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Formal HRM Practices in Small Growing Firms

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ABSTRACT

Using data from micro, small and medium firms in Australia, the paper examines the rate of adoption of formal HRM practices with increasing firm size. The results demonstrate a move towards division of labour, hierarchical structures, increased documentation, and more administrative processes as the number of employees increase. The adoption of formal practices begins early in the growth process, initially at a rapid rate (as a significant percentage of firms implement these practices) and then at a slower rate (as fewer new firms adopt the formal practices). At smaller business sizes HRM practices are less formal for managers than for operatives. The paper concludes that static models cannot be used to portray HRM practices in small firms, and that management training and advice for small firms must recognise the diversity of practices associated with various firm sizes.

Formal HRM Practices in Small Growing Firms

INTRODUCTION

It is increasingly recognised that small and medium enterprises (SMEs) are complex, varied, and influenced by a range of factors (Loan-Clarke, Boocock, Smith, and Whittaker 1999; Wagar 1998) and thus cannot be depicted by static models (Reid and Adams 2001; Baron and Kreps 1999). SMEs encompass firms of various sizes with varying degrees of complexity in management practices. However, they are often treated as one entity. Management training and advice to SMEs is largely based on textbook prescriptions that require the adoption of formal management procedures more suited to large firms. Trainers and advisers often fail to investigate the degree of formality already established in the firm and the implications for the firm's competitiveness before prescribing changes to existing practices. This is particularly true for human resource management (HRM) where practices in SMEs are generally described as 'informal' (Wilkinson 1999; Ritchie 1993; Kotey 1999).

Katzell (1962) argued that no one system of organization and management can serve as a blueprint for all organizations. He identified certain genotypic dimensions, including organizational size, and the degree of interaction and interdependence of organisational members, as determinants of variation and complexity in organizational practices and activities. Following Katzell's (1962) suggestion, firm size as well as the strategic implications of increasing size must be considered when defining appropriate levels and areas of formal HRM practices suitable to each firm. Blau (1970, 1972, 1994) noted two broad trends as organisations increase in size. The first is increasing division of labour, leading to greater horizontal and vertical differentiation. The second is that as size expands, differentiation increases- at first rapidly, but then more and more slowly.

The need to examine the interaction between firm size and HRM practices is gaining recognition among researchers (Heneman, Tansky, and Camp 2000). This paper investigates the extent to which HRM practices become formal as firms progress in size, and the implications of the changes for effective and competitive HRM practices. The HRM practices examined are recruitment and selection, training, performance appraisal, development of human resource (HR) policies, and maintenance of HR records. Kaman, McCarthy, Gulbro, and Tucker (2001) noted that these are HRM areas prone to increased formalisation with firm growth.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

In this study, the word formal refers to prescribed practices - that is, practices generally approved in the literature as appropriate for the various HRM areas examined. In this regard, it extends beyond documentation and standardisation of procedures, roles, and instructions to include legitimate sources of recruitment and the use of specialists for training. From Katzell's (1962) contention SMEs of varying sizes should exhibit various levels of formality in their HRM practices.

Consistent with Katzell's propositions, Hornsby and Kuratko (1990) examined HRM practices of small United States (US) firms in three size categories, and reported increased sophistication in practices with firm growth. Roberts, Sawbridge and Bamber (1992) argued that the limits of informality become apparent in firms with 20 or more employees, when informal networks of recruitment dry-up and informal styles of management communication are stretched. Jennings and Beaver (1997) noted that at this size the owner becomes over-extended and needs to delegate responsibility to more professional management. In contrast, Wilkinson (1999) argued that employment relations in SMEs are characterised by informality and that formal control systems and communication strategies are almost non-existent. He maintained that emphasis on

rules and procedures is outdated in an environment where owners have to make speedy decisions in response to market pressures. Golhar and Deshpande (1997) found similarities among small and large firms in many areas of HRM practices. These contrasting views make it difficult to understand existing HRM practices in SMEs and to prescribe appropriate practices for these firms. The result is a 'one size fit all' approach to HRM training and advice for SMEs.

Recruitment and Selection

It is expected that as firms grow the skills and abilities required to perform various functions and activities would no longer be available from the familiar and informal recruitment sources preferred by the owner-manager. Thus, a greater variety of formal recruitment sources would be used to attract suitable candidates. Hornsby and Kuratko (1990) reported extensive use of newspaper advertisements, government and private employment agencies, employee referrals, and unsolicited applications among small firm recruitment practices. Their findings are consistent with Barber, Wesson, Robertson, and Taylor (1999) who established increased use of formal hiring procedures as firms grow. In contrast, Marlow and Patton (1993) and Carroll, Marchington, Earnshaw, and Taylor (1999) found that recruitment in United Kingdom (UK) small firms is mainly through informal channels and networks based on previous knowledge of the individual by the owner, management, or trusted employees. Carroll et al. (1999) cited Atkinson and Meager (1994) who determined that for very small firms, knowing the individual is virtually a precondition for recruitment and that informal methods of recruitment remain predominant as firms grow. Marlow and Patton (1993) explained that SMEs prefer informal recruitment sources because they are cheaper.

As firms grow, multiple selection techniques would be used, in addition to interviews, to reduce errors in selecting employees recruited from sources unfamiliar to the owner-manager. Golhar and Deshpande (1997) demonstrated that one-to-one interviews are the most popular selection

techniques in both small and large firms, with large firms also likely to use written tests and panel interviews in the selection process. Hornsby and Kuratko (1990) reported increasing prominence of application forms and reference checks in the selection process as firms increased in size. Barber et al. (1999) determined that larger SMEs tend to rely on objective qualifications and to use a greater number of selection procedures in making hiring decisions. Rowden (2002) found that technical skills and positive work ethics received high priority in the selection processes of several of the successful small manufacturing and processing firms in his sample.

Other researchers report that in SMEs, the one-to-one selection interviews emphasise 'fitting in', with little attention to paper qualifications or previous work record (Bird 1989; Heneman et al. 2000; Carroll et al. 1999). Consequently, 'good' potential employees are not selected because they may be perceived as a threat to the valued independence of the owner-manager (Stanworth and Curran 1989). Whilst 'fitting in' would continue to be emphasised as a selection criterion as firms grow, attention will also be given to skills and abilities of candidates.

The adoption of formal employment procedures at the managerial level will lag behind that at the operational level for small firms, as owner-managers prefer to employ the few managers required from family and friends. This difference is expected to diminish with further growth, as these familiar sources are no longer able to cater for the specialist skills required. The contention that HRM practices will become formal with firm growth suggests the following hypotheses -

- H1 A greater variety of formal recruitment sources is employed with firm growth.
- H2 Screening of candidates is intensified through the use of multiple selection methods as firm size increases.
- H3 The application of formal employment procedures at the managerial level lags behind that at the operational level for smaller firms.

Training and Performance Appraisal

Training in SMEs has been described as informal and on-the-job, with little or no provision for management development (Loan-Clarke et al. 1999; Marlow and Patton 1993; Storey 1994).

MacMahon and Murphy (1999) noted that SMEs rarely carry out formal training needs analysis and have no systematic approach to training. Training is often perceived as an unaffordable luxury involving not only course fees but also the cost of unproductive labour. Owner-managers argue that training results in highly specialised staff, as opposed to the multi-skilled workforce required to cope with the highly flexible nature of jobs (MacMahon and Murphy 1999). In contrast, Hornsby and Kuratko (1990) reported the use of a variety of training methods in small firms with on-the-job training the predominant method. In very small firms, owner-managers perform most business activities themselves or directly supervise the performance of these activities (Timmons 1999). Thus, they take direct responsibility for employee training and teach their preferred methods of doing things.

