

## Design that supports service quality: New Zealand's model

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### Keywords

Organizational effectiveness, Organizational design, Educational administration, New Zealand

### Abstract

The Education Review Office (ERO) is both nationally and internationally renowned for its unique design for school evaluation, which has a bearing on schools and childhood centres on key indicators like school governance and management, curriculum management and quality of teaching, school safety and hygiene, internal evaluation, discipline, and pupil-teacher ratio. Applying items relating to red tape and technology, this paper examines the impact of ERO design, based primarily on the perceptions of 78 stakeholders. Document analysis and elite interviews were used to triangulate the findings. The design items were perceived to significantly account for the current appealing ERO performance. Though more research needs to be done in this area to establish the impact of other potential predictors of ERO performance, based on an array of existing theoretical propositions and empirical results on organisational effectiveness, the findings in this study support proponents of the view that this variable is an indispensable facet for organisational good practice.

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## Introduction and background

New Zealand is one of the countries that have made headway by establishing an Education Review Office (ERO) as an external agency for evaluating schools and childhood centres. The ERO, initially called the Review and Audit Agency (RAA), was one of the major recommendations from the Picot Report for institutional reform in New Zealand (Task force to Review Educational Administration, 1988). It was part of a series of reforms intended to address the situation where the Department of Education was perceived as having become its own initiator, jury and judge, leaving open the floodgates for capture by the profession (PPTA, 1997). ERO metamorphosed in the face of growing challenges and increasing demand for quality educational services. The primary purpose and core business of the Review Office are to contribute to improvements in the quality of education and accountability (ERO, 1999a, 2000a; Sewell, 2003). Although the precise focus of ERO is being reviewed (Hawke, 2001), it appears to be generally accepted within New Zealand and beyond that this agency is a new innovation in the domain of education evaluation. Since its implementation through *Tomorrow's Schools* policy in 1989, and with modifications over time, it has increasingly been providing regular, independent and high quality evaluation reports on schools and the said reports are generally held in high regard, considered informative, helpful in describing best practice and in drawing attention to development issues which affect schools and centres (Austin *et al.*, 1997; ERO, 2000b; PPTA, 1997). According to French (2000) and LaRocque (2001), ERO is serving a number of useful purposes such as:

- informing the government about whether acceptable education has been provided for students, and contributing to its decision making about education provision;
- informing trustees and managers' decision making, and acting as catalysts for improving performance; and
- providing information for parents and the wider community about the education provided for children by individual schools or providers.

The information helps parents and the community make choices about schools.



Because of the aforementioned achievements, it is not surprising that ERO's design and practice of education evaluation have received favourable attention in recent years from both within and outside New Zealand. It is on the basis of this appealing design that overseas governments and education groups have developed interest in ERO and, consequently, it has recently been regularly hosting international visitors throughout the year. For instance, during 1999-2000, visitors came from Australia, the UK, Cayman Islands, China, Japan, Korea, Lesotho, The Netherlands, Niue, South Africa, Sri Lanka, Swaziland, Switzerland, Thailand, Vietnam and the World Bank (ERO, 2000a). During 1998 and 1999, ERO also received several visiting educationists, including Professor Ted Wragg of the University of Exeter and Dr Avima Lomard of Israel[1] (ERO, 1999b). In 2002, visitors came from Norway, Taiwan, Canada, Korea, Japan, Hong Kong, Finland, the USA, the UK, United Arab Emirates, Indonesia, Bhutan, Cook Islands and China (Shanghai). In early 2003, visitors came from OfSTED (Office for Standards in Education) in the UK and also some Chinese students. In other words, the Department is internationally renowned as an authority in education evaluation.

From the foregoing, one cannot help but conclude that ERO's design is impacting significantly on schools. The agency is considered an effectively delivering quality evaluation service that leads to school improvements and accountability – its core two purposes. Locally, ERO's impact has made its external stakeholders view it as a positive force, and this has led to its gaining acceptance among most schools and being acknowledged as a critical friend (Black, 2000; Boland, 1998). So what are these organisational design facets that are making ERO attractive?

## Literature on organisational design and effectiveness

### Definition

Organisation design refers to the more visible and manipulable features of organisation technologies and administrative procedures (Galbraith *et al.*, 1993; Harrison and Shirom, 1999; Nadler *et al.*, 1995). Bedeian (1984, p. 54) simply terms it "arrangement or

composition of an organisation's structure". From these definitions, we can infer that design refers to the structure and process of an organisation. The design approach recognises the internal and external complexities of programme management, due to the knowledge and information age, and calls for appropriate adoption. The structure of an organisation determines the formality of the working arrangement and quality of managerial decision. In strongly hierarchical organisations, procedures are standardised and staff are required to follow them, communication flows through channels rather than laterally and authority/leadership are exercised on the basis of officers' positions, rather than on the basis of who is most expert at the task in hand. Strongly hierarchical organisations are tightly coordinated and controlled from the top (Jans and Frazer-Jans, 1991).

### Theoretical propositions and empirical studies: past and present

Pegnato (1993) examined the effects of organisational design on organisational performance and found that, as the number of management levels increased and the span of control decreased, organisational performance decreased. On the other hand, Bhargava and Sinha (1992) found that heterarchical structures were positively related to organisational performance. Although details of the organisations in the said studies were not revealed, these polar results could have been due to the differences in the organisations studied or the methodologies applied.

The main problem that could be bred by a complex design is red tape. Many studies contend that public organisations suffer more than business firms from red tape, as a result of their structures (Dahl and Lindblom, 1953). In general, many scholars believe that red tape inhibits organisational performance (Bozeman, 1993; Buchanan, 1975; Rainey, 1997; Wilson, 1989). It makes organisational process more complex, and primarily imposes hardships on members of the organisation by inhibiting effective communications and coordination, among others (Berger *et al.*, 1989; Gore, 1993). This view is consistent with the findings of Baldwin (1990), Bozeman *et al.* (1992) and Rainey *et al.* (1995) that the larger the organisation, the higher is the reliance on formalised

procedures for coordination and integrating work; hence higher levels of red tape. A classic example of red tape in the public service is the Civil Service rules that make personnel actions difficult to consummate. Surprisingly, the findings of Brewer and Selden (2000) based on Rainey and Steinbauer's (1999) recent framework on public organisation effectiveness concur with those of Lan and Rainey (1992) that red tape has little effect on organisational performance. Probably they limited the investigation to the system rather than to both system and individual because there are two sources of red tape: system and individual (Pandey and Kingsley, 2000). Regarding the latter, most studies have found, for example, that there is a strong correlation between alienation of an individual and red tape (Pandey and Kingsley, 2000; Waldo, 1946).

Decentralisation is a reform intended to remove layers of management in an organisation (Lurz, 2002), thus simplifying the structure of the agency. It is based on the notion that "you watch your asset and I will watch mine" (Morville, 2002, p. 1). In many countries, this is achieved through a series of policy, legal, technical and fiscal reform to develop democracy, improve accountability, efficiency and transparent delivery of central and local government services, particularly in the health and education services (Anders, 2002; Boston *et al.*, 1996; M2 Communication Ltd, 2002; Scott, 2001). As can be understood from the above, decentralisation is intended to reduce the structures between the centre and local government, thus cutting off the potentials of red tape.

