

Descriptive statistics for future role scores are shown in table 4, below. All raters identified the analyzer role as being the most important role for the future. Alpha coefficients indicate adequate to good internal consistency for exploratory research of this nature.

**INSERT TABLE 4 HERE**

A MANOVA was performed with two between-subjects factors and one within-subjects factor with four levels (leadership role – vision setter, motivator, analyzer, task master). The between-subjects factors were ‘rater’, with four levels (boss, self, peer and staff); and ‘gender’, with two levels (male or female). The results showed a main effect for leadership role only. The non-significant main effect of gender and rater indicates that there was no significant difference between the roles scores by males and females and between raters. There were no significant two-way interactions and the three-way interaction was also non-significant. Results are presented below in Table 5.

**INSERT TABLE 5 HERE**

The overall test for the multivariate effect of future leadership roles was significant – F (3,546) = 26.101, p < .000. However, post hoc tests were not significant. This may be due to post hoc tests not taking into account correlations between dependent variables.
Of all the leadership roles, the analyzer role was scored highest (mean=4.86, SD=.67), followed by the motivator (mean=4.71, SD=.66), task master (mean=4.36, SD=.76) and vision setter (mean=4.23, SD=.71) lowest. Pairwise comparisons between leadership roles indicated several significant mean differences at the .05 level, indicating that respondents were able to differentiate between these roles. These results are presented in Table 6 below. With no significant mean difference between the vision setter and task master roles respondents did not differentiate between these roles in their assessment of future role demands. Respondent future role differentiation could be summarised as:
Analyzer > Motivator > Task master = Vision setter.

DISCUSSION
Currently displayed roles were biased to the task master and analyzer roles, by all respondents, with the vision setter role being substantially the least displayed role. This is similar to results reported by Hart and Quinn (1993). As Hart and Quinn (1993) did not use multiple rater assessments of roles, direct comparison with their findings was not possible. However recent research (Hooijberg & Choi, 2000) into 360-degree feedback and measurement equivalence lent support to the findings from this study in terms of different rater scores (Diefendorff, Silverman, & Greguras, 2005; Facteau & Craig, 2001; Greguras, 2005)
All raters indicated that the vision setter role was the least displayed role. Similarly, all raters were in agreement that the motivator role was the next least displayed role except peers, who said there was no difference. This lack of difference between raters did not accord with previously reported results on rater agreement, either alignment between bosses and staff, or alignment between bosses and peers (Ostroff, Atwater & Feinberg 2004). Reasons for this may include all raters (with the possible exception of subordinates) were members of the SES, and therefore likely to have attended similar training and awareness session; and the underlying concept of the SES as a cadre, emphasizing the
similarities rather than differences between jobs, skills required and measures of successful performance in the role.

There were no significant differences in the current roles displayed by males and female executives. These results support the earlier work of Vilkinas (2000) for Australian managers. Previously she reported that it was the level of effectiveness and not gender that influences the perceptions of Australian managers by their significant others.

For currently displayed roles, the significance of the results of this study is threefold.

- gender does not seem to influence the perception of importance of role components
- peers seem to have a different perception of the importance of each of the leadership roles than other raters. This is reflected in the peer subgroup consistently rating the importance of role components lower than other raters.
- the apparent contrast between the perceptions of the focal person and a peer, when by definition, peers occupy similar roles.

A number of reasons for these differences have previously been reported, including different notions of what effective behaviour looks like, differences in the opportunities raters have to observe the behaviour, and that not all raters can observe the same behaviour – due in part to the different role relationships between raters. For this study, these differences could indicate inflated self-rating – supported by focal persons’ rating being in aggregate larger than other raters. Alternatively, it could indicate peer ratings being a comparison between their own role and that of the focal person, rather than an objective assessment of the focal persons’ role.