Hornsby and Kuratko (1990) found that performance appraisal varies by firm size and industry sector. They identified narrative descriptions of employee performance, assessment of their ability to meet targets, and the use of rating scales, as appraisal methods that increased in prominence with firm size. In contrast, MacMahon and Murphy (1999) argued that owner – managers usually lack the skills necessary to carry out effective performance reviews and may perceive formal performance appraisal systems as time-consuming. In very small firms, performance appraisal would be informal and continuous as owner-managers directly control all activities (Mintzerg, Quinn and Voyer 1995). As the span of control increases, it is expected that appraisals would be more formal and occur at longer intervals.

Following textbook prescriptions, middle managers are required to take responsibility for daily operations of the firm and to supervise operational staff as the number of employees and span of

control increase (Collins and McLaughlin 1998). Lavarack (1995) argued that the ability to recruit extra staff and delegate some responsibility to them is one of the most important skills for business growth. In reality owner-managers have difficulty in trusting employees and are reluctant to delegate work (MacMahon and Murphy 1999). This leaves owner-managers too busy to devote time to strategic roles.

As firms grow, it is expected that training and performance appraisal of operational staff will be delegated to middle managers. To effectively control performance, owner-managers would shift their emphasis from operational staff to middle managers. This means they need to pay greater attention to training, development, and performance appraisal of managers to ensure that managers develop the skills and abilities necessary to perform their responsibilities. The above discussion on training and performance appraisal in SMEs would suggest the following hypotheses -

H4. On-the-job training is the predominant training method in SMEs.

H5 Other training methods become more prominent as firms grow.

H6 Development of managerial staff is given greater attention with firm growth.

H7 Responsibility for training and performance appraisal of operational staff is increasingly delegated to middle management with firm growth.

H8 Performance appraisal of managerial staff receives greater emphasis with firm growth.

Human Resource Policies and Records

Kotey (1999) stated that few owner-managers have formal and professional policies on human resource related issues such as promotions, incentives, and disciplinary action. The lack of HR policies coupled with nepotism and cronyism raise questions of fair treatment of all employees

(Bird 1989). SME employers believe that their family orientation ensures that employees are treated fairly, employee loyalty is encouraged (Rowden 2002) and explicit HR policies are rendered unnecessary (MacMahon and Murphy 1999). However, Adler and Borys (1996) suggested that increased formal policies and procedures could reduce employee role stress and facilitate greater employee commitment.

Job descriptions in small firms are vague because over time jobs change or develop and employees often create their own jobs (Holliday 1995). Carroll et al. (1999) found no evidence of systematic job analysis in UK small firms. They noted that managers perceive job descriptions to be too rigid, restricting the flexibility of their firms. In contrast, MacMahon and Murphy (1999) reported that poor job descriptions lead to role conflicts and employee frustration. In many cases, both employers and employees are ignorant of their roles, rights, and obligations.

In very small firms, direct control by the owner-manager reduces the need for detailed documentation and accountability. Although limited documentation of policies and procedures leads to inconsistent application of HRM practices, it does provide flexibility in adapting to change (Mintzberg et al. 1995). As employee numbers increase, procedures will need to be standardised for consistent and efficient application and fair treatment of employees (Child 1972). The introduction of standardised practices will induce the establishment and documentation of HR policies – a practice likely to increase with firm size. Documentation would also be required for purposes of accountability as owner-managers lose direct control of operations with firm growth. Documentation includes maintaining employee records required for statutory purposes and for evidence in the event of litigation. The following hypotheses are developed for testing based on the above discussion.

H9 Documentation of human resource policies and procedures increases with firm size.

H10 More firms will maintain records on employees as firm size increases.

METHODOLOGY

Definition of Small and Medium firms

The Australian Bureau of Statistics (ABS) defines a firm as small if it employs less than 20 workers and medium if it has up to 199 employees, regardless of the industry sector in which it operates (Office of Small Business 1999). Small firms are further classified into ‘micro firms’ (if they employ less than 5 workers) and ‘small firms’ (if they have between 5 and 19 employees). These classifications (micro, small, and medium) were used in this research with the exception that medium firms were restricted to those employing up to 100 workers (see next paragraph).

Sample and Data Collection

The research was based on a survey of 1330 micro, small, and medium firms on the Sunshine Coast region of South East Queensland. The Sunshine Coast Economic Development Board (SCEDB) maintains a database of small and medium firms in the region, which it updates frequently. All the firms in the 1996 database were surveyed with the exception of one firm – the Buderim Ginger Factory, then a public company and the only firm in the database with more than 100 employees. This firm was excluded from the study to avoid distorting the results.

Data for the research was obtained from a mail survey of firms in the sample ¹. The eight-page questionnaire covered general information on the business, demographic details of respondents, recruitment and selection practices, performance appraisal, training methods, and HR records and policies. The average number of employees in the various size categories is shown in Table 1. The table also presents number of employees in managerial and operational positions and under various employment contracts (full-time, part-time and casual).

Measurement of Variables

Business details such as employee numbers, positions, and contract length, and number of business locations were measured at the ratio level. Respondents were asked to indicate the number of employees in each position and employment category (that is, managerial and operatives; full time, part time, and casual) and the number of business locations. The questions for the other business characteristics and respondents' (owner-manager) details were close-ended and measured by nominal scales. Respondents were asked to choose among a number of alternative answers those corresponding to their responses to each question. Examples include gender (male or female); method of business acquisition (purchase, inherited, started); work experience (own business, family business, other private business, public companies, government organisation).

All the HR practices except those in Table 6 were measured at the nominal level. A list of recruitment sources, selection techniques, and training and appraisal methods were defined and respondents asked to choose those that corresponded with their practices, separately at the operative and managerial levels. Five-point Likert scales were used to measure variable items in Table 6 with a 'c' superscript (such as provision of orientation training, use of application and

¹ It was not possible to carry out a fully stratified random sample of firms in these size categories due to lack of information on employment sizes in the database from which the sample was drawn. However, the responses reported below show reasonable representation of all size and industry groups.

appointment letters and/or forms) and 3-point Likert scales were used to measure items with a 'b' superscript (such as maintenance of records on employees, job descriptions). A copy of the questionnaire showing the questions asked and response format is attached as an appendix.

Analytical Techniques

One-way Analysis of Variance (ANOVA) was used to examine differences in HRM practices of employers in the three size categories for variables measured at interval and ratio levels.

Variables measured by nominal scales were analysed using Chi-square tests. Where significant differences were indicated by ANOVA, differences between the groups were examined using Tukey tests of significance of difference to control for Type 1 errors. Similarly, where Chi-square tests indicated significant differences between the three groups, the differences were further investigated by separate Chi-square tests for micro and small firms, and for small and medium firms. Differences in the adoption of formal HRM practices at the managerial and operational levels were examined for the three size categories using Wilcoxon Signed Ranked Tests.

Response

Three hundred and seventy-one (371)² useable responses were received out of the 1,330 questionnaires sent, - a response rate of about 28%. This response is consistent with similar HRM surveys involving small firms (for example Deshpande and Golhar 1994). Nevertheless, to address the possibility of non-response bias, the 'final wave' of respondents (to surrogate late respondents for non-respondents) was compared to the initial respondents within each size group. Chi-square and t-test statistics revealed no significant differences at the 5% level for any of the variables in the study.

Of the 371 responses, 84 (22%) were micro-firms, 211 (57%) were in the small firm category, and 76 (21%) were medium firms. A comparison of business characteristics between this regional sample and national samples of firms in similar size categories showed no significant differences.³

DISCUSSION OF RESULTS

Sample Characteristics - Business Details and Demographics of Owner-managers

On average, medium firms employed significantly more permanent (full-time) and flexible staff (part-time and casual) than both micro and small firms (Table 1). There were significantly more full time workers in small firms than in micro firms (Table 1), but the number of part time and casual staff were similar for both firms. The percentages of permanent and flexible staff were similar for the three groups, with the exception that medium firms employed relatively more part-time staff than micro firms. An appropriate mix of fulltime and flexible staff is necessary for effective labour cost management. Full-time employees provide the stability in operations required for permanent growth and staff on flexible contracts supports temporal fluctuations in growth (English 2001). The average ratio of permanent to flexible staff was 2:1 (Table 1).