Technology, an aspect of the design, means the process for transforming materials to finished products. In the public sector, the information constitutes the material and the public service the product. More broadly stated, to include the types of work done in most public agencies, technology refers to the programme and procedure designed to respond to situations and to process cases to achieve the results specified in the mandate of the agency. It does not refer to machines and equipment only but to the programmes and performance routines of the agency (Gortner *et al.*, 1989). For example, how ERO does school review (methodology/approaches of reviews) is a form of technology. Authorities in organisation design argue that utilisation of technology today, offers dramatic and

enduring improvements in enhancing organisational performance (Davenport, 1993; Hammer and Champy, 1993; Holzer and Callahan, 1998; Morton, 1991). Information technology (IT) skills are not only crucial but also mandatory to the health and effectiveness of an organisation (Chua, 1998). That could explain why, in many organisations, evidence of improved information flows via IT is increasing (Schein, 1992). Many agencies use computerisation to improve, markedly, the efficiency and accuracy of processing their work. Effective IT is also another way of reducing red tape as it speeds communication and eases coordination of activities.

Regarding the overall ERO effectiveness, two approaches are considered: external effectiveness; and internal effectiveness (Rodsutti and Swierczek, 2002; Steers, 1975; Price, 1968; Katz and Kahn, 1966; Likert, 1967; Cameron, 1986). Internal to the agency, strong and positive organisational values like high trust in the organisation (Laschinger *et al.*, 2001; Kanter, 1977), job satisfaction and commitment[2], are indicators of a high-performing organisation (Kanter, 1977; Laschinger *et al.*, 2001; Porter *et al.*, 1974; Angle and Perry, 1981; Allen and Meyer, 1990; Buchanan, 1974a, b; Dunham *et al.*, 1994; Mowday *et al.*, 1979; Cammann *et al.*, 1979; Steers and Porter, 1983; Podsakoff *et al.*, 1996; Lawler, 1986, 1991, 1992, 1996; Vandenberg *et al.*, 1999). Other indicators of organisational internal effectiveness tendencies include low turn-over (Mowday *et al.*, 1982; Vandenberg and Lance, 1992; Meyer *et al.*, 1993; Kanungo, 1982; Vandenberg and Scarpello, 1990; Vandenberg *et al.*, 1994) and low level of absenteeism (Cangemi *et al.*, 1989; Kanungo, 1982; Perry, 1996; Clarkson, 1995; Mowday *et al.*, 1982).

Externally, the impact of good ERO design on the review process can be felt on the primary external stakeholders, the schools, with concomitant outcomes like proper management of school curriculum and quality of teaching, improved relationships between schools and the communities, information and technology, effective governance, professional leadership, student achievement, improved teacher-pupil ratio, improved level of discipline and positive and safe school environment, among others (ERO, 2001, 2002).

## Conceptual framework

In this research, as in previous studies (Bozeman *et al.*, 1992; Bretschneider, 1990; Bozeman and Bretschneider, 1994; Brewer and Selden, 2000), the structural component of the organisation is investigated. In addition, the study undertook to empirically test the technology aspect of design as proposed by existing organisational theorists (Davenport, 1993; Hammer and Champy, 1993; Holzer and Callahan, 1998; Morton, 1991). Decentralisation is another concept applied in this study, because of its widespread theoretical position as a facilitator of implementation, as it is thought to help overcome the structural constraints between the centre and local governments. In applying the technology and decentralisation concepts, the study attempts to bridge the methodological gap in previous studies that had ignored these aspects of organisational design. In the aforementioned empirical studies on organisation design, a single item statement measured red tape. However, using a single item to draw conclusions in such a study has been criticised for its unreliability (Zellars and Fiorito, 1990). This study, therefore, applied more than one item to overcome this methodological shortcoming. Regarding overall effectiveness, the main variable is internal effectiveness of the agency. Here, the main concepts are job satisfaction, commitment, turnover intentions and absenteeism, as applied in previous studies. Regarding the external impact of the agency, the school-based indicators such as: school management and governance, curriculum management and quality of teaching, internal evaluation, IT, school hygiene and safety, pupil-teacher ratio and discipline (ERO, 2001, 2002) were considered.

### Objective, assumption and hypotheses

From the foregoing literature, therefore, the study sought to answer the following research question: Why is ERO design very appealing both nationally and internationally? In this research, organisational design is assumed to be the only determinant of ERO performance. All other constructs are discounted.

To answer the above questions, the following hypothesis was proposed: Based on the conceptual framework and literature on organisational design and effectiveness, it is expected that the items will be perceived

highly. Since the design items are a reflection of the internal and external effectiveness of the agency, it is expected that they will be consistent. It is also expected that the means will all significantly depart from the test value of three, the moderate value on a five-point Likert-type response category, thus indicating their level of effectiveness. Because it is difficult for the means to neatly fall into those five categories, in this study, means above three shall be considered effective and those below as ineffective:

*H1* The items for both the organisational design and overall effectiveness will not be perceived highly.

*H2* The mean for each of the items will significantly depart from the test value of three.

Because the items measure the same variable, it is expected that there will be a significant positive linear association among the items.

*H3* There will not be significant association among the items.

## Methodology

Discussion follows under the following subheadings: measures, sample selection, triangulation, data analysis.

### Measures

A five-point self-report Likert scale, format was used to construct the survey instrument, e.g. "1-strongly disagree to 5-strongly agree" or "5-very good to 1-very poor", or other similar categorisation. These are the scales used in previous similar perceptual studies and, it is hoped, apply the same improved internal validity of this research (Yin, 1994). The research is primarily a perceptual study. Perceptual studies in similar studies have not been uncommon (Pandey, 1995; Rainey *et al.*, 1995).

Red tape was measured by asking a question relating to:

- whether ERO structure allows effective communication flow;
- whether ERO structure permits effective coordination of services; and
- the impact of decentralising review services on the agency decision making and implementation.

Technology, on the other hand, was measured by statements seeking opinions on:

- access of employees to machines and equipment like faxes, computers, copiers; and
- methods/approaches of conducting school reviews.

Regarding the external impact of ERO on a school, each of the indicators was operationalised by a statement like "the school management and governance is improving". To measure job satisfaction and commitment (Laschinger *et al.*, 2001; Allen and Meyer, 1990; Vandenberg *et al.*, 1994), which reflect the internal effect of the agency, happiness, intention to leave job, identification with the agency and whether the employee is part-time in the agency, were the items applied. To establish the reliability, all items were subjected to Cronbach's Alpha coefficient[3] testing based on the conventional formula below:

$$\alpha = \frac{\overline{\text{kcov}}/\overline{\text{var}}}{1 + (k - 1)\overline{\text{kcov}}/\overline{\text{var}}}$$

The computation is based on the number of items on the survey ( $k$ ) and the ratio of the average inter-item covariance to the average item variance.

The reliability analysis yielded a scale of  $\alpha = 0.82$  on the five items statements seeking perceptions on design. For the 11 items, on overall effectiveness, it was  $\alpha = 0.73$ . All were above the acceptable level of 0.69 (Nunnally, 1978), though other authorities agree that those in the range of 0.7 are acceptable and those over 0.8 are good (McMurray and Williams, 2002; Bryman and Cramer, 1990; Cavana *et al.*, 2001; Chutarat, 2002; de Vaus, 1995; Pallant, 2001).

