

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

HRM formality differences in Pakistani SMEs: A three sector comparative study

Abstract

Purpose – Guided by institutional theory, this empirical paper examines variations in the adoption of HRM practices among SMEs in three different business sectors (services, manufacturing and trade).

Design/methodology/approach – Data from 300 owners/managers representing three business sectors were collected through a survey method.

Findings – The results suggest that service SMEs use more formal HRM practices than manufacturing and trade SMEs. Manufacturing SMEs are more formal than trade firms. Results are not affected by firm age.

Research limitations – Social desirability bias may have influenced respondents into portraying a positive image of the organization by inflating HRM sophistication. A further limitation is that the performance of the firms was not measured. As such, it is not possible to judge whether greater HRM formality correlated with improved organizational performance.

Practical implications – This study shows how the business sector shapes HRM practices in Pakistani SMEs. Findings help to inform Pakistan’s Small and Medium Enterprise Development Authority’s (SMEDA) in dealings with manufacturing and trade firms in terms of improving HRM practices.

Originality/value – Given the important role of SMEs in economic development, comparative research on HRM in SME contexts is scarce. Since SMEs are vital for Pakistan’s economy, an improved understanding of the sector’s approach to human resource development is important. The findings extend the boundaries of prior comparative HRM literature in SMEs by addressing sector influences while controlling for contextual factors.

Keywords SMEs, Pakistan, HRM formality, HRM differences

Paper type Research Paper

Introduction

Global interlinking of economies has increased pressure for superior organizational performance (Kuruvilla and Ranganathan, 2010). Competitive pressures from institutional changes, technological advances and deregulation increasingly influence sustained growth (Campbell *et al.*, 2012). Until recently, traditional sources (e.g., capital, technology,

economies of scale) have been central to the acquisition of competitive advantage but these resources are becoming increasingly imitable (Boxall and Purcell, 2003, Lin and Wu, 2013). Based on Resource Based View (RBV) theory (Barney, 1991), human capital can be a valuable source of sustained competitive advantage since the specific resources derived from it are difficult for other firms to imitate due to specialization, scarcity and tacit knowledge (Campbell *et al.*, 2012; Wright and McMahan, 2011).

The institutional factors that shape HRM practices that link to sustained competitive advantage have attracted previous attention (e.g., Wood and Lane, 2012; Wu *et al.*, 2014). Guided by the institutional perspective (DiMaggio and Powell, 1983), several studies have found contextual factors (e.g., business sector, size of the firm) directly related to the adoption of formal/best HRM practices (Boselie *et al.*, 2003; Wu *et al.*, 2014). The comparative HRM literature treats the business sector as an influential determinant of HRM formality and best practices (Datta *et al.*, 2005; Jiang, 2009) and argues that the adoption of HRM activities within different SME sectors is usually needs-based (Deshpande and Golhar, 1994; Jiang, 2009).

Although large businesses play a crucial role in the economic growth of a country, the role of SMEs in stimulating and strengthening economic indicators carries equal importance (Ayuso and Navarrete-Báez, 2018; Dundon and Wilkinson, 2018). Small firms can be seen as ‘growth engines’ that can make both social and economic contributions to the development of a country (Umer, 2012). The economy of Pakistan is also a direct reflection of its SME sector (Soomro *et al.*, 2019) since SMEs represent more than 90% of the total established businesses (PBS, 2016). Despite its economic significance, the SME sector in Pakistan faces a variety of shortcomings which limit its ability to fully contribute towards national economic progression. These include a lack of business information infrastructures, limited financial literacy and importantly the lack of a strategic approach towards human resource development (Iqbal and Malik, 2019; SBP, 2010).

Human resource systems in Pakistani firms are currently going through a developing phase. Firms are beginning to rename their administration departments as HR/Personnel but there is little HRM-related research in this context that helps to understand the effects of this change (Khan *et al.*, 2014). Informal HRM practices are common across the majority of organizations that lack a systematic approach towards managing their human capital. Consequently, low motivation and high employee turnover are some of the common challenges faced (Ahmad and Allen, 2015).

Given the important role of SMEs in strengthening a country's economy (Higgs and Hill, 2018), research on HRM in SMEs remains underrepresented as most research concerns large firms (Botero and Litchfield, 2013; Harney and Nolan, 2014; Wiesner *et al.*, 2007). Since large organizations differ from SMEs in multiple aspects (e.g., business strategies, influence of institutional factors and availability of resources), their HRM practices are often not comparable to the SME context (Sheehan, 2014; Storey, 2002). Moreover, the literature lacks perspectives from SMEs from developing and transitional economies since less empirical work is conducted in contexts such as Pakistan (Iqbal *et al.*, 2018; Soomro *et al.*, 2019).

The aim of this empirical study is to unfold the differences in HRM formality (including sub-components of recruitment, selection, training & development, performance appraisal, compensation and benefits) among three SME business sectors (services, manufacturing and trade) in Pakistan. The need for such exploration is inspired by some pertinent gaps in the comparative HRM literature. First, scant attention has been given to the comparative HRM literature in SMEs in terms of sector differences (Dickmann *et al.*, 2008; Edwards and Ram, 2006; Psychogios *et al.*, 2016). Second, the available literature lacks perspectives from trading sector SMEs since comparative studies have mainly focused only on manufacturing and services. Given the important role of trade sector SMEs in terms of their contribution to national GDP and employment creation (World Trade Organisation, 2016), this study extends the boundaries of comparative HRM literature pertaining to sector differences by incorporating trade sector SMEs. Third, the comparative HRM literature does not take into account the effect of some contextual control variables (e.g., age of the firm) concerning differences in HRM practices across sectors. Given the influential role of certain organizational contextual variables, this study incorporates firm age as a control variable while exploring sector differences in HRM practices.

The key contribution of the paper is to show that levels of HRM formality differ across the three sectors such that the services sector has adopted more formal HR practices than manufacturing and trade whereas the manufacturing sector exhibits greater HRM formality than trade. Further, the influence of sector remains significant when firm age is controlled. Implications for the SME sector in Pakistan are proposed.

Diversity in HRM formality among services, manufacturing and trade SMEs

Theoretical underpinnings

Institutional theory (DiMaggio and Powell, 1983) holds that HRM policies and practices are heavily influenced by sector characteristics. The most significant assumption is that organizations are acutely embedded in a broader institutional context such that organizational policies and practices are either an explicit reflection of, or a response to, the structures and rules constructed in their larger environments (Paauwe and Boselie, 2003). These structures and rules gain legitimacy through social constructions of reality (Wright and McMahan, 1992) and organizations usually refer to their socially-constructed environment for acknowledgement of their performance and legitimacy (Jackson and Schuler, 1995). These assumptions hold that the behaviour of individuals and organizations is orchestrated by certain decisions that are the result of meeting social and institutional demands. Thus, the major implication of institutional theory for HRM research is that not all HRM practices in a firm are the product of rational strategic decision making (Wright and McMahan, 1992). Many of them might have been adopted as a result of mimetic processes that are influenced by contextual factors (Jackson and Schuler, 1995).

The influence of institutional factors in shaping HRM systems and practices within organizations has attracted attention (e.g., Hoque and Bacon, 2006; Wood and Lane, 2012). Ram (2000) and Wu *et al.* (2014) found that variations in the adoption of training practices among different firms were associated with sector differences. Similarly, Chandler and McEvoy (2000) found that production strategy among manufacturing firms was an important determinant of the adoption of certain HRM practices. Boselie *et al.* (2003) found that the effect of HRM was curtailed in firms operating in highly institutionalized business sectors (e.g., hospitals) as opposed to less institutionalised sectors (e.g., hotels) where the effect was profound. Their findings further suggested that firms with low institutionalisation exhibited greater flexibility with regards to the choice of HRM practices when compared to highly institutionalised firms. Similarly, Edwards and Ram (2006) examined the application of institutional frameworks in small firms and concluded that, by and large, the survival of small firms depends upon the dynamic use of their resources and ability to respond to variable economic conditions and regulations.

