HIGH PERFORMANCE WORK PRACTICES IN SMALL AND MEDIUM-SIZED FIRMS

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Abstract

Drawing on data from Workplace Employment Relations Survey 2004, this thesis assesses the uptake of High Performance Work Practices (HPWPs), the factors associated with the uptake of HPWPs and the relationship between HPWPs and performance (also termed the "HPWP–performance link") in small and medium-sized firms.

The findings show that medium-sized firms have a higher uptake of HPWPs compared to small firms in general. They also show that the extent of the use of HPWPs in small firms tends to be influenced more by internal than external factors, while the opposite holds true for medium-sized firms.

Although the widely reported HPWP–performance link holds in large firms, the findings suggest only a specific bundle of HPWPs seeking to develop opportunities for employees to participate in management decision making and use their skills and abilities at work are related to improved financial performance in small firms. However, neither the overall use of HPWPs nor any specific bundles of practices are associated with better performance in medium-sized firms. In medium-sized firms, some HPWPs are positively associated with performance and some others are negatively associated with performance. These findings suggest the HPWP–performance link in medium-sized firms is distinct from that in small and large firms.

Overall, the findings suggest small and medium-sized firms should be analyzed as two distinct groups and the HPWP–performance link is not universal. The lack of a consistent HPWP–performance link in medium-sized firms has important implications for HRM theory, the HR advice that medium-sized firms should be offered, and government support and employment policies targeted at medium-sized firms.

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Chapter 1 Introduction

In the United Kingdom, small and medium-sized enterprises (SMEs) accounted for 99.9 per cent of all enterprises in 2008, 59.4 per cent of private sector employment and 50.01 per cent of private sector turnover (referring to the value of sales, work done and services rendered) (BERR, 2009). These figures clearly demonstrate the size and economic importance of the SME sector.

However, in comparison with the extensive literature exploring the relationship between high performance work practices (HPWPs) and performance in large firms (Huselid, 1995; McDuffie, 1995), relatively few studies have explored the impact of such practices in small and medium-sized firms. Given this, the relationship between HPWPs and performance in small and medium-sized firms is yet to be established.

A number of arguments might be made as to why one might anticipate a link between HPWPs and performance in small and medium-sized firms. The universalist argument, for example, states that 'the use of high-performance work practices should lead to positive outcomes for all types of firms' (Huselid, 1995: 644). This implies that the HPWP–performance link should hold in small and medium-sized firms as well as large firms.

There is considerable debate in the literature, however, over the uptake and impact of HPWPs in the SME sector. On the one hand, Sisson (1993) argues that SMEs use formal practices such as HPWPs very rarely and even in circumstances they do, they use them in an *ad hoc* way. Where the HPWP-performance link is concerned, a number of studies have failed to identify a positive relationship (see, for example: Storey, 1998; 2002; 2004).

On the other hand, a number of studies have suggested that small and medium-sized firms are using more HPWPs than is frequently suggested (Bacon et al., 1996; Forth et al., 2006) and some studies also report that HPWPs are associated with improved performance in small firms (de Grip and Sieben, 2005; Faems et al., 2005; Sels et al., 2006; Way, 2002). However,

although these studies appear to suggest the relationship between HPWPs and performance holds in small firms as well as large firms, variations in the definitions of small firms make overall conclusions difficult to reach.

A further difficulty in relation to the HPWP–performance link in the SME sector relates to the widespread practice of combining small and medium-sized firms into a single unit of analysis. This leads to an assumption that small and medium-sized firms are a homogeneous group. However, a few recent studies report that the nature of human resource management (HRM) in medium-sized firms could differ from small firms (Baron et al., 2007; Hoque and Bacon, 2008). Combining small firms and medium-sized firms together therefore could obscure the possibility that the HPWPs that potentially affect performance in medium-sized firms might be different from those that affect performance in small firms. This thesis, therefore, analytically divides small and medium-sized firms into two distinct groups and explores the HPWP–performance link in each firm sector independently.

1.1 Research aims

There are three research aims in this thesis. The first aim is to assess whether small and medium-sized firms use formal practices such as HPWPs, and if so, whether the uptake of HPWPs in small firms differs from that in medium-sized firms. The second aim of this thesis is to evaluate whether the factors associated with the uptake of HPWPs in small firms are different from those in medium-sized firms. Thirdly, this thesis aims to explore whether there is a relationship between HPWPs and performance in small and medium-sized firms and if so, whether the nature of the HPWP–performance link in medium-sized firms differs from that in small firms.

To conduct these assessments, this thesis draws on data from the Workplace Employment Relations Survey (WERS) 2004 (DTI, 2005). This is the first WERS that includes workplaces

with as few as five employees, which allows this thesis to explore the HPWP–performance link within a more representative sample of small firms.

1.2 Thesis layout

This thesis is structured as follows. Chapter 2 reviews debates on the use of HPWPs, the factors that influence the use of HPWPs and the HPWP–performance link in small and medium-sized firms. Chapter 3 introduces the WERS 2004 data to be used in the study, and draws on these data to evaluate the extent of and variation in the uptake of HPWPs between small, medium and large firms both within a bivariate analysis and also a multivariate analysis that controls for observable workplace characteristics that might affect this relationship. Chapter 4 assesses the extent to which a range of factors, both internal and external to the firm are associated with the uptake of HPWPs in small and medium-sized firms and examines whether different factors influence the uptake of HPWPs in small firms than in medium-sized firms. Chapter 5 explores the relationship between HPWPs and performance in small and medium-sized firms. The tests assess whether the HPWP–performance link holds in small and medium-sized firms, and if so, whether the link in medium-sized firms is different from that in small firms. Chapter 6 summarises the findings and discusses the contribution the results of the analysis make to knowledge with regard to HPWPs in the SME sector.

Within the thesis, the use of HPWPs is assessed from three perspectives: individual HPWPs; sets of closely-defined HPWPs (termed "HPWP bundles"); and the total number of HPWPs adopted (termed "HPWP intensity"). Each of the three approaches has been used in previous studies, with some focusing on specific HPWPs such as training (Storey, 2004; Storey and Westhead, 1997), others relying on the count measure of HPWP intensity, (de Kok and Uhlaner, 2001; Sels et al., 2006; Way, 2002), and others (Faems et al., 2005) looking at specific HRM domains[1] to assess the HPWP–performance link. None of the existing studies,

[1] Faems et al. (2005) addressed six domains, which are selection, training, careers, compensation, performance management and participation, with each domain consisting of 3

however, have conducted an analysis from all three perspectives. Using all three approaches allows for an exploration of the HPWP–performance link in small and medium-sized firms from a number of different perspectives.

A particular focus within this thesis is to seek to address the use and effects of HPWPs in small and medium-sized firms separately. Combining the SME sector as a whole into a single category and assuming homogeneity between SMEs risks overlooking the possibility that there might be considerable variation within the sector. Hence, splitting small and medium-sized firms into two independent groups provides an opportunity to test whether the theory and principles of HRM developed largely in large firms is equally applicable in small and/or medium-sized firms. This has potentially important implications for government policy, particularly if the analysis suggests that policy initiatives need to differentiate between small and medium-sized firms in terms of the advice, guidance and support they are provided with. Successive UK governments have sponsored a number of initiatives to promote the awareness and use of practices such as HPWPs by encouraging SMEs to participate in advisory networks such as employers' associations, local chambers of commerce and Learning and Skills Councils (LSCs). The 'Ambition of Enterprise' strategy, for example, involves 'an increase in the proportion of SMEs making use of external business advice' (BIS, 2008:10). If the analysis conducted here finds differences in the antecedents of high performance in small firms and medium-sized firms, this will suggest that the advice provided through these networks needs to take into account the possibility that firms in these two size categories require very different advice and guidance. In particular, it would only be advisable to continue to encourage the adoption of HPWPs if it can be shown in the first instance that these practices are genuinely associated with higher performance.

It is worth mentioning here that estimates will be provided of the uptake and effects of HPWPs in large firms, for the purpose of comparison. HRM theory has been largely developed in the context of large firms. Hence, any discrepancies between small and/or medium-sized firms and

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HRM practices identified by the authors and firms were ranked in line with the overall score of the practices used that ranged from 0 to 3.

large firms (as a comparison benchmark) will help to demonstrate whether or not HRM theory is universally applicable across all firm size categories.

The analysis conducted in this thesis may be of particular importance to government policies in the SME sector given the current severe economic climate. The British government recognises, for example, that access to finance is critical for businesses to survive and grow and that small and medium-sized companies face particular challenges. The government has recently produced a report on how business and the government can work together to produce a diverse, competitive and sustainable financial environment to financing a private sector recovery. Among the initiatives advocated, the report states that the government will continue 'expanding the range of support available for SMEs, including alternative sources of finance extending existing schemes that provide finance for viable small businesses; and helping banks and businesses work together more effectively' (BIS, 2010: 3-4). With specific regard to training in SMEs, the government 'will also increase its investment in the Leadership and Management Programme for SMEs from £4 million to £30 million per annum. Eligibility will be extended from April 2008 to SMEs with between ten and 250 employees (currently 20 to 250 employees)' (BIS, 2008: 45). It would only be advisable to continue to advocate and fund an increase in training (and other HPWPs) in SMEs if it can be demonstrated in the first instance that they are genuinely associated with improved performance in both small and medium-sized firms.

Chapter 2 HPWPs and performance in small and medium-sized firms

2.1 Introduction

While a large body of evidence suggests that high performance work practices (HPWPs) are associated with better performance in large firms, there is still a dearth of similar studies in small and medium-sized firms. Calls to investigate the nature of human resource management (HRM) in the small and medium-sized enterprise (SME) sector suggest a need to test whether the principles and theory of HRM, developed largely in large firms, are also relevant to the small and medium-sized firm sector (Baron, 2003; Heneman et al., 2000). Several authors suggest HPWPs may be inappropriate in small and/or medium-sized firms (Marlow, 2006; Storey, 1998; 2002; 2004). However, there is some evidence that SMEs are indeed adopting HPWPs (Bacon et al., 1996; Forth et al., 2006) and that the use of such practices is also associated with better performance in small and medium-sized firms as well as in large firms. Although the number of studies of this kind is limited (see, for example, Faems et al., 2005; Sels et al., 2006), these studies suggest small and medium-sized firms may improve their performance by adopting HPWPs and that HPWPs for large firms are equally applicable for SMEs.

Such findings would seem to correspond with the universal notion that HPWPs will improve firm performance irrespective of context (see, for example, Huselid, 1995). Exemplified by Pfeffer's (1994) 16 practices, studies have drawn on various lists of HPWPs and demonstrated that the adoption of these practices is associated with higher levels of organisational performance. Among these studies, three terms are often used: high commitment management (HCM); high involvement management (HIM); and high performance work systems (HPWS). Authors addressing HCM argue that these practices can create the conditions for employees to display internally self-driven initiative and to take responsibility for self-regulating their own

behaviour (Walton, 1985). Given that a highly committed workforce is expected to have a lower absence rate, a higher labour retention rate, improved labour productivity and to deliver better quality of products or services. This will ultimately lead to higher firm performance (Guest, 1987).

By contrast, HIM emphasises job enrichment and/or self-managing teams that give individuals considerable autonomy to control and monitor their own work (Guthrie, 2001; Lawler, 1992). Practices such as problem-solving groups are seen as generating high involvement, and this in turn fosters employee self-management and helps to reduce layers of bureaucracy and expensive monitoring and control processes, thereby improving firm performance.

Beyond this, HPWS relates to how the organisational structure influences the employment structure and affects firm performance (Appelbaum et al., 2000). HPWS comprises two elements: first, production systems that focus on how work is organised; and secondly, the employment structures that provide the environment within which these production systems operate. Based on the premise that labour is a unique factor of production which yields the potential for efficiency gains that competitors find difficult to imitate, firms will seek to adopt new HRM techniques in order to secure competitive advantage.

Despite the fact that authors use different terms, the overlaps between these terms regarding the practices firms should adopt to improve performance are apparent. Teamwork, for example, is used as a tool in HCM to up-skill the workforce, provide work autonomy and elicit high commitment. HIM introduces teamwork as an approach to encourage workers to identify with organisational goals and utilise worker knowledge to bring about organisational improvement. HPWS views teamwork as crucial for enhanced performance as it allows firms to alter their organisational structure subject to the changes in the external market and also to enable quality to be maintained at a higher level. More importantly, HCM, HIM and HPWS emphasise performance effectiveness. This thesis chooses to use the term 'high performance work practices' (HPWPs) for three reasons. First, the term HPWPs explicitly addresses the essence of studies of HPWP–performance link, i.e. performance impact of HRM practices. Second, the

term HPWPs represents the universalist stance upheld by several authors (see, for example, Huselid, 1995), and the purpose of this thesis is to test whether the HPWP–performance link is universally applicable to small and medium-sized firms[2]. Third, the selection of the 18 practices is based on studies that have shown these practices, either individually or used in combination, were associated with improved performance.

Another growing consensus among the studies of the HPWP–performance link also notes that coherent HPWPs used in bundle can create synergistic effect and generate a greater impact on performance compared to these practices used in isolation (MacDuffie, 1995). Beyond this, Delery (1998: 294) argues that using HPWPs in bundles should avoid "deadly combination" when HRM policies or practices work in opposite directions such as strong training for teamwork but performance appraisal only rewards highly individualistic behaviours. In this sense, Boxall and Purcell (2000) argue that implementing many HPWPs simultaneously should ensure the internal consistency between these bundles (termed "internal fit") as well as between the HRM policies and HPWPs adopted. The operation of HPWPs is, therefore, a process that 'involves some tension among competing objectives in management and inevitably implies tensions among competing interests' (p. 188).

As such, this thesis reviews the aforementioned arguments and develops hypotheses concerning a) whether small and medium-sized firms use formal practices such as HPWPs as large firms do, if so, whether the extent of the uptake of such practices in small firms differs from that in medium-sized firms; b) what factors can affect the use of HPWPs in small and

[2] This thesis has omitted a review of debates on contingency theory in relation to whether business strategy moderates the relationship between HPWPs and performance in small and medium-sized firms. This is because questions designed for business strategies in WERS 2004, i.e. price, quality and innovation strategies, do not generate sufficient number of observations to conduct a meaningful analysis of these issues. The three questions directly related to the business strategy in WERS 2004, i.e. Kprice for price strategy, Kqual for quality strategy, Krank for innovation strategy, which were also used as the base questions for such strategies in a few other studies (see for example, Michie et al, 2008), produce figures for each strategy as follows: 700 observations for quality strategy, 141 for price strategy and 600 for innovation strategy across all firm sectors in the private sector. This approach generates fewer than 20 observations for small firms using a price strategy. This figure reduces sharply after standardisation and thus makes it impossible to generate reliable estimates. Moreover, with over 80 percent of small firms claiming to be quality enhancers, the validity of the corresponding questions become somewhat doubtful in light of the evidence of poor performance within the sector (Storey, 1994). Hence, the plan to address the "best fit" issue in small and medium-sized firms was eventually abandoned.

medium-sized firms and whether the factors associated with the uptake of such practices in small firms differs from those in medium-sized firms; and c) whether the uptake of HPWPs is associated with performance in small and/or medium-sized firms, if so, whether the pattern of the HPWP–performance link in small firms differs from that in medium-sized firms.

This chapter is structured as follows. Analytically splitting small and medium-sized firms into two distinct groups, the next section (2.2) reviews debates on the uptake of HPWPs in small and medium-sized firms; the third section (2.3) describes a range of contextual factors that may influence management decision-making concerning the uptake of HPWPs in small and medium-sized firms; the fourth section (2.4) considers debates on the HPWP–performance link in small and medium-sized firms. The final section (2.5) summarises these debates and the hypotheses developed for further testing.

2.2 The use of HPWPs in small and medium-sized firms

This section reviews debates on the uptake of HPWPs in small and medium-sized firms respectively.

2.2.1 The use of HPWPs in small firms

It has been generally acknowledged that the uptake of HPWPs in small firms is much lower than in large firms (Marlow, 2006; Sisson, 1993; Wilkinson, 1999). There are a number of possible reasons for this. First, the resource-poverty argument indicates that small firms are unlikely to be able to afford the investment in HPWPs (Storey and Westhead, 1997). Second, the cost of investing in HPWPs is much higher in small firms than in large firms as aggregate costs incurred from implementing such practices in large firms can be distributed across a larger workforce and thus economies of scale can be achieved (Storey, 2002; Storey and Westhead, 1997). It is also argued that internal labour markets in large firms facilitate employee retention and increases the chance of return on HPWPs investment (Green, 1993).

Third, a lean firm structure and frequent face-to-face communication may make some formal procedures unnecessary in small firms. Given this, HPWPs in small firms as formal practices are often viewed as unnecessarily bureaucratic (Gibb, 2000). Fourth, small firms may be acting rationally in not investing in HPWPs in the absence of evidence demonstrating that investment in such practices improves business performance. As discussed earlier, Storey (2004) for example reports that greater investment in training does not improve performance in small firms.

Notwithstanding these arguments, several studies provide evidence of significant increases in the uptake of HPWPs in small firms in recent times (Bacon et al., 1996; Forth et al., 2006), with some authors arguing that the use of such practices in small firms is very similar to that in large firms (Golhar and Deshpande, 1997). Bacon et al. (1996), for example, report that a growing number of small firm owners are aware of HPWPs (termed as "new management practices" in their research) and a higher uptake of HPWPs has emerged as a result. Such an increase in the uptake of HPWPs in small firms may be due partly to an increased awareness of such practices as a result of government policies and government-sponsored advisory initiatives aimed at the SME sector (Goss et al., 1994). However, one might still argue that there will be a greater demand for formal practices in large firms given the greater likelihood of co-ordination problems (Blau, 1970). Nevertheless, it would appear that the uptake of HPWPs in the SME sector may no longer be as limited as argued by several authors (Marlow, 2006; Sisson, 1993; Wilkinson, 1999).