### Sample selection and size

There were 51 questionnaires mailed to the staff of ERO, both in the corporate and in the area offices from a sample frame provided by management. Of these, 41 were returned, accounting for 80.39 per cent, but one respondent did not answer all the questions, another respondent sent the questionnaire two months after the data were already analysed; so only 39 duly filled questionnaires were analysed. Out of the 207 external stakeholders, 200 of these were schools and the seven remaining were other educational agencies that, after prior consultation, agreed to respond to the questionnaires and were automatically included in the sample. The

schools identified were from these business districts: Christchurch, Hamilton, Wellington, and Auckland. These are cities in the Southern, Central North, Central South, and Northern regions respectively, which have ERO area offices. To obtain a sample frame, all the schools in these cities were tallied, and they numbered in total 444. The number of schools in each of the cities is 153, 52, 83 and 156 respectively (at the time of the research). Each school was given an equal chance of representation in the sample size of 200. This was obtained by using the formula  $N/P \times 200$ , where  $N$  stands for the number of schools in that city and  $P$  for the sample population, which is 444. The serial numbers corresponding to the schools in each city were fed into the Excel program, for example, 713 to 866 (corresponding to the 153 schools in the case of Christchurch). Based on this, the selection of schools was randomly generated on a computer by the Excel program. Each serial number generated was checked to find which school on the list of the Ministry of Education for that city/region corresponded with it. Where the same number appeared twice, the next number above or below was picked, if it had not already been generated previously. All selected schools were noted, including their full address. The same process was repeated for each city and the total number of schools selected in each city was 69, 24, 37 and 70 respectively and the questionnaire mailed to the principal or rector. Out of the 207 questionnaires mailed to the external stakeholders altogether, which consisted of schools and educational agencies, 60 questionnaires (29 per cent) were returned. On further editing, out of the 60 returned, 49 (81.6 per cent) were found to have been correctly or completely filled, leaving 11 (19.4 per cent) as partially filled or not filled at all. Of those who did not fill the questionnaire, 90 per cent wrote an accompanying note indicating that they could not do so because of workload and the rest did not give any justification. Four respondents also rang to say they would not be able to participate in the research because of office workload. Together with those who gave their feedback by phone, the response rate was 31 per cent (64), and this is considered high compared with the 20-25 per cent normally expected of a postal survey (Parry and Proctor-Thompson, 2002). The subsequent analyses and discussions are

based on the perceptions of a total of 78 ERO internal and external stakeholders on a 1:1 basis, to minimise biases in the results.

### **Triangulation, face validity and follow-up**

To avoid a common method bias and the limitations associated with such a perceptual study, document analyses have been conducted. Open-ended elite interviewing of key stakeholders and the ERO itself was also employed. This work also constituted part of a paper presented at the ANZAM/IFSAM (Australian and New Zealand Academy of Management/International Federation of Scholarly Associations of Management) Vith World Congress on 10-13 July, Gold Coast, Australia in 2002. The multiple sources of data helped to develop a converging line of enquiries. Follow-up contacts by e-mail, telephone, and letters proved extremely useful and these boosted the response rate. The questionnaires were delivered with the help of a contact person within each agency, but returned to the researcher directly to avoid a possibility of social desirability response bias (Menguc, 2000). A pilot test was first conducted and this increased the face validity in many ways. Based on respondents' comments, it:

- Helped to clarify the wording and meaning. This reduced noise in the final responses. Double-barrelled questions, ambiguous questions, loaded questions or questions that were likely to elicit social desirability response bias (Cavana *et al.*, 2001) were addressed in the final survey.
- Refined the content of the questionnaires, clarified the procedures to be followed and laid the foundation for multiple sources of evidence like interviewing key respondents and use of documents.
- Allowed for a less structured and more prolonged relationship to develop between the researcher and the respondents that became quite useful and constructive during the actual data collection.

Following the pilot survey, questions or statements in the final questionnaire never exceeded 20 words as rule of thumb dictates (Horst, 1968; Oppenheim, 1986). As noted above, a combination of qualitative and quantitative methods was adopted for this study. The investigation was conducted from the grounded theory perspective, thereby minimising the intrusion of preconceived

ideas of organisational design effectiveness. Today, the value of using grounded theory approaches and qualitative research methods for investigation is increasingly being recognised, advocated and applied by other researchers (Alimo-Metcalf and Alban-Metcalf, 2000; Conger, 1998; Parry, 1998).

### **Data analysis**

The responses generated through the 16-item questionnaire were analysed on the SPSS 10.0 (2000) package. The results are demonstrated in the highest and lowest score using the Likert-type scale aforementioned. Summing and averaging scores by category on each item obtained the mean. Thus, for each item, possible scores range from one to five with the perceived score indicating the corresponding level of effectiveness of the item. The maximum mean score on any item would be 100 per cent (5), average 60 per cent (3), and minimum 20 per cent (1) on the five-point Likert scale. A one-sample *t*-test was also conducted to examine the significance of the mean for each item. The mean scores by category of responses derived from all items were subjected to bivariate correlations to examine the significance of the linear relations among them. Regarding blank responses or poorly answered questions, the following acceptable (Cavana *et al.*, 2001) options were applied: taking the mid-point rule of the interval scale; assigning the item the mean value of the responses of all those who have responded to that particular item; and giving the item the mean of the responses of the particular respondents to all other questions measuring the particular variable.

### **Results**

Respondents' perceptions of the items were analysed and the results are given in Table I.

The mean for each item is high, ranging from 3.65-3.96. It can be noticed that the means for "communication", "coordination", "decentralisation" and "methods" are all within the range of 3.6-3.7. "Access to machines and equipment" has the highest mean, at 3.96. The sum of the means is 18.62, out of the maximum of 25, and this is 74.48 per cent, indicating the perceived level of effectiveness of organisational design as a construct. The last row contains two important statistical estimates: overall

Table I Descriptive statistics of items on organisation design

| Output item, mean            | Response category and statistics (per cent) |    |    |    |    |      |                    |      |    |
|------------------------------|---|----|----|----|----|------|--------------------|------|----|
|                              | SA  | A  | Ne | D  | SD | Mean | Standard deviation | Var. | N  |
| Communication                | 15  | 53 | 19 | 12 | 1  | 3.69 | 0.92               | 0.84 | 78 |
| Coordination                 | 20  | 36 | 35 | 6  | 3  | 3.65 | 0.96               | 0.93 | 78 |
| Decentralisation             | 10  | 62 | 15 | 10 | 3  | 3.67 | 0.89               | 0.80 | 78 |
| Access to machines/equipment | 32  | 32 | 36 | 0  | 0  | 3.96 | 0.83               | 0.69 | 78 |
| Methods                      | 22  | 44 | 18 | 11 | 5  | 3.65 | 1.10               | 1.22 | 78 |
| Mean                         | 20  | 45 | 25 | 8  | 2  | 3.72 | 0.94               | 0.89 | 78 |

Note: SA = strongly agree; A = agree; Ne = neither agree nor disagree; D = disagree; SD = strongly disagree

perceptions on "organisation design" by category of response; and mean on organisation design. The variance shows that respondents are far from the mean on "access to machines" (0.69) and furthest in "methods" of review (1.22).

The perceptions of the respondents on items relating to overall effectiveness is also shown in Table II, which has listed items in response to a statement like "the school governance and management are improving".

As Table II shows, all but one item has the means above three. The lowest mean is on PTR, at 2.77, and the highest is on information and technology (4.31). The total of the means is 41.62 out of 55 and this is 75.67 per cent. The last row gives the estimated overall perceptions by category of response and the mean of the means of the items. This mean indicates the perceived overall level of ERO effectiveness, which is consistent with those of the identified items. The respondents are closer to the mean on

"information and technology" than in "pupil-teacher ratio" in that order of magnitude, as indicated by the values of the variance (Var.).

Thus  $H_1$ , that all items will not be perceived highly, is rejected (hypothesis has been substantiated). All items that measured design were perceived highly, whereas only one for overall effectiveness (PTR) was below three.

A one-sample  $t$ -test was also conducted to test the significance of the means from the test value of three. Results are in Tables III and IV.

