LENIENCY IN SELF-APPRAISAL, ATTRIBUTION BIASES IN REPORTED PERFORMANCE AND PERCEPTIONS OF PREVIOUS ACADEMIC TRAINING CONTRIBUTION TO PERFORMANCE

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Abstract

Purpose
The current study evaluated the leniency of the section of public sector employees in self-rating under informal conditions, and the attribution biases often associated with self-reported performance. The study further evaluated the perceptions of employees about the contribution of their previous academic training to their performance.

Methodology
The data used in this paper was derived from a larger training needs assessment study commissioned by the project co-financed by an international donor organization and the government of Lesotho. The data was collected through the survey of employees and the structured interviews with supervisors. Chi-square was used to test the hypotheses, and qualitative analysis was conducted to give meaning to the results.

Findings
While there was some evidence of leniency in self-rating, there was no evidence of employee self-serving bias in the current study. Furthermore, the supervisors and non-managerial employees tended to agree on the courses needed to improve employee performance. In terms of the contribution of the previous academic training to performance, the significant number of respondents perceived the moderate contribution, but the supervisors indicated the preference for customized training that address the needs of individual department and section within ministries.

Implications
Implications for the determination of training and non-training needs, and the challenges facing local academic training institutions are discussed. These include the call for inclusion of non-managerial employees in the analysis of their training needs, and incorporation of the views of practitioners in the design of training modules.

Value
The current study challenges the existing practices of training and to some extent, performance appraisal in the public sector, and calls for the rethinking of the mode of the current provision of academic training to the public sector employees.
1. INTRODUCTION

1.1. The Problem

One of the most celebrated theoretical frameworks that links ‘the best practices’ in employee management to performance is the AMO theory of performance (Appelbaum et al, 2000). According to this theory, organizational performance is the function of ability, motivation and opportunity to participate. This implies that public sector managers who want to realize effectiveness in public service delivery should promote HR practices that enhance ability, motivation and opportunity to participate. Training, whether short-term or long term, on-job or off-job, specific or general, is one HR practice that enhance ability, and to some extent motivation. Training is necessary to impart new skills, upgrade existing ones, and change employee behaviour. But prior to undertaking any training effort, managers need to determine whether there is a need that can be remedied through training; a process commonly known as, training needs analysis (Herbert and Doverspike, 1990). Some of the bases of employee training needs analysis are the performance appraisal results. But who should be involved in employee performance evaluation? Even though there are compelling reasons for employee self-rating in performance appraisal and training needs assessment, top-down, supervisor rating is still the method of choice in organizations (Mathews et al, 2001; McEnery and McEnery, 1987). Could there be value in involving employees in their appraisal?

In Lesotho training takes place within predominantly public funded institutions (Alfthan and Sparreboom, 1997), and there is little formal on-job training. Does this type of training respond to the needs of public sector employees in Lesotho? This paper was designed to address some of these issues.

1.2. The Objectives

The objectives of the paper are threefold. First, the paper evaluates the notion of employee leniency in rating their performance. Extant literature suggests that employee self-rating is often associated with leniency (Farh and Dobbins, 1989; Inderrieden et al, 2004; McEnery and McEnery, 1987) and the increased expectations that self-rating will have impact on overall performance rating.
(Folger and Greenberg, 1985). Thus self-rating creates an incentive for self-enhancement. This self – enhancement is due to, among others, the likelihood of gain from a favourable report (McEnery and McEnery, 1987, Goerke et al, 2004). The information in this study was collected under conditions in which self-enhancement was unlikely to gain from a favourable report. The self-rating was informal, and was in no way related to merit increases or promotions. Second, the paper evaluates the presence of attribution biases in the explanation of less than expected performance. Third, the paper evaluates the perceptions of job incumbents about the contribution of the previous academic training to performance.

1.3. The Structure
The rest of the paper is organized around five more sections. After this introduction, the paper overviews the theoretical background in self-rating, person analysis, and attribution theory. The third section provides methodology, and the fourth section provides the results and analysis of data. The discussion and conclusion are provided in sections five and six respectively.