HRM formality in SMEs

Empirical studies have moved towards exploring HRM formality in terms of ‘bundles’ or configurations of HRM practices rather than single practices (De Kok and Hartog, 2006; Drummond and Stone, 2007). Bundling occurs under different names but represents a similar underlying philosophy (Wiesner *et al.*, 2007). For example, high performance work systems (De Kok and Hartog, 2006; Qiao *et al.*, 2015), high performance work practices (Huselid, 1995), sophisticated HRM practices (Golhar and Deshpande, 1997) and HRM formality (Barrett and Mayson, 2007; Lai *et al.*, 2016). Bundles of HR practices/functions collectively amount to ‘HRM formality’. Bundles or systems of specific HR practices are thought to have a bigger effect on firm performance than unconnected HRM practices acting independently (De Kok and Hartog, 2006).

While there is no consensus over a specific definition of HRM formality, Nguyen and Bryant (2004, p. 601) defined HRM formality as, “The extent to which HRM practices are documented, systemized, and institutionalized”. Furthermore, there is no consensus on the number of underlying functions that constitute bundles of practices. However, studies investigating HRM bundles in SMEs typically employ a framework comprising six HRM functions/practices namely; recruitment, selection, training and development, performance appraisal, compensation and benefits, and employee relations (e.g., De Kok and Uhlaner, 2001; Kotey and Slade, 2005).

HRM formality in SMEs is, however, quite different from larger firms since such practices are less well developed and less structured (Qiao *et al.*, 2015; Storey *et al.*, 2010). Employment relations in SMEs can be characterised by informality and formal control systems and communication strategies can be lacking. Rules and procedures within SMEs are compromised in environments where managers and owners have to make quick decisions in response to changing external environments. Others have argued that this informal approach towards HRM practices reflects the key characteristics of SMEs themselves such as flexibility, external uncertainty and innovation (Gray and Mabey, 2005; Sheehan, 2014). Other studies relate the informal nature of HRM practices in SMEs to time and resource limitations and owner identification (e.g., Marlow and Patton, 2002; Smallbone *et al.*, 2012).

The underlying components of HRM formality

Human capital is a vital resource that influences how effectively other resources are utilized (Mathis and Jackson, 2010). Since SMEs are often labour intensive (Chadwick *et al.*, 2013;

Patel and Conklin, 2012), effective recruitment and selection methods are critical. Despite their importance, SMEs tend to utilise more informal and less structured methods for recruitment and selection and usually on a sporadic and ad-hoc basis (Hanić *et al.*, 2016; Wiesner *et al.*, 2007). These methods typically include referral (Marlow and Patton, 1993) and simple 1-to-1 interviews (Golhar and Deshpande, 1997) in contrast to more sophisticated selection methods in larger firms. There is some evidence that selection methods in SMEs increase in formality as firm size increases (Barber *et al.*, 1999; Kotey and Slade, 2005).

Training and development in SMEs also tend to be informal (Hoque and Bacon, 2006; Jones *et al.*, 2013; Nolan, 2002), and mostly occurs on the job with little or no arrangement for management development (Kotey and Slade, 2005; Marlow and Patton 1993). Moreover, SMEs seldom undertake formal training needs analysis and formal or systematic approaches towards training provision are often absent (Bartram, 2005). With regards to performance management, SMEs are inclined towards simple and basic appraisal mechanisms that do not align closely with organizational goals (Hudson *et al.*, 2001) which is problematic since alignment is a key driver of effective performance management systems in successful organizations (Aguinis, 2011). Kotey and Slade (2005) also highlighted the absence of systematic and formal appraisal methods in SMEs and related it to the lack of managerial ability and skills to carry out effective performance reviews. They further suggested that owners/managers of such firms perceive formal systems as time consuming.

As with other underlying functions of HRM formality, SMEs tend to practice informal compensation and benefits practices (Anneleen, 2017; Wapshott and Mallett, 2015). SMEs, by and large, lack the use of formal job evaluation procedures such that pay structures can be unfair and uncompetitive (Ensley *et al.*, 2007; Gilman *et al.*, 2002).

Differences in HRM formality by sector

The characteristics of different industrial sectors might influence the adoption of HRM activities in various ways (Psychogios *et al.*, 2016). For instance, Deshpande and Golhar (1994) and Jiang (2009) suggested that adoption of HRM activities within different SME sectors is usually needs-based. For example, service firms need to be more accommodating, generous and sensitive towards human needs and therefore are more dependent on the skills and abilities of their employees. Similarly, the adoption of some HRM practices is a result of the labour market conditions in a sector (Harney and Dundon, 2006). For example, SMEs with a readily available supply of labour are less likely to invest in recruitment and selection compared to SMEs operating in sectors with skills shortages. Manufacturing firms seem more

likely to engage in more product-oriented operations than service industries providing less tangible outputs (Lewis *et al.*, 2007). In manufacturing, customers are not engaged in production processes whereas they are involved (directly or indirectly) in the production of services since they are consumed simultaneously such that operations should be proportionally inclined towards people. The evidence for HRM formality differences, however, is mixed. HRM practices in service sector firms might be expected to be more people-centred compared to manufacturing or trade sector firms (Jiang, 2009). However, sector characteristics might explain differences in HRM practices among medium sized firms but in small/family owned businesses the differences could be insignificant (Deshpande and Golhar, 1994).

With regard to individual/underlying HRM functions, there is a lack of comparative perspectives in terms of institutional settings (e.g., business sector, firm size). However, the limited literature suggests that, for example, the type (formal or informal), level and value of training and development within SMEs vary from sector to sector (Psychogios *et al.*, 2016; Storey and Westhead, 1994). Similarly, empirical evidence suggests that the influence of institutional factors in shaping the nature and effectiveness of performance appraisal systems in SMEs is profound with Jackson and Schuler (1995) observing that industrial sector is a key influencer of the adoption of formal/standard performance management systems. Their findings imply that service firms tend to exercise formal appraisal methods more than manufacturing firms. Lastly, comparative research concerning compensation and benefits practices in SMEs also treats industrial sector as highly influential (Ram and Edwards, 2003).

Study context and derivation of hypotheses

As in developed economies, the SME sector in Pakistan plays a central role in driving the economy representing more than 90% of total established businesses (Soomro *et al.*, 2019). SMEs account for about 80% of employment and 25% of exports. In terms of industrial segregation, 53% are wholesale, retail, restaurants and hotels, 22% are community, social and personal services and 20% are associated with manufacturing. The SME sector contributed over 40% to national GDP and over 65% of SMEs are located in the Punjab (PBS, 2016).

Pakistan as an emerging economy makes an interesting case to study people management practices for three reasons. First, the failure rate of SMEs in Pakistan is around 90% and lack of training, institutional pressures and informal management practices are considered as key determinants of their failure (Ahmad and Allen, 2015; Iqbal and Malik, 2019). Secondly, Human resource systems are going through a developing phase. A number

of firms are transitioning towards Personnel/HR departments but the consequences of this shift are as yet unknown (Khan *et al.*, 2014). Lastly, the national culture is characterised by collectivism and high power distance that influence workplace practices resulting in nepotism, centralised decision making and debasement (Ahmad and Allen, 2015). These tendencies can greatly influence the adoption and efficacy of best workplace practices.

Although, there is a paucity of HRM related research in the context of SMEs in Pakistan, the available literature supports the role of formal HRM practices in achieving favourable outcomes but further suggests that the nature of HRM practices is predominantly informal (Naz *et al.*, 2016). For instance, Shahzad *et al.* (2008) investigated performance appraisal systems and compensation practices and found them highly informal. They suggested that Pakistani firms lack a systematic approach towards performance evaluation and that they should revise their employee-centred compensation practices. Moreover, Afzal *et al.* (2009) found a lack of grievance procedures such that unfair dismissals were common practice and suggested that firms should ensure job-security as a way of supporting superior employee performance.

The introduction of formal HRM practices in Pakistani SMEs is a recent phenomenon (Khan *et al.*, 2014) that requires research in order to examine the status and effectiveness of these practices (Ahmad and Allen, 2015) including the influential role of business sector as an important institutional factor (Burhan, 2018). Given the important role of trading SMEs in terms of contribution to national GDP and employment creation (World Trade Organisation, 2016), this study aims to extend the boundaries of comparative HRM literature pertaining to sector differences by incorporating trade sector SMEs alongside manufacturing and services.