Take in Table 1 here

The number of employees at both operational and managerial levels increased significantly across the three firms. However, the ratio of one manager to four operatives was maintained for all firm sizes. This means additional managerial staff was employed at each firm size to maintain a consistent span of control.

²This was the final response after a mail follow up was conducted

³ Source of statistics on national sample: Department of Industry, Science and Tourism (DIST) (1998), A Portrait of Australian Business, Results of the 1995 Business Longitudinal Survey, Small Business Research Program, Canberra.

The number of firms owned and operated in other locations was higher for medium firms compared to small and micro firms (Table 1). In micro firms, the niche market strategy, with a single or few product lines is effectively contained in one location. As firms grow the niche strategy is gradually replaced by a mass-market strategy, market segmentation and broader product lines, or even by diversified products (Mintzberg et al. 1995). Thus in medium firms production facilities may be established in other locations in pursuit of more markets.

On average, medium firms were the oldest of the three firm groups, with the majority aged more than 10 years (Table 2). Consistent with their age, a higher percentage of medium firms were inherited, as older firms are likely to have been passed on to second-generation owners. The majority of respondents were male (79%), aged between 41 and 60 years (71%). Many (53%) were employees in other businesses before commencing their current business or had prior experience as business owners (44%). There were more female owners in micro firms than in both small and medium firms (Table 2). This is consistent with the literature, which indicates that female owner-managers tend to operate smaller firms (Brush 1992; Meredith and Barrett 1994). The percentage of respondents with prior experience in the private sector was fewer for medium firms compared to small and micro firms (Table 2)- a finding that may reflect national and to some extent international changes in employment preferences over the last decade - from public to private sector and/or to self-employment (Timmons 1999).

Take in Table 2 here

Results of the Hypotheses Tests

The results showed that adoption of formal HRM practices increased with firm size, with a move towards formal practices occurring early in the growth process. This was demonstrated by a greater increase between micro and small firms than between small and medium firms in the percentages of firms that implemented various formal HRM practices. At the micro and small

levels the adoption of formal HRM practices at the managerial level lagged behind that at the operational level. Attention to the development of managers increased with firm size. The results also showed increasing standardisation and documentation of HRM practices as firms grow.

Recruitment and Selection

A greater range of formal recruitment sources, such as newspaper advertisements and government recruitment agencies, was employed with firm growth. Screening of candidates also intensified as the use of various selection techniques increased with firm size. Although the use of formal employment procedures for managers lagged behind that for operational staff in micro and small firms the differences diminished for medium firms. Hypotheses 1, 2 and 3 were thus confirmed.

At the operational level, word of mouth was the main recruitment source for micro and small firms, confirming the findings of Marlow and Patton (1993). The greater use of government employment agencies, newspaper advertisements, and school recruitment by small and medium firms compared to micro firms demonstrates increased formal recruitment sources as firms grow (Table 3). This is consistent with the need to widen the search for suitable employees as the pool of potential employees from informal sources such as family and friends becomes exhausted (Roberts et al. 1992). The findings also indicate that the skills required to support growth are not readily available from these informal sources. The trend began early in the growth process between micro and small firms but slowed down considerably thereafter (as portrayed by the absence of significant changes between small and medium firms). There was some evidence of internal transfers in small and medium firms, made possible by growth.

Take in Table 3 here

The need for suitably qualified managerial staff to fill gaps in the owner-manager's skills and to take responsibility for operational activities as the firm grows, was indicated by the sharp rise in the use of formal recruitment sources such as newspaper advertisements (Table 3). However, recruiting managers by word of mouth was still common in small and medium firms. Atkinson and Meager (1994) suggested that this reflects the desire of owners to work with managers who are known to them. Government agencies and schools were rarely used at the managerial level, as these sources are considered more appropriate for recruiting operational staff than managers (Collins and McLaughlin 1998). Students often lack the experience required at the managerial level and managers rarely enlist with government employment agencies for work. In contrast, professional firms were used more often to recruit managers than operatives in small and medium firms. The predominant use of newspaper advertisements compared to word of mouth to recruit managers in medium firms reflects the greater specialisation in tasks. It also shows that the number and skills of managers required in medium firms are not available from the informal sources preferred by the owner-manager. Only a small percentage of micro firms reported using the various recruitment sources at the managerial level. With less than 5 employees, recruitment, particularly at the managerial level, is not a frequent occurrence in micro firms. The gap in the use of formal recruitment sources at the managerial and operational levels diminished in medium firms as more managers were employed.

Take in Table 4 here

The interview was the predominant selection method at the operational level for all three groups of firms. This finding is consistent with those of Golhar and Deshpande (1997) and Marlow and Patton (1993). In addition, more small and medium firms than micro firms reviewed applications and qualifications, and investigated candidates' backgrounds from previous employers. The increased use of a variety of selection techniques as more employees joined the

firm from outside the network of friends and family is in consonance with the increased risk in selection and greater cost of recruitment. Although a greater variety of selection techniques is advised in HRM texts, greater variety entails higher costs. For micro firms the higher costs can be avoided and employee qualities can be better assessed through informal interviews (Marlow and Patton 1993).

At the managerial level, selection techniques such as interviews, review of applications, assessment of candidates' qualifications, and the use of references increased with firm size (Table 4). Moreover, investigations from previous employers were more prevalent in small and medium firms than in micro firms (Table 4). These selection methods were less frequently applied in micro firms, as employment of managerial staff is rare and potential managers are likely to be family and/or friends. This reduces the need for in-depth screening and reflects the limited resources available to micro firms.

The gap between operational and managerial staff in the application of various selection techniques narrowed in medium firms compared to micro and small firms. At the operational level, there were no significant differences between small and medium firms in the application of the various selection techniques with the exception of medical examinations. In contrast, at the managerial level the percentage of firms applying the various selection techniques continued to increase as firms grew. This suggests greater attention to the quality of management as firm size increases and more managers are employed from outside the confines of friends and family.

Training

The results support the hypotheses that on-the-job training is the predominant training method in SMEs (H4) and that other training methods gain prominence with firm growth (H5), particularly at the managerial level. That greater emphasis is given to development of managerial staff as

firms grow (H6) and training of operational staff is delegated to middle management (H7) were also supported by the results.

Take in Table 5 here

At the operational level, the majority of employers in all three categories of firms provided on-the-job training for their employees, supporting the findings of Marlow and Patton (1993) and Hornsby and Kuratko (1990). However, the use of this method declined whilst the delegation of training responsibility to supervisors increased with firm size (Table 5). Shifting the responsibility for training operatives from owner-managers to middle management is consistent with increased delegation of operations to middle management as firms grow. Nevertheless, the percentage of owner-managers who provided on-the-job training to operatives exceeded those who delegated training to middle management at all firm sizes. This suggests a reluctance of owner-managers to delegate and confirms the findings of MacMahon and Murphy (1999). The decline in external training for operatives from small to medium firms may imply that in-house training by middle management is more cost-effective as employee numbers increase. For micro firms, training operational staff predominantly by watching and correcting their performance on the job is justified on cost grounds (Baron and Kreps 1999).