2. THEORETICAL BACKGROUND
2.1. Self-Rating And Person Level Analysis
The utility of self-rating or self-appraisal is a subject of hot debate in HR literature. Compelling reasons are provided for self-rating in both performance appraisal and training needs assessment, and these include reduction in defensiveness in appraisal interview (Bassett and Meyer, 1968), identification of training needs the employee approves of, and commitment to training to remedy the identified training needs (McEnery and McEnery, 1987). Compared to supervisor rating, the extant literature also indicates that self-rating results in less halo effect (Thornton, 1980).

However, much as individuals should theoretically be good reference points for their own abilities, literature on self-rating also suggest that individuals become lenient when assessing their actual performance, and that might obscure real training needs (Inderrieden et al, 2004, McEnery and McEnery, 1987).
Based on the foregoing, it could be expected that many employees in the study would rate their overall performance above average.

Training needs analysis is critical for the success of any training effort (Goldstein, 1993; Herbert and Doverspike, 1990; McGehee and Thayer, 1961). The most common conceptualization of training needs analysis is based on the classical work of McGehee and Thayer (1961). This classical work suggested the analysis of training needs at three levels, namely, organization, operations, and person analyses. Organisation analysis involves evaluating where and when training activities are required; operations analysis involves determining the tasks to be performed and the knowledge, skills and abilities required to perform them, and person analysis relates to who needs training, and what skills need to be imparted (Goldstein, 1993).

O'Driscoll and Taylor (1992) found differences between the techniques propounded by training theorists and the procedures used in practice by organizations in New Zealand, with most of the organizations adopting informal approaches. They also established that the job incumbents were infrequently involved in the training decision. Within the context of quality training, Mathews et al (2001) established that senior management and supervisor opinions were popular methods for assessing training needs in three European countries, namely, UK, Portugal and Finland. Relating to the use of performance appraisal for the purposes of assessing the training needs, Herbert and Doverspike (1990) concluded that performance appraisal was necessary, but that only the small percentage of organizations stated using it for the purposes of training needs analysis. O'Driscoll and Taylor (1992) reached similar conclusion in their study.

The foregoing implies that many organizations still follow informal, ad hoc assessment of training needs. Where training needs assessment is formal, top management and supervisors are still the main sources of training needs, implying a top-down, imposition of training on employees.

This paper evaluates the utility of person level analysis of training needs. Person level analysis can be divided into summary and diagnostic person analyses (Herbert and Doverspike, 1990). Summary person analysis is concerned with the
overall performance of the individual, that is, whether s/he is performing as expected or not. Diagnostic analysis is concerned with why the person performs the way s/he is performing. Thus the complete person analysis suggests who is not performing as expected, and whether training can be an appropriate intervention or not (Herbert and Doverspike, 1990). In other words, it assists with the determination of the performance gap (the difference between the desired performance and existing performance), and the training and non-training interventions needed to fill the gap (Prepenko, 1998).

As discussed above, the supervisor is often used as the primary source of employee training needs, but some organizations use more than one source (Mathews et al, 2001). However, when the supervisor and the employee are involved in the evaluation of employee performance, there are often disagreements, perhaps due to attribution biases (Bernardin, 1989). Attribution theory helps us explain why.

### 2.2. Attribution Theory

Often associated with the work of Heider (1958), Kelley (1973) and Weiner (1986), attribution theory is concerned with the cognitive process by which people interpret causes of behavior. The theory indicates that behaviour is determined by a combination of internal factors (e.g. ability or effort) and external factors (e.g. luck or task difficulty). The theory suggests that how people perceive the causes of their behaviour has an impact on their subsequent behaviour. For instance, if an employee is promoted, and perceives promotion to be caused by her hard work (internal attribution), there is a high likelihood that s/he will put forth more effort to deserve more promotions (Steers and Black, 1994).