Tables III and IV show that, except for PTR, all items significantly depart from the test value of three, thus indicating that all have been perceived as effective. Using the first line of Table III as an example, the statistics for "communication" within the ERO structure can be indicated as  $t(77) = 6.675, p < 0.0005$ .

Thus, from the two Tables, the hypothesis that the perceived mean for all items will not

Table II Perceptions on ERO overall effectiveness

| Output item, mean                      | Response category and statistics (per cent) |    |    |    |    |      |                    |      |    |
|--|---|----|----|----|----|------|--------------------|------|----|
|  | SA  | A  | Ne | D  | SD | Mean | Standard deviation | Var. | N  |
| Internal evaluation                    | 18  | 59 | 18 | 5  | 0  | 3.90 | 0.75               | 0.57 | 39 |
| Current management/quality of teaching | 23  | 59 | 13 | 5  | 0  | 4.00 | 0.76               | 0.58 | 39 |
| Pupil-teacher ratio (PTR)              | 5   | 20 | 44 | 8  | 23 | 2.77 | 1.18               | 1.39 | 39 |
| School safety/hygiene                  | 13  | 38 | 31 | 10 | 8  | 3.38 | 1.09               | 1.19 | 39 |
| Indiscipline                           | 8   | 46 | 23 | 18 | 5  | 3.33 | 1.03               | 1.07 | 39 |
| School governance/management           | 26  | 28 | 46 | 0  | 0  | 3.79 | 0.83               | 0.69 | 39 |
| IT                                     | 43  | 44 | 13 | 0  | 0  | 4.31 | 0.69               | 0.48 | 39 |
| Happy                                  | 37  | 49 | 6  | 5  | 3  | 4.13 | 0.93               | 0.87 | 78 |
| Leaving job                            | 28  | 41 | 26 | 5  | 0  | 3.92 | 0.86               | 0.75 | 78 |
| Identifying                            | 34  | 53 | 8  | 5  | 0  | 4.17 | 0.78               | 0.61 | 78 |
| Part-timing                            | 23  | 46 | 31 | 0  | 0  | 3.92 | 0.74               | 0.55 | 39 |
| Mean                                   | 23  | 44 | 24 | 6  | 3  | 3.78 | 0.88               | 0.80 | 39 |

Note: SA = strongly agree; A = agree; Ne = neither agree nor disagree; D = disagree; SD = strongly disagree

Table III One-sample *t*-test statistics for the predictors of effectiveness

| Variable         | <i>t</i> | df | Sig. (2-tailed) | Mean difference | 95 per cent confidence interval of the difference |       |
|------------------|----------|----|-----------------|-----------------|---|-------|
|                  |          |    |                 |                 | Lower   | Upper |
| Communication    | 6.675    | 77 | 0.000           | 0.69            | 0.49  | 0.90  |
| Coordination     | 5.986    | 77 | 0.000           | 0.65            | 0.44  | 0.87  |
| Decentralisation | 6.597    | 77 | 0.000           | 0.67            | 0.47  | 0.87  |
| Access           | 10.247   | 77 | 0.000           | 0.96            | 0.77  | 1.15  |
| Methods          | 5.236    | 77 | 0.000           | 0.65            | 0.41  | 0.90  |

Table IV One sample *t*-test statistics on overall effectiveness items

| Items               | <i>t</i> | df | Sig. (2-tailed) | Mean difference | 95 per cent confidence interval of the difference |       |
|---------------------|----------|----|-----------------|-----------------|---|-------|
|                     |          |    |                 |                 | Lower   | Upper |
| School management   | 5.960    | 38 | 0.000           | 0.79            | 0.52  | 1.06  |
| Quality of teaching | 8.208    | 38 | 0.000           | 1.00            | 0.75  | 1.25  |
| Internal evaluation | 7.435    | 38 | 0.000           | 0.90            | 0.65  | 1.14  |
| Tech                | 11.766   | 38 | 0.000           | 1.31            | 1.08  | 1.53  |
| Pupil-teacher ratio | -1.221   | 38 | 0.230           | -0.23           | -0.61   | 0.15  |
| Hygiene             | 2.202    | 38 | 0.034           | 0.38            | 3.10E-02  | 0.74  |
| Indiscipline        | 2.012    | 38 | 0.051           | 0.33            | -2.01E-03   | 0.67  |
| Happy               | 10.704   | 77 | 0.000           | 1.13            | 0.92  | 1.34  |
| Left job            | 9.431    | 77 | 0.000           | 0.92            | 0.73  | 1.12  |
| Identified          | 13.212   | 77 | 0.000           | 1.17            | 0.99  | 1.34  |
| Part-time           | 7.797    | 38 | 0.000           | 0.92            | 0.68  | 1.16  |

significantly depart from the test value of three is rejected ( $H_2$  has been substantiated). Only the mean for PTR did not depart as hypothesised.

When the design items were correlated to establish their pattern of association, the matrix (Table V) gives the details.

Table V reveals some intriguing statistics. It shows that "methods" of school review correlates significantly with other items, at  $p < 0.01$  with "communication" and "coordination" and at  $p < 0.05$  with "access to machines and equipment" and "decentralisation". "Decentralisation" and "access to machines and equipment" also correlate within  $p < 0.05$ , whereas "coordination" and "communication" correlate within  $p < 0.01$ . However, the correlation is not significant between these pairs: "decentralisation" and "communication"; "access" and "communication"; "access" and "coordination" and negative between "decentralisation" and "coordination".

Thus, the hypothesis that there is no liner relationship among the items is partly rejected ( $H_3$  is partly substantiated).

## Discussion, conclusion and implications

The high mean (3.72) on organisational design is testimony to the level of effectiveness of ERO structure and process. High mean on each item is indicative of their individual level of effectiveness too. To the extent of the level of perceptions (means) aforementioned, it can be argued that the ERO design effectively permits the horizontal and vertical flow of communication and coordination of activities. This suggests that in ERO interdepartmental or intersectional communication and coordination, as well as from level one to five, are efficient and effective[4], with no or minimum red tape.

The high mean (3.67) on "the decentralisation of ERO to the area level facilitates decision making and implementation of activities" suggests that this variable facilitates decision making and implementation of programmes and activities. This is a case of decongesting power from the centre, hence allowing decisions to be made nearest to the point of implementation; a practice widely applauded by proponents of



Table V Correlations matrix

|                  |                 | Communication | Coordination | Decentralisation | Access | Methods |
|------------------|-----------------|---------------|--------------|------------------|--------|---------|
| Communication    | Pearson corr.   | 1.000         | 0.378**      | 0.222            | 0.189  | 0.459** |
|                  | Sig. (2-tailed) |               | 0.001        | 0.050            | 0.097  | 0.000   |
|                  | N               | 78            | 78           | 78               | 78     | 78      |
| Coordination     | Pearson corr.   | 0.378**       | 1.000        | -0.030           | 0.162  | 0.362** |
|                  | Sig. (2-tailed) | 0.001         |              | 0.793            | 0.157  | 0.001   |
|                  | N               | 78            | 78           | 78               | 78     | 78      |
| Decentralisation | Pearson corr.   | 0.222         | -0.030       | 1.000            | 0.246* | 0.251*  |
|                  | Sig. (2-tailed) | 0.050         | 0.793        |                  | 0.030  | 0.027   |
|                  | N               | 78            | 78           | 78               | 78     | 78      |
| Access           | Pearson corr.   | 0.189         | 0.162        | 0.246*           | 1.000  | 0.241*  |
|                  | Sig. (2-tailed) | 0.097         | 0.157        | 0.030            |        | 0.034   |
|                  | N               | 78            | 78           | 78               | 78     | 78      |
| Methods          | Pearson corr.   | 0.459**       | 0.362**      | 0.251*           | 0.241* | 1.000   |
|                  | Sig. (2-tailed) | 0.000         | 0.001        | 0.027            | 0.034  |         |
|                  | N               | 78            | 78           | 78               | 78     | 78      |

Notes: \*Correlation (corr.) is significant at the 0.05 level (2-tailed); \*\*Correlation (corr.) is significant at the 0.01 level (2-tailed)

decentralisation the world over. The creation of ERO offices into five different areas, despite the small size of the country, bears witness to how ERO services are closer to the clients[5].