As firms grew, the increased emphasis on external training for managers signifies concern for both their training and their development, possibly to enhance their ability to contribute to organizational success (Kaman et al. 2001; Rowden 2002). It also indicates a greater awareness of management succession. Further, the move towards on-the-job training for managerial staff, as firm size increased, is consistent with the shift in the role of owner-managers from managing operations to managing managers (Timmons 1999). It may also reflect the desire of owner-managers to maintain control and direct the firm towards their vision. Relatively little attention

was given to training managers in micro firms, possibly because managers are few and are family or friends with whom business matters are discussed informally. In addition, the high level of uncertainty and change in micro firms could render extensive training of management ineffective. MacMahon and Murphy (1999) noted that extensive training could produce highly specialised staff unable to adapt to changing work requirements.

Small and medium firms were more likely than micro firms to provide orientation training for new employees (Table 6) and to cover more issues during orientation (Table 5). These findings reflect the greater resources of small and medium firms, and the need to minimise the risk and costs associated with employing staff from sources unfamiliar to the owner-manager. Efforts to ensure consistency in the orientation process increased with firm size - about half of the medium firms had a checklist of issues covered during orientation compared with a third for small firms and a quarter for micro firms (Table 5). These findings demonstrate greater standardisation of HRM practices with growth, necessary for uniform and efficient practices. Kaman et al. (2001) stated that orientation programs help employees to overcome uncertainty, become familiar with the organisation, and make positive contributions.

Take in Table 6 here

The increase in coverage of orientation issues between micro and small firms compared with small and medium firms supports Blau's (1970) contention that the adoption of formal practices begins at a faster rate, early in the growth process and continues at a declining rate thereafter. More medium firms than both micro and small firms indicated that some of their employees were multi-skilled. In contrast, the percentages of micro and small firms with a totally multi-skilled workforce were higher than for medium firms (Table 5). This demonstrates greater specialisation of tasks in medium firms. The majority of respondents in all three categories of

firms indicated that operations would continue even if one or more employees (including the owner-manager) were unable to attend to their normal duties.

Performance Appraisal

The appraisal of performance of operatives by middle managers increased with firm size (H7). Although a higher percentage of micro and small firms applied the various appraisal methods at the operational level than at the managerial level, the differences declined in medium firms. As firms grew, there were greater increases in the percentage using the various appraisal methods at the managerial level than at the operational level confirming H8.

The majority of firms appraised performance of their employees, particularly in small and medium firms (Table 7). For micro firms, the close association with employees enabled owner-managers to observe and correct wrong performance almost immediately, whereas under the more formal processes of the larger firms performance appraisal occurred at less frequent intervals (Table 7). Rating scales were the most popular appraisal methods at the operational level and some employers compared performance between employees. As the number of operatives increased, appraisal of their performance was increasingly delegated to managers (Table 7). The use of peer- and self-appraisals also increased with firm size. However, at the operational level the use of other appraisal methods rarely changed as firms grew.

Take table 7 in here

Compared with the appraisal of operative performance, fewer firms appraised the performance of managers in micro and small firms. This may reflect the small number of managers in these firms and their close association with the owner-manager. In micro and small firms appraisal of management performance may take place informally. The most common methods of appraising

managerial performance were by rating scales and to a lesser extent, their ability to meet targets (Table 7). The use of targets has a flow on effect - by holding managers accountable for performance targets, they will in turn ensure that these targets are achieved at the operational level.

The fewer opportunities for promotion and limited formal training in micro firms compared with both small and medium firms may explain why less use is made of information from performance appraisal to assess employee training needs and promotional prospects. Both micro and medium firms were less likely than small firms to train staff with consistently low performance before terminating their employment. This suggests that micro firms may not always be able to afford the cost of extensive training for poor performing employees. For medium firms, which may have the relevant legal and administrative structures for dismissal in place, it may be cheaper to dismiss than to train very poor performing staff.

Human Resource Policies and Records

The findings indicate that standardisation and documentation of HR procedures (H9) and maintenance of employee records (H10) increase with firm size. Both begin early in the growth process and continue at an increasing rate thereafter as portrayed by the increasing percentage of firms with HR policies and records on various issues as firms grew in size (Table 8). Concern for Occupational Health and Safety (OHS) by the majority of firms reflects that it is an area prone to regulation and legal dispute. The narrowing gap between written OHS policies and verbal communication of these policies to employees as firm size increased may indicate increasing use of formal communication methods (Table 8).

Take in Table 8 here

As owner-managers become distanced from employees, it is necessary to maintain detailed records on each employee for control purposes, as evidenced by the higher propensity to maintain such records among small and medium firms, compared to micro firms (Table 6). These records also serve as reference documents in the event of litigation. Furthermore, once a certain employment size is reached, records may be maintained in compliance with legal requirements. In micro firms, the close bond between employer and employees, the close control exercised by the employer, and the high level of informality in HRM practices reduce the need for detailed records on employees. However, this practice may prove risky in the event of litigation. While formal human resource policies and procedures may work against the flexibility required in micro firms, they are important to ensure uniform and fair treatment of employees as their numbers increase (Baron and Kreps 1999).

The results showed significant differences between micro and both small and medium firms in the use of job descriptions and application letters but the differences were not significant between small and medium firms (Table 6). The findings imply that these administrative procedures (job description and review of application letters), which minimise errors in the recruitment and selection process, are implemented early in the growth process as employees unknown to the owner-manager join the firm. The findings are consistent with Blau's (1972) theory that formal practices are implemented at a fast rate during the initial growth phase and at a declining rate thereafter. The increasing use of application forms as firms grew suggests that as the frequency of recruitment increases it becomes necessary to standardise the hiring process for both accuracy and efficiency (Table 6). That job descriptions were not always provided in either small or medium firms confirm the findings of Holliday (1995) that jobs are not always clearly defined even in the larger firms. The increasing propensity to issue appointment letters (Table 6) and to cover more issues in these letters as firm size increased (Table 8) provide

further evidence of growing implementation of administrative controls to replace direct control by the owner-manager.

CONCLUSIONS

Although the study was not set up explicitly to examine interrelationships among the various dimensions of structure the findings confirm those of Pugh, Hickson, Hinings and Turner (1968) in the Aston study, Inkson, Pugh and Hickson (1970), and the replication of the Aston study by Hinings and Lee (1971) and Child (1972). Consistent with these studies the results suggest positive associations among specialisation (denoted by number of managers), standardisation and formalization of roles and procedures. The findings show that regulation of the employees' work and behaviour through specification and documentation of their roles, the procedures they are to follow in performing these roles and their performance outcomes, tend to increase as more managers (specialist staff) join the firm. The increase occurs rapidly initially and then at the reduced rate thereafter (Blau 1970). The findings also concur with Child's (1972) proposition that when decision-making is confined to top levels (in this case with the owner-manager(s)) the need for systems, procedures and paperwork is reduced and the requirement for specialised staff to maintain and operate the established system minimised.

The results are consistent with the changes associated with start-up and growth stages of firms (Hanks, Watson, Jansen and Chandler 1993). In support of the life cycle theories the findings indicate a move from simple structures with highly centralised and informal systems to functional structures with specialised functions and greater standardisation and formalisation of activities. Nevertheless, the percentage of firms in the micro and small category aged 10 years or older reflect a preference among owner-managers for life-style businesses (Storey 1994). This

implies that some of the firms at micro and small level may be at a mature stage, with growth limited by owner-managers and/or the markets in which they operate (Hanks et al. 1993).

The observed changes in HRM practices may also reflect the strategic orientation of firms at each of the sizes examined. In micro-firms, the close relationship between employer and employees replaces formal controls and reduces the need for detailed documentation, leaving the firm malleable to the frequent changes that characterise business strategy at this size. At this size, business strategy is likely to be intuitive and oriented towards aggressive search for opportunities and product development (Hanks et al 1993).