The same role items and assessment process used to identify the executive leadership roles currently displayed by the focal person was used to identify which roles were considered important for the future, with one difference: all respondents, regardless of level (ie boss, peer, staff or focal person) were assessing a hypothetical future role rather than a person whose behaviour in the role was known to them. As expected, different respondent groups indicated slightly different perceptions of important roles for the future (Facteau & Craig, 2001). Much of the discussion above in relation to rater differences in identifying current roles was also relevant for the identification of future roles.
The lack of difference between raters did not accord with previously reported results on rater agreement – alignment between bosses and staff; and alignment between bosses and peers (Diefendorff et al., 2005; Facteau & Craig, 2001; Greguras, 2005). However, recent research into self-other disagreement being related to personality factors offers weak support for this difference between focal respondents and all other raters (Goffin & Anderson, 2006).

The significance of these results for this study is twofold.

- neither gender nor rater influenced the perception of importance of roles for the future. This suggested psychometric equivalence of the ratings between the raters i.e. the focal person and the significant others all held the same understanding of what was required (Vilkinas & Cartan, 2008).

- raters were not able to differentiate between the vision setter and task master roles for the future, i.e. they were seen to be equally important. However, the lack of differentiation between these roles does not suggest behavioural complexity – but may therefore indicate lower leadership effectiveness. This result was unexpected; while both roles address the external focus of the CVF model, the inability to differentiate between them could indicate a ‘blind spot’ in relation to the future, as the domain of the vision setter role was defined as the future while the domain of the task master is to address performance.

**Practical implications**

In terms of the CVF, the perceived change in which role is perceived most important from current observations (the task master role) to future idealisation (the analyzer role), indicates a shift in focus from the external environment – the world of stakeholders and clients – to the internal aspects of the organisation. While still predominantly working within a context of predictability and stability, structure and control, the shift in role emphasis would be characterised by a decreasing focus on stakeholders and an increasing focus on the infrastructure within the organisation to meet stakeholder requirements. Emphasis and effort would be shifted from performance and the delivery of outcomes, to a concern with efficiency and the delivery of outputs.
In terms of ‘real life relevance’ these role shifts also need to be considered in the context of the tensions associated with their polar opposite ‘competing’ roles: for the task master it is the motivator, and for the analyzer the vision setter. The vision setter role was identified as the least important role for the future, and the motivator role as the second most important role. This leads us to believe that the main demands for APS executive leaders in the future would be centred on the internal world of the organisation itself, as both the analyzer and motivator roles share that common pole within the CVF. This view is at odds with current research themes (e.g.: Podger, 2004) that public sector executive leadership roles will need to be more externally focused, not less.

The concept of role balance – juggling all four roles - has not been explored in this study, and is worthy of future research in the interests of organisational effectiveness.

Comparison of current roles displayed and importance of the future roles substantiated the increasing behavioural complexity that raters anticipate will be required in the future. Raters saw increased role demands on all roles from the current situation into the future. Proportionally, the greatest increases were identified for the vision setter and motivator roles. However, these are coming off a low base. Increased requirements may take different forms – an enhanced skill repertoire or the refined capability of executives to differentiate their behaviour according to situation. These aspects are not independent of each other. Behavioural complexity requires the ability to deliver each role to a high degree while moving with ease across all four roles. Raters indicated the requirement to deliver more of all roles, with few exceptions, but not necessarily with the flexibility and mastery of true behavioural complexity.

Implications for management and management education include leadership development for those at this level, as well as the ‘feeder group’ for executive leadership positions. Analysis of anticipated environmental demands will play a greater role in deciding curricula than the perceptions of current or future incumbents of what their role may be. A related issue is that of succession management for
executive leaders, and having their successors adequately groomed to take over in the emerging public administration climate.

**Future research**

This study has flagged a shift in role perceptions of APS executive leaders. Further research is warranted to explore in depth the nature and drivers of this shift, and the consequences for organisations. The consequences for organisations include in the realm of HRM (eg work and job design, associated skill sets required, selection and succession management) as well as organisational effectiveness and cultural impacts. In particular, role balance and behavioural complexity (the effective ‘juggling’ of multiple roles) warrant further attention. In addition, research needs to be undertaken taking into account the gender of the focal person and of those commenting on them to determine if there is an interaction.

**CONCLUSIONS**

This research explored some aspects of the evolving APS executive leadership role – as perceived by the role holder, peers, bosses and subordinates. While the task master role was observed to be the currently most important role (ie a focus on performance and results, identifying and serving external stakeholders), the prediction that the analyzer role would be the most significant role in the future (ie an internal focus, based in predictability and stability, structure and control; focussing on the efficient management of the organisation to ensure timely delivery of programs etc) did not accord with indications from the literature that future role demands would require greater strategic ability – more closely aligned with the vision setter role.
Appendix A: Hart and Quinn (1993) executive leadership role items.