It is possible, however, that there is scope for considerable variation within the SME sector. A threshold for formality is conjectured in Roberts et al.'s (1992) study, in which they argue that it is crucial for small firms with 20 or more employees to introduce sufficient formal practices as beyond this number the informality that tends to dominate firms with fewer than 20 employees will no longer be sufficient to accommodate increasing levels of complexity. Kotey and Slade (2005) also note that as size expands, the adoption of such practices increases (at first rapidly but then more slowly). This has two implications. The first is that a considerable difference in the extent of the uptake of HPWPs may exist between very small firms and other

SMEs. The second is that differences between medium-sized firms and large firms in terms of the uptake of HPWPs might not be particularly great. This will be assessed in Chapter 3. Following on from this, if there has been a growth in the use of individual HPWPs in small firms, it might also be the case that the adoption of specific bundle(s) of closely-defined HPWPs used in combination is more widespread in small firms than previously appreciated.

Given the above, this thesis will assess the extent to which the use of HPWPs differs between small, medium and large firms. It will also assess whether formality starts at a particular size threshold.

2.2.2 The use of HPWPs in medium-sized firms

Compared with the literature on the use of HPWPs in small firms, large firms or SMEs in general, studies focusing specifically on the uptake of HPWPs in medium-sized firms are rare. As alluded to above, although the widespread use of the term 'SMEs' seems to imply that small and medium-sized firms form a homogeneous group, it is quite possible that small and medium-sized firms have different HRM concerns and priorities, and will therefore adopt different HPWPs.

However, the limited research conducted on the extent to which medium-sized firms differ from small firms is inconclusive. Some of the literature points to similarities: for example, Storey (2002) argues that, as with small firms (Storey, 2004), medium-sized firms are less likely to adopt HPWPs such as training than are large firms, given that both small and medium-sized firms will view trained employees resigning from the firm as an unacceptable waste of resources. Examining HPWPs more broadly, existing debates tend to regard both small and medium-sized firms as suffering equally from resource constraints and therefore equally unable to afford expensive and complex HPWPs.

Against this, however, Kotey and Slade (2005) argue that medium-sized firms will have a greater tendency to introduce formal HPWPs than small firms given that, in comparison with

small firms, medium-sized firms have a greater division of labour, more hierarchical structures and require increased documentation and better developed administrative processes as a result of their larger workforce size. Also, Lynch and Black (1998) argue that while the economies of scale enjoyed by medium-sized firms are less than those enjoyed by larger firms, they nevertheless have greater economies of scale than small firms and therefore may be more inclined to engage in practices such as workforce training and development. Furthermore, medium-sized firms are more likely to have internal labour markets, thereby increasing employee retention and the chance of a return on training investments (Green, 1993).

Additionally, specific external pressures on medium-sized firms may also make it more likely that they will adopt HPWPs than small firms. As Frormann (2006) argues, medium-sized firms tend to view the development of formal practices as necessary to demonstrate enhanced reliability and accountability, as this is considered essential to increase their ability to obtain finance from venture capitalists, investment bankers and stock analysts. Given this, medium-sized firms may also hire chief executive officers (CEOs) with greater business experience who introduce formal rules as part of building a professional business (Baron et al., 2007).

The limited empirical evidence on the practices adopted by small and medium-sized firms also suggests differences may exist. Drawing on data from WERS 2004, Hoque and Bacon (2008) find overall levels of training to be higher in medium-sized firms than in small firms, and no lower than in large firms, thereby suggesting support for Lynch and Black's (1998) argument that small firms will view training as too costly to the organisation whereas medium-sized firms may not. Beyond this, a number of studies, while not directly evaluating differences between small and medium-sized firms, have identified the importance of size as a predictor of the uptake of HPWPs. For example, Forth et al. (2006) find the uptake of specific HPWPs to be correlated positively with firm size, and Kotey and Slade (2005) find variation within the small firm sector by size. As these studies point to the importance of firm size as a predictor of the approach taken to HRM, one might reasonably hypothesize that the uptake of HPWPs will be higher in medium-sized firms than in small firms.

2.3 Contextual factors associated with the use of HPWPs in small and medium-sized firms

Turning to the factors associated with the uptake of HPWPs in SMEs, a number of factors might be important. For example, successive government sponsored initiatives may have helped to bring awareness of HPWPs to small and medium-sized firms and thereby enhanced the uptake of such practices as a result. A further aim of the thesis is to identify what factors are likely to be associated with the uptake HPWPs in small and medium-sized firms, and also to indentify whether the factors associated with the use of HPWPs in small firms are different from those in medium-sized firms.

In considering these issues, it is worth keeping in mind Rainnie's (1989) argument that the use of HPWPs in SMEs can be largely externally imposed. Given this, Hendry et al. (1995) emphasise the importance of giving due attention to both external and internal factors in considering how small and medium-sized firms adapt and change. Hence, the factors that are potentially associated with the adoption of HPWPs in small and medium-sized firms are assessed from two perspectives: first, the external perspective, which emphasizes the impact of competition in the external market, government policy, employers' associations/networks and the presence of the largest customer; and second, the internal perspective, which focuses on the impact of factors such as firm size, firm age, family ownership, a single independent workplace, union recognition and the presence of an HR specialist. The analysis will also seek to identify whether the factors associated with the uptake of HPWPs in small firms are different from those in medium-sized firms, and thus shed further light on whether small and medium-sized firms should be viewed as distinct firm sectors. The next sections explore the external and internal factors that might be associated with the take up of HPWPs in SMEs in further detail.

2.3.1 External factors

In understanding the factors that have the potential to influence the uptake of HPWPs in SMEs, it is essential to recognise potential pressures exerted by external factors. One such factor is product market competition, with SMEs being more vulnerable to a highly competitive market than is the case for larger firms (Edelman et al., 2005). The extent to which external factors[3] are likely to be associated with the uptake of HPWPs and whether such associations are likely to vary between small and medium-sized firms is discussed in detail below.

First, as mentioned above, highly competitive market may be particularly punishing for small and medium-sized firms than large firms, given that the latter may find it easier to access alternative markets (Storey, 1994). High competition can drive down price and reduce the finance available for HR investments, thus reducing the likelihood that HPWPs will be adopted. That said, high competition can also drive firms to identify and adopt the most efficient practices, thus resulting in new HPWPs being introduced. One might also expect the impact of market competition to vary between small and medium-sized firms. Arguably, the impact of market competition will be greater in small firms than in medium-sized firms, given the latter may have more resources at their disposal (Curran, 1996; Hill and Stewart, 1999).

Second, the provision of specific HPWPs may be affected by the relationship between SMEs and their larger customers. A quarter of SMEs in Hunter et al.'s (1996:245) research, for example, had changed their workforce training in response to their larger customers' requirements. Large customers also assessed and audited their SME suppliers by inspecting training records, budgets and plans to ensure that both management and workforce understood quality control procedures (p.245). Hence, one might expect a greater use of HPWPs to emerge in SMEs in instances where they have a large, dominant customer.

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[3]Several external factors that were reported to have an impact on the use of HPWPs in SMEs in previous studies are not included in this thesis for various reasons. For example, being part of a franchise chain – associated with a greater use of HPWPs (Hoque, 2000) – is dropped in the analysis due to the small number of observations in the sample. Though much of the literature argues that the use of HPWPs is strongly influenced by the type of business strategy adopted, this is not addressed here because the questions asked about in relation to business strategies in the WERS 2004 cannot produce a valid typology. For further details, see the discussion of this in Footnote 2 earlier in the chapter.

Against this, however, large customers may be in a position of market power over SME suppliers, thus enabling them to drive down prices. This in turn may result in SMEs having to adopt authoritarian management, tight supervision and a low wage strategy (Rainnie, 1989). Using WERS 1998, however, Hoque and Bacon (2006) reported there is no link between the presence of larger customers and the extent of uptake of training in SMEs. This finding may, however, mask considerable variation within the SME sector. In particular, what remains to be seen however is whether the impact of large, dominant customers is greater in small firms than in medium-sized firms. One might expect small firms to be more likely to be dominated by a single large customer than is the case for medium-sized firms. Also a medium-sized firm may have more resources at its disposal to be able to seek out new markets should a large customer seek to drive down prices. A further aim of this thesis is to address this issue.

Third, government-sponsored initiatives can exert an impact on the extent of the uptake of specific HPWPs. For example, Investors in People (IiP) recognition may provide a best practice blueprint for SMEs to work towards, hence one might anticipate the uptake of HPWPs to be higher in SMEs that have secured recognition than in those that have not (Goss et al., 1994). However, the evidence indicates that IiP is not associated with one key HPWP (workforce training) in SMEs (Hoque and Bacon, 2006). One possible explanation for this is that if SMEs have been compelled to seek IiP (as a requirement from a larger customer, for example) and they may view IiP accreditation as a marketing tool or as a procedural requirement that has no subsequent impact on employment practices once recognition has been secured (Hoque and Bacon, 2006; Ram, 2000). Thus, it remains unclear whether the IiP award will be associated with the overall uptake of HPWPs in either small or medium-sized firms.

Fourth, the UK government has encouraged the provision of business advice through business support networks such as employers' associations, local chambers of commerce and Learning and Skills Councils (LSCs). Hoque and Bacon (2006) found that SMEs joining three or more different employers' associations were more likely to provide training to their employees than those who were not a member of any such associations. However, a few studies report that

being a member of various business networks is only weakly associated with the use of management advice supported by government (Bennett and Robson, 2003). This may be due to the fact that SME managers are extremely reluctant to accept external advice given the imperative of survival over growth and their strong commitment to independence (Curran and Blackburn, 2000). Hence, it is not clear whether the extent of the uptake of HPWPs in small and medium-sized firms will be affected by membership of employers' associations, and if so, whether the impact of such associations is different in small firms than in medium-sized firms.

2.3.2 Internal factors

A large body of literature reports that the extent of the uptake of HPWPs is influenced by a range of organisational factors within the firm such as firm size, the history of the firm, union recognition and industry sector (see, for example, Guthrie, 2001). Studies of HPWPs in SMEs also note that a range of further factors such as family ownership, the presence of HR specialists and whether an SME is a stand-alone establishment or is multi-sited predicts the use of HPWPs (Hoque and Bacon, 2006; Wager, 1998). This section reviews these factors in detail below.

First, it has been argued that it is less likely for family-owned small firms to use HPWPs because family-owned firms more often opt for personal networks rather than formal practices (Ram and Edwards, 2003). Empirical evidence also lends support to this argument (Hoque and Bacon, 2006). Given the majority of small firms are family-owned (Forth et al., 2006), this is likely to be a particularly important factor where small firms as opposed to medium-sized firms are concerned. Nevertheless, the extant literature frequently discusses the impact of family ownership on the use of HPWPs in SMEs as a whole (see, for example, Kotey and Slade, 2005). Hence, although medium-sized firms might be less likely to be family owned, one might still anticipate that family-owned medium-sized firms will be less likely to use HPWPs than non-family owned medium-sized firms.

Second, small firms are well known for their short lifecycles and high failure rates. A short lifecycle may in part explain the low uptake of HPWPs in small firms because such practices may be unlikely to lead to performance given the short time periods in which they are in operation (Storey and Westhead, 1997). Empirical studies report that small firms that have been in operation for many years tend to have more HPWPs in place compared to those with a short operation history (Faems et al., 2005; Wager, 1998). It would therefore be expected that the longer a small firm stays in business, the higher the chance of the firm introducing more practices. A positive relationship between the use of HPWPs and firm age would also be expected to emerge in medium-sized firms as the benefits from straying in business longer are likely to encourage such firms to invest in HPWPs (Faems et al., 2005).

Third, multi-sited firms may tend to install more formalised procedures to minimise the principal-agent problem (Knocke and Kalleberg, 1994). Findings based upon the 1998 WERS data revealed that small firms with multiple workplaces make greater use of formal procedures for employment relations issues (Cully et al., 1998). With a higher proportion of medium-sized firms being multi-sited, a greater adoption of HPWPs may also be anticipated in these firms than in single-sited medium-sized firms.

Fourth, the low uptake of HPWPs in small and medium-sized firms may be associated with a lack of HR specialists (Boxall and Purcell, 2008). Empirical research has reported that the presence of HR/personnel specialists is positively related to training in the SME sector (Hoque and Bacon, 2006), with HR experts being able to bring the knowledge and expertise a firm needs to enable it to make the most appropriate HR decisions. Empirical evidence also reveals that small firms/SMEs are less likely to employ a dedicated HR specialist (Cully et al., 1996; Forth et al., 2006). Nonetheless, while HR specialists are considerably less prevalent in small firms and/or medium-sized firms, in the instances where they are present, they may well be associated with a greater use of HPWPs.

Fifth, firm size (de Kok and Uhlaner, 2001; Forth et al., 2006) has been widely reported to be positively correlated with the extent of adoption of HPWPs as the cost of HRM activity can be

distributed across a large workforce in a large firm (Storey and Westhead, 1997). A greater use of these practices may occur in small and medium-sized firms that have a relatively large workforce size.

Sixth, union recognition has been found to be strongly associated with formal performance appraisals, higher compensation and more training to new recruits (Jackson et al., 1989). With specific regard to SMEs, Green (1993) reported that the level of training activity was higher in workplaces with union recognition. Both Jackson et al.'s (1989) and Green's (1993) findings suggest that unions may bring benefits to small and medium-sized firms in terms of encouraging the adoption of a more sophisticated approach to HPWPs. If a greater use of HPWPs is found in unionised small firms, one might argue that this suggests the threshold for statutory union recognition in the Employment Relations Act 1999 should be extended to small firms employing fewer than 21 workers (Ewing and Hock, 2003).

To summarize, one might anticipate that a range of factors, both internal and external to the firm might be associated with the adoption of HPWPs in SMEs, and that these factors might have different effects in small firms than in medium-sized firms. The analysis to be conducted in Chapter 4 will seek to address these issues using data from WERS 2004.

2.4 The HPWP–performance link in small and medium-sized firms

This section reviews debates on the HPWP–performance link in small and medium-sized firms separately.

2.4.1 The HPWP–performance link in small firms

As stated at the beginning of this chapter, while a large body of literature reports that HPWPs are positively associated with performance in large firms, studies of this relationship in small firms remain very limited. Of the studies that have been undertaken, several suggest that there

is no relationship between HPWPs and performance in small firms. Among these studies, training, as a single practice, has been widely reported to have no impact on business performance in the sector (Storey and Westhead, 1997; Storey, 2004). This is for a number of reasons. First, in the small firm sector resource poverty means the benefits of training may not outweigh the costs of implementing it, while in large firms the cost of training provision can be reduced via economies of scale (Storey and Westhead, 1997). Second, small firms often have difficulty in retaining their employees and are therefore unlikely to reap any benefits from the investment in training they have made in their employees (Storey, 2004). Third, the training activity in small firms is often informal and *ad hoc* and therefore is unlikely to have an impact on performance (Patton et al., 2000). Empirical evidence appears to reinforce such concerns. The implication of this is that any efforts to invest in training with the aim of improving performance in the small firm sector might be 'misguided' (Storey, 2004: 893).

However, a few studies report a positive relationship between HPWPs and performance in small firms. For example, de Grip and Sieben (2005) find a relationship between training and productivity in small pharmacy companies. Looking at HPWPs more broadly, Faems et al. (2005) combine several closely related HPWPs together, categorising HPWPs into six HRM domains (see Footnote 1 for the composition of these domains). Taking this approach, they find that some domains (training, compensation, career management and performance management) are individually related to labour productivity, although there is no such relationship where other HRM domains (selection and participation) are concerned.

Faems et al. (2005) also found that although several individual HRM domains were associated with improved productivity, they were not associated with improved financial performance. This is, of course, a critical issue in determining whether there is a genuine and meaningful relationship between HPWPs and performance (Guest and Conway, 2007). As Way (2002) argues, the absence of a relationship with financial performance is perhaps to be expected given that the gains from the implementation of such HPWPs may not exceed the labour costs associated with the use of these practices. Against this, Sels et al. (2006) found that the extensive use of HPWPs leads to increased productivity and an overall positive effect on small

firm profitability. This suggests that HPWPs can be valuable for small firms seeking to achieve better economic outcomes as the 'value-enhancing effect' of such practices outweighs the 'cost-raising effect' (Sels et al., 2006:319).

In contrast to the findings generated by studies looking at either individual HPWP (training) (de Grip and Sieben, 2005) or several closely defined HPWPs used in combination (Faems et al., 2005), Sels et al.'s (2006) study seems to suggest that small firms can maximize their profits by adopting a strong HRM system[4] (Bowen and Ostroff, 2004), which involves using as many HPWPs as possible. Although Sels et al. (2006) define small firms as having up to 99 employees, the study nonetheless casts doubt on whether the HPWP–performance link will also hold small firms with fewer than 50 employees in the private sector (the widely acknowledged definition for small firms used in official statistics in the OECD, European Union and the UK). Also, given none of the studies to date has examined the relationship between HPWPs and performance from all three perspectives, it remains unclear whether it is the different perspectives that leads to variation in the findings achieved.

Despite the lack of agreement within the limited studies conducted in small firms, as described above, the review of the uptake of HPWPs in Section 2.2 nevertheless suggests that individual HPWPs may be linked to performance in small firms as relatively higher transparency is likely to make the impact of such practices more direct than in medium and large firms. Beyond this, the increase in the use of HPWPs in small firms reported by a few recent studies (Bacon et al., 1996; Forth et al., 2006; Kotey and Slade, 2005) furthers the expectation that specific bundle(s) of HPWPs, i.e. a few closely defined HPWPs used together, may help to target particular HRM concern(s) and thus lead to better performance in these firms.