As the firm grows, product lines may be broadened to support a strategy of market segmentation and to confront competition (Mintzberg et al. 1995). Increased production means more employees are needed at the operational level. More managers are also required to fill gaps in the owner-manager's expertise and to take responsibility for daily operation of the firm as the owner-manager takes on more strategic roles. This is consistent with the transfer of training and appraisal responsibilities to middle management. Administrative procedures and controls replace direct control by the owner-manager. Documentation is increased as part of the control process to enable accountability, particularly as the number of stakeholders increase. Cappelli and Crocker-Hefter (1996) and Arthur (1994) support the contention that HRM practices differ with the strategic approach adopted by firms.

Baron and Kreps (1999) cautioned that the implementation of formal HRM procedures should not be aimed at ensuring conformity with what is perceived as 'best practice' but rather at developing systems that increase the net benefits associated with human resources. Such systems should integrate well with other areas of the business, and create synergistic effects to enhance the total value of the firm. Thus decisions to implement formal HRM practices must

involve cost benefit analyses. Benefits of formal HRM practices include meeting legal requirements, maintaining records in support of decisions in the event of litigation, fair treatment of employees, and increased efficiency. The major costs are reduced flexibility and financial resources, and increased organisational inertia. Formal HRM practices can also detract from performance (Welbourne and Cyr 1999; Kaman et al. 2001). Kaman et al. (2001) found a positive correlation between bureaucratic HRM practices and absenteeism. In contrast, informal procedures alleviate the personal distance necessary to handle employee grievances objectively and can be problematic to growing firms (MacMahon and Murphy 1999). Becker et al. (1997) stated that to continue to benefit from successful HR practices, firms must continuously add to their fundamental practices as their strategies change with growth.

While the analyses show that a significant percentage of SMEs implement formal HRM practices with growth, HRM remains informal in the majority of firms, particularly in small firms. It could be that implementation of formal HR structures and procedures necessary to support growth differentiates successful from unsuccessful SMEs. Kotey and Meredith (1997), Heneman and Berkley (1999), and Huselid (1995) have found positive relationships between specific HRM practices and firm performance. In general, differences in the adoption of formal HRM practices among SMEs confirm Katzell's (1962) proposition that variations in management practices among SMEs can be explained by firm size.

Summary

The study has shown that unlike the situation in large firms where HRM practices are formal, HRM in small and medium firms – a) changes with size towards more enunciated and prescribed practices; b) changes begin early in the growth process and proceed at a faster rate than during the latter growth phase; and c) adoption of formal HRM practices at the managerial level lags behind that at the operational level at the smaller firm sizes.

Implications

Management training and advice for SMEs, which emphasise formal procedures, may be counter-productive at certain firm sizes. Such advice may reduce flexibility of the firm and hinder speedy response to changing strategic visions and environmental variables. HRM practices such as formal recruitment sources, extensive screening of candidates and extensive training of employees may not be necessary in micro firms, where employee numbers are small, the majority are either family or friends, and the owner is in a position to exercise direct control over activities in the business. Moreover, the owner-manager may not have the resources required to implement extensive HRM practices. Owner-managers should be made aware of the importance of maintaining a balance in HRM practices that enable proper accountability and control, reduce the risk of litigation, and ensure statutory requirements are met, whilst at the same time providing adequate flexibility for response to changing strategies. The appropriate balance will differ with size and strategy of the firm.

Limitations and Future Research

The study did not examine industry effects on the changes in HRM practices. This could be addressed in future research. A longitudinal examination of HRM practices of firms as they progress through various growth stages should complement the findings in this research. Finally the self-report, single administrative nature of the questionnaire may pose limitations in that responses were vulnerable to response consistency bias. Future research could address this limitation. Care must be taken in generalising the findings from this research as it is based on SMEs in one small region of Australia.

REFERENCES

- Adler, R.S., and B. Borys (1996). "Two types of bureaucracy: Enabling and coercive", *Administrative Science Quarterly*, 41(1), 61-89.
- Arthur, J. (1994). "Effects of human resource systems on manufacturing performance and turnover," *Academy of Management Journal* 37, 67-687
- Atkinson, J., and N. Meager (1994). "Running to stand still: the small firms in the labour market," in *Small firms and the Labour Market*. Ed. J. Atkinson and D. Storey, London: Routledge,
- Barber, A. E., M. J. Wesson, Q. M. Robertson, and M. S. Taylor (1999). "A tale of two job markets: Organisational size and its effects on hiring practices and job search behaviour", *Personnel Psychology* 52(4), 841-867
- Baron, J.A, and D.M. Kreps (1999). *Strategic Human Resources: Framework for General Managers*, New York: John Wiley and Sons.
- Becker, B. E., M. A. Huselid, and P. S. Pickus (1997). "HR as a source of shareholder value: Research and recommendations", *Human Resource Management* 36 (1) 39 - 47
- Bird, B. (1989). *Entrepreneurial Behavior*. Illinois: Scott Foresman and Company.
- Blau, P. M. (1970). "A formal theory of differentiation in organisations", *American Sociological Review* . 35 (2), 201 - 218
- Blau, P. M (1972). "Interdependence and hierarchy in organisations", *Social Science Research* 1, 1-24.
- Blau, P. M. (1994). *The Organization of Academic Work*. New Jersey: Transaction Publishers.
- Brush, C. G. (1992). "Research on women business owners: Past trends, a new perspective and future directions", *Entrepreneurship Theory and Practice*, (Summer), 5-30.
- Cappelli, P., and A. Crocker-Hefter (1996). "Distinctive human resources as firms' core competencies", *Organisational Dynamics* 24(3), 7-22.

- Carroll, M., M. Marchington, J. Earnshaw, and S. Taylor (1999). "Recruitment in Small Firms: Processes, Methods and Problems". *Employee Relations*. 21(3), 236-250.
- Child, J. (1972). "Organization, structure and strategies of control: A replication of the Aston study", *Administrative Science Quarterly*, 17 (3), 163-177.
- Collins, R., and Y. McLaughlin (1998). *Effective Management*, CCH Australia Ltd.
- Deshpande, S. P., and D.Y Golhar (1994). "HRM practices in large and small firms: A comparative study", *Journal of Small Business Management*. 32(2), 49-56.
- Golhar, D. Y., and S.P. Deshpande (1997). "HRM practices of large and small Canadian manufacturing firms", *Journal of Small Business Management*, 35(3), 30-38.
- English, J. (2001). *How to Organise and Operate a Small Business*. Sydney: Allen and Unwin.
- Hanks, S.H., C.J. Watson, E. Jansen, and G.H. Chandler (1993). "Tightening the life-cycle construct: A taxonomic study of growth stage configurations in high-technology organizations", *Entrepreneurship Theory and Practice*. 18(2), 5-31
- Heneman, R.L., J.W. Tansky, and S. M. Camp (2000). "Human resource management practices in small and medium-sized enterprises: Unanswered questions and future research perspectives", *Entrepreneurship Theory and Practice*. 25(1), 11-26.
- Heneman H.G. III and R.A Berkley (1999). "Applicant attraction practices and outcomes among small businesses", *Journal of Small Business Management*. 37(1), 53-74.
- Hinings, C.R. and G.L. Lee (1971). "Dimensions of organizational structure: A replication", *Sociology*. 5, 83-93.
- Holliday R. (1995). *Investigating small firms: nice work?* London: Routledge.
- Homans, G.C. (1950). *The Human Group*. New York: Harcourt Brace Jovanovich
- Hornsby, J.S., and D.K Kuratko (1990) "Human resource management in small firms: Critical issues for the 1990", *Journal of Small Business Management*. 28(July), 9-18.