The high mean (3.96) on "... access to faxes, computers, and copiers ..." implies that the ERO staff members are adequately empowered with the basic machines and equipment. This level of empowerment is very essential as this permits, for example, timely production of review reports, or prompt and efficient attention to issues that arise.

The high mean (3.65) on methods/evaluation process that ERO uses to conduct school reviews also suggests that the technology of review in general, including the current approaches which are both formative and summative[6], is effective. Complementary to this, an interview with the two ERO senior executives indicated that the evaluation process is becoming increasingly appealing to the clients. There are several aspects of the ERO review process that appear to confirm this scenario (ERO, 2002). For example, ERO follows a specific cycle of reviews. It is normally expected to visit every school once every three years, with discretionary reviews undertaken as and when it is deemed necessary. To gain the cooperation of a school, ERO involves the school at the initial stage, to determine the focus of review and agree on the scope and process before the exercise commences. This is an information-building process with the

governing and management body of the school and the basic information is self-review results and the school's analysis of student achievement. This is also a consultation stage when clarifications on matters to do with the review are made. More importantly, this stage ensures that ERO criteria and procedures are transparent and a common understanding of relationships and conduct in review is developed. To match task with expectation, ERO plans the scope of review, while taking into consideration, among others, the resources on hand. During the review process, students, parents, teachers and school governing body all form the principal source of information, depending on the focus and intensity of review. ERO takes an evidence-based approach to reviews in that reviewers make independent judgements based on evidence and the use of evaluation criteria. Findings, including areas of good performance and areas for improvement, are usually discussed with the school management bodies and consultation made on the areas to include in the final report. This is important to prevent surprises in its final report, which is produced according to standard procedures of reporting. ERO does not release its findings publicly, until two weeks after they have been confirmed and sent to the board of trustees. To increase the credibility of the report, a "friend of the school" approach is encouraged by ERO, where the school nominates a person who has the expertise, in a specific area of importance to the school, to be on the review team. The "assess and assist" approach is part

of the methodology that appears to be appreciated by the schools. By this, ERO gives the school the best possible information and identifies strategies for improving the school by developing recommendations and formulating action plans. ERO does not, however, enforce recommendations.

Given the comprehensiveness of the methodology on evaluation, one would have expected the mean on this item to be very high, yet it is one of the lowest among all the items measuring organisation design. The discrepancy could arise because most of these high-sounding school improvement and accountability strategies are recent developments by ERO aimed at improving its approaches to reviews. It is suspected that many schools are yet to experience them.

#### **Indicators of internal and external levels of ERO effectiveness**

Specifically, ERO effectiveness on the internal and external items is indicated in Table II (ERO, 2002). The means are all above three, thus consistent with the items on the design (Table I), except for PTR. The fact that the mean for PTR is below average suggests that policy attention by New Zealand educationists could focus a little more in that area, especially targeting the teacher development programme and retention. These findings on ERO impact, especially on schools, is consistent with other existent reports and views about the agency, all of which generally reveal that ERO has positive impacts on the schools in those areas. In Sewell (2003) ERO evaluation in schools can be categorised into three:

- (1) outcomes (evaluation of results and impact);
- (2) programmes (process and systems); and
- (3) policy (evaluating policies that underpin programmes, process and systems).

One principal of a secondary school commented that "ERO has done a commendable job in the last ten years and an even better job in the last three years". A senior staffer of one of the education agencies said ERO "plays a vital role" in the pursuit of quality education. A Ministry of Education official described it as "... meets the expectations of the performance agreements".

This latter comment is consonant with a

report to the effect that ERO's statutory obligation to the Minister, and therefore the Crown, is fulfilled by meeting all the undertakings in the annual purchase and performance agreements, with no more than 3 per cent of sustainable complaints about the office. In 1998/1999, there were in total no sustainable complaints (ERO, 1999b). According to reports, the public revelation of the problems of schooling in Mangere and Otara, the far North and the East Coast, is particularly cited as a great credit to ERO (ERO, 1996; PPTA, 1997). Other ERO reports which have revealed a risk to students' achievements, like the discovery at Auckland Metropolitan College that students were skipping class, playing poker, and studying beer-making and astrology with generally low teaching standards and unacceptable programme content, testify highly to the value of ERO service in the fight for quality in schools (Bodger, 2000).

There have also been some positive public comments about ERO in the recent past.

The Minister responsible for the Review Office until December 1998 said in Parliament in April:

... the Education Review Office, the one thing that the country and parents know is there as an outside, impartial observer to make observation on whether the education that is going on within a school is good, and to tell the parents publicly (ERO, 1999b).

In March ERO's minister told Radio New Zealand that:

... the office has been invaluable to parents, boards, principals and parliamentarians, in providing frank and honest assessment of schools' performance. The office was subject to thorough review in 1998, which reinforced the value and importance of its independence ... ERO plays a key role in enhancing standards and excellence (ERO, 1999b).

To quote one of the educationists:

While I was a secondary principal the school underwent three major ERO reviews. Each of them was conducted in a most professional manner by the reviewers. The school, which was going pretty well-went even better as a result of having impartial advice and fair scrutiny. It was an enabling experience for all concerned (ERO, 1999b).

In the educational circle, ERO reports are considered a great information resource and are the only reliable ways through which parents, boards, and taxpayers have of

knowing how well a school is shaping up (*The Evening Post*, 2001; *Dominion Post*, 2001). Because the public sees its reports as very useful, the demands for ERO reports have been increasingly high. In 1998/1999 alone, over 17,000 reports on individual schools were requested by the public. This increased to 17,415 in 2000 and 17,856 in 2001, but these figures exclude those who might have read the reports on the ERO Web site ([www.ero.govt.nz](http://www.ero.govt.nz)). Since the introduction of this Web site, electronic visitors to ERO information have steadily increased. A total of 11,528 "hits" were recorded for the ERO Web site in April 1999, compared with 8,169 in September 1998 (ERO, 1999b). According to an informed source from ERO, the highest hits recorded in 1999 were 18,281 (August), in 2000 they were 59,259 (November), in 2001 they were 98,520 (November). In the first half of 2002, the highest hits were 103,581 and this was recorded in May[7].

These show evidence of growing public interest in ERO work, which the public regard as informative.

In conclusion, the fact that the means are less than the optimum on all the items on organisation design and overall effectiveness shows that, despite being perceived highly, these items are not without shortcomings. However, the perceived means indicate that the design is effective and could thus account for the performance of the agency; hence its attractiveness to educational professionals and reformists.