There is an increasing emphasis on conducting comparative HRM research that can unfold a broader understanding of HRM compared to mainstream approaches in HRM-related research (e.g., Dickmann *et al.*, 2008). Given the different outputs produced by SMEs in different sectors, there are likely to be differences in terms of overall HRM formality (recruitment and selection, training and development, performance appraisal, compensation and benefits) (Jiang, 2009; Wu *et al.*, 2014). It is important, however, to test these findings in other contexts and, following the discussion above, in the context of SMEs in Pakistan the following hypotheses are proposed;

H1. Service firms are more formal than manufacturing and trade firms in terms of overall HRM formality.

H2. Manufacturing firms are more formal than trade firms in terms of overall HRM formality.

H3. Service firms are more formal than manufacturing and trade firms in terms of individual HRM practices/functions.

H4. Manufacturing firms are more formal than trade firms in terms of individual HRM practices/functions.

The literature holds divergent views concerning the orientation of SMEs (homogeneous or heterogeneous) in terms of the adoption of HRM practices. For example, SMEs from the same industry are likely to have similar HR policies and practices owing to their comparable structure, culture and output (Tsai, 2010). Conversely, others view SMEs from even the same industry as highly heterogeneous and complex (Gilman and Edwards, 2008; Harney and Dundon, 2006). They argue that SMEs associated with an industrial sector might exhibit varying approaches towards HR policies and practices owing to dissimilar internal and external settings (e.g., legislation, labour market, product type, resource dependency, culture, level of employee skills). Harney and Dundon (2006) argued that size is the most influential factor that interacts with both internal and external settings to shape distinctive HR systems in SMEs (see also Budhwar and Debrah, 2001). Similarly, Roxas *et al.* (2013) reported that size and age of the firm are acknowledged as the most influential contextual factors in organizational behavior studies and both have been widely incorporated as control variables (Brewster *et al.*, 2008; Sheehan, 2014). They were thus controlled in this investigation to unfold the substantive impact of the industrial sector on HRM practices in Pakistani SMEs.

H5_a. Service firms are more formal than manufacturing and trade firms in terms of overall HRM formality when controlled for size of the firm.

H5_b. Service firms are more formal than manufacturing and trade firms in terms of overall HRM formality when controlled for age of the firm.

H6_a. Manufacturing firms are more formal than trade firms in terms of overall HRM formality when controlled size of the firm.

H6_b. Manufacturing firms are more formal than trade firms in terms of overall HRM formality when controlled for age of the firm.

Methods

Sample and data collection

The population for this study is SMEs employing 21-250 workers (in line with the official definition of SMEs from SMEDA, Pakistan) and representing services, manufacturing and trade sectors in the Punjab. The rationale for selecting Punjab province was because of its economic contribution to the GDP and its substantial industrial development during the past two decades (Pakistan Economic Survey, 2010). In addition, the Punjab region represents 65% of the total SMEs (2.89 million) in Pakistan (SMEDA, 2007). Firms with more than 20 employees are expected to have a supporting organizational structure (Wiesner *et al.*, 2007). The manufacturing sector contains businesses such as textiles, automotive parts, leather, garments, furniture and pharmaceuticals, while the services domain mostly includes IT companies, health, educational establishments, media and consulting firms. The trading sector predominantly includes retail stores and wholesale, import and export companies and showrooms.

Data were collected using a survey of SME owners/managers based on a sample of firms listed in *Jamal's Yellow Pages*, a comprehensive database of businesses in Punjab. The main sources of information for this directory were the 'Securities and Exchange commission of Pakistan', SMEDA and Chamber & Commerce authorities within Punjab. Of the 8,461 SMEs with 21–250 employees 6,583 firms provided contact information and an initial sample of 750 was randomly selected from the sampling frame with 250 firms from each sector.

These organizations were contacted initially by telephone to invite them to participate in the study either by completing the questionnaire online or arranging a time to visit and administer the survey. A total of 307 valid responses were gathered and to achieve a uniform representation of all three sectors each sector was adjusted to 100 valid responses.

With regards to geographical dispersion, out of 300 respondents, 100 were based in Lahore (capital of Punjab) and the remainder were broadly distributed across the main cities. The key characteristics of respondents (owners/managers) are provided in Appendix A.

Instrument design and measures

The focal variables include overall HRM formality, the underlying functions/practices of HRM formality, business sector, firm size and age.

The independent variable of SME sector was recorded as a three-level categorical variable representing services, manufacturing and trade firms. Similar studies have operationalised business sector as a single question (e.g., Storey *et al.*, 2010; Wiesner *et al.*,

2007). The control variables of size (Size_Organisation) and age (Established_Years) were recorded as actual number of employees and the operational years respectively. The dependent variable of HRM formality (HRM_Formality) was treated as a composite variable that was measured by adding the scores of its underlying developed constructs of individual HRM functions/practices (Recruitment, Selection, Training_Development, Performance_Appraisal and Compensation_Benefits). The rationale for choosing these five HRM functions/practices to measure HRM Formality is primarily because they constitute the main functional areas of HRM in small firms (De Kok and Uhlaner, 2001; Urbano and Yordanova, 2008; Wiesner *et al.*, 2007).

The primary source of the underlying items used to measure each component of HRM formality was adapted from Wiesner *et al.* (2007). Each component (e.g., recruitment) was measured on a five-point Likert-type scale. For recruitment, the scale (frequency based) was 1 Never, 2 Rare, 3 Sometimes, 4 Most of the time, 5. The response scale for Selection, training & development, performance appraisal, and compensation & benefits was; 1 Strongly disagree, 2 Disagree, 3 Neutral, 4 Agree, 5 Strongly agree). The survey instrument is available from the first author.

Pilot study, reliability and validity

To improve content validity, the survey was piloted with two SMEDA managers and others who commented on the overall design and contents of the questionnaire. The instrument was modified in light of the feedback to make it more suitable and relevant to the Pakistani context. A pilot study was conducted by visiting 12 SME owners/managers representing all three business sectors. The questionnaire took 20 minutes to complete and this additional feedback led to further revisions of the survey.

Cronbach's alpha for recruitment, selection, training & development, performance appraisal, compensation & benefits and HRM formality was satisfactory with all values above 0.7. Data were explored using Principal Axis Factoring. The KMO value of .97 and Bartlett's test of Sphericity ($p < .05$) indicated that the data were suitable for factor analysis. Oblique rotation gave eight factors (eigenvalue > 1). Three factors had either less than three items or exhibited cross-loadings and as such these three factors were discarded from further analysis (Tabachnick and Fidell, 2007). Furthermore, 12 items with loadings less than 0.3 were dropped from further analysis. The scores for the underlying items in each retained factor (recruitment 5, selection 15, training and development 8, performance appraisal 10 and compensation and benefits 8) were then added to make composite variables.

Results

HRM formality differences by sector

The differences among the three business sectors in terms of overall HRM formality were explored using analysis of variance (ANOVA). Homogeneity of variance was assessed using Levene's test according to which this assumption was violated ($p < .001$). To explore the differences between groups, a modified version of ANOVA (Welch analysis of variance) was used. As the test (Robust tests of Equality of Means) turned out to be significant, Welch's $F(2, 188.42) = 56.0, p < .001$, pairwise comparisons were investigated using Games-Howell post-hoc analysis. See Table 1.

[Insert Table 1 near here]

Post-hoc analysis for comparisons of groups (sectors) on HRM_Formality scores revealed that the increase in mean scores from trade to manufacturing (20.6, 95% CI [8.87, 32.3]) was statistically significant ($p < .001$). Similarly, there was a significant increase in the mean scores from manufacturing to services (22.2, 95% CI [12.2, 32.2], $p < .001$). Hence, hypotheses $H1$ and $H2$ are accepted.

Differences among SME Sectors on individual HRM practices/functions

Multivariate analysis of variance (MANOVA) was conducted to investigate differences among sectors in terms of individual HRM practices/functions. The underlying assumptions for MANOVA were tested before the main analysis. There were no outliers and a linear relationship between dependent variables (Individual HRM functions) in each group (manufacturing, services and trade) was evident through a scatter plot. Equality of variance-covariance matrices were checked using Box's test. This assumption was violated since the test was statistically significant ($p < .001$) but when the sample sizes for each of the group are equal, this violation is less of a problem for multivariate tests (Huberty and Olejnik, 2006).