- Huselid, M.A. (1995). "The impact of human resource management practices on turnover, productivity and corporate financial performance", *Academy of Management Journal*. 38(3), 635-672.
- Inkson, J.H.K, D.S. Pugh, and D.L. Hickson (1970). "Organization context and structure: An abbreviated replication", *Administrative Science Quarterly*. 15(4), 318-329
- Jennings, P., and G. Beaver (1997). "The performance and competitive advantage of small firms: A management perspective", *International Small Business Journal*. 15(2), 63-75.
- Kaman V., A.M. McCarthy, R.D. Gulbro, and L.T. Tucker (2001). "Bureaucratic and high commitment human resource practices in small service firms", *HR. Human Resource Planning* 24(1) 33-44
- Katzell, R.A. (1962). "Contrasting systems of work organizations." *American Psychologist*. 17, 102-108.
- Kotey, B., and G.G. Meredith (1997). "Relationships among owner/manager personal values, business strategies and enterprise performance", *Journal of Small Business Management*. 35(2), 37-64.
- Kotey, B. (1999). "Human resource management practices of Sunshine Coast small firms with reference to the prescribed models", *International Journal of Employment Studies*. 7(1), 79-104.
- Lavarack, D. (1995). "Unlocking the small business", *Training Tomorrow*. 9(February), 27-28.
- Loan-Clarke, J., G. Boocock, A. Smith, and J. Whittaker (1999). "Investment in management training and development by small business", *Employee Relations*. 21(3), 296-310.
- MacMahon J., and E. Murphy (1999). "Managerial effectiveness in small enterprises: Implications for HRD", *Journal of European Industrial Training*. 23(1), 25-35.

- Marlow, S., and D. Patton (1993). "Managing the employment relationship in the smaller firm: Possibilities for human resource management", *International Small Business Journal*. 11(4), 57-64.
- Meredith, G. G., and P. Barrett (1994). *Women self-employed entrepreneurs in Queensland: Significance and policy issues: First Report*. Queensland Small Business Corporation. Lismore, Australia.
- Mintzberg H. (1979). *The Structuring of Organisations*. Englewood Cliffs, New Jersey: Prentice-Hall.
- Mintzberg, H., J. Quinn, and J. Voyer (1995). *The Strategy Process*. Englewood-Cliffs, New Jersey: Prentice Hall.
- Office of Small Business (1999). *Annual review of small business 1999*. Canberra: Paragon Printing.
- Pugh, D. S., D.J. Hickson, C.R. Hinings, and C. Turner (1968). "Dimensions of organizational structure", *Administrative Science Quarterly*. 13(1), 65-91.
- Reid, R. S., and J. S. Adams (2001). "Human resource management – a survey of practices within family and non-family firms", *Journal of European Industrial Training*. 25(6), 310-320.
- Ritchie, J. (1993). "Strategies for human resource management: Challenges in smaller and entrepreneurial organizations", in *Human Resource Management*. Ed. R. Harrison. Wokingham: Addison-Wesley, 111-135.
- Roberts, I., D. Sawbridge, and G. Bamber (1992). "Employee relations in small firms", in *Handbook of Industrial Relations Practice*. Ed. B.A. Towers, , London: Kogan Page.
- Rowden, R.W. (2002). "High performance and human resource characteristics of successful small manufacturing and processing companies", *Leadership and Organisational Development Journal*, 23(2) 79-83.

- Stanworth, J., and J. Curran (1989). "Employment relations in small firms", in *Small Business and Entrepreneurship*. Ed. P. Burns and J. Dewhurst, Basingstoke: Macmillan Education.
- Storey D. (1994). *Understanding the small business sector*, London: International Thomson Business press.
- Sunshine Coast Economic Development Board (1996). *Sunshine Coast Business Outlook, March-May*. Mooloolaba, Australia: SCEDB.
- Timmons, J. A. (1999). *New Venture Creation: Entrepreneurship For the 21st Century*. New York: Irwin McGraw-Hill.
- Wagar, T. (1998). "Determinants of human resource management practices in small firms: Some evidence from Atlantic Canada", *Journal of Small Business Management*. 36(2), 13-23.
- Weber, M. (1947). *The Theory of Social and Economic Organisation*. New York: Free Press.
- Welbourne T.M., and L.A. Cyr (1999). "The human resource executive effect in initial public offerings", *Academy of Management Journal*. 42(6), 616-629.
- Wilkinson, A. (1999). "Employment Relations in SMEs", *Employee Relations*. 21(3) 206-217.

Table 1: Firm Characteristics - Employees and Number of Locations: Results of ANOVA and Multiple Comparisons

Variables	Business Group	Means	F-value	Sig	Comparison of Means		
					1 - 2 (sig)	1 - 3 (sig)	2 - 3 (sig)
Full-time employees ^a	Micro (1)	1.9	150.69	0.000	-4.88 (0.000)	-21.69 (0.000)	-16.81 (0.000)
	Small (2)	6.8					
	Medium (3)	23.6					
Part-time employees ^a	Micro (1)	0.58	11.99	0.000	-0.46 (0.748)	-3.42 (0.000)	-2.95 (0.000)
	Small (2)	1.05					
	Medium (3)	4.00					
Casuals ^a	Micro (1)	0.79	43.16	0.000	-1.11 (0.479)	-9.65 (0.000)	-8.53 (0.000)
	Small (2)	1.90					
	Medium (3)	10.43					
Percentage of Full-time employees to all employees ^a	Micro (1)	0.61	2.18	0.114	-0.08 (0.11)	-0.03 (0.74)	0.05 (0.54)
	Small (2)	0.69					
	Medium (3)	0.64					
	Total	0.66					
Percentage of Part-time employees to all employees ^a	Micro (1)	0.17	2.98	0.05	0.06 (0.13)	0.08 (0.05)	0.02 (0.65)
	Small (2)	0.11					
	Medium (3)	0.09					
	Total	0.12					
Percentage of Casuals to all employees ^a	Micro (1)	0.23	1.53	0.22	0.03 (0.73)	-0.04 (0.68)	-0.07 (0.20)
	Small (2)	0.20					
	Medium (3)	0.27					
	Total	0.22					
Operational Staff ^a	Micro (1)	2.26	188.79	0.000	-4.80 (0.000)	-26.58 (0.000)	-21.79 (0.000)
	Small (2)	7.06					
	Medium (3)	28.84					
Managerial Staff ^a	Micro (1)	0.60	82.01	0.000	-1.26 (0.000)	-4.12 (0.000)	-2.85 (0.000)
	Small (2)	1.86					
	Medium (3)	4.70					
Percentage of Operational Staff to all employees ^a	Micro (1)	0.81	0.366	0.69	0.02 (0.78)	0.00 (1.00)	-0.02 (0.77)
	Small (2)	0.79					
	Medium (3)	0.81					
	Total	0.80					
Percentage of Managerial Staff to all employees ^a	Micro (1)	0.19	0.366	0.69	-0.02 (0.78)	0.00 (1.00)	0.02 (0.77)
	Small (2)	0.21					
	Medium (3)	0.19					
	Total	0.20					
No. of businesses in other locations ^a	Micro (1)	1.16	11.74	0.000	-0.24 (0.349)	-0.98 (0.000)	-0.74 (0.000)
	Small (2)	1.41					
	Medium (3)	2.15					

^a variables measured at ratio level

Table 2: Differences in Firm and Owner-manager Details: Chi-Square Statistics

Variables	Percentage of Respondents				Chi sq. for 3 groups	Chi sq. micro & small	Chi sq. small & medium
	Micro Firms (%)	Small Firms (%)	Medium firms (%)	Total (%)			
<i>Firm & Personal details</i>							
Age – 10 yrs or older	36	49	58	48	8.09**	1.16**	1.84
Inherited businesses	1.2	2.9	11.8	4.3	13.39***	0.70	9.06***
Females	31.3	19.4	15.8	21.4	6.78**	4.79**	0.49
Private sector experience	59	55	40.8	53	6.09**	0.40	4.50**

*** = $p \leq 0.01$; ** = $p \leq 0.05$; * = $p \leq 0.10$

Table 3: Chi-Square Statistics and Wilcoxon Signed Ranked Tests for Recruitment Variables Measured at Nominal Level.