The findings could, particularly, inform those involved in school evaluation about the indicators for which to look during school inspections/evaluation. It also highlights a key issue that should be taken care of by education evaluation agencies, namely that the effectiveness of the "methodology" of school review is highly linked with the "communication", "coordination", "decentralisation" and "access to machines" as the correlation coefficients suggest. This implies that an evaluation agency that aspires to have an effective methodology should have a structure that facilitates communication and coordination of services; where staff members have the tools and in a decentralised setting. The fact that the correlation is negative between "decentralisation and coordination" and insignificant between "decentralisation and communication" testifies to the real

adherence of ERO to the essence of decentralisation. These are the evidences of limited control from the centre and giving some discretionary power to the area level offices. This scenario is even confirmed by insignificant correlations between access to machines and office equipment like faxes; computers, telephones ... and "communication" and "coordination". These suggest that, although all staff members have reasonable access to tools, compliance with the decentralisation principles seems to be a norm, thus restricting contacts between the centre and the lower level, and yet not stifling it entirely. Agencies that operate within the decentralisation framework could emulate this ERO lesson of good practice.

The findings have also confirmed the validity of the theoretic proposition regarding the "communication" and "coordination" (Berger *et al.*, 1989; Gore, 1993) and "decentralisation" (Anders, 2002; M2 Communication Ltd, 2002; Scott, 2001) as the structural components of an organisation, and "methodology" and "access to machines" (Davenport, 1993; Gortner *et al.*, 1989; Hammer and Champy, 1993; Holzer and Callahan, 1998; Morton, 1991) as true measures of organisational design.

Though previous studies did not exactly use the same items as in this study to measure red tape, the findings support the theoretic proposition by Rainey and Steinbauer (1999) and empirical findings of Lan and Rainey (1992), Brewer and Selden (2000), Selden and Brewer (2000), that these items measure organisational design. Importantly, these empirical findings add to the current knowledge and understanding regarding organisational design and theory and contribute to the continuing debate on improving organisational performance.

However, further study needs to be done on ERO to determine the predictive power of organisation design on ERO performance when all potential variables like agency mission, motivation, external stakeholders, autonomy, leadership, human resource management, organisation culture, contextual factors and others (Carasco *et al.*, 1996; Rainey and Steinbauer, 1999; Rojas, 2000; Wolf, 1993) that determine an organisational performance are not discounted.

## Notes

- 1 Other educationists who have so far visited ERO are: Barry Allsop, Senior School Inspector, UK, in 1995; Chris Woodhead, Chief Inspector, OfSTED, in 1996; Anthea Millet, Chief Executive, Teacher Training Agency, UK, in 1997; Professor Ray Rist, Evaluation Advisor, World Bank, in 1997; Dr Michael Barber, Professor of Education, University of London, in 1997.
- 2 There are four types of commitment: (1) *affective commitment* – by this, the employee is emotionally attached to the workplace and he identifies himself with it; (2) *continuance commitment* reflects an employee's awareness of the costs associated with leaving an organisation; (3) *high continuance commitment* is associated with employees who believe the benefit of staying outweighs the consequences of leaving; (4) *normative commitment* reflects an individual's sense of obligation for remaining in the organisation (Meyer and Allen, 1991, 1997; Meyer *et al.*, 1998).
- 3 Reliability is a measure of the consistency and stability of the items. It is a measure of how well the items in a set are positively correlated to one another. The coefficient holds a value of 0 to 1. The closer it is to 1, the better.
- 4 According to a simple structure of ERO, there are five staffing levels: level one is the chief review officer; level two is the national managers; level three, area managers; level four, senior review officers; and last, but not least, level five review officers.
- 5 These areas are: area one, with office in Auckland; area two, with offices in Hamilton and Rotorua; area three, with offices in Napier and Wanganui; area four, with offices in Wellington and Nelson; area five, with offices in Christchurch and Dunedin. The corporate office is also in Wellington but is housed in a separate building from area four office. Te Uepu-a-Motu, a Maori reviewing office, is based in the corporate office.
- 6 Formative evaluation: the purpose is to improve performance. The process is participatory and consensual and the people involved are the boards, teachers and the facilitator. With summative evaluation, the purpose is to make an informed decision, the process is making judgements on merit and worth, and the people involved are the independent evaluators (Sewell, 2001).
- 7 According to the same source, from May 1999 to June 2002 there has been a total of 2,023,067 Web hits, giving an average of 53,239 per month.

## References

- Alimo-Metcalfe, B. and Alban-Metcalfe, R. (2000), "Heaven can wait", *Health Service Journal*, Vol. 110, pp. 26-9.
- Allen, N.J. and Meyer, J.P. (1990), "The measurement and antecedents of effective, continuance and normative commitment to organization", *Journal of Occupational Psychology*, Vol. 63, pp. 1-18.

- Anders, J. (2002), "Sector-wide approach dynamics in a decentralized context: experiences from Uganda", *Social Science and Medicine*, Vol. 55 No. 1, pp. 2053-60.
- Angle, H.L. and Perry, J.L. (1981), "An empirical assessment of organizational commitment and organizational effectiveness", *Administrative Science Quarterly*, Vol. 26, pp. 1-14.
- Austin, M., Parata-Blane, A. and Edwards, W. (1997), "Achieving excellence: a review of education external evaluation services", report to the Ministry of Education, Wellington.
- Baldwin, J.N. (1990), "Perceptions of public versus private sector personnel and informal red tape: their impact on motivation", *American Review of Public Administration*, Vol. 20, pp. 7-28.
- Bedeian, A.G. (1984), *Organisations Theory and Analysis: Text and Cases*, 2nd ed., Holt-Saunders, Tokyo.
- Berger, S., Dertouzos, M.L., Lester, R.K., Solow, R.M. and Walton, R.E. (1989), "Towards a new industrial America", *Scientific America*, Vol. 260 No. 6.
- Bhargava, S. and Sinha, B. (1992), "Prediction of organizational effectiveness as a function of organizational structure", *Journal of Social Psychology*, Vol. 132, pp. 223-31.
- Black, E. (2000), "Hard work revives Rotorua's sunset school", *The New Zealand Herald*, 20 October, Wellington.
- Bodger, S. (2000), "Metropolitan college given last warning", *The New Zealand Herald*, Wellington, 15 August.
- Boland, M.J. (1998), "Reviewers now welcome after early hostility", *The New Zealand Herald*, 1 September, Wellington.
- Boston, J., Martin, J., Pallot, J. and Walsh, P. (1996), *Public Management: The New Zealand Model*, Oxford University Press, Auckland.
- Bozeman, B. (1993), "A theory of government red tape", *Journal of Public Administration Research and Theory*, Vol. 3, pp. 273-303.
- Bozeman, B. and Bretschneider, S. (1994), "The 'publicness puzzle' in organization theory: a test of alternative explanations of differences between public and private organizations", *Journal of Public Administration Research and Theory*, Vol. 4, pp. 197-224.
- Bozeman, B., Reed, P. and Scott, P. (1992), "Red tape and task delays in public and private organizations", *Administration and Society*, Vol. 24 No. 3, pp. 290-322.
- Bretschneider, S. (1990), "Management information systems in public and private organizations: an empirical test", *Public Administration Review*, Vol. 50, pp. 536-45.
- Brewer, G.A. and Selden, S.C. (2000), "Why elephants gallop: assessing and predicting organisational performance in federal agencies", *Journal of Public Administration Research and Theory*, Vol. 10 No. 4, pp. 685-711.
- Bryman, A. and Cramer, D. (1990), *Quantitative Data Analysis for Social Scientists*, Routledge, London.
- Buchanan, B. (1974a), "Building organizational commitment: the socialization of managers in work