The multivariate test suggested that differences existed between groups on the dependent variables, $F(10, 586) = 18.82, p < .001$; Pillai's $\nu = 0.31$, partial $\eta^2 = 0.16$. Multiple comparisons of groups on each of the dependent variables were then investigated using Games-Howell post-hoc tests to identify where differences existed (see Table 2). Mean scores increased from trade to manufacturing and manufacturing to services on all five dependent variables ($p < .05$). Therefore, $H3$ and $H4$ are accepted.

[Insert Table 2 near here]

Differences among SME sectors on overall HRM formality (covariate analysis)

HRM formality differences among the three SME sectors were explored by conducting ANCOVA (analysis of co-variance) while controlling for firm age and size. For firm size (covariate), the two most stringent assumptions that required a linear relationship of co-variant (size) with HRM formality in each sector and confirming no interaction between the covariate and the independent variable (sectors) were tested. There was a linear relationship between size of the firm (Size_Organisation) and overall HRM practices (HRM_Formality) for each SME sector as assessed by a scatter plot. To investigate homogeneity of regression slopes, the tests of Between-Subjects Effects (produced via GLM univariate procedure) indicated that the interaction term was statistically significant, $F(2, 94) = 3.59, p = .029$. Since the assumption of homogeneity of regression slopes was violated, ANCOVA could not be conducted to explore HRM formality differences among SME sectors while controlling for organization size (Huitema, 2011). Hence $H5_a$ and $H6_a$ remain untested.

For age of the firm (Established_years) as covariate, there was a linear relationship between the covariate (age) and overall HRM_Formality for each SME sector as assessed by the scatter plot. Also, there was homogeneity of regression slopes as the interaction term between covariate and independent variable (groups) was not statistically significant, $F(2, 294) = 1.31, p = .273$. Standardized residuals for the interactions and for the overall model were normally distributed as assessed by Shapiro-Wilk's test ($p > .05$). Homoscedasticity as assessed by the visual inspection of a scatter plot (standardized residuals plotted against the predicted values). No outliers were detected as assessed by inspection of standardized residuals (no values greater than ± 3 SD). After adjustment for age of the firm (Established_years), there was a statistically significant difference between SME sectors on HRM_Formality scores, $F(2, 296) = 47.20, p < .001$, partial $\eta^2 = .242$. Pair-wise group comparisons using post-hoc analysis were performed with Bonferroni adjustment (see Table 3 according to which the increase in mean scores from trade to manufacturing (13.3, 95% CI [3.02, 23.6]) was statistically significant ($p = .006$). Similarly, there was an increase in the mean scores from manufacturing to services (26.3, 95% CI [16.2, 36.4]) and the increased difference in means was significant ($p < .001$). In light of these results, $H5_b$ and $H6_b$ are accepted.

[Insert Table 3 near here]

Discussion and conclusions

The aim of this study was to unfold differences among service, manufacturing and trade firms in terms of HRM formality and its underlying components (recruitment, selection, training and development, performance appraisal, compensation and benefits). The results suggest that service sector SMEs have adopted more formal HRM practices than manufacturing and trade sector SMEs in Pakistan. These findings corroborate other empirical studies that found that the nature of the industrial sector is an influential determinant of HRM practices in firms (Datta *et al.*, 2005; Jiang, 2009; Psychogios *et al.*, 2016). One explanation for this relates to the distinctive characteristics of industrial sectors in which SMEs operate. For instance, service firms are associated with intangible outputs and the involvement of customers in the production of services. Similarly, the need for more skilled people in services compared to other sectors means an increased focus on employee satisfaction in order to minimize labour turnover (Harney and Dundon, 2006). These findings challenge studies that have found no differences in the HRM practices of manufacturing and services sector firms (Guest *et al.*, 2003; Deshpande and Golhar, 1994).

The empirical evidence thus far concerning differences in HRM practices among manufacturing and trade sector SMEs is lacking and this study has found that manufacturing firms employ more formal HRM practices than trade firms. Explanations lie in the varying characteristics of both sectors (Wu *et al.*, 2014; Jiang, 2009) such as a lack of semi-skilled manpower and technological advancements in manufacturing (Tiwari and Saxena, 2012) and a high level of workforce attrition in the trade sector (Almas, 2014).

The results also demonstrate that services SMEs in Pakistan have adopted more formal individual HRM practices than manufacturing and trade. Furthermore, manufacturing firms were found to be more formal than trade sector SMEs in terms of the adoption of individual HRM practices/functions. The literature concerning comparative HRM in SMEs reinforces the notion that differences in individual HRM practices (e.g., performance appraisal) among SMEs are explained by distinctions based on industrial sector (Raziq, 2011). For instance, Jackson and Schuler (1995) found that service sector employees experience more formal and systematic appraisal systems and as a result more formal compensation practices. They also observed that customers play a central role in appraisal systems in service sector firms as compared to firms from other sectors. Similarly, Bartman and Lindley (1995) and Raziq (2011) also found more formal recruitment and selection practices in services sector small firms than in manufacturing arguing that service-based firms are more dependent on a skilled

workforce than manufacturing or trade. With regards to training and development, Duberley and Walley (1995) found service sector firms follow more formal training procedures than manufacturing.

No conclusions could be drawn on the effects of firm size due to the violation of certain statistical assumptions. However, for age of the firm as a co-variate, service-based firms have adopted more formal HRM practices (HRM formality) in comparison with manufacturing and trade sector firms. Also, manufacturing firms followed more formal HRM practices than trade firms. Added to previous research (Storey *et al.*, 2010) our results support firm age as an influential determinant of HRM formality across sectors. An important implication from this is that future researchers should incorporate business sector as a control variable in HRM studies (along with size and age), especially within SMEs.

Within an institutional perspective, various dimensions (e.g., culture, competition, contextual organisational characteristics) have been studied to understand their influence on HRM practices (Hoque and Bacon, 2006). In line with the objectives and scope of this study, a comprehensive analysis of comparative HRM practices among three important SME sectors produced findings that are not only under-researched in general (Dickmann *et al.*, 2008; Psychogios *et al.*, 2016) but are unique in the context of Pakistan. Moreover, the scant comparative HRM literature concerning SMEs in Pakistan has only focused on larger firms associated with manufacturing and services (Raziq, 2011) that lacks generalization. By focusing on sector differences in HRM formality while controlling for the effect of firm age the study adds distinctive value to the comparative HRM literature since estimating such comparisons while controlling for influential contextual variables (e.g., size, age) are not only rare (Harney and Dundon, 2006) but unique in the context of Pakistan.

With regard to practical implications, the results suggest that industrial sector shapes HRM practices in Pakistan's SMEs. Also, the greater reliance of service sector SMEs on more formal HRM practices is reflected in the economic performance of Pakistan. The growth in the service sector has been more than any other sector and has facilitated an economic shift from commodity-producing to service sectors (Pakistan Economic Survey, 2017). Since the positive role of formal HRM practices in enhanced organizational performance through employee satisfaction, lower turnover and increased labour productivity has been established (Nguyen and Bryant, 2004; Paauwe *et al.*, 2013; Zhou *et al.*, 2013), owners/managers of manufacturing and trade SMEs can not only learn from this but implement more structured HRM practices for superior organizational gains. Lastly, based on

the findings, trade sector SMEs were found to be the least formal. Given the important role of trading SMEs in low-income countries in terms of promoting inclusive economic growth (World Trade Organisation, 2016), efforts are needed by SMEDA to prioritise this sector by facilitating their financial, technical and intellectual needs (e.g., access to low interest on borrowings, subsidized ICT infrastructure, innovation funds, tax relief for exporting, management training).

In terms of limitations, the sample was drawn from the largest province of Pakistan which represents around two-thirds of SMEs in Pakistan although the results may not be generalizable to firms in other provinces. Social desirability effects may have encouraged respondents to portray a more positive image of the organization by inflating HRM sophistication. However, if this occurred it seems likely to have affected all sectors in equal measure. A further limitation is that the performance of the firms was not measured. As such, it is not possible to judge whether greater HRM formality was associated with greater organizational performance. While we have shown clear formality differences across sectors, whether these differences have any bearing on performance requires further research.