This thesis, therefore, seeks to explore the HPWP–performance link from all three perspectives. The analysis to be conducted in Chapter 5 will demonstrate whether there is a specific pattern to the HPWP–performance link in small firms.

[4] The strong HRM system has been frequently assessed using a count index in empirical studies (see for example, Appelbaum et al., 2000; Guthrie, 2001; Sels et al., 2006; Way, 2002).

2.4.2 The HPWP–performance link in medium-sized firms

As with the literature on the uptake of HPWPs in medium-sized firms, the literature on the relationship between HPWPs and performance in medium-sized firms remains underdeveloped, both theoretically and empirically. Among the limited studies specifically undertaken on medium-sized firms, Storey (1998) argued that there was no evidence of an association between training and performance, and therefore there is little point in these firms adopting the training practices of larger firms.

This finding is similar to that reported for small firms (Storey, 2004; Storey and Westhead, 1997). Nonetheless, Storey's later work (Storey, 2002) reported a positive association between a set of practices relating to education, training and development, and performance when they were used in combination. Storey's (2002) study also revealed that there were high correlations between education, training and development practices, and any attempt to isolate one practice from the other two led to a significantly weakened relationship with performance. Although the three highly-correlated practices in combination only form an essential element in developing employees' ability, it nevertheless suggests that consistent and coherent HPWPs could generate a stronger impact on performance (compared to individual HPWPs used in isolation) in medium-sized firms.

This finding appears to support Delery and Doty's (1996) argument that synergistic effects are likely to occur when consistent HPWPs are used in bundles. As argued in the HPWP–performance link literature, practices that aim to develop employees' ability/competence (A), motivate them to use their ability (M) and provide them with the opportunity to contribute (O) (termed the "AMO framework") will elicit high commitment and result in enhanced performance (Boxall and Purcell, 2008: 5). If further evidence demonstrates that practices in connection with the AMO framework are also associated with high performance in medium-size firms, one implication would be that medium-sized firms are more likely to achieve better performance if they use closely-defined practices in combination rather than use specific

HPWPs in isolation. This would differentiate medium-sized firms from small firms where there might be more scope for individual HPWPs to be linked to enhanced performance.

A study of German medium-sized firms, however, suggests that medium-sized firms might adopt HPWPs as a result of external pressures, particularly to demonstrate enhanced reliability and accountability in order to increase the chance of obtaining finance (Frormann, 2006). If medium-sized firms have adopted HPWPs for this reason, they may distract attention away from developing employment practices aimed at ensuring co-ordination and control (Baron et al., 2007; Blau, 1970). Hence, one might argue that HPWPs adopted as a result of external factors (Frormann, 2006) will not necessarily lead directly to higher performance. If medium-sized firms are more likely than are other firms to have adopted HPWPs to impress external financers rather than to address specific co-ordination or workforce commitment/control issues, this in turn suggests there is a greater likelihood that the association between HPWPs and performance will be weaker in medium-sized firms than in small or large firms.

As such, this thesis also seeks to assess the HPWP–performance link in medium-sized firms from a number of perspectives, and hence evaluate whether the greater use of HPWPs in medium-sized firms than small firms also leads to higher performance.

2.4.3 High performance work practices in small and medium-sized firms

The review in Sections 2.4.1 and 2.4.2 suggests that many existing studies on the HPWP–performance link in small and medium-sized firms focus on specific HPWPs such as training (de Grip and Sieben, 2005; Patton et al., 2000; Storey, 2002; Storey and Westhead, 1997) and it has also been recognised that a more transparent organisational structure in SMEs might allow the impact of an individual HPWP on performance to be more direct compared to a similar use in larger firms (de Kok and Uhlaner, 2001). The following section discusses the individual HPWPs one might expect to be associated with performance in the SME sector, and considers the differential impact one might anticipate they will have in small and medium-sized firms.

Individual HPWPs and performance in SMEs

Following previous studies on the HPWP–performance link, this thesis selects 18 HPWPs from a list of HPWPs tested in previous studies and reported to have positive relationships with various performance outcomes (Combs et al., 2006; Guest et al., 2003; Hoque, 2000; Ramsey et al., 2000; Wall and Wood, 2005; Wood and de Menezes, 2008). Details on the HPWPs used in this selection of studies are presented in Table 2.1. A brief illustration of how each individual HPWP associated with high performance in large firms is relevant to small and medium-sized firms is provided below.

Recruitment/selection

Recruiting and selecting employees with the relevant competencies is the first critical step for firms pursuing competitive advantage through HRM (Wright and Snell, 1991). Texts on recruitment invariably recommend a systematic procedure that comprises stages including developing a job description, advertising via formal recruitment channels and conducting structured interviews. A careful and well-structured recruitment and selection process helps the firm to identify individuals with the sort of knowledge, skills, attitude and personal qualities that will enable them to fit into the firm and make a commitment to it (Carless, 2005). Potential applicants also benefit from such an approach as they gather information on the organisation's values and culture as they go through the process. The selection of individuals who possess superior skills and behavioural characteristics may enhance the firm's ability to develop a workforce capable of producing superior performance (Way, 2002).

In small and medium-sized firms, however, job vacancies are often filled in an informal and *ad hoc* way (Heneman and Berkley, 1999). Local newspaper advertisements, personal or employee reference and walk-ins, for example, are the most frequently used recruiting methods in small businesses, because these methods are convenient, inexpensive and provide managers with direct control over appointments (Cardon and Stevens, 2004). However, research suggests

Table 2.1 HPWPs used in studies on the relationship between HPWPs and performance

HPWPs	Combs et al., 2005	Guest et al., 2003	Hoque, 1999/2000	Ramsey et al., 2000	Wall & Wood, 2005	Wood & de Menezes, 2008
Sophisticated recruitment	√	√	√	√	√	
Induction		√ (combined with recruitment)	√ (combined with recruitment)	√		√
Off-the-job training	√	√	√	√	√	√
Internal labour market	√	√	√	√	√ (combined with performance related pay)	√
Performance-related pay	√	√	√	√	√	√
Profit-related pay	√	√	√	√	√	√
Performance appraisal	√	√	√	√	√	√
Teamwork	√	√	√	√	√	√
Team briefing	√ (termed information sharing)	√ (termed two-way communication)	√	√ (termed downward communication)	√	√
Consultation committee				√	√ (termed participation)	√
Employee attitude survey	√ (termed participation)			√		√
Quality circles		√	√	√ (termed problem solving group)		√
Functional flexibility		√		√ (included as part of training)		√
Benefits	√	√ (termed single status & harmonization)	√ (termed single status)	√ (termed harmonization)	√	√ (termed single status)
Flexible working/family-friendly	√	√	√	√	√ (termed harmonization)	
Equal opportunities			√ (termed harmonization)	√		
Grievance procedures				√		
Job security	√	√	√	√	√	√

the adoption of more formal procedures and methods could reduce staff turnover and its associated costs in small firms (Carroll, 1999). Research also indicates that, by adopting formal recruiting practices reflecting industry norms, SMEs can gain legitimacy in their industries and increase the likelihood of potential applicants applying for posts (Williamson, 2000). As such, formal recruitment practices may lead to appropriate skills being developed and hence, may lead to improved performance in small and medium-sized firms.

Induction

Formal induction procedures for introducing new employees to a firm can generate better performance outcomes given that new staff will understand the work, the communication systems and the operational practices of the firm from the start of their period of employment. Induction, along with sophisticated recruitment and training, are key components for the formation of workers' competence that contribute to higher performance at both the level of the employee and the level of the firm (Guest, 1997). However, compared to the extensive attention paid to sophisticated recruitment and training, only a few studies include induction as an independent HPWP. This is confirmed in the sample of empirical studies presented in Table 2.1. Only two of these studies make reference to it, and these studies treat induction as a component of a more general sophisticated approach to recruitment (Guest et al., 2003; Hoque, 2000).

However, formal induction procedures may well be atypical within the SME sector, hence introducing such procedures may make small firms stand out from their competitors, not only in terms of developing new talent, but also in terms of subsequent firm performance. As with recruitment/selection practices, the adoption of formal induction procedures in small firms is notably low in comparison with large firms (Forth et al., 2006). This could be because, as Green (1993) argues, the flat organisational structure within small firms may make such a practice redundant. That said, one could also argue that first impressions of a firm may affect the commitment that a new employee will have towards his/her job. A properly managed induction can convey effectively, as in large firms, the firm's ethos and objectives so that

newly recruited employees can align their aims and objectives those of the organisation's and shape their behaviour in line with the firm's policy. As such, induction processes may well prove to be an important mechanism by which firms can develop a highly committed workforce that is willing and able to produce high levels of labour productivity.

Training

Training can help to improve firm performance by imparting relevant new knowledge and skills, based on employee and organisational needs, if it is effectively designed and delivered (Salas et al., 1999). When training results in improvements in relevant knowledge and the acquisition of relevant skills, it is likely that employee job performance will improve, provided that the skills learned in training can be transferred to the job (Salas et al., 1999). A meta-analysis (Tharenou et al., 2007) based upon 67 studies of large firms suggests that training is positively related to human resource outcomes and organisational performance but is only very weakly related to financial outcomes.

However, as argued above, the resource-poverty argument presumes that it is less likely that small firms will train their employees than large firms as the fixed costs cannot be distributed across a large workforce (Storey and Westhead, 1997). As also discussed above, Storey (1998; 2002; 2004) reports that neither small firms nor medium-sized firms benefit from the provision of training. Conversely, medium-sized firms may introduce more training for their workforce than small firms as they benefit from greater economies of scale than do small firms (Lynch and Black, 1998). Thus, a positive association between training and firm performance may be expected in medium-sized firms, if not in small firms.

Internal labour market

Firms that give preference to their internal candidates in filling job vacancies are likely to keep talent longer and may also increase the chance of a return on HPWPs investments (Green, 1993). Employees will recognise that these firms offer the potential for promotion and good

career prospects. Hence, it could be argued that a 'win-win' situation will emerge as employees secure benefits in terms of career progression while firms achieve high yields from a highly competent and committed workforce (Combs et al., 2006). Hence, where small and medium-sized firms are able to offer opportunities for career progression, this could lead to benefits in terms of improved retention, greater commitment and a better developed workforce.

However, small firms in particular face a dilemma with regard to this. . While a lack of talent may be detrimental to their performance, at the same time the absence of internal labour markets within these firms makes talent difficult to recruit and retain (Cardon and Stevens, 2004). Given this, in instances where small firms have been able to implement an internal labour market one might expect performance improvements from this. However, at the same time, the scope for small firms to put an internal labour market in place might be limited.

Performance appraisal

Performance appraisal represents a formalised process of employee monitoring and is intended to be a management tool to improve productivity and performance (Cardy and Dobbins, 1994). It can be used for a wide range of different purposes (Bowles and Coates, 1993), all of which can work towards enhancing firm performance, although the probability of establishing such a relationship is increased in certain circumstances. For example, performance appraisal oriented to performance monitoring and rewards provision is found to be related to improved performance in firms with employees having shorter tenure, while appraisal with the purpose of aligning their efforts with organisational goals and providing career development plans is associated with greater performance in firms where the employees have substantial latitude to influence productivity (Brown and Heywood, 2005). Nonetheless, it is also acknowledged that the implementation of a formal performance appraisal involves substantial costs and will most likely be undertaken in circumstances in which the anticipated gains are greatest.

In SMEs the extant evidence suggests that many employees feel that performance appraisals are conducted too informally, and employers feel they lack the time to conduct appraisals more

effectively (Dundon et al., 2002). The informal manner in which performance appraisals are conducted in SMEs may be detrimental to employee commitment and harmful to performance (Cassell et al., 2002). As such, regular and thorough formal performance appraisals in small and medium-sized firms may well help to shape employees' attitude and behaviour and align these with the firm's goals. Hence, one might anticipate such appraisals to be linked to enhanced performance.

Performance-related pay

Performance-related pay can take various forms. For example, it can be an award based on judgements about an employee's performance made through a system of performance appraisal, or it can simply be decided in accordance with the quantity produced by individuals. Irrespective of the existence of different types, performance-related pay is argued to be able to motivate employees to perform their best at work and generate high productivity and increased economic return without creating significant wage pressure (Piekkola, 2005). Nonetheless, evidence also shows that performance-related pay schemes may lower morale and have a demotivational effect (Marsden and Richardson, 1994). This may be the result of suspicions among employees over the fairness of the appraisal process and the appropriateness of relying solely upon individual managers in making appraisal judgements. Nevertheless, advocates posit that by bringing rewards into line with results, a firm can directly monitor its financial performance, and employees can gain a better understanding of their individual performance against the explicit criteria for evaluation, thus encouraging them to amend and shape their behaviour accordingly (Keizer, 2009).

Given the relatively direct link between individual behaviours and firm performance in small and medium-sized firms, performance-related pay may have a stronger impact on motivating workers in these firms than in large firms. Hence, a positive relationship between performance-related pay and firm performance may be expected in small and medium-sized firms.

Profit-related pay

A competitive level of compensation is critical to retain competent employees (Lam and White, 1998), and profit or target-related pay schemes can have a direct impact on performance through the promotion of employee commitment to organisational goals (Fernie and Metcalf, 1996). Although it is contentious to use pay as an incentive to elicit intrinsic commitment from employees (Wood and de Menezes, 1998), the existence of utilitarian exchange (Cohen, 2007) between the employer and employees implies financial incentives, such as profit-related pay, can develop high 'instrumental' commitment (Meyer and Allen, 1997). In light of the resource-poverty argument, it is possible that small and medium-sized firms linking employee compensation with the firm's profitability would provide competitive leverage.

Teamwork

Job and work structures have the potential to enhance firm performance by allowing skilled and motivated employees to become more involved in determining what work needs to be carried out and how it should be achieved (Delaney and Huselid, 1996). Defined as an interdependent collection of individuals who share responsibility for specific outcomes of their organisation (Sundstrom et al., 1990: 20), teamwork is argued to be a work structure facilitating multi-skilled co-ordination, effective resource allocation, high quality, rapid innovation and high customer satisfaction (Boyett and Conn, 1991). A longitudinal study conducted by Banker et al. (1996) reports that both product/service quality and labour productivity improved in the years following the formation of work teams. Procter and Burridge's (2008) analysis drawing upon the WERS2004 data confirms that teamwork is positively associated with product/service quality and labour productivity. The debates over the performance effectiveness of teamwork remain unresolved, however, as Harley's (2001) analysis of the WERS 1998 data suggests that teamwork does not matter much in relation to firm performance. This casts doubt on whether a relationship is likely to exist in small and medium-sized firms. Critical accounts argue that teamwork can undermine employee discretion, intensify work and increase stress for employees (Findlay *et al.* 2000; Marchington, 2000). Thus, teamwork might not necessarily boost performance (Ramsey et al., 2000).

Although SMEs are less likely to use teamwork than large firms (Forth et al., 2006), the informality in small and medium-sized firms offers greater flexibility compared to large firms. Hence, SMEs appear to have the ideal structure for teamwork systems given that individual's work is often dependent upon others and these firms offer an atmosphere that is naturally conducive to teamwork. However, teamwork also means individual employees need to take on multiple tasks that may require a breadth of skills and knowledge. Given the particularly low incidence of training in SMEs compared to large firms in general (Forth et al., 2006), it is possible that SME employees will lack of the skills and knowledge required in order to function effectively within a teamworking environment that requires multi-skilling. Hence, one might argue that there is no particular reason to expect that teamwork within small or medium-sized firms will lead to improved performance.

Team briefings

Communication channels such as team briefings enable employers to communicate organisational goals and the business position of the firm to employees and may increase employee understanding of the reasons behind business decisions. As a result, high commitment could develop as individual aims become better aligned with the firm's goals. Effective information flows can shape employee perceptions of fairness and their behaviour, even if employees do not expect to have an impact on decisions (Way, 2002). Greater information flows might also increase employees' perceived trust in management, hence leading to higher motivation and higher firm performance (Guthrie, 2001).

Employees in small firms are more likely to report that their managers are good or very good at informing their employees about changes in various operational issues than are those in medium-sized and large firms. However, they are less likely to inform their employees about financial issues (Forth et al., 2006). Arguably, this is because performance in small firms is generally poor so conveying such a message would not impact positively on the workforce. In comparison with small firms, medium-sized firms are more likely to discuss financial

information with their employees (Forth et al., 2006). Hence one might expect that team briefings to be linked to better performance in medium-sized firms than in small firms.

Consultation committees

Consultation committees of managers and employees or their representatives in the workplace are primarily concerned with the exchange of views. These committees are sometimes called joint consultative committees, work councils or representative forums, and it is argued that the establishment of such committees can improve managerial systems by tapping into employees' ideas, knowledge and experience, promoting greater diffusion of information and facilitating improved relations with trade unions (Wilkinson et al., 2004). The existence of consultation committees could also be viewed as proof that management recognises employees' contributions and is willing to listen to them and discuss key issues, which may give rise to improved employee attitudes and behaviours, loyalty, commitment, more cooperative relations and, ultimately, superior performance.

It is not a surprise that, given the scope for direct communication in small firms, use of formal consultation channels such as joint consultative committees is lower than elsewhere (Forth et al., 2006). However, questions could be raised over whether or not informality is sufficient as a viable mechanism for independent employee participation in the absence of formal structures, particularly as evidence suggests there has been much more information than consultation in SMEs after the introduction of the Information and Consultation of Employees (2004) Regulations (Wilkinson et al., 2007). This issue is made more problematic by the fact that the Regulations do not encompass firms with fewer than 50 employees and, thus, there is likely to be a very low uptake of such practices in small firms. However, those small (and medium-sized) firms that are able to develop formal consultation procedures may be better placed to convince the workforce of the management's integrity, trustworthiness and consistency (Cassell et al., 2002). In return, these firms may gain trust and elicit high workforce commitment. The benefits of such procedures might be particularly great in medium-sized firms given they are more likely than small firms to experience co-ordination problems.