Variables	Percentage of Respondents				Chi sq. for 3 groups	Chi sq. micro & small	Chi sq. small & medium
	Micro Firms (%)	Small Firms (%)	Medium firms (%)	Total (%)			
Word of mouth (O)	58.3	57.3	48.7	55.8	1.98	0.024	1.694
Word of mouth (M)	9.5	25.6	23.7	21.6	9.43***	9.345***	0.108
Wilcoxon Z	-6.25***	-7.27***	-3.8***				
Newspapers (O)	27.4	50.7	55.3	46.4	16.2***	13.27***	0.464
Newspapers (M)	7.1	27.5	50	27.5	36.76***	14.64***	12.72***
Wilcoxon Z	-3.9***	-5.82***	-0.76				
Govt. agencies (O)	25	40	50	38.5	10.86***	5.749**	2.374
Govt. agencies (M)	0	4.3	9.2	4.3	8.2**	3.696**	2.596*
Wilcoxon Z	-4.58***	-8.55***	-5.39***				
Private Agencies (O)	3.6	8.1	13.2	8.1	4.934*	1.913	1.706
Private Agencies (M)	1.2	8.1	15.8	8.1	11.44**	4.944**	3.678**
Wilcoxon Z	1	0	0.54				
Professional Firms (O)	1.2	2.8	1.5	2.2	1.098	0.709	0.548
Professional Firms (M)	0	7.1	9.2	5.9	7.29**	6.291**	0.349
Wilcoxon Z	1	3***	2.12**				
Schools (O)	1.2	6.2	10.5	5.9	6.28**	3.284*	1.570
Schools (M)	0	2.4	5.3	2.4	4.676*	2.025	1.540
Wilcoxon Z	1	-2.14**	-1.63*				
Internal transfers (O)	1.2	6.2	9.2	5.7	5.036*	5.284*	0.801
Internal transfers (M)	1.2	8.1	6.6	6.2	4.895*	4.944**	0.172
Wilcoxon Z	0	0.894	-0.71				

O- operational level, M- managerial level. Wilcoxon Z – shows the differences between operational and managerial levels in application of the various practices. *** = $p \leq 0.01$; ** = $p \leq 0.05$; * = $p \leq 0.10$

Table 4: Chi-Square Statistics and Wilcoxon Signed Ranked Tests for Selection Variables Measured at Nominal Level.

Variables	Percentage of Respondents				Chi sq. for 3 groups	Chi sq. micro & small	Chi sq. small & medium
	Micro Firms (%)	Small Firms (%)	Medium firms (%)	Total (%)			
Interviews (O)	76.5	85.3	82.9	82.9	3.17	3.168*	0.251
Interviews (M)	22	49.3	65.8	46.6	31.88***	18.161***	6.118**
Wilcoxon Z	-6.49***	-8.61***	-3.15***				
Qualifications (O)	58.5	71.6	64.5	67.2	4.872*	4.599**	1.330
Qualifications (M)	14.6	45.5	61.8	42.0	38.55***	24.169***	5.917**
Wilcoxon Z	-6***	-6.13***	-0.47				
Review application (O)	20.7	42.2	48.7	38.8	15.42***	11.765***	0.960
Review application (M)	9.8	28.9	52.6	29.5	34.93***	12.033***	13.786***
Wilcoxon Z	-2.7***	-4.13***	-0.78				
Prev. Employment (O)	34.1	49.8	42.1	44.7	6.08**	5.810**	1.313
Prev. Employment (M)	12.2	30.8	36.8	27.9	13.96***	10.739***	0.930
Wilcoxon Z	-3.84***	-5.66***	-1.41				
References (O)	15.9	26.1	27.6	24.1	4.010	3.456*	0.070
References (M)	6.1	16.6	27.6	16.5	13.26***	5.512**	4.339**
Wilcoxon Z	-2.83***	-3.54***	0				
Practical test (O)	24.4	22.7	15.8	21.7	2.050	0.089	1.637
Practical test (M)	1.2	4.7	5.3	4.1	2.228	2.025	0.033
Wilcoxon Z	-4.36***	-5.86***	-2.53***				
Written test (O)	2.4	5.2	3.9	4.3	1.131	1.072	0.193
Written test (M)	2.4	3.3	5.3	3.5	0.987	0.153	0.574
Wilcoxon Z	0	-1.07	0.38				
Medical Exam (O)	1.2	2.4	6.6	3.0	4.554*	0.389	2.944*
Medical Exam (M)	0	1.4	6.6	2.2	9.34***	1.728	5.484**
Wilcoxon Z	-1	-1	0				

O- operational level, M- managerial level. Wilcoxon Z – shows the differences between operational and managerial levels in application of the various practices. *** = $p \leq 0.01$; ** = $p \leq 0.05$; * = $p \leq 0.10$

Table 5: Chi-Square Statistics and Wilcoxon Signed Ranked Tests for Training Variables Measured at Nominal Level

Variables	Percentage of Respondents				Chi sq. for 3 groups	Chi sq. micro & small	Chi sq. small & medium
	Micro Firms (%)	Small Firms (%)	Medium firms (%)	Total (%)			
Training methods							
On the job-owners –O	90.2	80.5	69.7	80.4	10.54***	4.03**	3.71**
On the job-owners– M	14.6	29	46.1	29.3	18.8***	6.53***	7.24***
Wilcoxon Z	-7.87***	-9.94***	-3.40***				
By supervisors –O	8.5	27.1	52.6	28.3	38.13***	11.93***	16.18***
By Supervisors – M	1.2	5.7	10.5	5.7	6.35**	2.8*	1.99
Wilcoxon Z	-2.45***	-6.3***	-5.66***				
Job Rotation -O	35.4	44.3	47.4	42.9	2.68	1.93	0.214
Job Rotation-M	3.7	10.5	15.8	10.1	6.52**	3.5*	1.5
Wilcoxon Z	-5.1***	-7.99***	-4.54***				
External courses –O	26.8	45.2	31.6	38.3	10.30***	8.32***	4.29**
External courses –M	7.3	24.3	40.0	23.7	23.23***	10.81***	6.71***
Wilcoxon Z	-4.0***	-5.59***	1.50				
Encourage ext sem –O	18.3	29.0	14.7	23.7	8.03**	3.54*	6.05**
Encourage ext sem –M	9.8	33.3	35.5	28.5	18.37***	16.75***	0.12
Wilcoxon Z	-2.11**	1.17	3.27***				
Oblige ext. sem -O	6.1	15.7	7.9	12	6.68**	4.82**	2.90*
Oblige ext. sem –M	2.4	9	14.5	8.7	7.27**	3.86**	0.19
Wilcoxon Z	-1.34	-2.65***	1.39				
Orientation - Contents							
Employment Conditions	63	78.2	82.9	75.8	10.03***	7.06***	0.75
Duties	69.1	89.1	88.2	84.5	18.79***	17.0***	0.05
Intro. to workplace	58	86.7	88.2	80.7	34.39***	28.84***	0.10
OHS	45.7	53.1	67.1	54.3	7.57**	1.28	4.48**
Management policies	29.6	56.9	52.6	50	17.64***	17.38***	0.40
Business Objectives	39.5	48.8	39.5	44.8	3.26	2.04	1.96
Checklist	25.8	34.8	51.4	36.7	10.53***	1.86	6.15**
Multi-skilled-Some							
All Multi-skilled	39.5	34.8	20.3	32.9	7.28**	0.57	5.37**
Ability to run the firm	81.5	84.4	80.6	83	0.713	0.35	0.56

O- operational level, M- managerial level. Wilcoxon Z – shows the differences between operational and managerial levels in application of the various practices. *** = $p \leq 0.01$; ** = $p \leq 0.05$; * = $p \leq 0.10$