References

- Afzal, H., Khan, M. A. and Ali, I. (2009), "Linkage between employees' performance and relationship conflict in banking scenario", *International Journal of Business and Management*, Vol. 4 No. 7, pp. 19-32.
- Aguinis, H. (2011), *Performance Management*, Dorling Kindersley, New Delhi.
- Ahmad, M. and Allen, M. (2015), "High performance HRM and establishment performance in Pakistan: An empirical analysis", *Employee Relations*, Vol. 37 No. 5, pp. 506-524.
- Almas, S. (2014), "Human Resource Management in Organized Retail Industry in India", *Global Journal of Finance and Management*, Vol. 6 No. 6, pp. 491-496.
- Anneleen, M. (2017), "Formal Compensation Practices in Family SMEs", *Journal of Small Business and Enterprise Development*, Vol. 24 No. 1, pp. 88-104.
- Ayuso, S., and Navarrete-Báez, F. (2018), "How Does Entrepreneurial and International Orientation Influence SMEs' Commitment to Sustainable Development? Empirical Evidence from Spain and Mexico", *Corporate Social Responsibility and Environmental Management*, Vol. 25 No. 5, pp. 80-94.

- Barber, A. E., Wesson, M. J., Roberson, Q. M. and Taylor, M. S. (1999), "A tale of two job markets: Organizational size and its effects on hiring practices and job search behaviour", *Personnel Psychology*, Vol. 52 No. 4, pp. 841-867.
- Barney, J. (1991), "Firm resources and sustained competitive advantage", *Journal of Management*, Vol. 17 No. 1, pp. 99-120.
- Barrett, R. and Mayson, S. (2007), "Human resource management in growing small firms", *Journal of Small Business and Enterprise Development*, Vol. 14 No. 2, pp. 307-320.
- Bartman, D. and Lindley, P. (1995), "The recruitment and selection of young people by small businesses", *Journal of Occupational and Organizational Psychology*, Vol. 68 No.4, pp.339-358.
- Bartram, T. (2005), "Small firms, big ideas: The adoption of human resource management in Australian small firms", *Asia Pacific Journal of Human Resources*, Vol. 43 No.1, pp. 137-154.
- Boselie, P., Paauwe, J. and Richardson, R. (2003), "Human resource management, institutionalization and organizational performance: a comparison of hospitals, hotels and local government", *The International Journal of Human Resource Management*, Vol. 14 No. 8, pp. 1407-1429.
- Botero, I. C. and Litchfield, S. R. (2013), "Exploring human resource management in family firms: a summary of what we know and ideas for future development", *Journal of Family Business Strategy*, Vol. 5 No. 2, pp. 184-196.
- Boxall, P. and Purcell, J. (2003), *Strategy and human resource management*, Palgrave Macmillan, London.
- Brewster, C., Sparrow, P. and Vernon, G. (2008), *International Human Resource Management*, CIPD, London.
- Budhwar, P. and Debrah, Y. (2001), "Rethinking comparative and cross-national human resource management research", *The International Journal of Human Resource Management*, Vol. 12 No. 3, pp. 497-515.
- Burhan, M. (2018), *The Determinants of HRM Formality and Organisational Performance in SMEs in Pakistan*, University of Huddersfield, available at: <http://eprints.hud.ac.uk/id/eprint/34751/> (accessed 5 May 2020).
- Campbell, B. A., Coff, R. and Kryscynski, D. (2012), "Rethinking sustained competitive advantage from human capital", *Academy of Management Review*, Vol. 37 No. 3, pp. 376-395.

- Chadwick, C., Way, S. A., Kerr, G. and Thacker, J. W. (2013), "Boundary conditions of the high-investment human resource systems-small-firm labor productivity relationship", *Personnel Psychology*, Vol. 66 No. 2, pp. 311-343.
- Chandler, G. N. and McEvoy, G. M. (2000), "Human resource management, TQM, and firm performance in small and medium-size enterprises", *Entrepreneurship: Theory and Practice*, Vol. 25 No. 1, pp. 43-57.
- Datta, D. K., Guthrie, J. P. and Wright, P. M. (2005), "Human resource management and labour productivity: Does industry matter?" *Academy of Management Journal*, Vol. 48 No. 1, pp.135-145.
- De Kok, J. and Hartog, D. (2006), *Is human resource management profitable for small firms?* EIM Business and Policy Research, Scales Research Reports.
- De Kok, J. and Uhlander, L. M. (2001), "Organization context and human resource management in the small firm", *Small Business Economics*, Vol. 17, pp. 273-292.
- Deshpande, S. P. and Golhar, D. Y. (1994), "HRM practices in large and small manufacturing firms: A comparative study", *Journal of Small Business Management*, Vol. 32 No. 2, pp. 49-56.
- Dickmann, M., Doherty, N., Mills, T. and Brewster, C. (2008), "Why do they go? Individual and corporate perspectives on the factors influencing the decision to accept an international assignment", *The International Journal of Human Resource Management*, Vol. 19, pp. 731-751.
- DiMaggio, P. J. and Powell, W. W. (1983), "The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields", *American Sociological Review*, Vol. 48 No. 2, pp. 147-160.
- Drummond, I. and Stone, I. (2007), "Exploring the potential of high performance work systems in SMEs", *Employee Relations*, Vol. 29 No. 2, pp. 192-207.
- Duberley, J. P. and Walley, P. (1995), "Assessing the adoption of HRM by small and medium-sized manufacturing organizations", *International Journal of Human Resource Management*, Vol. 4 No. 4, pp. 891-909.
- Dundon, T. and Wilkinson, A. (2018), "HRM in small and medium-sized enterprises (SMEs)", in Wood, G. and Collings, D. G. (Eds.), *Human resource management: A critical introduction*, Routledge, London, pp. 1-35.

- Edwards, P. and Ram, M. (2006), "Surviving on the Margins of the Economy: Working Relationships in Small, Low-Wage Firms", *Journal of Management Studies*, Vol. 43 No. 4, pp. 895-916.
- Ensley, M. D., Pearson, A. W. and Sardeshmukh, S. R. (2007), "The negative consequences of pay dispersion in family and non-family top management teams: An exploratory analysis of new venture, high-growth firms", *Journal of Business Research*, Vol. 60, pp. 1038-1047.
- Gilman, M. and Edwards, P. (2008), "Testing a Framework of the Organisation of Small Firms", *International Small Business Journal*, Vol. 26 No. 5, pp. 531-558.
- Gilman, M., Edwards, P., Ram, M. and Arrowsmith, J. (2002), "Pay determination in small firms in the UK: contours of constrained choice", *Industrial Relations Journal*, Vol. 33 No. 1, pp. 52-67.
- Golhar, D. Y. and Deshpande, S. P. (1997), "HRM practices of large and small Canadian manufacturing firms", *Journal of Small Business Management*, Vol. 35 No. 3, pp. 30-38.
- Gray, C. and Mabey, C. (2005), "Management development: key differences between small and large businesses in Europe", *International Small Business Journal*, Vol. 23 No. 5, pp. 467-485.
- Guest, D. E., Michie, J., Conway, N. and Sheehan, M. (2003), "Human resource management and corporate performance in the UK", *British Journal of Industrial Relations*, Vol. 41 No. 2, pp. 291-314.
- Hanić, A., Pržulj, Ž. and Moravčević, M. L. (2016), "Characteristics of Human Resource Management in SMEs in Serbia", *European Journal of Economics and Business Studies Articles*, Vol. 2 No. 1, pp. 238-247.
- Harney, B. and Dundon, T. (2006), "Capturing complexity: developing an integrated approach to analysing HRM in SMEs", *Human Resource Management Journal*, Vol. 16 No. 1, pp. 48-73.
- Harney, B. and Nolan, C. (2014), "HRM in small and medium-sized firms (SMEs)", in Harney, B. and Monks, K. (Ed.), *Strategic HRM: Research and practice in Ireland*, Blackhall, Dublin, pp. 153-169.
- Higgs, C. J., and Hill, T. (2018), "The role that small and medium-sized enterprises play in sustainable development and the green economy in the waste sector, South Africa", *Business Strategy and Development*, Vol. 2 No. 1, 25-31.