- organization", *Administrative Science Quarterly*, Vol. 22, pp. 533-46.
- Buchanan, B. (1974b), "Government managers, business executives and organizational commitment", *Public Administration Review*, Vol. 34, pp. 339-47.
- Buchanan, B. (1975), "Red tape and the service ethic", *Administration and Society*, Vol. 6, pp. 423-44.
- Cameron, K.S. (1986), "A study of organisational effectiveness and its predictors", *Management Science*, Vol. 32 No. 1, pp. 87-112.
- Cammann, C., Fichman, M., Jenkins, D. and Klesch, J. (1979), "The Michigan Organizational Assessment Questionnaire", University of Michigan, Ann Arbor, MI.
- Cangemi, J.P., Rice, J. and Kowalski, C.J. (1989), "The development, decline and renewal of trust in an organization: some observations", *Organizational Development Journal*, Winter, pp. 2-9.
- Carasco, J.F., Munene, J.C., Kasente, D.H. and Odada, M. (1996), "Factors influencing effectiveness in primary schools. A base line study", *Uganda IEQ Report Phase One Research*, February.
- Cavana, R.Y., Delahaye, B.L. and Sekaran, U. (2001), *Applied Business Research: Qualitative and Quantitative Methods*, Wiley & Sons, Sydney.
- Chua, E. (1998), "Unique programme in information technology", *The New Straits Times*, Vol. 12-60, 29 March, Education Special Section, available at: [www.vuw.ac.nz/library/catalogues/e-newspapers.html](http://www.vuw.ac.nz/library/catalogues/e-newspapers.html) (accessed 28 April 2002).
- Chutarat, I. (2002), "The impact of control, influence strategy and information asymmetry on financial performance: the franchising perspective", paper presented at the 6th IFSAM World Conference, Gold Coast, 10-14 July.
- Clarkson, M.B.E. (1995), "A stakeholder framework for analysing and evaluating corporate social performance", *Academy of Management Review*, Vol. 20, pp. 92-117.
- Conger, J.A. (1998), "Qualitative research as the cornerstone methodology for understanding leadership", *Leadership Quarterly*, Vol. 90, pp. 107-21.
- Dahl, R.A. and Lindblom, C.E. (1953), *Politics, Economics and Welfare*, Harper & Row, New York, NY.
- Davenport, T. (1993), *Process Innovation: Re-engineering Work through Information Technology*, Harvard Business School Press, Boston, MA.
- de Vaus, D.A. (1995), *Surveys in Social Research*, 4th ed., Allen & Unwin, Melbourne.
- Dominion Post* (2001), "ERO makes the grade", *Dominion Post*, 19 February, Wellington.
- Dunham, R.B., Grube, J.A. and Castaneda, M.B. (1994), "Organizational commitment: the utility of an integrated definition", *Journal of Applied Psychology*, Vol. 79, pp. 370-80.
- ERO (1996), *Improving Schooling in Mangere and Otara*, ERO, Wellington.
- ERO (1999a), *Report of Education Review Office for the Year Ended 30 June*, ERO, Wellington.
- ERO (1999b), *The Education Review Office and Its Strategic Relationships 1998-1999: Stakeholder Satisfaction*, June, ERO, Wellington.
- ERO (2000a), *Report of the Education Review Office for the Year Ended 30 June*, ERO, Wellington.
- ERO (2000b), *A Review of the Roles and Responsibilities of the Education Review Office*, December, ERO, Wellington.
- ERO (2001), *School Sector Report 2001: ERO Contribution*, April, ERO, Wellington.
- ERO (2002), *Education Reviews in Schools: Framework for Reviews*, March, ERO, Wellington.
- (The) *Evening Post* (2001), "ERO a great information resource", *The Evening Post*, 13 November.
- French, A. (2000), "The heart of the matter: how Education Review Office evaluates pre-tertiary education", *Victoria Link*, No. 9.
- Galbraith, J., Lawler, E. and Associates (1993), *Organizing for the Future: The New Logic for Managing Complex Systems*, Jossey-Bass, San Francisco, CA.
- Gore, A. (1993), "From red tape to results: creating a government that works better and costs less", *Report of the National Performance Review*, Government Printing Office, Washington, DC.
- Gortner, H.F., Mahler, J. and Nicholson, J.B. (1989), *Organization Theory: A Public Perspective*, Cole Publishing, George Mason University, Fairfax, VA.
- Hammer, M. and Champy, J. (1993), *Re-engineering the Corporation: A Manifesto for Business Revolution*, Harper, New York, NY.
- Harrison, M.I. and Shirom, A. (1999), *Organizational Diagnosis and Assessment: Bridging Theory and Practice*, Sage, London.
- Hawke, G. (2001), "Education reform: the New Zealand experience", paper presented at the First International Forum on Education Reform: Experiences of Selected Countries, Office of the National Education System, Government of Thailand, 29 July-2 August.
- Holzer, M. and Callahan, K. (1998), *Government at Work: Best Practices and Model Programs*, Sage, Thousand Oaks, CA.
- Horst, P. (1968), *Personality: Measurement of Dimensions*, Jossey-Bass, San Francisco, CA.
- Jans, N.A. and Frazer-Jans, J.M. (1991), "Organizational culture and organizational effectiveness", *Australian Journal of Public Administration*, Vol. 50 No. 3, pp. 333-46.
- Kanter, R.M. (1977), *Men and Women of the Corporation*, Basic Books, New York, NY.
- Kanungo, R.N. (1982), *Work Alienation: An Integrative Approach*, Praeger, New York, NY.
- Katz, D. and Kahn, R.L. (1966), *The Social Psychology of Organizations*, John Wiley & Sons, New York, NY.
- Lan, Z. and Rainey, H.G. (1992), "Goals, rules and effectiveness in public, private and hybrid organizations. More evidence on frequent assertions about differences", *Journal of Public Administration Research and Theory*, Vol. 2, pp. 5-28.
- LaRocque, N. (2001), "The role of government in education in developing countries", paper presented at the Comparative and International Education Society Meetings, Washington, DC, 15 March.
- Laschinger, H.K.S., Finegan, J. and Shamian, J. (2001), "The impacts of workplace empowerment, organizational trust on staff nurses' work satisfaction and organizational commitment", *Health-care Management Review*, Vol. 26 No. 3, pp. 7-23.