Employee attitude surveys

Understanding how the workforce perceives workplace policies and procedures may help managers understand employees' needs and to make changes to policies and procedures in light of this. This may result in motivated employees who demonstrate commitment. It might also facilitate employee retention and lead to superior firm performance (Mirvis and Lawler, 1977).

It is rare, however, for SMEs to carry out formal employee attitude surveys because informal relationships within these firms may be seen by managers as sufficient (Forth et al., 2006). However, once these firms start to use such a practice to access employees' views on various management issues, this may result in improved employee satisfaction, higher work commitment and overall improved performance.

Quality circles

Known as a key attribute of total quality management, quality circles or continuous improvement groups require employees to understand the production process and take responsibility for solving problems and improving the quality of products or services (Legge, 1995). Many organisations are looking for a competitive advantage through improved product or service quality (Porter, 1998). Hence, quality programmes are often used as a strategy to increase employee participation in decision-making (Lawler et al., 1998). Indeed, quality circles are seen as marking the commitment of organisations to changing organisational culture (Hill, 1991: 541). Longitudinal studies report that quality circles can lead to improved job satisfaction (Griffin, 1988) and small but statistically significant benefits for productivity, absenteeism and intentions to quit (Marks et al., 1986). Recent studies report similar findings. Pereira and Osburn (2007), for example, report that quality circles have a stronger impact on job performance than on employee attitudes. However, others argue that quality circles are part of a strategy by managers to bypass trade unions and create an individualistic relationship with

employees in order to increase the legitimacy of management in employees' eyes (Batstone and Gourlay, 1986: 117-20). Hill (1991:566) further argues that quality circles were bound to fail given that they were introduced within conventional organisational structures that comprise bureaucratic and Taylorist principles. Although benefits might occur in the short term, in the longer term performance is likely to deteriorate as a result of the failure to integrate quality circles into broader firm structures. Quality circles, therefore, need to be part of a broader strategy to change the organisational culture and structure throughout the organisation as a whole.

The relatively transparent organisational structure in small firms may make it easier to implement quality circles that are embedded within and complementary to other systems within the organisation. It may be possible, therefore, for small firms to benefit from such practices in terms of improved quality of product or service. In contrast, the increased layers of management in medium-sized firms resulting from a much larger workforce may result in more bureaucratic structures and hence a greater risk of an incompatibility between quality circles and existing organisational structures. It remains to be seen therefore whether using quality circles as an individual practice is associated with performance in medium-sized firms.

Functional flexibility

Training employees to carry out jobs other than their own is recognised as a way of increasing an organisation's flexibility and thereby developing sustainable capabilities that are inextricably embedded in organisational experience, learning and practice. Such training can lead to a multi-skilled workforce, enable employees to work in teams and empower employees to participate in decision-making. It can also help firms to adjust in fast-changing environments (Wood, 1999). Functional flexibility is often analysed as a component of a specific set of practices, for example, HPWS, and has been demonstrated to be associated with performance (Appelbaum et al., 2000).

Following on from the argument relating to potential impact of teamwork in small and medium-sized firms, training employees in a broad range of skills may enhance the capability of employees to contribute to teamworking. Although there is no research conducted on functional flexibility exclusively in small or medium-sized firms, the need for employees in small firms to cover a wide range of tasks and the limited scope for task specialisation in small firms (Storey and Westhead, 1997) suggests a need to train SME employees to be multi-skilled. Given SMEs are less likely to provide such training to their employees, in instances that they do, better performance would be expected.

Benefits

Benefits in the form of non-pay compensation are designed to improve the quality of working and personal lives of workers (Milkovich et al., 2005). Benefits such as employer pension schemes, private health insurance, more than four weeks of paid annual leave and sick pay in excess of statutory requirements are said to help firms attract new candidates, retain current employees and produce effective performance (Bohlander et al., 2001). The evidence also shows that benefit plans that tend to increase in value over time also encourage employees to stay longer with their employer (Gomez-Mejia et al., 2001). This line of argument implies that firms providing benefits to their workforce might be expected to have high job satisfaction, sustained loyalty, high retention of employees and improved product or service quality.

However, small and medium-sized firms are less likely to offer benefits compared to their larger counterparts (Forth et al., 2006). This could be because many small and medium-sized firms operate in hyper-competitive markets, where low or non-existent profit margins do not leave room to readily absorb extra costs (Ram and Edwards, 2003). Nevertheless, although the offer of a competitive benefits package remains a rarity within the SME sector, small and medium-sized firms that are able to offer these kinds of benefits would be expected to increase their chance of achieving superior performance compared to other firms.

Flexible working/family-friendly practices

The aim of flexible working/family-friendly schemes is to correct the adverse effects of work–life conflicts by assisting individuals so that improved performance can be achieved (Glass and Fujimoto, 1995). Schemes to help families care for children or older adults, a workplace nursery or a nursery linked with the workplace, work at home or paid parental leave, enable employees to focus on and remain in work (Glass and Fujimoto, 1995). In addition, enhanced loyalty, high satisfaction and productivity can be achieved if flexible working/family-friendly practices are in place (Davis and Kalleberg, 2006). Apart from the potential benefits gained from flexible working/family-friendly plans from the employers' point of view, it is also recognised that employers feel pressure to use such schemes in order to attract skilled labour. This is particularly the case where labour markets are tight (White and Rogers, 2000). Hence there are a number of reasons why flexible working/ family friendly practices might lead to high labour productivity and/or high labour retention.

Although the available evidence indicates that SMEs are less likely to report the use of flexible working/family-friendly practices, employees in these firms usually report that they would have access to such practices if they were required (Forth et al., 2006). There is a suggestion, therefore, that there is a greater availability of informal flexible working/family-friendly practices in small and medium-sized firms, although this is hard to measure. Nonetheless, it can possibly be hypothesised that small and medium-sized firms with such practices in place are likely to have better employment relations and better firm performance than are firms lacking these practices.

Equal opportunities

It has been long argued that there is a business case for promoting equal opportunities in employment. Harnessing talent from a diverse background (for example, age, gender, race, religion and/or sexual orientation) can help firms to achieve high labour productivity and increased economic return (Dickens, 1986). Wilson and Iles (1999) report that managing a

diverse workforce effectively and providing equal opportunities in various management channels, such as recruitment, development and promotion, could develop co-operative behaviour and improve operational efficiency and firm profitability. In addition to the full utilisation of the skills and potential of all employees, equal opportunities and diversity management can contribute to organisational success by enabling access to increasingly diverse markets and improving corporate image (Kandola and Fullerton, 1994). Where empirical evidence is concerned, there is limited evidence of an association between the use of equal opportunities alone and enhanced firm performance (Shen et al., 2009), although a count measure of HPWPs that includes equal opportunities has been demonstrated to have a positive association with, for example, increased labour productivity (Ramsey et al., 2000).

Small and medium-sized firms are not only less likely to have a formal written policy on equal opportunities, but are also less likely to monitor or review their recruitment and promotion procedures to identify indirect discrimination (Forth et al., 2006). Either way, it remains to be seen whether the extent of the application of equal opportunities practices is associated with better performance in small and medium-sized firms.

Grievance procedures

Formal grievance procedures that aim to resolve potential differences between employers and employees in a reasonable, fair and consistent manner can reduce employee dissatisfaction and increase motivation, thereby potentially reducing labour turnover and increasing retention rates (Renwick and Gennard, 2001). A business case for adopting formal grievance procedures exists in that potential damage to corporate image and costs incurred by industrial tribunals will inevitably result in low morale and mistrust among employees and loss of confidence among customers, which can subsequently harm a firm's business performance. This has been empirically verified by a meta-analysis suggesting that the application of formal grievance procedures is positively associated with firm performance (Combs et al., 2006).

Some recent research reports that the majority of small firms have adopted formal grievance procedures (Forth et al., 2006), although they are less likely to have adopted them than are larger firms. Arguably, small firm managers may view formal grievance procedures as overly bureaucratic and they may prefer to deal with grievances in an informal manner. Hence, one might argue that the application of formal grievance procedures could bring about additional costs to small and medium-sized firms and thus harm performance. Conversely, it can also be argued that the provision of such procedures in small and medium-sized firms could have a positive impact on workforce commitment and firm performance given that the workforce might see such procedures as a demonstration of trustworthiness, integrity and goodwill on the part of the employer.

Job security

It has been argued that guaranteed job provision can develop trust between employees and employers, which may elicit commitment to firm performance (Preuss and Lautsch, 2002). Evidence also demonstrates that a job security policy is related to higher labour productivity and enhanced market returns (Combs et al., 2006). This does not suggest that job security is necessarily a requirement for better performance as employees in the current climate no longer expect unconditional job security given that volatility in the competitive environment places complete security outside management control (Rousseau and Tijoriwala, 1998). Employees instead may now expect only that management will engage in good faith efforts to secure jobs. However, firms that do provide job security or a non-compulsory redundancy policy may well be distinct from their competitors, thus helping them to attract talent and elicit high commitment, ultimately leading to superior performance. The impact might be particularly apparent in small and medium-sized firms as such provision is comparatively rare (Forth et al., 2006).

HPWP bundles

While many of the individual HPWPs discussed above may be associated with enhanced performance, the existing evidence also shows that HPWP 'bundles' demonstrate much stronger associations with performance outcomes (MacDuffie, 1995), given the synergistic effects that can emerge from a mutually reinforcing package of HPWPs (Delery, 1998; Huselid, 1995). Specific HPWP bundles that comprise several HPWPs are therefore viewed as more effective than individual HPWPs. On the contrary, 'deadly combinations' can also occur whereby HRM policies or practices work in opposite directions, such as teamwork alongside a performance appraisal system that only rewards highly individualistic behaviours (Delery, 1998:294). Hence, the strategically designed bundling of various HPWPs is considered essential to deliver high levels of firm performance.

Nonetheless, there is no general agreement on what the bundles are or what their components should be. Within the literature it is argued that enhanced performance can be achieved through three HPWP bundles: managing the workforce's ability; motivation; and the opportunity to participate (AMO) (Boxall and Purcell, 2008). Many empirical studies have tried to validate this conceptual framework. Examples of previous empirical studies of HPWP bundles are presented in Table 2.2.

Some of these studies did not find any of the HPWP bundles frequently described in the HRM literature. For example, drawing data from WERS 2004, Guest and Conway (2007)[5] found no evidence that the choice of a range of HPWPs follows a specific pattern. Instead, they allocated the HPWPs into four bundles in line with the AMO conceptual framework and added a commitment bundle comprising practices such as equal opportunity, flexible working, fringe benefits and job security. The results suggest that the ability/competence bundle is associated with lower labour turnover and superior financial performance, while the motivation bundle is

[5]The sample used in Guest and Conway's (2007) study excludes all independent workplaces with fewer than 25 employees.

Table 2.2 HPWP "bundles" in selected studies

Empirical Studies	HPWP bundles				Allocation techniques	Database
	Bundle 1	Bundle 2	Bundle 3	Bundle 4		
Guest & Conway, 2007	Competence	Motivation	Opportunity to contribute	Commit-ment	AMO & authors' self-justification	WERS 2004[1]
Huselid, 1995	Employee skills and organization-al structure	Employee motivation			Principle component factor analysis	Compact Disclosure[2]
MacDuffie, 1995	Use of buffers	Work systems	HRM policies		Cluster analysis	Questionnaire survey[3]
Michie et al., 2008	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster analysis	WERS 2004
Wood & de Menezes, 1998	Low HCM	Medium-low HCM	Medium-high HCM	High HCM	Latent classic modelling	WIRS 90 & EMSPS[4]

Notes:
[1] The British Workplace Employment Relations Survey 2004.
[2] A database containing comprehensive financial information from 10-K reports (informational documents filed with the Securities and Exchange Commission in the U.S.A.) on nearly 12,000 publicly held U.S. firms.
[3] The International Assembly Plant Study was sponsored by the International Motor Vehicle Program (IMVP) at M.I.T U.S.A.
[4] The British Workplace Industrial Relations Survey (WIRS) 1990 and the Employers' Manpower and Skills Practices Survey (EMSPS).

associated with higher productivity. Guest and Conway (2007) conclude that the association between individual HPWP bundles and performance is somewhat weak.

In line with MacDuffie's (1995: 204) argument that cluster analysis appears to be an ideal technique for detecting HPWP bundles as it 'groups observations that lie in close proximity in multidimensional space for a given set of variables', Michie et al. (2008: 42) conducted cluster analysis also drawing on data from WERS 2004 and reported four clusters (see Table 2.2). They did not give these clusters specific titles, however, on the basis that none of them 'particularly match the sort of HR bundles generally described in the literature'. While the differentiation between these four clusters was not clear enough to identify which HPWP

bundles they potentially relate to, they did nevertheless find overlaps between each cluster, similar to those reported in MacDuffie's (1995) study. Michie et al. (2008) justified their use of the four clusters mainly in accordance with the extent to which a range of HPWPs were used between firms. In other words, all workplaces that 'are highest on selection rigour, training opportunities, job autonomy, teamwork, communications, equal opportunities, flexible working/family-friendly practices, job security, consultations with employees, and HR strategy' should go to the same cluster, i.e. Cluster 1, which would seem to be 'the closest of the four to what is generally characterized in the literature as a 'high commitment work system'' (Michie at al., 2008: 43). Meanwhile, workplaces in Cluster 3 scored the lowest on the counts of the set of HPWPs used, and Clusters 2 and 4 fell somewhere in between. The ambiguity involved in this framework, however, limits the extent to which the findings may be interpreted in line with the theory of HRM.

Different techniques aside, pooling data from both the Workplace Industrial Relations Survey 1990 and the Employers' Manpower and Skills Practices Survey (EMSPS), Wood and de Menezes (1998) report that the use of HPWPs in British workplaces does follow specific patterns. However, the pattern implies that it is the extent of the use of HPWPs that might make a difference between firms rather than which of the HPWPs have been adopted. Indeed, both the results produced by cluster analysis (MacDuffie, 1995; Michie et al., 2008) and latent classic modelling (Wood and de Menezes, 1998) would appear to suggest that categorising firms into different groups according to the extent of the uptake of HPWPs in such firms can be used to evaluate whether a firm uses HPWPs as a complex system (in terms of using many HPWPs). Although these findings lend support to Bowen and Ostroff's (2004) argument that a complex HRM system will have a greater impact on performance, it is still not clear which HPWPs used together would lead to better performance.

However, a few studies have reported that HPWP bundles exist and that these bundles are associated with enhanced performance. For example, using principle component factor analysis, Huselid (1995) noted that two HPWP bundles (termed "HR systems"), i.e. employee skills/organisational structure and employee motivation, are associated with lower labour

turnover, higher labour productivity and enhanced financial performance. Huselid's (1995) identification of HPWP bundles may be the closest to the AMO theoretical framework, though the bundle representing 'employee skills and organizational structure' is in fact a combination of the ability/competence bundle, the opportunity to perform/contribute bundle and the commitment bundle in Guest and Conway's (2007) study. Either way, the principle component factor analysis used in this study would appear to be a useful technique for detecting latent patterns of HPWPs.

Similar studies of small and medium-sized firms are, however, rare. Although Storey (2002) reports a relationship between a combined measure of training activities, employee development and education events (none of which was individually associated with performance), this is far from suggesting that medium-sized firms tend to use specific HPWP bundles. As such, a systematic assessment and understanding of whether the use of HPWPs follows specific patterns and whether such bundles lead to better performance in small and/or medium-sized firms is yet to be developed. Nonetheless, a growing body of studies shows that HPWPs are used by small firms (Bacon et al., 1996; Forth et al., 2006; Golhar and Deshpande, 1997) suggesting that specific HPWP bundles may well be used in some small firms.

It would appear, therefore, that identifying which HPWPs are used together in small and medium-sized firms is essential in helping to understand whether the increase in the adoption of HPWPs in small firms follows specific patterns distinct from medium-sized firms and whether the adoption of such bundles leads to distinct relationships between HPWPs and performance in small and medium-sized firms.

HPWP intensity

A majority of studies demonstrating positive associations between HPWPs and performance use a count/cumulative measure of such practices (Appelbaum et al., 2000; Guest et al., 2003; Guthrie, 2001). The logic for such a measure of HPWPs is that it can capture the complementary effect between these practices (Delaney and Huselid, 1996) and it may also

represent a complex HRM system which can generate a greater impact on performance compared to either individual HPWPs or specific HPWP bundles (Bowen and Ostroff, 2004). As 'the exact mechanisms creating that positive association may vary somewhat across practices' (Delaney and Huselid, 1996: 952), studies that adopt HPWP intensity to assess the HPWP–performance link generally assign equal weights to each individual HPWP so that any significant associations established should be interpreted as the result of the aggregation of those HPWPs.

A few empirical studies lend support to the view that the intensity of use of HPWPs can enhance small firm performance. Sels et al. (2006), for example, report that HPWP intensity significantly increased financial performance in small firms. However, the analysis contains firms with up to 100 employees. Hence, it is not possible to know from their results whether the reported HPWP–performance link holds in small firms alone or whether the results are driven by the inclusion of medium-sized firms in the analysis.

Alongside the benefits created by a count measure of HPWPs, an analysis solely relying on the count measure of HPWPs may nonetheless risk misinterpreting the results for small and medium-sized firms. This is because the adoption of HPWPs is likely to be subject to several objectives that are not always consistent with each other. In medium-sized firms, for example, the extant evidence implies that, as stated in Section 2.2.2, potential tensions might emerge between the demand for more HPWPs to manage a larger workforce (Baron et al., 2007) and the external pressure to introduce specific HPWPs to satisfy potential financers (Frormann, 2006). If such tensions do occur, the use of more HPWPs may not necessarily be associated with enhanced performance in medium-sized firms. However, such a finding would not rule out the possibility that some of the HPWPs may be individually associated with better performance in medium-sized firms. This means attention should simultaneously be paid to individual practices as well as specific clusters/sets of practices. Hence, a comprehensive understanding of the nature of HRM in small and medium-sized firms requires a consideration of the impact of individual HPWPs as well as the impact of HPWP bundles and HPWP intensity.