Central to attribution theory (Rogoff et al, 2004), and more relevant to this study, are the biases or errors in the attribution process (Kelley, 1973). The best known of these errors are the **fundamental attribution error** and the self-serving bias. People commit the fundamental attribution error when they over-estimate the influence of internal factors, and under-estimate the influence of external factors when interpreting the causes of other people’s behavior. The tendency to attribute one’s successes to internal factors such as effort or ability, and to
attribute one’s failures to external factors such as job difficulty, luck and other people is known as self-serving bias.

The application of attribution theory is widespread in the field of business. Gatewood et al (1995) found that women business owners were more likely than their male counterparts to attribute their motivations to start businesses to internal factors. Recently, Rogoff et al (2004) found that entrepreneurs attributed their success to internal factors and the barriers to success to external factors (self-serving bias). By contrast, the experts in their study predominantly attributed barriers to success to internal factors (Fundamental attribution error). Interestingly, Zacharakis et al (1999) found no proof of self-serving bias in their study. CEOs in their study had a greater tendency than venture capitalists to attribute failure to internal factors.

Many business-related applications of attribution theory have been in corporate reporting (Rogoff et al, 2004). In general, most of the studies in corporate reporting show a self-serving tendency in which negative results are omitted or attributed to external environmental factors such as economy, competition and government regulation, while successes are attributed to the reporting organization.

In performance appraisal, attribution theory predicts that supervisors would attribute unsatisfactory performance of employees to internal factors, but their own unsatisfactory performance to external factors (e.g. Bernardin, 1989).

Based on attribution theory, it can be expected that employees will attribute the unsatisfactory performance more to external factors than to internal factors.

3. METHODOLOGY

The data used in this paper was derived from a larger training needs assessment study commissioned by the project co-financed by an international donor organization and the government of Lesotho. The project is located under one of the ministries of the government of Lesotho. The aim of the project is to strengthen capacity through skills upgrading, systems development and institutional support. Training needs analysis was the first step in the skills upgrading component of the project.
3.1. Procedures And Sample
The information used for the study was collected in 3 main ways. First, the structured questionnaire was developed and administered to all employees of the ministry who were present during the week of 28 February to 4 March 2005. The questionnaire sought information in areas relating to personal data, courses attended, job descriptions, areas in job description that employees found difficult to perform, relevance of previous academic education, employee recent performance, and reasons for employee unsatisfactory performance. 103 questionnaires were returned. Of the respondent sample, 68% were female and 32% were male. Second, in-depth structured interviews were conducted between the researchers and the heads of departments and sections. Documentary analysis was used to triangulate the two primary methods of data collection.

3.2. Measures
Self-reported performance
Employees were asked to rate their overall performance in the ‘current evaluation period’ on the 5-point Likert-type scale ranging from very poor to very good.

Causal attributions to poor performance
Employees were asked to indicate the factors that cause their unsatisfactory performance on the scale consisting of five factors as follows: Lack of ability, lack of motivation, lack of supervisory support, inappropriate structures and other. Under ‘other’ they were provided space to specify the factors causing unsatisfactory performance. To test whether or not there were any attribution biases, the heads of departments and sections were also asked to indicate the causes of unsatisfactory performance in their respective departments or sections.

Contribution of previous academic training on performance
Employees were asked to rate the extent to which their previous academic training contributed to their understanding and performance on 4-point Likert-type scale ranging from no contribution =1 to great contribution =4.
4. ANALYSIS

The description of demographic characteristics of the respondents is shown in Table 1.

Table 1: Demographic Characteristics of the Sample

<table>
<thead>
<tr>
<th>Gender (N=103)</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>33</td>
<td>32</td>
</tr>
<tr>
<td>Female</td>
<td>70</td>
<td>68</td>
</tr>
<tr>
<td>Highest Qualification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-Degree</td>
<td>29</td>
<td>28.4</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>50</td>
<td>49.1</td>
</tr>
<tr>
<td>Postgraduate</td>
<td>10</td>
<td>9.8</td>
</tr>
<tr>
<td>Other</td>
<td>13</td>
<td>12.7</td>
</tr>
<tr>
<td>Department/Section</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treasury &amp; Audit</td>
<td>39</td>
<td>37.9</td>
</tr>
<tr>
<td>Information Support Services</td>
<td>7</td>
<td>6.8</td>
</tr>
<tr>
<td>Human Resources</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>Statistics</td>
<td>36</td>
<td>35</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (N=100)</td>
<td>35.58 years</td>
</tr>
<tr>
<td>Duration of Employment (N= 99)</td>
<td>4.30 years</td>
</tr>
</tbody>
</table>