- Lawler, E.E. III (1986), *High Involvement Management*, Jossey-Bass, San Francisco, CA.
- Lawler, E.E. III (1991), "Participative management strategies", in Jones, J.W., Steffy, B.D. and Bray, D.W. (Eds), *Applying Psychology in Business: The Handbook for Managers and Human Resource Professionals*, Lexington Books, Lexington, MA, pp. 578-86.
- Lawler, E.E. III (1992), *The Ultimate Advantage: Creating the High Involvement Organization*, Jossey-Bass, San Francisco, CA.
- Lawler, E.E. III (1996), *From the Ground up: Six Principles for Building the New Logic Corporation*, Jossey-Bass, San Francisco, CA.
- Likert, R. (1967), *The Human Organization*, McGraw-Hill, New York, NY.
- Lurz, B. (2002), "Decentralized structure empowers site teams", *Professional Builders*, Vol. 67 No. 12, pp. 50-1.
- McMurray, A. and Williams, L. (2002), "Factors encouraging nurse managers to exhibit innovative behaviours within a decentralised management structure", paper presented at 6th IFSAM World Conference, Gold Coast, Queensland, Australia, 10-14 July.
- M2 Communication Ltd (2002), "Asian Development Bank: helping Pakistan's devolution program improve service delivery of social services", M2 Presswire, Coventry, 21 November.
- Menguc, B. (2000), "An empirical investigation of a social exchange model of organizational citizenship behaviours across two sales situations: a Turkish case", *Journal of Personal Selling and Sales Management*, Vol. 20 No. 4, pp. 205-19.
- Meyer, J.P. and Allen, N.J. (1991), "A three-component conceptualisation of organisational commitment", *Human Resource Management Review*, Vol. 1, pp. 61-89.
- Meyer, J.P. and Allen, N.J. (1997), *Commitment in the Workplace: Theory, Research and Application*, Sage, Thousand Oaks, CA.
- Meyer, J.P., Allen, N.J. and Smith, C.A. (1993), "Commitment to organisations and occupations: extension and test of a three-component conceptualisation", *Journal of Applied Psychology*, Vol. 78, pp. 538-51.
- Meyer, J.P., Irving, P.G. and Allen, N.J. (1998), "Examination of the combined effects of work values and early work experiences on organisational commitment", *Journal of Organisational Behaviour*, Vol. 19, pp. 29-52.
- Morton, M. (Ed.) (1991), *The Corporation of the 1990s: Information Technology and Organizational Transformation*, Oxford University Press, New York, NY.
- Morville, P. (2002), "Bottoms up", *New Architect*, Vol. 7 No. 12, pp. 28-30.
- Mowday, R.T., Porter, L.W. and Steers, R.M. (1982), *Employee-Organization Linkages: The Psychology of Commitment, Absenteeism and Turnover*, Academic Press, New York, NY.
- Mowday, R.T., Steers, R.M. and Porter, L.W. (1979), "The measurement of organizational commitment", *Journal of Vocational Behaviour*, Vol. 14, pp. 224-47.
- Nadler, D., Shaw, R., Walton, A.E. and Associates (1995), *Discontinuous Change: Leading Organizational Transformation*, Jossey-Bass, San Francisco, CA.
- Nunnally, J.C. (1978), *Psychometric Theory*, 2nd ed., McGraw-Hill, New York, NY.
- Oppenheim, A.N. (1986), *Questionnaire Design and Attitude Measurement*, Gower, Aldershot.
- Pallant, J. (2001), *SPSS Survival Manual*, Allen & Unwin, Sydney.
- Pandey, S.K. (1995), "Managerial perceptions of red tape", PhD dissertation, Syracuse University, Syracuse, New York, NY.
- Pandey, S.K. and Kingsley, G.A. (2000), "Examining red tape in public and private organizations: alternative explanations from a social psychological model", *Journal of Public Administration Research and Theory*, Vol. 10 No. 4, pp. 779-99.
- Parry, K. (1998), "Grounded theory and social processes: a new direction for leadership research", *Leadership Quarterly*, Vol. 90, pp. 85-105.
- Parry, K.W. and Proctor-Thompson, S.B. (2002), "Perceived integrity of transformational leaders in organisational settings", *Journal of Business Ethics*, Vol. 35 No. 2, pp. 75-96.
- Pegnato, L.A. (1993), "An assessment of the effects of organizational design on organizational performance", PhD dissertation, George Mason University, Fairfax, VA.
- Perry, J.L. (1996), "Measuring public service motivation: an assessment of construct reliability and validity", *Journal of Public Administration and Research*, Vol. 60, pp. 5-22.
- Podsakoff, P.M., Mackenzie, S.B. and Bommer, W.H. (1996), "Transformational leadership behaviours and substitutes for leadership as determinants of employee satisfaction, commitment, trust and organizational citizenship behaviours", *Journal of Management*, Vol. 22, pp. 259-98.
- Porter, L.W., Steers, R.M., Mowday, R.T. and Boulian, P.V. (1974), "Organizational commitment, job satisfaction and turnover among psychiatric technicians", *Journal of Applied Psychology*, Vol. 5, pp. 603-9.
- PPTA (1997), "A review of ERO: final report to PPTA", Auckland, October.
- Price, J.L. (1968), *Organizational Effectiveness*, Irwin, Homewood, IL.
- Rainey, H.G. (1997), *Understanding and Managing Public Organizations*, 2nd ed., Jossey-Bass, San Francisco, CA.
- Rainey, H.G. and Steinbauer, P. (1999), "Galloping elephants: developing elements of theory of effective government organizations", *Journal of Public Administration Research and Theory*, Vol. 9, pp. 1-32.
- Rainey, H.G., Pandey, S. and Bozeman, B. (1995), "Research note: public and private managers' perceptions of red tape", *Public Administration Review*, Vol. 55 No. 6, pp. 567-74.
- Rodsutti, M.C. and Swierczek, F.W. (2002), "Leadership and organisational effectiveness in multinational enterprises in Southeast Asia", *Leadership & Organization Development Journal*, Vol. 23 No. 5, pp. 250-9.
- Rojas, R.R. (2000). "A review of models for measuring organizational effectiveness among for-profit and

- non-profit organizations", *Non-Profit Management and Leadership*, Vol. 11 No. 1, pp. 97-104.
- Schein, E.H. (1992), *Organizational Culture and Leadership*, 2nd ed., Jossey-Bass, San Francisco, CA.
- Scott, G. (2001), *Public Management in New Zealand: Lessons and Challenges*, New Zealand Business Roundtable, Wellington.
- Selden, S.C. and Brewer, G.A. (2000), "Work motivation in the senior executive service: testing the 'high performance cycle' theory", *Journal of Public Administration Research and Theory*, Vol. 10 No. 3, pp. 531-50.
- Sewell, K. (2001), "Role of evaluation in public policy", paper presented as a special topic on education policy to the Master of Public Policy students, Victoria University, Wellington, 19 April.
- Sewell, K. (2003), "New Zealand Education Review Office: evaluating education in the pre-tertiary sector in New Zealand", paper presented at the Commonwealth Advanced Seminar, Wellington, 28 February.
- SPSS 10.0 (2000), *Application Guides*, SPSS Inc., Chicago, IL.
- Steers, R.M. (1975), "Problems in the measurement of organisational effectiveness", *Administrative Science Quarterly*, Vol. 20 No. 4, pp. 546-58.
- Steers, R. and Porter, L. (1983), *Motivation and Work Behavior*, 3rd ed., McGraw-Hill, New York, NY.
- Taskforce to Review Educational Administration (1988), Report.
- Vandenberg, R.J. and Lance, C.E. (1992), "Examining the causal order of job satisfaction and organizational commitment", *Journal of Management*, Vol. 18, pp. 153-67.
- Vandenberg, R.J. and Scarpello, V. (1990), "The matching model: an examination of the processes underlying realistic job previews", *Journal of Applied Psychology*, Vol. 75, pp. 60-7.
- Vandenberg, R.J., Richardson, H.A. and Eastman, L.J. (1999), "The impact of high involvement work processes on organizational effectiveness: a second-order latent variable approach", *Group and Organization Management*, Vol. 24 No. 3, pp. 300-39.
- Vandenberg, R.J., Self, R.M. and Seo, J.H. (1994), "A critical examination of the internalisation, identification and compliance commitment measures", *Journal of Management*, Vol. 20, pp. 203-17.
- Waldo, D. (1946), "Government by procedure", in Marx, F.M. (Ed.), *Elements of Public Administration*, Prentice-Hall, Englewood Cliffs, NJ, pp. 381-99.
- Wilson, J.Q. (1989), *Bureaucracy*, Basic Books, New York, NY.
- Wolf, P.J. (1993), "A case survey of bureaucratic effectiveness in US cabinet agencies: preliminary results", *Journal of Public Administration Research and Theory*, Vol. 3, pp. 161-81.
- Yin, R.K. (1994), *Case Study Research: Design and Methods*, 2nd ed., Sage, London.
- Zellars, K.L. and Fiorito, J. (1990). "Evaluations of organisational effectiveness among HR managers: cues and implications", *Journal of Management Issues*, Vol. 11 No. 1, pp. 37-55.