2.5 Discussion and conclusions

This chapter has explored issues surrounding the use and impact of HPWPs in small and medium-sized firms from three perspectives. First, this chapter reviewed debates on the uptake of HPWPs in small and medium-sized firms. Second, it identified and described factors that may exert an influence on the use of HPWPs in small and medium-sized firms. Third, it discussed debates on the relationship between HPWPs and performance in small and medium-sized firms.

The review of debates on the uptake of HPWPs suggests that small firms rarely use formal practices such as HPWPs compared to large firms, and in instances where these firms use such practices, they use them in an *ad hoc* way (Sisson, 1993; Storey and Westhead, 1997). Nevertheless, a few studies report that HPWPs are found in small firms (Bacon et al., 1996; Forth et al., 2006), though they are not as prevalent as in medium-sized firms, which tend to adopt more HPWPs in order to cope with the increasing intensity of HR problems such as co-ordination and control when the size of workforce expands (Baron et al., 2007; Greiner, 1972).

The review of the debates on the uptake of HPWPs in small firms also suggest that there may be significant variation within the small firm sector in relation to the extent to which HPWPs are used. Roberts et al. (1992) reported that small firms with more than 20 employees tend to use as many HPWPs as large firms, suggesting that there may be a firm size threshold beyond which informality becomes untenable. In addition, differenced use of HPWPs between medium and large firms may be minimal, given Kotey and Slade's (2005) argument that as size expands, the adoption of such practices increases at first rapidly but then more slowly. Hence, the differences between small and medium-sized firms may well be greater than the differences between medium-sized and large firms in terms of the uptake of HPWPs.

The review of debates on the factors associated with the uptake of HPWPs (i.e. antecedents of HPWPs) indicates that a range of contextual factors may influence the extent to which HPWPs are adopted. Among these factors, some are expected to be strongly associated with the use of

such practices in small firms. For example, a highly competitive market may be linked to a lower use of HPWPs in small firms as they tend to find it is too costly to introduce HPWPs when severe competition drives down the price of the products or services they supply (Smallbone et al., 1999). Some might be strongly associated with a greater use of HPWPs in medium-sized firms, given the need to introduce additional HPWPs for co-ordination purposes as the workplace grows in size and operations become more complex (Baron et al., 2007; Forth et al., 2006; Kotey and Slade, 2005); and others are expected to be associated with a higher uptake of HPWPs in both small and medium-sized firms, such as firm age (Wager, 1998). Overall, the use of HPWPs in small firms would be expected to be more sensitive to external factors, while medium-sized firms may introduce more HPWPs to deal with internal factors that are possibly related to specific HRM concerns such as co-ordination and control (Baron et al., 2007; Greiner, 1972).

The review of the HPWP–performance link suggests that, in small firms, individual HPWPs might be positively associated with performance in small firms given that within the sector as a whole HPWPs are rarely used (Storey, 2004). Thus adopting a small number of practices in a piecemeal fashion might be sufficient to differentiate the firm from its competitors. Nevertheless, one might still expect specific HPWP bundles to be linked to improved performance. In medium-sized firms, however, one might expect HPWP bundles to be more likely to be associated with better performance than individual HPWPs used in isolation (Storey, 2002). Nonetheless, doubt has been cast on whether an overall relationship between HPWP intensity and performance would be expected in medium-sized firms given that HPWPs may be introduced mainly to satisfy the external requirements of potential financers (Frormann, 2006). This may distract managers away from central HR concerns (Baron et al., 2007).

Assessments to be conducted in Chapter 3 and onwards will seek to address these issues. If it can be shown that there are significant differences between small and medium-sized firms in terms of the extent of uptake of HPWPs, the factors associated with the uptake of HPWPs and the relationship between HPWPs and performance, this will add to the argument that small and

medium-sized firms should be treated as two distinct groups of firms (Hoque and Bacon, 2008), rather than banded together as a homogenous group.

Chapter 3 The uptake of HPWPs in small and medium-sized firms

3.1 Introduction

As discussed in Chapter 2, while most research findings indicate that informality tends to dominate small firms and the appropriateness of introducing HPWPs into these firms should be questioned (Marlow, 2006), other evidence suggests that such practices do exist in small firms (Bacon et al., 1996; Forth et al., 2006) and the variation in the adoption of these practices between small and large firms is not as significant as expected (Golhar and Deshpande, 1997).

Compared to the amount of literature on small firms, SMEs or large firms in general, understanding of the uptake of HPWPs specifically in medium-sized firms is particularly underdeveloped. Existing evidence, although limited, suggests that the use of HPWPs in medium-sized firms could be significantly different from that in small firms (Baron et al., 2007; Forth et al., 2006; Hoque and Bacon, 2008). In addition, the positive correlation widely reported between the adoption of specific HPWPs and firm size (Forth et al., 2006) implies that the uptake of HPWPs in medium-sized firms may be higher than in small firms. If this is shown to be the case, the implication will be that the conventional approach of combining small and medium-sized firms into a single unit of analysis will be rendered somewhat questionable.

This chapter addresses these issues in two steps. The first step is to assess the extent to which the uptake of HPWPs in medium-sized firms differs from that in small and large firms. The second step is to evaluate whether firm size explains the bulk of the variation in the uptake of HPWPs between these firms and whether there is a threshold at which point informality becomes untenable.

This chapter is constructed as follows. The next section (3.2) describes the estimation techniques involved in the assessments. The second section (3.3) reports the results. The final section (3.4) discusses the findings and concludes.

3.2 Research method

The assessment of the extent to which the uptake of HPWPs differs between small and medium-sized firms is conducted in three steps. First, a set of 18 HPWPs are cross-tabulated with a categorical firm size variable, thereby allowing Chi^2 analysis to be performed on the differences in the uptake of these practices between small firms and medium-sized firms (large firms being used as a comparator group). Second, a maximum likelihood multi-variate analysis is conducted to hold a range of factors constant that might bias estimates of differences between small and medium-sized firms. Third, using the same set of control variables as in the second step, maximum likelihood multi-variate regression is carried out by further categorizing firm size to detect whether there is a threshold of formality.

3.2.1 Data/sample

The analysis draws on data from the Workplace Employment Relations Survey (WERS) 2004 management survey. WERS 2004 is designed to be nationally representative of British workplaces comprising five or more employees within Standard Industrial Classification major groups D to O (excluding agriculture, hunting, forestry and fishing, and mining and quarrying). It is the first time that workplaces with as few as five employees have been included in WERS, which allows the research to evaluate the nature and impact of HPWPs in small and medium-sized firms in a more representative cohort of small firms than was the case previously. The survey comprises 2,295 observations with a response rate of 64 per cent (Kersley et al., 2005). Respondents to the survey are the most senior managers within the workplace with responsibility for employee relations matters.

The estimation techniques used to address the issues under consideration in this chapter are described in detail below.

3.2.2 Dependent variables: HPWPs

The uptake of HPWPs is considered in three ways: 1) individual HPWPs; 2) the 18 HPWPs were grouped into four categories representing practices that aim to develop employee ability, motivation, opportunity to perform and commitment to work, i.e. AMOC (Guest and Conway, 2007)[6]; 3) a cumulative index of the total number of HPWPs used i.e. HPWP intensity.

Individual HPWPs

The construction of the 18 HPWPs utilised in the assessment is presented below.

Sophisticated recruitment

Sophisticated recruitment is in place where either personality/attitude tests or performance/competency tests are conducted in filling vacancies within the largest occupational group (LOG).

Induction

A formal induction procedure is present if a standard induction programme normally lasting for at least 2 days (if counted in days) or at least 16 hours (if counted in hours) designed to introduce new non-managerial employees in the largest occupational group to the workplace.

[6]Given that the results generated by both Principle Component Factor Analysis and Mokken Scale Procedure estimation showed that almost all HPWPs loaded on one factor across all firm sectors, it was therefore an arbitrary decision of the author over which HPWP should be allocated into each of the defined category.

Off-the-job training

A workplace is seen as providing its workforce with off-the-job training if over 60 per cent[7] of experienced employees in the LOG have been given time off from their normal daily work duties to undertake training over the past 12 months.

Performance appraisal

Over 60 per cent of non-managerial employees in the workplace have their performance appraised at least annually.

Performance-related pay

Over 60 per cent of non-managerial employees in the workplace are paid according to results or receive merit pay.

Profit-related pay

Over 60 per cent of non-managerial employees in the workplace receive profit-related payments or profit-related bonuses.

Internal labour market

An internal labour market exists in workplaces where preference is given to internal applicants, other things being equal, over external applicants. It also exists where internal applicants are the only source for filling vacancies.

Functional flexibility

Over 60 per cent of the LOG is formally trained to do jobs other than their own.

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[7]It has been a convention in WERS data user group that the presence of a practice in a workplace means most of the targeted workforce should take part in the practice asked about (see for example, Guest & Conway, 2007; Michie et al., 2008). The cut-off point for most of the targeted workforce in WERS is over and above 60 per cent.

Teamwork

Over 60 per cent of the LOG in the workplace is working in formally designated teams and either of the following conditions are met: team members depend on each other's work to be able to do their jobs; or team members jointly decide how the work is to be done.

Team briefing

Meetings held at least weekly between line managers or supervisors and all the workers.

Consultation committee

There are committees of managers and employees in the workplace, primarily concerned with consultation, rather than negotiation. These could include joint consultative committees, works councils or representative forums.

Employee attitude survey

A formal survey has been conducted regarding employees' views or opinions during the past two years.

Quality circles

Non-managerial employees are involved in problem-solving or quality circles or continuous improvement groups.

Benefits

A benefit scheme is in place if three or more of the following non-pay terms and conditions apply to the largest occupational group: employer pension scheme; private health insurance; more than four weeks of paid annual leave (excluding public holidays); sick pay in excess of statutory requirements.

Equal opportunity

Equal opportunity practices are present in the workplace if recruitment and selection have been monitored or reviewed to identify indirect discrimination by at least three of the following

characteristics: gender, ethnic background, disability and/or age; or if promotion procedures have been monitored or reviewed to identify indirect discrimination by at least three of the following characteristics: gender, ethnic background, disability and/or age.

Flexible working/family-friendly practice

Flexible working/family-friendly practices are deemed to be present if three or more of the following are practised in the workplace: working from home in normal working hours; job sharing schemes; flexitime where an employee has no set start or finish time, but has an agreement to work a set number of hours per week or month; any female employees taking maternity leave from the workplace receive their normal full rate of pay; working only during school term-time; workplace nursery or nursery linked with workplace; financial help with child-care and/or the care of older adults; and a specific period of leave for carers of older adults.

Grievance procedures

Formal grievance procedures are adopted if all of the following four items are in place: a) there is a formal procedure for dealing with an individual grievance raised by any employee at the workplace; b) employees are required to set out in writing the nature of the grievance procedures; c) employees are asked to attend a formal meeting with a manager to discuss the nature of their grievance; and d) employees have a right to appeal against a decision made under the procedures.

Job security

There is a recognised job security policy at a workplace if such policies apply to the largest occupational group.

HPWP bundles

To assess whether HPWPs have been introduced as coherent bundles within small, medium and large firms, principle component factor analysis was conducted. In the event, the results

showed that almost all of the 18 HPWPs demonstrated high loadings on only one factor, this being very similar to Guest and Conway's (2007) finding. As such, reflecting the growing consensus on the AMO framework underpinning the HPWP–performance link (Boxall and Purcell, 2008), this thesis adopts Guest and Conway's (2007) approach and allocates HPWPs into four different bundles, i.e. ability, motivation, opportunity to perform and commitment (the 'AMOC' framework). The reason for including another HPWP bundle representing commitment is because commitment is associated with lower labour turnover (Meyer and Allen, 1997) and 'organizations that have invested in their human capital will normally wish to retain that capital, and promoting employee commitment to the organization can contribute to retention' (Guest and Conway, 2007). The inclusion of the fourth bundle of HPWPs helps to capture the extent to which such an investment makes a difference to organisational performance.

The choice of which HPWPs are allocated to the same HPWP bundle is described as follows.

- The ability bundle includes practices that aim to improve the competence of the workforce via sophisticated recruitment, formal induction procedures and off-the-job training.
- The motivation bundle entails practices that are introduced as incentives to elicit high productivity among the workforce. These practices are an internal labour market, performance-related pay, profit-related pay and performance appraisal.
- The opportunity bundle comprises practices seeking to provide employees with the opportunity to perform and participate. These practices are teamwork, team briefing, consultation committees, employee attitude surveys, quality circles and the provision of training to enable workers to perform jobs other than their own (termed functional flexibility[8]).

[8] In line with the configuration of the AMO framework (Boxall and Purcell, 2008) that employees should be provided with the opportunity to use their various skills and knowledge, many authors (Arthur, 1994; Huselid, 1995; Guthrie, 2001; Lawler, 1992) have included practices that seek to equip employees with multiple skills such as cross training and training focusing on future skill requirements. Hence, functional flexibility is allocated to the opportunity set.

- The commitment bundle consists of practices such as benefits, flexible working/family-friendly practices, equal opportunities, grievance procedures and job security.

HPWP intensity

A count measure evaluating the overall uptake of HPWPs is created by cumulating all the HPWPs used by a firm. High scores on this measure indicate a more intensive use and investment in these practices. Measures of this nature have been used in research on high commitment management (Arthur, 1994; Wood and de Menezes, 1998), high involvement management (Lawler, 1992; Wood and de Menezes, 2008) and high performance work practices (Appelbaum et al., 2000).

3.2.3 Independent variables: small, medium-sized and large firms

In the maximum likelihood multi-variate analysis, the independent variables are three dummies representing small, medium and large firms respectively.

As mentioned in Chapter 1, there is no general consensus on the definition of small firms worldwide. Some previous studies define small firms as having up to 100 employers (Sels et al., 2006). A number of studies have adopted the US government stance which defines small firms as comprising up to 500 employees (Hendry et al., 1995; Heneman et al., 1999). However, in official statistics in the Organisation for Economic Co-operation and Development (OECD), European Union (EU) and the United Kingdom (UK), small firms refer to private sector firms employing fewer than 50 employees.

There is also no generally acknowledged definition for medium-sized firms within the limited research conducted on this sector. However, the OECD (2005: 17), the EU and the UK's Department for Business Innovation and Skills (Enterprise Directorate, 2006), define medium-

sized firms as private sector firms with between 50 and 249 employees. This definition has been used by a few recent studies (See, for example, Hoque and Bacon, 2008).

For the purposes of this thesis, small firms are defined as private sector firms employing 5–49 employees; medium-sized firms are defined as private sector firms with 50–249 employees; and large firms are defined as private sector firms consisting of 250 or more employees. Taking into account missing data, small firms account for 48.02 per cent of the weighted data, medium-sized firms account for 12.38 per cent and large firms account for 39.6 per cent. It is worth noting that workplaces within this categorisation can either be single independent workplaces (whereby the whole firm consists of a single workplace) or they can be part of a larger organisation. In these instances, it is the size of the larger organisation that is important in determining whether the workplace is classified as being part of a small, medium or large firm. For example, a small workplace with 10 employees is defined as a workplace within a small firm if the organisation of which it is a part has fewer than 49 employees. However, it will be classified as a workplace within a medium-sized firm if the organisation of which it is a part has between 50 and 249 employees, and a workplace within a large firm if the organisation of which it is a part has 250 or more employees.

3.2.4 Control variables

Variables that may account for an association between HPWPs and performance, sometimes termed "third factors" (Wall and Wood, 2005: 443), should be controlled in order to generate reliable results, particularly in cross-sectional studies. The choice of which third factors are included is largely dependent on the nature of the research. A full list of control variables (dummies) included in this research is described as follows (See Appendix 1 for variable means).

Industry/sector

Many empirical studies on the relationship between HPWPs and corporate performance draw their data from manufacturing industries (Huselid, 1995; MacDuffie, 1995). However, one

might argue that the nature of the HPWP-performance relationship will be different in the service sector than in the manufacturing sector. This is because less task interdependence and high work-flow uncertainty might make specific HPWPs (such as training staff to develop good communication skills and to build up trust with customers) more appropriate for services than for manufacturing. Conversely, other HPWPs might be less appropriate in services (teamwork, for example). The impact on performance outcomes of the same set of HPWPs may therefore differ between industry sectors. A few previous studies report that the impact of HPWPs on firm performance in manufacturing firms is greater than that in services (Combs et al., 2006). As such, two dummy variables are created for the analysis in line with the 12 coded industries according to 2003 Standard Industrial Classification- manufacturing and non-manufacturing industries. Service industries are included in the non-manufacturing industries as any further categorisation would lead to a significant reduction in the number of observations in each industry.

Family ownership

Evidence from SME studies shows that it is less likely for a family-owned small firm to use HPWPs because these firms often opt for personal networks rather than formal practices (Ram and Edwards, 2003). Considerable diversity is also found in the adoption of HPWPs within family-owned small and medium sized firms (Duberley and Walley, 1995). The extensive literature on SMEs (see, for example, Westhead and Storey, 1996) suggests that the dominant role of personal links in most family-owned small and medium-sized firms can be a key determinant of low performance in these firms. As such, three dummy variables are generated around family ownership. Those firms in which a single individual or family owns at least 50 per cent of the firm and the controlling owners are actively involved in day-to-day management of the workplace on a full-time basis are defined as family-owned and owner-involved. Those in which a single individual or family owns at least 50 per cent of the firm but the controlling owners are not actively involved in day-to-day management of the workplace on a full-time basis are defined as family-owned but not owner-involved. Those firms in which a single individual or family owns less than 50 per cent of the firm are defined as not family-owned.