NB. The number of respondents (N) is different because of missing data

Table 1 indicates that the majority of the respondents were female (68%), and more than half (49% + 9.8%) had a university degree. The mean age of 35.58 (SD = 7.98, Mode = 34 years) suggest that the majority of respondents were not youth. On average, the respondents have been in the ministry for 4.30 years (SD = 5.18, Mode = 2 years).

Objective 1 – Leniency in self-appraisal

As indicated above, the respondents were asked to rate their performance in the ‘current evaluation period’. Appraisal results are crucial in the analysis of training needs, especially at the level of an individual (Herbert and Doverpike, 1990). The
analyzer needs to know who is not performing as expected, and whether training can be an appropriate intervention. The results of informal self-appraisal are shown in Table 2 below.

**Table 2: Results of Self-Appraisal**

<table>
<thead>
<tr>
<th>Performance (N=91)</th>
<th>Level of Performance</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very good</td>
<td></td>
<td>23</td>
<td>25.3</td>
</tr>
<tr>
<td>Good</td>
<td></td>
<td>53</td>
<td>58.2</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td>14</td>
<td>15.4</td>
</tr>
<tr>
<td>Poor</td>
<td></td>
<td>1</td>
<td>1.1</td>
</tr>
<tr>
<td>Very poor</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Performance Summary (N=91)</td>
<td>Above Average</td>
<td>76</td>
<td>83.5</td>
</tr>
<tr>
<td>Chi-square = 105.912 ρ ≤ 0.01</td>
<td>Average</td>
<td>14</td>
<td>15.4</td>
</tr>
<tr>
<td>Below Average</td>
<td></td>
<td>1</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Table 2 indicates that 83.5% of respondents rated their performance above average, 15.4% around average, and only 1.1% below average. The Chi – square test ($X^2 = 105.912$, df = 2, $\rho \leq 0.01$) suggest that the difference between the observed and expected frequencies was very significant. To benchmark whether there was really any leniency in self-appraisal, head of departments and sections were asked to estimate the proportion of employees in their respective departments or sections who perform at, below or above average. Except in one interview session, all the interviewees indicated that their subordinates performed significantly below average, with one of them indicating that up to 80% of employees were performing below average. This informal account provides some tentative proof that there were significant differences between supervisor rating and self-rating, with the latter being more lenient than the former (Goerke et al, 2004). Prior studies indicated that employee self-rating was often associated with leniency (Farh and Dobbins, 1989; Inderrieden et al, 2004; McEnery and McEnery, 1987), especially where self-enhancement could gain from a favourable report (McEnery and McEnery, 1987, Goerke et al, 2004). But in this
study self-rating was informal, and was in no way related to merit increases or promotions. In other words, there was no apparent incentive for self-enhancement. Employees knew that the purpose of the study was to determine the needs that could be solved through training intervention, but apparently that could not reduce the observed leniency in self-appraisal.

**Objective 2 – Attribution biases in self-reported performance**

To determine whether the causes of less than expected performance amongst employees were due to lack of training or non-training issues, employees were asked to select the issues they ascribed their unsatisfactory performance to as discussed in the methodology section of the study. The results are shown in Table 3 below.