Listed below are the statements used to describe APS executive leadership roles and behaviours, and the rating scale provided.

1  2  3  4  5  6
Never  Very  Sometimes  Often  Very  Always
Infrequently  Frequently

In his/her job how often do they

1. concentrate on the department’s/division’s/branch’s basic purpose and general direction
2. nurture contacts with people external to the department
3. try to create a sense of enthusiasm within the department
4. emphasise important departmental values through ceremonies and other events
5. use their position to influence decisions made at lower levels
6. contribute specific knowledge and opinions about problems
7. make trade-off decisions and allocate resources accordingly
8. focus on results – ‘getting the job done today’
9. communicate a sense of where the department might be in the future (3 years)
10. study emerging social and economic trends
11. challenge people with new goals and aspirations
12. short-circuit the hierarchy by talking to people throughout the department
13. ask questions which force subordinates to think about problems in a new way
14. critically evaluate proposed projects and programs
15. work to integrate conflicting perspectives and unpopular views
16. set specific, operational targets for the department
17. Other, please specify
References:


Figure 1: Executive leadership – a model of competing roles
(Source: Hart & Quinn (1993:552))

Table 1: Descriptive statistics for current executive leadership role scores

<table>
<thead>
<tr>
<th>Population</th>
<th>Vision setter</th>
<th>Motivator</th>
<th>Analyzer</th>
<th>Task master</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bosses (n = 44)</td>
<td>3.47 (0.73)</td>
<td>3.97 (0.80)</td>
<td>4.24 (0.70)</td>
<td>4.33 (0.58)</td>
</tr>
<tr>
<td>Self (n = 50)</td>
<td>3.61 (0.67)</td>
<td>4.14 (0.66)</td>
<td>4.33 (0.72)</td>
<td>4.37 (0.62)</td>
</tr>
<tr>
<td>Peers (n = 42)</td>
<td>3.53 (0.77)</td>
<td>3.86 (0.92)</td>
<td>4.22 (0.77)</td>
<td>4.33 (0.61)</td>
</tr>
<tr>
<td>Staff (n = 47)</td>
<td>3.51 (0.61)</td>
<td>4.07 (0.73)</td>
<td>4.35 (0.80)</td>
<td>4.17 (0.83)</td>
</tr>
<tr>
<td>Total (n = 183)</td>
<td>3.53 (0.69)</td>
<td>4.01 (0.78)</td>
<td>4.28 (0.75)</td>
<td>4.30 (0.67)</td>
</tr>
<tr>
<td>Alpha Coefficient</td>
<td>.41</td>
<td>.72</td>
<td>.72</td>
<td>.59</td>
</tr>
</tbody>
</table>
Table 2: MANOVA results – current executive leadership role by rater by gender

<table>
<thead>
<tr>
<th></th>
<th>Df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Between subjects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rater</td>
<td>3</td>
<td>1.822</td>
<td>1.510</td>
<td>.214</td>
</tr>
<tr>
<td>Gender</td>
<td>1</td>
<td>0.114</td>
<td>0.094</td>
<td>.759</td>
</tr>
<tr>
<td>Rater x gender</td>
<td>3</td>
<td>0.916</td>
<td>0.759</td>
<td>.519</td>
</tr>
<tr>
<td>Error</td>
<td>174</td>
<td>1.207</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Within subjects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership role</td>
<td>3</td>
<td>15.371</td>
<td>52.146</td>
<td>.000</td>
</tr>
<tr>
<td>Leadership role x rater</td>
<td>9</td>
<td>0.561</td>
<td>1.904</td>
<td>.049</td>
</tr>
<tr>
<td>Leadership role x gender</td>
<td>3</td>
<td>0.060</td>
<td>0.205</td>
<td>.893</td>
</tr>
<tr>
<td>Leadership role x rater x gender</td>
<td>9</td>
<td>0.458</td>
<td>1.554</td>
<td>.126</td>
</tr>
<tr>
<td>Error</td>
<td>522</td>
<td>0.295</td>
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Table 3: Significant mean differences on current leadership roles