- Hoque, K. and Bacon, N. (2006), "The antecedents of training activity in British small and medium-sized enterprises", *Work, Employment and Society*, Vol. 20 No. 3, pp. 531-552.
- Huberty, C. and Olejnik, S. (2006), *Applied MANOVA and discriminant analysis*, John Wiley & Sons Inc, New York.
- Hudson, M., Smart, A. and Bourne, M. (2001), "Theory and practice in SME performance measurement systems", *International Journal of Operations & Production Management*, Vol. 21 No. 8, pp. 1096-1115.
- Huitema, B. (2011), *The Analysis of Covariance and Alternatives: Statistical Methods for Experiments, Quasi-Experiments, and Single-Case Studies*, John Wiley & Sons Inc, New York.
- Huselid, M. A. (1995), "The impact of human resource management practices on turnover, productivity, and corporate financial performance", *Academy of Management Journal*, Vol. 38 No. 3, pp. 635-672.
- Iqbal, N., Ahmad, M., Allen, M., and Raziq, M. (2018), "Does e-HRM improve labour productivity? A study of commercial bank workplaces in Pakistan", *Employee Relations*, Vol. 40 No. 2, pp. 281-297.
- Iqbal, Z. and Malik, M. (2019), "Entrepreneurial orientation and engagement of Pakistani small and medium enterprises in sustainable development practices: Mediating role of knowledge management", *Business Strategy and Development*, Vol. 2 No. 3, pp. 192–203.
- Jackson, S. E., and Schuler, R. S. (1995), "Understanding human resource management in the context of organizations and their environments", *Annual Review of Psychology*, Vol. 46 No. 1, pp. 237-264.
- Jiang, X. (2009), "The relationship between manufacturing and service provision in operations management", *International Journal of Business and Management*, Vol. 4 No. 3, pp. 183-189.
- Jones, P., Beynon, M. J., Pickernell, D. and Packham, G. (2013), "Evaluating the impact of different training methods on SME business performance", *Environment and Planning C: Government and Policy*, Vol. 3 No. 1, pp. 56-81.
- Khan, R. A., Miah, M. K. and Manzoor, A. (2014), "Human resource management practices: A case study of South Asian Countries", *IBT Journal of Business Studies*, Vol. 9, pp. 83-101.

- Kotey, B. and Slade, P. (2005), "Formal human resource management practices in small growing firms", *Journal of Small Business Management*, Vol. 43 No. 1, pp. 16-40.
- Kuruvilla, S. and Ranganathan, A. (2010), "Globalisation and outsourcing: Confronting new human resource challenges in India's business process outsourcing industry", *Industrial Relations Journal*, Vol. 41 No. 2, pp. 136-153.
- Lai, Y., Saridakis, G. and Johnstone, S. (2016), "Human resource practices, employee attitudes and small firm performance", *International Small Business Journal*, Vol. 35 No. 4, pp. 470-494.
- Lewis, P. S., Goodman, S. H., Fandt, P. M., Michlitsch, and J. F. (2007), *Management: Challenges for tomorrow's leaders*, Thomson South-Western, Cleveland, Ohio.
- Lin, Y. and Wu, L. Y. (2013), "Exploring the role of dynamic capabilities in firm performance under the resource-based view framework", *Journal of Business Research*, Vol. 67 No. 3, pp. 407-413.
- Marlow, S. and Patton, D. (1993), "Managing the Employment Relationship in the Smaller Firm: Possibilities for Human Resource Management", *International Small Business Journal*, Vol. 11 No. 4, pp. 457-64.
- Marlow, S. and Patton, D. (2002), "Managing the gap between employers and employees: the challenge for owner-managers of smaller manufacturing firms", *Employee Relations*, Vol. 24 No. 5, pp. 523-539.
- Mathis, R. L. and Jackson, J. H. (2010), *Human Resource Management*, South-Western Learning, Mason, Ohio.
- Naz, F., Aftab, J. and Awais, M. (2016), "Impact of Human Resource Management Practices (HRM) on Performance of SMEs in Multan, Pakistan", *International Journal of Management, Accounting and Economics*, Vol. 11 No. 1, pp. 699-708.
- Nguyen, T. and Bryant, S. (2004), "A Study of the Formality of Human Resource Management Practices in Small and Medium-Size Enterprises in Vietnam". *International Small Business Journal*, Vol. 22 No. 6, pp. 595-618.
- Nolan, C. (2002), "Human resource development in the Irish hotel industry: The case of the small firm", *Journal of European Industrial Training*, Vol. 3 No. 4, pp. 88-99.
- Paauwe, J. and Boselie, P. (2003), "Challenging 'strategic HRM' and the relevance of the institutional setting", *Human Resource Management Journal*, Vol. 13 No. 3, pp. 56-70.

- Paauwe, J., Guest, D. and Wright, P. (2013), *HRM and Performance: Achievements and Challenges*, Wiley Press, Chichester, UK.
- Pakistan Economic Survey. (2017), *Ministry of Finance*, available at: http://www.finance.gov.pk/survey/chapters_17/Pakistan_ES_2016_17_pdf.pdf (accessed 14 December 2017).
- Patel, P. C. and Conklin, B. (2012), "Perceived labor productivity in small firms—the effects of high-performance work systems and group culture through employee retention", *Entrepreneurship Theory and Practice*, Vol. 36 No. 2, pp. 205-235.
- PBS. (2016), *Economic Census of Pakistan*, *Pakistan Bureau of Statistics*. Islamabad Statistics Division, Government of Pakistan.
- Psychogios, A., Szamosi, L. T., Prouska, R. and Brewster, C. (2016), "A three-fold framework for understanding HRM practices in South-Eastern European SMEs", *Employee Relations*, Vol. 38 No. 3, pp. 310-331.
- Qiao, K., Wang, X. and Wei, L. Q. (2015), "Determinants of high-performance work systems in small and medium-sized private enterprises in China", *Asia Pacific Journal of Human Resources*, Vol. 53 No. 2, pp.185-203.
- Ram, M. (2000), "Investors in People in small firms: Case study evidence from the business services sector", *Personnel Review*, Vol. 29 No. 1, pg. 69-91.
- Ram, M. and Edwards, P. (2003), "Praising Caesar not burying him: what we know about employment relations in small firms", *Work, Employment and Society*, Vol. 17 No. 4, pp. 719-730.
- Raziq, A. (2011), "High performance management practices in manufacturing and service-based SMEs: A comparative study" in 24th Annual SEAANZ Conference July 2011, Sydney, NSW, Australia.
- Roxas, B., Battisti, M. and Deakins, D. (2013), "Learning, innovation and firm performance: Knowledge management in small firms", *Knowledge Management Research & Practice*, Vol. 12 No. 4, pp. 443-453.
- SBP (State Bank of Pakistan). (2010), *Annual Report 2009-2010*. State Bank of Pakistan, Karachi.
- Shahzad, K., Bashir, S. and Ramay, M. (2008), "Impact of HR Practices on Perceived performance of University Teachers in Pakistan", *International Review of Business Research Papers*, Vol. 4 No. 2, pp. 302-315.