**Table 3: Attributions of less than expected performance**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of skills/ability</td>
<td>20</td>
<td>25.0</td>
</tr>
<tr>
<td>Lack of motivation</td>
<td>29</td>
<td>36.2</td>
</tr>
<tr>
<td>Lack of supervisory support</td>
<td>11</td>
<td>13.8</td>
</tr>
<tr>
<td>Inappropriate structures</td>
<td>11</td>
<td>13.8</td>
</tr>
<tr>
<td>*Other</td>
<td>9</td>
<td>11.2</td>
</tr>
<tr>
<td><strong>Reasons for less than expected performance (N=80)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Attributions (N=80)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal</td>
<td>49</td>
<td>61.2</td>
</tr>
<tr>
<td>External</td>
<td>31</td>
<td>38.8</td>
</tr>
</tbody>
</table>

*Chi-square = 4.050, $\rho \leq 0.05$*

*Under this option, many constraints were mentioned, including lack of resources, poor supervision, inadequate facilities, dysfunctional management information system, etc – and all were external factors according to attribution theory.*

According to hypothesis 2, it was expected that many employees would attribute the less than expected performance to external factors. Attribution theory posits that individuals attribute their successes to internal factors such as effort or ability, and attribute their failures to external factors such as job difficulty, luck and others, a phenomenon known as self-serving bias. In Table 3, lack of ability/skills and lack of motivation are internal factors, and the rest are external factors.
factors. Less than expected performance is the apparent failure of employees to perform at the expected levels.

Interestingly, many employees attributed their failure to internal factors, and not external factors as posited by attribution theory. In fact, the Chi – square test ($X^2 = 4.050$, df = 1, $\rho \leq 0.05$) suggest that the frequency of the internal attributions to unsatisfactory performance was significantly greater than the frequency of external attributions. This lends no support to the prescriptions of attribution theory. While the supervisors also attributed low levels of performance more to employee internal factors, mainly ability and lack of effort, they also attributed it to other factors such as low wages, inadequate Government of Lesotho information system (GOLFIS), inadequate inter-departmental communication, etc. While the latter suggests some fundamental attribution error in judging employees, the two parties seemed to agree on the causes of low performance. In other words, there was no evidence of self-serving bias amongst non-managerial employees. Furthermore, the two parties also agreed on most of the courses needed to upgrade the skills in their ministry.

**Objective 3 – Contribution of academic training to performance**

Having assessed the notion of leniency in self-appraisal, and attributional tendencies associated with self-reported performance, it was interesting to ascertain how public sector employees in the sample perceived the contribution of their previous academic training to their performance. The results are shown in table 4.

As noted before, the formal training in Lesotho takes place in public sector-supported institutions. According to literature, the transfer of off-job formal training to the workplace is notoriously difficult. But as can be observed in table 4, the majority of job incumbents (79.1%) perceive the contribution of their previous academic training to performance as either adequate (31.4%) or great (47.7%). Thus only 20.9% of participants perceived it as either slight (17.4%) or non-existent (3.5%).

While the majority of sectional or departmental heads also agreed that previous academic training was necessary, they tended to agree that it was useful in as
far as making employees trainable was concerned. The heads mentioned two other concerns relevant to tertiary training: first, the high number of employees whose formal qualifications do not allow them to further their studies in tertiary institutions, and second, the irrelevant, and outdated formal training that is not responsive to their unique problems.

Table 4: Perceptions of contribution of academic training to performance

<table>
<thead>
<tr>
<th>Scale</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great</td>
<td>41</td>
<td>47.7</td>
</tr>
<tr>
<td>Adequate</td>
<td>27</td>
<td>31.4</td>
</tr>
<tr>
<td>Slight</td>
<td>15</td>
<td>17.4</td>
</tr>
<tr>
<td>None</td>
<td>3</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Perceptions of contribution of academic training to performance (N=86)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td></td>
<td>3.2</td>
</tr>
<tr>
<td>Median</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Mode</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>SD</td>
<td></td>
<td>0.86</td>
</tr>
</tbody>
</table>

5. DISCUSSION

The three objectives were put forward in this paper.