<table>
<thead>
<tr>
<th>Roles</th>
<th>Mean difference</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision setter and motivator</td>
<td>-.520*</td>
<td>.000</td>
</tr>
<tr>
<td>Vision setter and analyzer</td>
<td>-.783*</td>
<td>.000</td>
</tr>
<tr>
<td>Vision setter and task master</td>
<td>-.846*</td>
<td>.000</td>
</tr>
<tr>
<td>Motivator and analyzer</td>
<td>-.264*</td>
<td>.001</td>
</tr>
<tr>
<td>Motivator and task master</td>
<td>-.327*</td>
<td>.000</td>
</tr>
<tr>
<td>Analyzer and task master</td>
<td>-0.01</td>
<td>.391</td>
</tr>
</tbody>
</table>

* significant at .05 level

Table 4: Descriptive statistics for future executive leadership role scores

<table>
<thead>
<tr>
<th>Population</th>
<th>Vision setter</th>
<th>Motivator</th>
<th>Analyzer</th>
<th>Task master</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bosses (n = 45)</td>
<td>4.23 (0.73)</td>
<td>4.79 (0.70)</td>
<td>4.81 (0.75)</td>
<td>4.24 (0.75)</td>
</tr>
<tr>
<td>Self (n = 49)</td>
<td>4.38 (0.78)</td>
<td>4.84 (0.65)</td>
<td>4.96 (0.65)</td>
<td>4.33 (0.73)</td>
</tr>
<tr>
<td>Peers (n = 47)</td>
<td>4.13 (0.62)</td>
<td>4.59 (0.58)</td>
<td>4.89 (0.57)</td>
<td>4.49 (0.64)</td>
</tr>
<tr>
<td>Staff (n = 49)</td>
<td>4.18 (0.69)</td>
<td>4.63 (0.70)</td>
<td>4.80 (0.68)</td>
<td>4.37 (0.90)</td>
</tr>
<tr>
<td>Total (n = 190)</td>
<td>4.23 (0.71)</td>
<td>4.71 (0.66)</td>
<td>4.86 (0.67)</td>
<td>4.36 (0.76)</td>
</tr>
</tbody>
</table>

Alpha coefficient | .53 | .63 | .70 | .72 |
Table 5: Results of MANOVA on future leadership role x rater x gender

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rater</td>
<td>3</td>
<td>0.440</td>
<td>0.386</td>
<td>.763</td>
</tr>
<tr>
<td>Gender</td>
<td>1</td>
<td>0.882</td>
<td>0.774</td>
<td>.380</td>
</tr>
<tr>
<td>Rater x gender</td>
<td>3</td>
<td>0.248</td>
<td>0.217</td>
<td>.884</td>
</tr>
<tr>
<td>Error</td>
<td>182</td>
<td>1.140</td>
<td></td>
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<td>26.101</td>
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<td>0.278</td>
<td>0.993</td>
<td>.444</td>
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<td>Leadership role x gender</td>
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<td>0.244</td>
<td>0.871</td>
<td>.456</td>
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<tr>
<td>Leadership role x rater x gender</td>
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<td>0.231</td>
<td>0.825</td>
<td>.594</td>
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<tr>
<td>Error</td>
<td>546</td>
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Table 6: Significant mean differences on future leadership roles

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<thead>
<tr>
<th>Roles</th>
<th>Mean difference</th>
<th>Significance</th>
</tr>
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<tbody>
<tr>
<td>Vision setter and motivator</td>
<td>-.440*</td>
<td>.000</td>
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<tr>
<td>Vision setter and analyzer</td>
<td>-.570*</td>
<td>.000</td>
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<tr>
<td>Vision setter and task master</td>
<td>-.144</td>
<td>.102</td>
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<tr>
<td>Motivator and analyzer</td>
<td>-.130*</td>
<td>.047</td>
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<tr>
<td>Motivator and task master</td>
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<tr>
<td>Analyzer and task master</td>
<td>.426*</td>
<td>.000</td>
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</tbody>
</table>

Note: * significant at .05 level