Firm age

Firm age is controlled for given that the extent of use of HPWPs may increase over time (Faems et al., 2005; Guthrie, 2001). Small firms are well known for a short life cycle and high failure rate, and this may in part explain the low uptake of HPWPs in small firms. It would therefore be expected that the longer a small firm stays in business, the higher the chance of the firm introducing more practices. Hence, firm age needs to be controlled to generate appropriate estimation of differences in the uptake of HPWPs in small and medium-sized firms in the analysis of the HPWP-performance link. The age of the firm is, therefore, categorised into four subgroups: 0–4, 5–9, 10–19, 20 and more years.

Union recognition

While trade union presence has been found to be associated with a greater use of HPWPs (Green, 1993; Jackson et al., 1989), extensive empirical studies also indicate that trade unions are associated with lower profitability or financial performance. It is argued that higher wages secured from collective bargaining result in the extraction of a greater share of rents at unionised establishments (Clark, 1984; Machin and Stewart, 1996). Although small firms normally have very low union recognition rates (Forth et al., 2006), the negative effect of trade unions on financial performance in small firms would be much more salient than in large firms given most small firms are short of alternatives to offset higher wages. The analysis therefore controls for union recognition. The union recognition variable is derived from three questions in the survey: a firm has union recognition if a union is recognised by management for negotiating pay and conditions for any sections of the workforce in the workplace; apart from the unions that have members in this workplace, there are other trade unions or staff associations that are recognised by management for negotiating pay and conditions for any sections of the workforce; or, if none of the workforce at this establishment are members of trade unions, there are trade unions or staff associations that are recognised by management for negotiating pay and conditions for any sections of the workforce.

Competitive environment

A highly competitive market appears to be more punishing for SMEs than for large firms. The constant erosion of margins resulting from high levels of competition makes SMEs less likely to use expensive practices such as HPWPs (Raymond and St-Pierre, 2005). Hence, a dummy variable for the degree of market competition is included in the analysis. Firms are viewed as operating in a relatively highly competitive market if they assess the degree of competition in the market as either very high or high; otherwise, firms are seen as having a relatively lower degree of competition in the market.

3.2.5 Weights

The data are weighted throughout the analysis in order to account for the complex design of the WERS 2004 surveys. This weighting, which accounts for the probability of selection of the workplace into the main management sample, is essential if unbiased population estimates are to be obtained, as large workplaces are over-represented within the WERS 2004 stratified survey design.

3.3 Results

The results generated by each of the assessments are described in sequence in this section.

3.3.1 Assessing the uptake of HPWPs in small, medium and large firms – *Chi*^{2} tests

The results relating to individual HPWPs in Table 3.1 suggest that medium-sized firms are more likely to use 8 of the 18 HPWPs than small firms (at the10, 5 or 1 per cent significance level). In contrast, medium-sized firms are less likely to use 9 of the 18 HPWPs than large firms. This suggests considerable differences in the approach taken to HRM between small, medium and large firms.

Table 3.1 The uptake of HPWPs by firm size in the private sector

	Small	Medium	Large	Full sample	Small vs. Medium	Small vs. Large	Medium vs. Large
	(n=223)	*(n=127)*	*(n=601)*	*(n=951)*	*Chi²*	*Chi²*	*Chi²*
Sophisticated recruitment	28.57	28.69	45.07	35.11	.9871	.0027	.0372
Induction	36.67	44.82	61.64	47.55	.3041	.0000	.0367
Off-the-job training	26.73	52.44	53.01	40.31	.0007	.0000	.9436
Internal labour market	13.56	29.84	26.94	20.87	.0102	.0025	.7010
Performance-related pay	19.43	18.11	38.96	26.98	.8190	.0002	.0027
Profit-related pay	9.39	20.1	16.82	13.66	.0608	.0403	.6232
Performance appraisal	48.68	60.4	77.13	61.38	.1636	.0000	.0244
Teamwork	23.88	25.96	27.95	25.75	.7646	.1901	.7802
Team briefing	22.94	30.41	29.19	26.34	.2705	.3978	.8616
Consulting committee	4.03	10.3	12	7.96	.0310	.0018	.6208
Employee attitude survey	17.83	23.77	57.79	34.36	.3188	.0000	.0000
Quality circles	17.08	8.99	20.03	17.24	.0611	.4640	.0125
Functional flexibility	20.31	13.67	25.75	21.64	.3116	.2710	.0893
Benefits	16.84	36.36	58.28	35.64	.0027	.0000	.0063
Flexible working/family-friendly	17.93	23.19	22.08	20.22	.4032	.3411	.8647
Equal opportunity	10.14	24.04	25.25	17.84	.0143	.0004	.8681
Grievance procedures	17.39	33.17	52.05	33.05	.0130	.0000	.0195
Job security	12.77	6.6	12.49	11.9	.2374	.9420	.2499
Ability bundle	25.39	36.29	54.94	38.42	.1237	.0000	.0205
Motivation bundle	22.11	42.14	50.44	35.79	.0057	.0000	.3139
Opportunity bundle	8.84	15.68	25.26	16.18	.1203	.0000	.1100
Commitment bundle	5.14	13.51	24.82	13.96	.0383	.0000	.0956

Note: All estimations are weighted.

In relation to the uptake of specific bundles of HPWPs, the results suggest that small firms are less likely to use either the motivation or the commitment bundle than medium-sized firms, while large firms are more likely to adopt both the ability bundle (at the 5 per cent significance level) and the commitment bundle than medium-sized firms (at the 10 per cent significance level). Using the uptake of specific HPWPs as an indicator of primary HRM concerns, this would seem to suggest that, in comparison with small firms, medium-sized firms tend to be more likely to invest in practices that can either motivate the workforce or elicit greater

commitment from the workforce. Compared with medium-sized firms, large firms appear keen to develop the ability/competence of their workforce. Hence, the difference between small and medium-sized firms in relation to the specific bundles of HPWPs adopted seems not only greater than that between medium-sized firms and large firms, but there may also be specific reasons for these distinctions.

Overall, the Chi^2 test reveals that small firms differ from medium-sized firms in two ways in terms of the uptake of HPWPs: a) medium-sized firms are more likely to use 8 of the 18 practices than small firms; and b) medium-sized firms are significantly more likely to be using two specific bundles of HPWPs (the ability and the commitment bundles) than small firms. Hence, the question is whether firm size explains such variations in general across different firm sectors.

It is possible, however, that the differences between small, medium-sized and large firms will disappear once a range of observable characteristics are controlled for. As argued earlier in this section, identifying a true firm size effect requires the findings to remain statistically significant after a set of contextual factors are entered as control variables. As such, the next section of this chapter will assess the differences in the uptake of HPWPs between small, medium-sized and large firms within a multivariate analysis that controls for a range of observable characteristics. If the difference in the uptake of HPWPs between small and medium-sized firms or medium and large firms reduces, this will suggest that the differences identified above are the result of differences in the non-size related characteristics of small, medium and large firms and are not the result of size effects per se.

3.3.2 Comparing the uptake of HPWPs between small, medium and large firms using maximum likelihood multi-variate regression

The results of the multivariate analysis of the differences in the uptake of HPWPs in small, medium and large firms controlling for industry sector, firm age, firm size, family ownership, union recognition and degree of competition are reported in Table 3.2.

Table 3.2 Comparing the uptake of HPWPs between small, medium and large firms

	Small *(n=223)*	Medium *(n=127)*	Large *(n=601)*	Full sample *(n=951)*
Mean of HPWP intensity	3.642	4.909	6.625	4.978

	Small	Large	*F*	*Prob.>F*
HPWP intensity[1]	-.303(.096)***	.167(.080)**	15.01	.0000
Sophisticated recruitment	-.024(.217)	.286(.215)	2.61	.0039
Induction	-.108(.212)	.286(.215)	2.99	.0010
Off-the-job training	-.663(.208)***	-.204(.211)	3.97	.0000
Internal labour market	-.642(.231)***	-.042(.230)	2.30	.0113
Performance-related pay	.225(.211)	.530(.212)**	3.36	.0003
Profit-related pay	-.527(.274)*	-.162(.235)	1.87	.0457
Performance appraisal	-.296(.218)	.239(.225)	5.27	.0000
Teamwork	-.076(.223)	.092(.224)	.70	.7206
Team briefing	-.295(.211)	-.088(.212)	.67	.7565
Consultation committee	-.562(.215)***	-.090(.185)	5.50	.0000
Employee attitude surveys	-.398(.206)*	.815(.203)***	9.67	.0000
Quality circles	.339(.209)	.443(.212)**	1.15	.3199
Functional flexibility	.165(.254)	.329(.252)	1.09	.3673
Benefits	-.551(.213)**	.333(.208)	9.48	.0000
Flexible working/family-friendly	-.196(.222)	-.254(.223)	1.52	.1254
Equal opportunities	-.545(.244)**	-.099(.241)	4.74	.0000
Grievance procedures	-.625(.206)***	.384(.205)*	7.29	.0000
Job security	.360(.300)	.351(.316)	.41	.9431
Ability bundle	-.262(.215)	.237(.214)	4.62	.0000
Motivation bundle	-.544(.213)**	.120(.210)	3.88	.0000
Opportunity bundle	-.438(.223)*	.219(.210)	4.18	.0000
Commitment bundle	-.542(.263)**	.304(.259)	4.40	.0000

Note:
All estimations are weighted. Survey probit analysis for all individual HPWPs and HPWP bundles.
[1] Survey Poisson analysis. Coefficients given. Standard errors in brackets.
All equations control for the industry sector, firm size, firm age, family ownership, union recognition, and the degree of market competition described in Chapter 2.
* significant at 10 per cent. ** significant at 5 per cent. *** significant at 1 per cent.

By holding medium-sized firms as a reference category, the results in Table 3.2 in relation to HPWP intensity demonstrate that the absolute value of the coefficient (-.303) that represents the association between the HPWP intensity and small firms is larger than the coefficient (.167) representing the association between the HPWP intensity and large firms. This suggests

the difference in the extent of HPWP intensity between small and medium-sized firms is greater than the difference between medium and large firms.

The findings relating to the adoption of individual HPWPs by firm size lends further support to the findings where the HPWP intensity is concerned. The results in Table 3.2 show that small firms are less likely to have adopted 8 of the 18 practices they were asked about than medium-sized firms. Large firms, in contrast, are more likely to use only 4 out of the 18 practices than are medium-sized firms. Given that a half of the differences between medium-sized and large firms disappear when the controls are added into the equation, the results of the multi-variate analysis indicate that some of the prima facie differences between medium and large firms are explained by differences in observable workplace characteristics that than by size *per se*.

This finding is further confirmed when the uptake of HPWPs is measured using the four HPWP bundles. As reported in Table 3.2, while no difference emerged between medium-sized and large firms in relation to their use of the HPWP bundles, the coefficients for both the motivation bundle and the commitment bundle indicate that medium-sized firms are significantly more likely to use these sets than small firms, and slightly more likely to use the opportunity bundle than small firms.

The limited differences between medium-sized and large firms also suggest that there may be a certain size threshold at which there is a step-increase in the number of HPWPs used but above which the extent of use of HPWPs does not increase dramatically. This issue is tested in further detail in the following section.

3.3.3 Assessing the firm size effect on the uptake of HPWPs in small, medium and large firms

To assess whether there is a threshold of formality in terms of the uptake of HPWPs across various firm sectors, the small, medium and large categories are further subdivided to provide a broader range of sub-categories. Within this analysis, only small firms operating on a single

site[9] are kept in the sample as there are no further cut points for firm size for small firms within the Workplace Employment Relations Survey (WERS) 2004[10]. Hence it is not possible to subdivide the small firm category in instances where the firm is operating on more than one site. However, for single independent small firms it is possible to subdivide further using the workplace size measure (given that in these instances workplace size is equivalent to firm size, or given that the firm is operating on a single site). Hence, small firms were divided into three subgroups: '5–9', '10–24', '25–49'; medium-sized firms were split into three subgroups: '50–99', '100-149' and '150–249'; and large firms were categorised into 4 subgroups: '250–1,999', '2,000–9,999', '10,000–49,999' and '50,000+'. Using this categorisation, the analysis will seek to demonstrate whether or not informality dominates all small firms, whether any variation in the uptake of HPWPs also occurs in medium-sized firms and whether there is a threshold above which there is a step-increase in the number of HPWPs adopted.

[9] 84 per cent of small firms in the sample are operating on a single establishment.

[10] Alternatively, all workplaces owned by small firms can be classified into different categories according to the size of the workplace and, thus, all valid cases for small firms would be kept in the sample, i.e. small firms operated on either a single workplace or multiple workplaces. Following the same logic as described in Section 3.2.3, those workplaces owned by either small, medium or large firms were categorised as "small firm workplaces", "medium-sized firm workplaces" or "large firm workplaces". Hence, small firm workplaces were divided into three subgroups: '5–9', '10–24', '25–49'; medium-sized firm workplaces were split into five subgroups: '5–9', '10–24', '25–49', '59–99' and '100–249'; and large firm workplaces were categorised into 7 subgroups, i.e.in addition to the five categories created for medium-sized firm workplaces, two more categories were created, i.e.'250–499' and '500+'. This analysis demonstrated similar results to those generated by the analysis based purely on firm size, i.e. the analysis presented in the thesis. This suggests categorisation based on workplace size is valid when it is done within the defined firm sector.

Another test was conducted on whether workplace size predicted the uptake of HPWPs as well as firm size. In this test, all workplaces were classified into different size categories purely based on the size of the workplace. This meant, for example, workplaces with up to 9 employees were grouped together irrespective of whether it was part of a small, medium or large organisation. Analysing these categories by firm size indicated that workplaces with "5–9" employees owned by large firms were likely to have a higher uptake of HPWPs than were similarly sized workplaces owned by small firms. Analysis of the other workplace size categories demonstrated similar variation driven by the size of the firm of which the workplace was a part. This would suggest that assessment purely based on workplace size could be misleading.

Table 3.3 Comparing the uptake of HPWPs between subcategories of firm size

	No. of Employees	1	2	3	4
Small	5-9		-.089 (.131)	-.365 (.158)**	-.248 (.156)
	10-24	.089 (.131)		-.276 (.138)**	-.159 (.130)
	25-49	.365 (.157)**	.276 (.138)**		.118 (.158)
Medium	50-99	.248 (.156)	.159 (.130)	-.118 (.158)	
	100-149	.395 (.149)***	.306 (.121)**	.030 (.155)	.148 (.145)
	150-249	.470 (.197)**	.380 (.177)**	.104 (.203)	.222 (.191)
Large	250-1999	.491 (.130)***	.402 (.092)***	.126 (.135)	.244 (.123)**
	2000-9999	.545 (.137)***	.456 (.097)***	.180 (.140)	.297 (.128)**
	10000-49999	.492 (.129)***	.403 (.088)***	.127 (.135)	.244 (.122)**
	50000+	.750 (.142)***	.661 (.106)***	.385 (.148)***	.502 (.136)***

		5	6	7	8
Small	5-9	-.395 (.149)***	-.470 (.197)**	-.491 (.130)***	-.545 (.137)***
	10-24	-.306 (.121)**	-.380 (.177)**	-.402 (.092)***	-.456 (.097)***
	25-49	-.030 (.155)	-.104 (.203)	-.126 (.135)	-.180 (.140)
Medium	50-99	-.148 (.145)	-.222 (.191)	-.244 (.123)**	-.297 (.128)**
	100-149		-.074 (.182)	-.096 (.112)	-.150 (.115)
	150-249	.074 (.182)		-.022 (.165)	-.075 (.164)
Large	250-1999	.096 (.112)	.022 (.165)		-.053 (.080)
	2000-9999	.150 (.115)	.075 (.164)	.053 (.080)	
	10000-49999	.097 (.108)	.022 (.158)	.001 (.074)	-.053 (.071)
	50000+	.355 (.119)***	.280 (.166)*	.259 (.092)***	.205 (.087)**

		9	10	%	*F*	*Prob.>F*	*N*
Small	5-9	-.492 (.129)***	-.750 (.142)***	22.07	9.22	0	921
	10-24	-.403 (.088)***	-.661 (.106)***	13.81			
	25-49	-.127 (.135)	-.385 (.148)***	3.86			
Medium	49-99	-.244 (.122)**	-.502 (.136)***	5.04			
	100-149	-.097 (.108)	-.355 (.119)***	4.55			
	150-249	-.022 (.158)	-.280 (.166)*	3.72			
Large	250-1999	-.001 (.074)	-.259 (.092)***	13.2			
	2000-9999	.053 (.071)	-.205 (.087)**	9.14			
	10000-49999		-.258 (.082)***	13.69			
	50000+	.258 (.082)***		6.41			

Note:
Survey Poisson analysis
Coefficients given. Standard errors in brackets.
All equations control for the industry sector, firm age, family ownership, union recognition, and the degree of market competition described in Chapter 2.
* significant at 10 per cent. ** significant at 5 per cent. *** significant at 1 per cent.

The results of the assessment of the relationship between the uptake of HPWPs and firm size are presented in Table 3.3. Holding category constant in turn (5–9 in equation 1, 10–24[11] in equation 2 and so on), the results demonstrate that: first, small firms with 25 or more employees are more likely to have a greater use of HPWPs than other small firms (see equation 3). This suggests that there may be a threshold of 25 employees above which informality becomes untenable. There is no evidence that firms in the 25–49 employees size category use fewer HPWPs than do firms in the 10000-49999 category. Indeed, the uptake of HPWPs stays reasonably consistent across all firm size categories until it reaches the point where the number of employees increases to 50,000. Hence the differences between medium-sized and large firms may be driven by the greater uptake of HPWPs in very large firms rather than by a greater uptake of HPWPs across all large firms.