Objective 1 – Leniency in self-appraisal

First, the paper evaluated the presence of employee leniency in self-appraisal. Research indicates that leniency is likely where employees want to enhance their scores for ego reasons or if they knew the appraisal results would be used for administrative purposes such as promotions or pay adjustment. But in this study self-rating was informal, and was in no way related to merit increases or promotions. In other words, there was no apparent incentive for self-enhancement, but apparently that did not affect the leniency suggested by the results. It may be that employees were genuinely stating what they believed was their level of performance, and they were not overstating their performance.
Objective 2 – Attribution biases in self-reported performance

Second, the paper predicted that many employees would attribute their less-than-expected performance to external factors in accordance with attribution theory, but the results militate against expectations of attribution theory. In other words, the study found no evidence of self-serving bias; if anything, the opposite was true. Three possible reasons can be advanced to explain this result. First, lack of motivation, much as is an internal factor, many respondents might have associated it with external factors. The researchers in this study established that motivation in this context was interpreted as extrinsic motivation; for instance, interviewees cited low wages as a source of low motivation in the ministry. This implies that motivation in this study, much as is an internal factor; some employees might have interpreted it as internal factor that was uncontrollable (Weiner, 2000). The second reason may relate to the context and design of the study. As noted above, this study was designed to assess the needs that could be addressed through training, and employees were made aware of that fact. It may be that employees responded in a desired manner (social desirability), say to please the researchers, and this could be interpreted as a common method bias (Podsakoff et al, 2003). Third, it is also possible that employees were genuinely stating the major hurdles in achieving the desired goals, and this had to do more with the timing of the study. It might be true that when performance appraisal for the purposes of training and capacity building is separated from performance appraisal for administrative purposes, employees do not commit unnecessary attribution errors (Herbert and Doverspike, 1990).

Involving employees in the analysis of their training needs had another advantage, namely, the identification of a range of needs that cannot be remedied through training. Employees revealed many non-training needs, and managers would be prudent to take them seriously. Non-training needs such as lack of supervisory support, lack of facilities, inadequate Government of Lesotho information system (GOLFIS), and others, could be useful to management to fill the performance gap (Prepenko, 1998). It should be noted that most of the non-
training needs were external factors, and there was no evidence of self-serving bias in the study, and hence there is enough justification to take them seriously. Taken together, the above issues support involvement of employees in the analysis of their training needs. However, if performance appraisal were undertaken as a means of undertaking the analysis, it would be important to involve other stakeholders to reduce bias and to counteract employee leniency. It goes without saying that elements of good performance appraisal should be in place in order to use performance appraisal results for the purposes of training needs assessment (Herbert and Doverspike, 1990). This study also suggests that separating performance appraisal for administrative purposes and training purposes could prove useful to organizations, as there were no unnecessary attribution biases often associated with the process at individual level.

**Objective 3 – Contribution of academic training to performance**

In relation to the third objective, the job-incumbents in the sample perceived a great contribution of their academic training to their performance. However, sectional and departmental heads put forward some challenges to training institutions in this country. There are many employees who have practical knowledge, but who cannot further their theoretical knowledge in line with advances in technology because of the inflexibility of tertiary institutions in this country. Training institutions can respond to the training needs of these people by either designing bridging programmes to take them on board, or by designing specialized and tailor-made short-courses that address the training and learning needs of such employees. In order to provide a demand-led training and education, training institutions have to work closely with employers in the design of syllabi and industrial attachments of students. They simply have to re-connect to the nation in all respects; otherwise the training in Lesotho will never address the societal needs.

**5.1. Limitations**

Like all studies, this study had limitations. First, non-probabilistic sampling was used, mainly because the findings were not meant to be generalized beyond the employees of the ministry. Second, the main study was not designed for testing
any hypotheses, and hence the scales used to measure performance informally and to test attribution biases were not perfect. For instance, assessing overall performance without including critical dimensions of performance was not informative enough. Again, the issue of motivation needed to be clarified so that employees knew whether it referred to extrinsic or intrinsic motivation. Future studies could try to replicate these findings under similar conditions by using more robust performance appraisal scales, and by using a more qualitative approach towards establishing and compiling the needs that could be addressed through training and non-training interventions.

REFERENCES