- Sheehan, M. (2014), "Human resource management and performance: Evidence from small and medium-sized firms", *International Small Business Journal*, Vol. 32 No. 5, pp. 545-570.
- Smallbone, D., Deakins, D., Battisti, M. and Kitching, J. (2012), "Small business responses to a major economic downturn: Empirical perspectives from New Zealand and the United Kingdom", *International Small Business Journal*, Vol. 30 No. 7, pp. 754-777.
- SMEDA (2007), "SME Policy Development, Ministry of Industries, Government of Pakistan" available at <http://www.smeda.org/main.php?id=111>
- Soomro, B. A., Shah, N. and Mangi, S. (2019), "Factors affecting the entrepreneurial leadership in small- and medium-sized enterprises (SMEs) of Pakistan: An empirical evidence", *World Journal of Entrepreneurship, Management and Sustainable Development*, Vol. 15 No. 1, pp. 31-44.
- Storey, D. J. and Westhead, P. (1994), *Management Training and Small Firm Performance: A Critical Review*. CSME.
- Storey, D. J. (2002), "Education, training and development policies and practices in medium-sized companies in the UK: Do They Really Influence Firm Performance?", *The International Journal of Management Science*, Vol. 30, pp. 249-264.
- Storey, D. J., Saridakis, G., Sen-Gupta, S., Edwards, P. K., and Blackburn, R. A. (2010), "Linking HR formality with employee job quality: The role of firm and workplace size", *Human Resource Management*, Vol. 49 No. 2, pp. 305-329.
- Tabachnick, B. and Fidell, L. (2007), *Using Multivariate Statistics*, Pearson Education. Boston, MA.
- Tiwari, P. and Saxena, K. (2012), "Human Resource Management Practices: A Comprehensive Review", *Pakistan Business Review*, Vol. 13, pp. 669-705.
- Tsai, C. (2010), "HRM in SMEs: Homogeneity or Heterogeneity? A Study of Taiwanese High-tech Firms", *The International Journal of Human Resource Management*, Vol. 21 No. 10, pp. 1689-1711.
- Umer, M. (2012), "Human resource management theory and practices in small and medium-sized enterprises (SMEs) and Enterprises Performance in Pakistan", *Global Journal of Management and Business Research*, Vol. 12 No. 13, pp. 28-44.
- Urbano, D., & Yordanova, D. (2008), "Determinants of the adoption of HRM practices in tourism SMEs in Spain: an exploratory study", *Service Business*, Vol. 2 No. 3, pp. 167-185.

- 1
2
3 Wapshott, R. and Mallett, O. (2015), *Managing Human Resources in Small and Medium-*
4 *sized Enterprises: Entrepreneurship and the Employment Relationship*, London:
5 Routledge.
6
7
8 Wiesner, R., McDonald, J. and Banham, H. C. (2007), "Australian small and medium sized
9 enterprises (SMEs): A study of high performance management practices", *Journal of*
10 *Management and Organization*, Vol.13 No. 3, pp. 227-248.
11
12 Wood, G. and Lane, C. (2012), "Institutions, change and diversity", in Lane, C. and Wood,
13 G. (Eds.), *Capitalist diversity and diversity within capitalism*, Routledge, London.
14
15 World Trade Organisation. (2016), *World Trade Report 2016: Levelling the trading field for*
16 *SMEs*, available at: https://www.wto.org/english/res_e/booksp_e/world_
17
18 Wright, P. M. and McMahan, G. C. (1992), "Theoretical perspectives for strategic human
19 resource management", *Journal of Management*, Vol. 18 No. 2, pp. 295-320.
20
21 Wright, P. M. and McMahan, G. C. (2011), "Exploring human capital: Putting 'human' back
22 into strategic human resource management", *Human Resource Management Journal*,
23 Vol. 21 No. 2, pp. 93-104.
24
25 Wu, N., Bacon, N. and Hoque, K. (2014), "The adoption of high performance work practices
26 in small businesses: the influence of markets, business characteristics and HR
27 expertise", *The International Journal of Human Resource Management*, Vol. 25 No.
28 8, pp. 1149-1169.
29
30 Zhou, Y., Hong, Y. and Liu, J. (2013), "Internal commitment or external collaboration? The
31 impact of human resource management systems on firm innovation and
32 performance", *Human Resource Management*, Vol. 52 No. 2, pp. 263-288.
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Appendix A

Characteristics of respondents based on sector division

Respondents' Characteristics	Response Categories	Manufacturing	Services	Trade
		Frequency (n=100)	Frequency (n=100)	Frequency (n=100)
Management Level	CEO/Owner	26	23	38
	Senior manager	47	40	31
	Middle	20	35	20
	Supervisor	7	2	11
Formal	Primary	1	3	0
Education	Secondary	10	0	24
	Diploma	16	2	22
	Bachelors	37	34	28
	Masters	35	60	25
	Other	1	1	1
Age	Under 30	41	54	40
	30-40	33	31	23
	40-50	18	11	31
	Above 50	8	4	6
Gender	Male	68	67	82
	Female	32	33	18

HRM formality differences in Pakistani SMEs: A three sector comparative study

Tables

Employee Relations

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Table I. Multiple comparisons of groups on HRM formality.

(I) Sector	(J) Sector	Mean Difference	SE	Sig.	95% CI	
					Lower Bound	Upper Bound
Manufacturing (M = 153.75)	Services	-22.2*	4.22	.000	-32.2	-12.2
	Trade	20.6*	4.96	.000	8.87	32.3
Services (M = 175.96)	Manufacturing	22.2*	4.22	.000	12.2	32.2
	Trade	42.8*	4.14	.000	33.0	52.6
Trade (M = 133.15)	Manufacturing	-20.6*	4.96	.000	-32.3	-8.87
	Services	-42.8*	4.14	.000	-52.6	-33.0

Notes: Dependent variable: HRM_Formality. SE = Standard Error. CI = Confidence interval
**p* < 0.05

Table II. Multiple comparisons of groups on HRM practices/functions

Dependent Variable	(I) Sector	(J) Sector	Mean Difference (I – J)	SE	Sig.	95% CI	
						Lower Bound	Upper Bound
Recruitment	Manufacturing (M = 13.40)	Services	-3.51*	.630	.000	-5.00*	-2.02
		Trade	1.72*	.688	.035	.10*	3.35
	Services (M = 16.91)	Manufacturing	3.51*	.630	.000	2.02*	5.00
		Trade	5.23*	.596	.000	3.82*	6.64
Selection	Trade (M = 11.68)	Manufacturing	-1.72*	.688	.035	-3.35*	-.10
		Services	-5.23*	.596	.000	-6.64*	-3.82
	Manufacturing (M = 54.37)	Services	-4.90*	1.47	.003	-8.37*	-1.43
		Trade	7.58*	1.69	.000	3.57*	11.59
	Services (M = 59.27)	Manufacturing	4.90*	1.47	.003	1.43*	8.37
		Trade	12.48*	1.59	.000	8.72*	16.24
	Trade (M = 46.79)	Manufacturing	-7.58*	1.69	.000	-11.59*	-3.57
		Services	-12.48*	1.59	.000	-16.24*	-8.72
Training & Development	Manufacturing (M = 25.73)	Services	-4.32*	.892	.000	-6.43*	-2.21
		Trade	4.01*	1.01	.000	1.62*	6.40
	Services (M = 30.05)	Manufacturing	4.32*	.892	.000	2.21*	6.43
		Trade	8.33*	.811	.000	6.41*	10.25
	Trade (M = 21.72)	Manufacturing	-4.01*	1.01	.000	-6.40*	-1.62
		Services	-8.33*	.811	.000	-10.25*	-6.41
Performance Appraisal	Manufacturing (M = 33.43)	Services	-5.92*	1.03	.000	-8.36*	-3.47
		Trade	4.61*	1.19	.000	1.81*	7.42
	Services (M = 39.35)	Manufacturing	5.92*	1.03	.000	3.47*	8.36
		Trade	10.53*	1.01	.000	8.15*	12.91
	Trade (M = 28.82)	Manufacturing	-4.61*	1.17	.000	-7.42*	-1.81
		Services	-10.53*	1.01	.000	-12.91*	-8.15
Compensation & Benefits	Manufacturing (M = 27.01)	Services	-3.36*	.887	.001	-5.46*	-1.26
		Trade	2.82*	.943	.009	.59*	5.05
	Services (M = 30.37)	Manufacturing	3.36*	.887	.001	1.26*	5.46
		Trade	6.18*	.825	.000	4.23*	8.13
	Trade (M = 24.19)	Manufacturing	-2.82*	.943	.009	-5.05*	-.59
		Services	-6.18*	.825	.000	-8.13*	-4.23

Notes: Dependent variable: Recruitment, Selection, Training_Development, Performance_Appraisal, Compensation_Benefits. SE = Standard Error. CI = Confidence interval.