Table 6: Results of ANOVA and Multiple Comparisons for Variables Measured at Interval Level

Variables	Business Group	Means	F-value	Sig	Comparison of Means					
					1 - 2 (sig)	1 - 3 (sig)	2 - 3 (sig)			
Orientation ^c	Micro (1)	3.52	7.15	0.001	-0.55	-0.73	-0.18			
	Small (2)	4.07						0.004	0.001	0.564
	Medium (3)	4.25								
Job Description ^b	Micro (1)	1.11	14.48	0.000	-0.43	-0.64	-0.21			
	Small (2)	1.87						0.000	0.000	0.119
	Medium (3)	2.07								
Application Letters ^c	Micro (1)	2.13	17.40	0.000	-0.98	-1.25	-0.27			
	Small (2)	3.11						0.000	0.000	0.362
	Medium (3)	3.39								
Application Forms ^c	Micro (1)	1.89	33.39	0.000	-0.87	-2.10	-1.22			
	Small (2)	2.76						0.000	0.000	0.000
	Medium (3)	3.99								
Appointment Letters ^c	Micro (1)	1.57	14.35	0.000	-0.89	-1.27	-0.38			
	Small (2)	2.46						0.000	0.000	0.162
	Medium (3)	2.84								
Records on employees ^b	Micro (1)	2.04	17.0	0.000	-0.52	-0.66	-0.15			
	Small (2)	2.55						0.000	0.000	0.348
	Medium (3)	2.70								

^b variables measured on a three point Likert scale

^c variables measured on a five point Likert scale

Table 7: Chi-Square Statistics and Wilcoxon Signed Ranked Tests for Performance Appraisal Variables Measured at Nominal Level

Variables	Percentage of Respondents				Chi sq. for 3 groups	Chi sq. micro & small	Chi sq. small & medium
	Micro Firms (%)	Small Firms (%)	Medium firms (%)	Total (%)			
Performance Appraisal	70	82.4	80	79	5.95**	5.84**	0.21
Daily	29.3	19.5	13.2	20.4	6.53**	3.24*	1.54
Monthly	11	24.8	32.9	23.4	11.11***	6.78***	1.88
Ratings on duties- O	48.8	53.3	56.6	53.3	1.02	0.6	0.17
Ratings on duties –M	8.5	32.9	50	31	32.52***	18.12***	7.0***
Mgers vrs operatives	-5.58***	-6.0***	-1.29				
Ratings on quality -O	48.8	53.3	44.7	50.5	1.78	0.49	1.65
Ratings on quality –M	8.5	24.8	30.3	22.3	12.49***	9.63***	0.87
Mgers vrs operatives	-5.58***	-7.17***	-3.05***				
Comparisons –O	22	32.4	35.3	30.7	4.06	3.09*	0.25
Comparisons –M	3.7	11.4	13.2	10.1	4.96*	4.24**	0.16
Mgers vrs operatives	-3.87***	-6.63***	-3.9***				
Meeting target – O	20.7	25.7	17.1	22.8	2.61	0.80	2.31
Meeting target – M	7.3	18.1	21.1	16.3	6.60**	5.35**	0.32
Mgers vrs operatives	-2.67***	-2.74***	1				
Observe behaviour -O	13.4	21.4	17.1	18.8	2.66	2.44	0.65
Observe behaviour –M	3.7	7.6	17.2	8.7	9.7***	1.52	5.51**
Mgers vrs operatives	-2.83***	-5.05***	0				
Self assessment – O	4.9	17.1	9.2	12.8	9.05***	7.5***	2.75*
Self assessment – M	2.4	11.0	11.8	9.2	5.87**	5.46**	0.04
Mgers vrs operatives	1	-2.84***	1				
Peer assessment – O	8.5	19.0	21.1	17.1	5.64*	4.82**	0.14
Peer assessment – M	1.2	8.1	14.5	7.9	9.58***	4.82**	2.57
Mgers vrs operatives	-2.45**	-4.43***	-1.67*				
Supervisors-O	19.5	46.7	47.4	40.8	19.74***	18.27***	0.01
Supervisors-M	6.1	20.5	25.0	18.2	11.16**	8.88***	0.67
Mgers vrs operatives	-3.32***	-6.93***	-3.71***				
Use of Appraisal							
Train needs assessmnt	22.2	41.0	44.7	37.6	10.82***	8.93***	0.33
Promotion	7.4	22.4	35.5	21.8	18.28***	8.8***	5.03**
Train poor performers	65.4	80.0	69.7	74.7	7.79**	6.79***	3.35*

O- operational level, M- managerial level. Wilcoxon Z – shows the differences between operational and managerial levels in application of the various practices. *** = $p \leq 0.01$; ** = $p \leq 0.05$; * = $p \leq 0.10$

Table 8: Chi-Square Statistics for Variables Representing HR Policy and Records Measured at Nominal Level

Variables	Percentage of Respondents				Chi sq. for 3 groups	Chi sq. micro & small	Chi sq. small & medium
	Micro Firms (%)	Small Firms (%)	Medium firms (%)	Total (%)			
<i>HRM policies</i>							
Working hours	22.1	48.0	60.0	44.2	22.93***	15.1***	2.73*
Annual leave	16.2	42.3	60.6	40.1	29.51***	15.79***	6.51***
Sick leave	14.9	33.1	53.8	33.1	23.74***	8.74***	8.64***
Overtime	11.1	30.9	50.0	30.2	24.37***	10.58***	7.46***
Employment termination	12.3	31.1	47.8	30.3	20.89***	9.6***	5.9**
Long service leave	9.6	22.7	47.5	24.5	26.58***	5.75**	13.47***
Disciplinary procedures	8.3	22.2	45.5	23.9	26.68***	6.59***	12.56***
Grievance handling	6.8	20.1	30.8	19.2	12.86***	6.7***	3.06*
Promotion	9.7	8.9	16.7	10.7	2.87	0.04	2.71*
<i>Written OHS Policies</i>							
Communicating OHS	88.5	97.5	95.5	95.3	7.08**	9.87***	0.624
<i>Personnel records</i>							
Sick & annual leave	42.7	68.6	77.6	64.7	24.34***	16.66***	2.22
Workers compensation	31.7	54.3	69.7	52.4	23.54***	12.05***	5.48**
Job description	22	48.6	53.9	43.8	21.03***	17.26***	0.65
Appointment letter	14.6	40.5	52.6	37.2	26.58***	17.75***	3.35*
Training records	17.1	35.2	47.4	33.7	16.72***	9.24***	3.47*
Performance records	17.1	29.5	44.7	29.9	14.44***	4.75**	5.79**
Probation	6.1	13.3	26.3	14.4	13.53***	3.08*	6.73***
<i>Termination</i>							
Poor Performance	91.8	85.6	85.3	86.9	1.95	1.80	0.004
Absenteeism	72	64	66.7	66.4	1.62	1.62	1.6
Disobedience	47.6	59.3	77.3	60.4	14.74***	3.3*	7.77***
OHS non-compliance	34.1	35.9	48	38	4.1	0.08	3.4*
<i>Appointment letters -Contents</i>							
Job title	18.5	41.7	56.6	39.7	24.59***	13.78***	4.98**
Duties	18.5	40.3	59.2	39.4	27.35***	12.31***	8.08***
Remuneration	18.5	40.8	53.9	38.6	21.75***	12.8***	3.94**
Superannuation	13.6	26.1	38.2	25.8	12.38***	5.22**	3.95**
Leave entitlements	13.6	24.2	36.8	24.5	11.51***	3.93**	4.5**
Probation	9.9	34.6	44.7	31.3	24.76***	17.84***	2.46

*** = $p \leq 0.01$; ** = $p \leq 0.05$; * = $p \leq 0.10$

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