Second, the results also point to significant variation within the small firm sector (5-49 employees). This calls into question how analytically distinct this sector is. By contrast, there is relatively greater consistency in the extent of the uptake of HPWPs within the medium-sized firm category.

3.4 Discussion and conclusions

The aim of this chapter was to assess the extent to which the uptake of HPWPs in small firms differs from that in medium-sized firms. The assessment was conducted in three steps. First, a bi-variate Chi^2 analysis was conducted to ascertain whether any of the HPWPs are more widely used in medium-sized firms than in small firms. Second, a multi-variate analysis was undertaken to evaluate whether the differences in the uptake of HPWPs between small and medium-sized firms identified by the Chi^2 test held when a set of controls for observable workplace characteristics were introduced. Third, dividing firms in each sector into several subcategories a multi-variate analysis was conducted to evaluate whether the uptake of HPWPs

[11] Using the number of 24 employees rather than 20 employees (as suggested by Roberts et al., 1992) as a cut-off point in small firms is due to significant reduction of observations in the subcategory of 10–20 employees.

is consistent within firm size categorisations and whether there is a threshold at which there is a step-increase in the number of HPWPs adopted.

Taking the results in this section together, the assessments of the association between the uptake of HPWPs and firm size produced three notable findings. First, medium-sized firms tend to have a greater use of HPWPs than small firms in general, and there is a higher uptake of the motivation bundle and commitment bundle in medium-sized firms than in small firms. However, there is considerable variation between small firms, with small firms with 25 or more employees using as many HPWPs as do medium and large firms, suggesting formality starts to take root in firms that employ over 25 employees. Second, there is little variation in the uptake of HPWPs within the medium-sized firm sector. This homogeneity in the use of such practices may be an indication that medium-sized firms tend to have similar HRM concerns. Third, the differences in terms of the uptake of HPWPs between large and medium sized firms are less than the differences between small and medium-sized firms. In addition, the difference between large and medium-sized firms would appear to be driven largely by very large firms pursuing a high number of HPWPs rather than by differences between medium-sized firms and large firms as a whole.

Therefore, the variation in the uptake of HPWPs within the small firm sector suggests that formality, defined by the number of HPWPs adopted by a firm (Bacon et al., 1996; Storey et al., 2010), starts taking root once the size of the workforce reaches 25 employees. This suggests that for firms above this size threshold, the development of formal policies and procedures may be a natural response to the increase in size and the requirement to co-ordinate activities among employees within the firm (Greiner, 1972; Kotey and Slade, 2005; Roberts et al., 1992).

The results are also perhaps notable in that they do not endorse arguments in the literature that firms with fewer than 25 employees will not introduce any HPWPs whatsoever, or that they will find these practices to be of no value to them. On the contrary, small firms with 25 or more employees seem to use as many HPWPs as medium-sized firms and most large firms (except

those with over 50,000 employees). This may be because small firms with 25 or more employees need formal practices such as HPWPs to accommodate the increased complexity in their organisational structure (Roberts et al., 1992). Either way the results point to considerable heterogeneity within the small firm sector, with small firms with fewer than 25 employees adopting fewer HPWPs than small firms with 25 to 49 employees.

In contrast, there is a great degree of consistency in the uptake of HPWPs in medium-sized firms that appears to indicate that the medium-sized firm category may constitute a group of firms with very similar HRM concerns. These HRM concerns could be derived from the relatively large size of the workforce in these firms requiring a greater division of labour, hierarchy, formal policies and documented procedures (Kotey and Slade, 2005). It could also be the result of the need to engage in impression management as medium-sized firms need to adopt some HPWPs to convince external financers that the firm is being professionally managed.

Another notable finding with regard to the uptake of HPWPs is the apparent step-change in the number of HPWPs adopted once organisations cross a very large (50,000 employees) threshold. Large multi-national companies tend to operate a much more complex system in terms of distance and cross-culture management (Chang et al., 2009; Parry et al., 2008). The results presented here would seem to endorse this argument. It may be the case that a broader range of HPWPs is introduced to deal with the co-ordination problems involved in managing HR issues across different business units located worldwide.

Chapter 4 The antecedents of the uptake of HPWPs in small and medium-sized firms

4.1 Introduction

The reviews in Chapters 2 and 3 in relation to the factors that may potentially exert an influence on the uptake of HPWPs suggests that the increase in the use of these practices reported in small and medium-sized firms (Bacon et al., 1996; Forth et al., 2006) could be the result of a range of factors. For example, many government policies and government-sponsored initiatives aim to make SMEs aware of formal HR practices that may help them manage their employees more effectively (Goss et al., 1994), though whether such an increase would also lead to enhanced performance in these firms is not clear. In contrast, there are also factors that may be associated with a lower use of such practices in SMEs. For example, a highly competitive market is viewed as more punishing for small firms (probably medium-sized firms as well) than for large firms and may prevent SMEs from investing in HPWPs (Storey, 1994).

It is not however known to what extent these factors affect the use of HPWPs in small and medium-sized firms separately. As such, this chapter aims to analyse the extent to which certain observable factors are associated with the uptake of HPWPs in small and medium-sized firms. The assessment seeks to further the understanding of why variation in uptake exists between firms and to what extent these factors are able to predict the uptake of HPWPs in each firm sector.

This chapter is structured as follows. The next section (4.2) describes the research method. The ensuing section (4.3) reports the results. The final section (4.4) discusses the findings.

4.2 Research method

Using the same data (i.e. the Workplace Employment Relations Survey (WERS) 2004 management questionnaire) and the definition for small, medium-sized and large firms described in Chapter 3, the assessment of the association between contextual factors, both external and internal to the firm, and the extent of adoption of HPWPs was conducted using survey Poisson estimation techniques. This is because the dependent variable is a count measure of all the HPWPs adopted by a firm, and Poisson analysis offers an ideal estimation (see Walters' (2007) discussion on why ordinary least squares (OLS) estimation is sub-optimal to Poisson analysis where a count measure is concerned). The remainder of this section illustrates the construction of variables used in the estimation.

4.2.1 Dependent variable: HPWP intensity

The use of HPWPs in each firm was measured on a cumulative scale, as described in Section 3.2.2. This chapter seeks to examine whether the variation in the use of such practices between small, medium and large firms reported in Chapter 3 is the result of the contextual factors embedded in each of these firm sectors. It will evaluate whether the factors associated with the uptake of the overall number of HPWPs in medium-sized firms differs from that in small and large firms.

4.2.2 Independent variables: contextual factors

The contextual factors to be assessed here include factors that are external and internal to the firm as described below.

External factors

Small and medium-sized firms are generally viewed as more vulnerable if located in a highly competitive market compared with their larger counterparts, as they have fewer resources to

manage such pressures. It is therefore important to assess whether certain observable factors external to a firm are associated with the uptake of HPWPs in small and/or medium-sized firms and to what extent such associations in small firms vary from those in medium-sized firms. The external factors included here are detailed below.

The external environment for a firm is regarded as competitive (coded as 1) if they answered either "Competitive" or "Highly competitive" to the question "How would you assess the degree of competition in this market?"; it was coded 0 if they answered otherwise.

Three dummies were created to explore whether providing products or services to a large and potentially dominant customer exerted potential influence on the adoption of HPWPs. The "Less than 5 per cent" category refers to those firms where only less than 5 per cent of the total annual value of goods or service was supplied to its large customers. This category also included firms that answered 'not applicable' to the question relating to the establishment's largest customer in terms of the value of goods or services supplied[12]. The remaining firms fell into either of the following two groups categorised according to the proportion of the total annual value of goods or services supplied to its largest customer: 5-25 per cent and 26 per cent or more. According to the supplier-development view, larger and dominant customers may encourage their suppliers to invest in HPWPs (Hunter et al., 1996). The contrasting cost-minimisation view is that large customers will drive down the price of their suppliers and prevent them from investing more in HPWPs (Rainnie, 1989). As such, the relationship between the use of HPWPs in a small or medium-sized firm and whether it supplies a large proportion of its products or services to a single customer is unclear.

One dummy variable was created to evaluate whether the award of IiP accreditation in small and medium-sized firms is associated with a greater use of HPWPs. In line with Goss et al.'s (1994) finding, more HPWPs should be found in SMEs with IiP recognition as IiP may provide guidance and advice that may encourage firms to adopt HPWPs. However, it is also possible

[12]These two categories were combined given no observations in the small firm sample fell into the "Less than 5 per cent" category and the number of observations in the medium-sized firm sample in this category is also low; it is therefore not possible to have this as a separate dummy.

that some SMEs may use IiP recognition as a marketing tool so that the IiP award may not necessarily lead to a higher use of HPWPs in such firms (Hoque and Bacon, 2008). It therefore remains to be seen whether IiP recognition will affect the uptake of HPWPs in small and medium-sized firms.

Establishments were grouped into three categories according to the number of business networks in which they participated: membership of one employers' network; membership of two or more employers' networks[13]; or not being a member of any of the employers' networks asked about. The five different groups of employers' networks included in the survey are: Employers' Association; Industry or Trade Association; Chamber of Commerce; Federation of Small Businesses; or some other similar group. Given active engagement with such business advisory networks is viewed as a catalyst to increase awareness of employment practices and can potentially improve efficiency among small and medium-sized firms (Goss et al., 1994), a positive association would be expected between the membership of these business networks and the uptake of HPWPs. However, it is also possible for those small and medium-sized firms to have no significant change in their use of such practices if firms are members of such networks but are not actively seeking advice or acting on the advice offered (Bennett and Robson, 2003). Thus, the association between participation in business networks and the uptake of HPWPs in small and medium-sized firms is currently unclear.

Internal variables

Apart from firm size, there are other contextual factors internal to the firm that may be related to a greater use of HPWPs. In addition to internal variables such as firm size, firm age, HR specialists, union recognition and corporate governance/proprietary control, which are constructed in the same way as described in Section 3.2.4 (in Chapter 3), there is one other factor internal to the firm that may also be associated with a greater use of HPWPs in small and/or medium-sized firms: firms with multiple workplaces may use more HPWPs than firms that operate on a single establishment. The construction of this measure is described below.

[13] Only a small number of firms in either the small firm sample or medium-sized firm sample had participated in more than two of the employers' networks asked about in the WERS 2004 and they were grouped into the category 'membership of two or more employers' networks'.

A greater use of HPWPs would be expected in small and/or medium-sized firms with multiple workplaces in order to reduce potential principal-agent problems in such firms (Knocke and Kalleberg, 1994). In the analysis, while firms operating as a single independent establishment were defined as single-sited, those owning more than one establishment were defined as multi-sited.

4.2.3 Control variables

All equations controlled for industrial sector.

4.3 Results

The results of the assessment relating to the extent that contextual factors were associated with the uptake of HPWPs are described under the headings of "External factors" and "Internal factors" as follows.

4.3.1 The relationship between external factors and the uptake of HPWPs in small, medium and large firms

The results of the assessment of the relationship between external factors and the uptake of HPWPs in small firms are presented in Table 4.1. It shows that only IiP recognition was significantly linked to the uptake of HPWPs in small firms. There is no evidence that employers' networks have significant impact on the uptake of HPWPs in small firms, except the slightly greater use of HPWPs in those firms participating in two employers' networks (at the 10 per cent significance level). There is no evidence to suggest that the uptake of HPWPs in small firms is affected by the degree of market competition. In addition, having a large, dominant customer is not strongly associated with a higher uptake of HPWPs, though slightly greater use of these practices was found in those small firms where the largest customer

Table 4.1 The association between contextual factors and the uptake of HPWPs in small, medium and large firms

	Small	Medium	Large
External factors			
Degree of competition	-.124 (.116)	-.359 (.103)***	-.054 (.073)
Ref. Category: Largest customer <5%			
Largest customer ≥5-25%	.233 (.134)*	.226 (.131)*	.075 (.071)
Largest customer ≥26%	.017 (.139)	.038 (.124)	-.015 (.077)
IiP	.415 (.134)***	.382 (.139)***	.138 (.063)**
Ref. Category: Not a member of any employers' network			
Member of 1 employers' network	.195 (.119)	.280 (.135)**	.002 (.072)
Member of 2 employers' networks	.297 (.176)*	.229 (.168)	.171 (.077)**
Internal factors			
Ref. Category: Small firm workplaces: 5-9 employees			
10-24 employees	.095 (.124)		
25-49 employees	.271 (.150)*		
Ref. Category: Medium-sized firms 50-99 employees			
100-149 employees		.146 (.128)	
150-249 employees		.089 (.160)	
Ref. Category: Large firms 250-1,999 employees			
2,000-9,999 employees			.062 (.086)
10,000-49,999 employees			.049 (.075)
50,000 employees			.231 (.100)**
Ref. Category: firms 0-4 years old			
5-9 years old	.298 (.229)	.210 (.271)	-.157 (.111)
10-19 years old	.176 (.210)	.099 (.259)	-.117 (.115)
20+ years old	-.059 (.212)	.039 (.253)	-.099 (.113)
Ref. Category: Not family owned			
Family owned/owner not involved	.063 (.247)	-.297 (.179)	-.205 (.099)**
Family owned/owner involved	-.084 (.130)	-.117 (.140)	-.049 (.114)
Single independent workplace	.318 (.159)**	-.093 (.114)	.033 (.098)
Union recognition	.411 (.177)**	.201 (.171)	.136 (.069)**
HR specialist	-.159 (.143)	.122 (.100)	.055 (.065)
F	6.140	5.710	3.370
Prob.>F	.0000	.0000	.0000
N	217	120	513

Notes: Survey Poisson analysis. Coefficients given, standard errors in brackets.
All equations control for industry sectors.
*significant at 10%, **significant at 5%, ***significant at 1%.

accounted for 5-25% of the total annual value of goods or service supplied (significant at the 10 per cent level). This suggests that the use of HPWPs in small firms is more likely to be driven by internal than external factors, although such a finding contradicts the widely accepted view presented in the literature.

The results for medium-sized firms produce a very different picture. In addition to a strong association between IiP recognition and the extent of uptake of these practices, a significantly higher level of uptake of HPWPs also emerged in medium-sized firms that had membership of only one employers' network. The uptake of HPWPs decreased dramatically in medium-sized firms where the external market was perceived to be highly competitive. This suggests that the uncertainties caused by market competition could have a significant impact on the HRM activities in medium-sized firms, possibly because managerial attention to the market diverts attention away from managing employees.

Turning to the results in large firms, two associations (both at the 5 per cent significance level) indicate that large firms with an IiP award were likely to have a greater use of HPWPs; as were those firms participating in at least two different employers' networks. There is, nonetheless, no evidence to suggest that either the degree of market competition or trading with the largest customer were associated with the uptake of HPWPs in large firms.

4.3.2 The relationship between internal factors and the uptake of HPWPs in small, medium and large firms

The results in Table 4.1 also demonstrate that small firms operating at single independent workplaces (sometimes termed "stand-alones") are likely to adopt more HPWPs than those with multiple workplaces. According to the positive correlation between firm size and the uptake of HPWPs in particular in the small firm sector, as reported in Chapter 3, this suggests that these stand-alones might have a relatively larger firm size than those operating at multiple

workplaces[14]. Second, there is a strong association between union presence and a greater use of HPWPs. However, there is no evidence that firm age, family ownership, or the presence of an HR specialist is associated with the uptake of HPWPs in small firms.

Where medium-sized firms are concerned, the results in Table 4.1 reveal that none of the internal factors were associated with the uptake of HPWPs. Linking this finding to the associations established between external factors and the uptake of HPWPs in medium-sized firms, this would appear to suggest that medium-sized firms are more sensitive to factors external to the firm than to internal factors.

In large firms, the uptake of HPWPs appears to be higher in firms with union recognition. In contrast to the results in small and medium-sized firms, there is a negative association between family ownership and the use of HPWPs in large firms, suggesting that family-owned large firms tend to use fewer HPWPs compared with those firms that are not family owned in general. Note however that although the association between family-owned large firms with family members involved in the management of the firm was not statistically significant, the negative sign of the coefficient nevertheless implies the use of HPWPs in such firms may also be lower than that in large firms that are not family-owned. Moreover, a much higher uptake of HPWPs was also reported by very large firms with at least 50,000 employees.

These findings apparently support the argument that the manner of HRM in small firms differs from that in medium-sized firms not only in terms of the great variation in the uptake of HPWPs, but the factors associated with such an uptake in each firm sector also differ.

[14] It is impossible to test whether it is the case given there are no cut-off points among small firms in the WERS 2004 data.

4.4 Discussion and conclusions

The aim of this chapter was to assess which contextual factors, both external and internal to the firm, are associated with the use of HPWPs in small and medium-sized firms. In particular, the assessment sought to demonstrate whether the uptake of HPWPs in small and medium-sized firms is associated with different factors, because if the factors differ, this would further call into question the conventional wisdom of combining small and medium-sized firms into a single unit of analysis in both academic and policy circles.

The analysis demonstrated that the use of HPWPs in small firms was affected by different contextual factors from those in medium-sized firms. The only exception was the strong association between IiP recognition and a greater use of these practices, which applies to both firm sectors. This finding is in line with that reported by Goss et al. (1994), suggesting that the structure or blueprint IiP provides results in small and medium-sized firms adopting more HPWPs.

It is a notable finding that IiP recognition was associated with the overall uptake of HPWPs in small firms, while the engagement with various employers' advisory networks did not lead to significant increases in HPWPs in small firms. Arguably, small firms are usually less experienced and have a limited capacity to act on new knowledge (Nooteboom, 1993). Therefore, clearer direction from an accreditation institution such as IiP may assist them in introducing HPWPs. The IiP recognition process may well offer them a comprehensive and formal management framework compared to the relatively loosely organised information normally provided by various employers' associations and business advisory networks. This finding would appear to suggest that, although IiP recognition may not necessarily lead to an overall increase in training activities in the SME sector (Hoque and Bacon, 2008)[15], the systematic procedure involved in the IiP accreditation may nevertheless provide an effective

[15] This thesis also conducted a similar analysis and found no relationship between IiP recognition and off-the-job training in either small or medium-sized firms.

route to access general practices aiming to improve employment relations and performance in the small firm sector.