* $p < 0.05$

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Table III. Post-hoc analysis with Bonferroni adjustment for multiple comparisons

(I) Sector	(J) Sector	Mean Difference (I – J)	SE	Sig. ^b	95% CI ^b	
					Lower Bound	Upper Bound
Manufacturing (<i>M</i> = 153.75)	Services	-26.3*	4.18	.000	-36.4	-16.2
	Trade	13.3*	4.27	.006	3.02	23.6
Services (<i>M</i> = 175.96)	Manufacturing	26.3*	4.18	.000	16.2	36.4
	Trade	39.6*	4.17	.000	29.6	49.6
Trade (<i>M</i> = 133.15)	Manufacturing	-13.3*	4.27	.006	-23.6	-3.02
	Services	-39.6*	4.17	.000	-49.6	-29.6

Notes:. Dependent variable: HRM_Formality. Covariate: Established_years. SE = Standard Error.
CI = Confidence interval, b. Adjustment for multiple comparisons: Bonferroni.
**p* < 0.05

HRM formality differences in Pakistani SMEs: A three sector comparative study

Supplementary documents for the reviewers

Employee Relations

Pattern Matrix ^a representing factor loadings

Items	1	2	3	4	5	6	7	8
R1		.336						
R2							.497	
R3							.419	
R4							.719	
R5							.684	
R6		.611						
R7								
R8							.513	
S1			-.541					
S2			-.555					
S3			-.595					
S4			-.568					
S5			-.710					
S6			-.795					
S7			-.463					
S8			-.669					
S9			-.543					
S10			-.302					
S11			-.330					
S12			-.466					
S13			-.479					
S14			-.371					
S15			-.420					
TD1					-.529			
TD2					-.314			
TD3					-.523			
TD4								
TD5						-.360		
TD6								
TD7						-.389		
TD8					-.365			
TD9							.361	
TD10					-.310			
TD11					-.417			
TD12					-.706			
TD13					-.630			
PA1	.453							
PA2	.620							
PA3	.428							
PA4	.622							
PA5	.526			-.380				
PA6	.549							
PA7	.451							
PA8	.624							
PA9	.786							
PA10	.672							
PA11	.428							
CB1				-.485				
CB2				-.552				
CB3				-.530				
CB4								.453
CB5						-.432		
CB6					-.488			
CB7				-.632				
CB8				-.591				
CB9				-.321	-.365			
CB10				-.664				
CB11				-.606				
CB12				-.605				

Notes: Extraction Method: Principal Axis Factoring, Rotation Method: Oblimin with Kaiser Normalization
Factor loadings < .3 are suppressed, ^aRotation converged in 27 iterations.

Underlying items of the constructs, descriptive statistics and Reliability

Construct	Items	M	SD	α
Recruitment	R1 Print Media (e.g. Newspapers, Magazines)	3.6	1.13	.822
	R2 Company website	2.9	1.47	
	R3 Third Party recruitment Website (e.g. Rozee.pk)	3.1	1.25	
	R4 Educational Establishments (including job fairs)	2.5	1.30	
	R5 Use of social media (e.g. LinkedIn)	2.8	1.33	
	R6 Walk-ins	3.5	0.97	
	R7 Referrals (Employee/Family friends)	3.9	0.96	
	R8 Employment agencies	2.7	1.16	
Selection	S1 Job descriptions are used during recruitment and selection process	3.4	1.11	.954
	S2 The selection of prospective candidates is a step-by-step process	3.4	1.08	
	S3 Company uses application pro forma for screening purposes	3.6	1.09	
	S4 Organization uses well defined criteria for selection process	3.5	1.06	
	S5 Number of years of experience is used as a basis for hiring employees as one of the selection criteria	3.8	0.93	
	S6 Capabilities and skills of employees are used as basis for hiring employees	3.8	0.90	
	S7 Company conducts tests to ascertain candidates' skills and capabilities where applicable	3.1	1.21	
	S8 Qualifications of applicants are used as one of the selection criteria	3.8	0.95	
	S9 Preliminary/initial interviews are conducted for vacant positions	3.9	0.85	
	S10 Second interviews are conducted for shortlisted candidates	3.4	1.12	
	S11 Reference checks/employment history checks are conducted where necessary	3.4	1.18	
	S12 Adequate and relevant information about the organization and job is provided to the candidate at the time of selection. (Realistic job preview)	3.5	1.11	
	S13 Selection of a candidate is strictly based on his/her merit	3.5	1.04	
	S14 Employment contract is provided to the successful candidate	3.6	1.17	
	S15 New employees are hired on probation period	3.8	1.01	
Training & Development	TD1 The business has a formal training budget	3.0	1.19	.929
	TD2 The company conducts training on regular basis	3.2	1.11	
	TD3 Company follows a formal/systematic way of identifying training needs. (e.g. reviewing problem areas, job analysis, performance appraisal)	3.2	1.18	
	TD4 The company arranges orientation / induction sessions for new employees to get them familiar with the working environment	3.6	1.09	
	TD5 The company conducts on-the-job training for the new employees	3.8	0.91	
	TD6 The company conducts on-the-job training for the current employees	3.6	0.95	
	TD7 Mentoring and coaching methods are used for on-the-job training of employees	3.6	0.90	
	TD8 The company facilitates and conducts training of vocation or technical nature (i.e. apprenticeships, re-training current/older employees)	3.2	1.04	
	TD9 The business have management & development training (i.e. leadership, supervisory skills, personal communication, graduate and postgraduate sponsorship)	3.1	1.23	
	TD10 Off-the-job training is arranged and conducted by the company management for employees where necessary	3.1	1.09	
	TD11 The company has increased training where a program previously existed	3.2	1.15	
	TD12 Effectiveness of training is measured by pre and post-test evaluation	3.4	1.09	
	TD13 Training can be linked to performance and productivity	3.7	1.02	

Construct	Items	M	SD	α
Performance Appraisal	PA1 The company conducts performance appraisal of all employees.	3.3	1.05	.940
	PA2 The company conducts performance appraisal on a regular basis.	3.3	1.08	
	PA3 Company uses job descriptions to translate job requirements into levels of acceptable and unacceptable performance.	3.3	1.06	
	PA4 The appraisal system includes individual evaluation methods. (e.g. essay evaluation, checklists, rating scales based on performance)	3.5	1.06	
	PA5 The appraisal system includes MBO method where management sets individual objectives with employees' involvement.	3.4	1.09	
	PA6 The appraisal system includes multiple-person evaluation methods. (e.g. paired comparison)	3.3	1.19	
	PA7 The company provides an opportunity for employees to evaluate their managers and their peers. (360 degree method)	2.8	1.25	
	PA8 Organization provides feedback to employees after performance appraisal.	3.6	1.08	
	PA9 The feedback provided constructively addresses weak and strong areas.	3.6	1.07	
	PA10 The company uses performance appraisal for employee attainment/achievement. (e.g. Career development, wage increment)	3.7	1.00	
	PA11 The company uses performance appraisal for highlighting employee training and development needs.	3.2	1.06	
Compensation & Benefits	CB1 The company has a formal/systematic way of rewarding/compensating its employees.	3.4	1.11	.912
	CB2 The Company follows Government policy on wage standards.	3.6	1.00	
	CB3 The company conducts job evaluation (a systematic way of determining the relative worth of a job in relation to other jobs in the organization) and uses this for setting pay levels for most of the jobs.	3.1	1.16	
	CB4 Pay levels are determined based on employee performance.	3.7	0.95	
	CB5 Company takes into account the acquired skills of the employees when deciding pay levels.	3.7	0.94	
	CB6 Company values seniority when assessing pay levels.	3.8	0.87	
	CB7 Company offers individual/group incentive programs. (e.g. bonus pay, profit sharing, vacation incentives)	3.6	0.94	
	CB8 Company offers discretionary benefits to its employees. (e.g. Paid holidays, health and insurance)	3.3	1.05	
	CB9 Company offers employee services as additional benefits. (e.g. relocation allowances, child care, subsidized food/cafeteria, financial help (loans)	3.3	1.21	
	CB10 The company properly acknowledges and adequately compensates overtime.	3.3	1.07	
	CB11 Company is offering market competitive wages to its employees.	3.4	1.04	
	CB12 Jobs are grouped into well-defined pay grades.	3.3	1.17	
HRM Formality	Composite Variable with underlying constructs of Recruitment, Selection, Training & Development, Performance Appraisal and Compensation & Benefits	154.29	35.95	