Apart from the association between IiP recognition and the uptake of HPWPs, the findings also indicate that the uptake of HPWPs in small and medium-sized firms is associated with different factors. The rest of this section will discuss the implications of these findings.

In small firms, the associations between three internal factors and a greater use of HPWPs would seem to suggest that the extent of the uptake of such practices is more likely to be determined by the characteristics embedded within these firms rather than external pressures. These factors will be discussed in detail below.

The higher uptake of HPWPs in small firms with 25 or more employees compared to those with fewer than 25 employees lends support to the finding in Chapter 4, indicating that formality starts to take root when firm size becomes large enough to accommodate a complex organisational structure and requires more sophisticated HPWPs to help manage increased co-ordination problems (Barron et al., 2007; Roberts et al., 1992).

There is also a higher uptake of HPWPs in small firms that operate on a single establishment compared to small firms with multiple workplaces, suggesting that it is not necessary for small firms with multiple workplaces to introduce more HPWPs in order to deal with potential principal-agent problems (Knocke and Kalleberg, 1994). This result, nonetheless, suggests that in a small firm with 3 workplaces and 49 employees in total, for example, the numbers employed in each workplace would be small and hence we may anticipate more face-to-face communication in each of these workplaces compared to a small firm that operates on a single establishment but also has 49 employees. And thus, the former is less likely to require additional formal practices.

Another finding in small firms that is worth noting is the positive association between union recognition and the uptake of HPWPs in small firms. This would challenge the threshold for

statutory union recognition in the Employment Relations Act 1999, suggesting that if it was to be extended to small firms employing fewer than 21 workers (Ewing and Hock, 2003), the use of HPWPs in small firms is likely to increase, and to the extent such practices are associated with performance, thus improve performance in the small firm sector. While the government has to date resisted this move, such a finding may be of use to the union movement in making arguments for lowering this threshold. Given that small firms have the lowest rate of union recognition (3.41 per cent) compared to medium-sized (5.72 per cent) and large firms (32.67 per cent), the implication for government policy becomes far-reaching.

In contrast to the findings demonstrated in small firms, the association between a high degree of competition in the market and a lower use of HPWPs nonetheless suggests that medium-sized firms tend to be more responsive to their competitive environment than small firms. One possible explanation for this finding is that, with more resources at their disposal compared to small firms, medium-sized firms are likely to develop a buffer zone that enables them to adjust their HRM activities in line with such external changes. This would also suggest that medium-sized firms tend to have more resources compared to small firms that allows them to increase the use of HPWPs when the degree of competition in the market is low; a developing firm structure in which bureaucracy has yet not in shape in medium-sized firms compared to large firms provides medium-sized firms with a reasonable scope for being flexible in response to changes in the degree of competition in the market. Arguably, medium-sized firms may route these resources to meet other requirements when competition increases, while small firms lacking necessary resources are not able to do so.

Another finding that also differentiates medium-sized firms from small firms can be seen from the greater use of HPWPs in medium-sized firms that were a member of one employers' business network; but there was no such association where membership had been obtained from two or more different networks. In contrast, the linkage between the use of these practices and membership of one or two employers' associations was very weak in small firms (at the 10 per cent significance level). The discrepancy between small and medium-sized firms would seem to suggest that medium-sized firms are more experienced at seeking and receiving advice

and capable to absorb the advice that may be offered on employment relations issues compared to small firms, and the greater resources available are likely to help medium-sized firms to implement the advice and suggestions obtained from their participation in a business network. Hence, it is not how many business networks they have taken part in that appears to matter, it is the capability of transforming the kind of information they have gathered from such business networks into their operational framework that matters. However, small firms often lack the knowledge and experience that can help them to adapt these practices efficiently (Nooteboom, 1993), and thereby their participation in such business networks alone would hardly make any impact on the adoption of HPWPs in these firms.

What makes medium-sized firms distinct from both small and large firms is that none of the internal factors assessed were associated with the extent of uptake of HPWPs in medium-sized firms. Coupled with the strong associations demonstrated by three external factors, i.e. the degree of competition in the market, IiP recognition and participation in business networks, the findings seem to indicate that medium-sized firms tend to be more ready to act on the information gathered from outside of the firm rather than focusing on internal issues such as a de-motivated workforce with lower commitment.

Overall, the analysis in this chapter suggests that the factors associated with the uptake of HPWPs in small firms differ from those in medium-sized firms. While the use of HPWPs in small firms is more likely to be driven by internal factors, the opposite is true for medium-sized firms. The results partly explain the greater use of HPWPs in medium-sized firms than in small firms reported in Chapter 3. This could be because the use of such practices in medium-sized firms is greatly influenced by external factors. Hence, the results reinforce the suspicion that the uptake of HPWPs may not necessarily lead to better performance in medium-sized firms if such an uptake is mainly a response to external pressure rather than to address internal issues. The assessment of the relationship between HPWPs and performance to be conducted in the next chapter (Chapter 5) explores whether the HPWP–performance link holds in small and medium-sized firms separately.

Chapter 5 The relationship between HPWPs and performance in small and medium-sized firms

5.1 Introduction

To recap, the review of the debates on the relationship between HPWPs and performance offers three observations as illustrated in Chapter 2. First, the universal approach suggests the use of HPWPs will lead to improved performance irrespective of the context in which these practices are operating (Huselid, 1995). Second, firms adopting HPWP bundles (i.e. ability, motivation, opportunity and commitment, or termed "AMOC") perform better than those using individual HPWPs in isolation, as synergies are likely to occur where coherent HPWPs reinforce each other (Delery and Doty, 1996). Third, a strong HRM system in terms of the total number of HPWPs in place will have a great impact on performance (Bowen and Ostroff, 2004).

The review of the debates on the HPWP–performance link in small firms in Chapter 2 indicates that: a) individual HPWPs are more likely to be associated with improved performance than HPWP bundles/HPWP intensity in small firms – given the resource poverty faced by small firms they may be able to distinguish themselves from their competitors via the adoption of just a few HPWPs; b) in medium-sized firms the relationship between HPWP bundles and performance may be stronger than that between individual HPWPs and performance as the larger workforce in medium-sized firms may require several HPWPs in place to accommodate the complexity involved in managing greater numbers of employees; c) the relationship between HPWP intensity and performance in small and medium-sized firms is unclear for several reasons. First, not many small firms are able to afford such an investment. Second, in medium-sized firms, the potential tension between the internally driven demand for more HPWPs (to improve co-ordination, for example) and the introduction of more HPWPs due to

external pressure may combine to produce no positive impact on performance from the adoption of more HPWPs in medium-sized firms.

Turning to the assessment of the uptake of HPWPs conducted in Chapter 3, the results show that medium-sized firms tend to have a greater use of HPWPs than small firms in general, suggesting that a much stronger relationship between HPWPs and performance might be found in medium-sized firms compared to small firms. However, the findings generated by the assessment of the antecedents of HPWPs in Chapter 4 indicate that such a higher uptake of HPWPs in medium-sized firms could well be due to external pressures, suggesting that installing HPWPs solely in response to external requirements may distract managers from internal HRM concerns and thus result in no significant improvement in performance. Hence, the aim of this chapter is to explore the relationship between HPWPs and performance in small and medium-sized firms separately.

Thus, the next section of this chapter (5.2) describes the method used in assessing each hypothesis. The third section (5.3) reports the results. Finally, Section 5.4 discusses and summarises the findings.

5.2 Research method

As the hypotheses developed for this chapter involve assessment of the HPWP–performance link in small and medium-sized firms from multiple perspectives, i.e. individual HPWPs, HPWP bundles, synergistic effect from the co-existence of different bundles of HPWPs and the overall relationship between HPWP intensity and performance, variables constructed for the assessment of each hypothesis also vary. The construction of specific variables used in each analysis is presented under the corresponding heading below.

5.2.1 Dependent variables: performance measures

In order to assess the relationship between HPWPs and performance and the extent to which this relationship may differ in medium-sized firms compared to small and large firms, five performance measures are used as dependent variables. Of these, two are human resource (HR) outcome measures and three are firm-level performance measures.

HR outcomes

The two HR outcome measures are absence rate and voluntary labour turnover. Absence rate is measured by the percentage of work days lost through employee sickness or absence. Labour turnover is measured by voluntary resignations on the part of employees. Both of these HR outcome measures are continuous variables that are naturally bound between 0 and 1, thus ordinary least squares (OLS) is not the best linear unbiased estimator for them (Michie et al., 2008). Instead, these two variables are tabulated by quartiles and ordered probit is used. For absence rate the quartiles are: 1= high absenteeism (>5.47%); 2= medium-high absenteeism (≥3.5 and ≤5.47%); 3= medium-low absenteeism (≥2 and<3.5%); and 4= low absenteeism (<2%). For labour turnover, the quartiles are: 1= high labour turnover (>17.39%); 2= medium-high turnover (≥8.77% and ≤17.39%); 3= medium-low turnover (≥2.5% and<8.77%); and 4= low labour turnover (<2.5%).

Firm performance measures

Three firm-level performance outcome measures are used: labour productivity; quality of product or service; and financial performance. These are all subjective performance measures where respondents are asked to evaluate the performance of their workplace in comparison with other establishments in the same industry on a five-point scale (where 1='a lot below average' and 5='a lot better than average'). See Wall and Wood (2005) for a discussion on the appropriateness of using subjective performance measures. Given the nature of these measures, ordered probit analysis is used.

5.2.2 Independent variables: individual HPWPs, HPWP bundles and HPWP intensity

The constructions of independent variables vary among the three approaches to assess the HPWP–performance link. Different sets of independent variables are used in each test as follows.

Testing the relationship between individual HPWPs and performance

The impact of individual HPWPs is examined to explore whether specific HPWPs are related to performance. By way of entering all of the 18 HPWPs simultaneously in each model, the association for each can be seen as the effect of that HPWP independent of the co-existence of others.

Testing the relationship between HPWP bundles and performance in small, medium and large firms

This test includes two assessments. The first assessment focuses on whether small and medium-sized firms adopting specific HPWP bundle(s) perform better than other firms. The second assessment evaluates whether firms using more than one HPWP bundle, i.e. the achievement of internal fit, have a better chance of achieving superior performance compared to other firms. In the second assessment, small and medium-sized (as well as large) firms were further split into five subcategories, i.e. firms using none, one, two, three or all four HPWP bundles[16]. If positive associations were found between the greater use of such HPWP bundles and performance, this will provide support to the view that small (or medium-sized) firms adopting coherent HPWPs are more likely to have improved performance than other firms.

[16] No small or medium-sized firms claimed the use of all four HPWP bundles.

Testing the relationship between HPWP intensity and performance in small, medium and large firms

This test aims to evaluate whether the adoption of more HPWPs is associated with higher performance in small, medium and/or large firms. This is because it is argued that performance can be improved when HPWPs are used in a more comprehensive and widespread manner (Bowen and Ostroff, 2004; Youndt et al., 1996).

5.2.3 Control variables

The set of control variables that might influence the relationship between the adoption of HPWPs and performance includes firm size, industry sector, firm age, family ownership, union recognition and the degree of competition in the present market respectively (see details of the construction of these control variables in Section 3.2 4).

Among these control variables, it is important to pay particular attention to firm size. As firm size has been widely reported to be positively correlated with the extent of the adoption of specific HPWPs (Forth et al., 2006) and large firms generally perform better than small firms (Machin and Stewart, 1991; Michie and Sheehan, 2001), one would expect unbiased estimation should be achieved by controlling a firm size variable based on the categorization between small, medium and large firms. Further evidence, nonetheless, suggests that differences in firm size also matters within the broadly defined size categories. For example, Roberts et al. (1992) report that informality prevails in firms with fewer than 20 employees, while elements of formality start to appear only when informal management dries up in a firm where the number of employees increases to 20 or more. This suggests that firm size should also be controlled for in an analysis that purely focuses on evaluating the relationship between HPWPs and performance in small firms. This also suggests that each firm sector needs to be further sub-categorised. In line with this argument, small firms were split into three categories of 5–9, 10–24, 25–49 employees; medium-sized firms were split into three categories of 50–99,

100–149, 150–249 employees; and large firms were split into four categories of 250–1,999, 2,000–9,999, 10,000–49,999, 50,000 and more employees.

5.3 Results

The results regarding whether individual HPWPs, HPWP bundles and/or HPWP intensity are associated with performance in small, medium and large firms, are reported separately below. The results testing for internal fit will be presented alongside the results for HPWP bundles in Section 5.3.2.

5.3.1 Assessing the relationship between individual HPWPs and performance in small, medium and large firms

The results in Table 5.1 suggest that only two HPWPs in small firms are significantly associated with performance (at the 5 per cent level): induction is associated with better quality of product or service, indicating that formal induction could help new recruits to manage the quality of product or service much better than those in small firms that had no formal induction. Similarly, those small firms that had an internal labour market were likely to have higher labour productivity, suggesting that employees in such firms could be highly motivated by a clear career structure and the potential for promotion as a reward for high performance.

Although some of the findings suggest the use of specific HPWPs may have a negative impact on performance in small firms, for example, the presence of a consultation committee was associated with high absenteeism and functional flexibility was associated with high labour turnover and high labour productivity, such associations were only significant at the 10 per cent level. Hence, the overall observation of the results in small firms is that very few individual HPWPs are positively associated with performance.

Turning to the results in large firms, however, more HPWPs (six in total) were positively associated with different performance measures than in small firms. Among these practices, three HPWPs were linked strongly to more than one performance measure simultaneously. These are sophisticated recruitment, off-the-job training and functional flexibility. By way of example, off-the-job training was associated with lower labour turnover, higher labour productivity (though at the 10 per cent significance level) and enhanced financial performance. The positive association between off-the-job training and high labour retention suggests that employees who received formal off-the-job training were likely to stay. One can speculate that this could be because trained employees are more committed to the firm or it is also possible the skills gained from such training were so firm-specific that they would be locked into the firm. Similarly, functional flexibility was positively associated with both lower labour turnover and better quality of product or service, indicating that multi-skilled employees were likely to stay in these large firms and the versatile knowledge and skills obtained from such training would generate better quality of product or service.

In addition to this, three other HPWPs were positively associated with different performance measures. Team briefing, for example, was associated with lower labour turnover, suggesting that updating employees with a wide range of operational or management information through regular team briefings increases workforce commitment and helps large firms to retain employees. The other two HPWPs are quality circles and flexible working/family-friendly practices, with the former associated with higher labour productivity and the latter with better quality of product or service.

Apart from these positive associations in large firms, there are also several occasions where individual HPWPs are linked to poor performance (each with only one performance measure). For example, induction is associated with lower labour productivity, while grievance procedures and profit-related pay are related to a higher absence rate; but profit-related pay is also associated with higher labour productivity and enhanced financial performance. Therefore, it is not yet clear whether such negative associations would affect the overall relationship

Table 5.1 The relationship between individual HPWPs and performance in small, medium and large firms

Small firms	Absence rate		Labour turnover		Labour productivity		Quality of product or service		Financial performance	
Sophisticated recruitment	.046	(.218)	.115	(.246)	.021	(.179)	-.115	(.185)	.053	(.184)
Induction	.169	(.192)	.038	(.202)	.097	(.183)	.500	(.214)**	.093	(.197)
Off-the-job training	.381	(.202)*	.046	(.214)	-.053	(.172)	.119	(.217)	-.098	(.199)
Internal labour market	.355	(.231)	.419	(.268)	.561	(.255)**	.503	(.261)*	-.012	(.247)
Performance-related pay	.390	(.216)*	.029	(.239)	.064	(.215)	-.060	(.226)	.080	(.222)
Profit-related pay	-.075	(.306)	.295	(.307)	-.099	(.229)	-.059	(.314)	-.091	(.288)
Performance appraisal	-.165	(.201)	-.314	(.224)	.175	(.221)	.185	(.207)	.236	(.203)
Team working	-.035	(.228)	.088	(.225)	.144	(.205)	.092	(.214)	.078	(.187)
Team briefing	-.125	(.210)	-.161	(.216)	.015	(.227)	-.085	(.219)	-.192	(.227)
Consulting committee	-.804	(.424)*	-.226	(.485)	-.095	(.377)	-.276	(.603)	.434	(.453)
Employee attitude survey	-.196	(.238)	-.133	(.259)	-.084	(.228)	.140	(.229)	.219	(.220)
Quality circle	.419	(.228)*	.098	(.265)	.089	(.252)	-.334	(.253)	-.211	(.212)
Functional flexibility	-.189	(.221)	-.445	(.238)*	.453	(.265)*	-.226	(.195)	.112	(.224)
Benefits	-.001	(.253)	.097	(.261)	-.027	(.240)	.044	(.250)	-.168	(.239)
Flexible working/family-friendly	-.176	(.252)	.270	(.286)	-.039	(.224)	-.004	(.259)	-.092	(.269)
Equal opportunity	-.206	(.312)	.158	(.287)	.435	(.374)	.285	(.372)	.416	(.353)
Grievance procedures	-.302	(.234)	.320	(.243)	.146	(.202)	-.083	(.223)	.157	(.207)
Job security	-.284	(.279)	-.044	(.327)	.139	(.302)	-.258	(.250)	.392	(.250)
F	1.320		1.150		1.070		1.050		1.750	
Prob.>F	.143		.280		.375		.410		.015	
N	223		223		223		223		223	

(Continued)

Medium firms	Absence rate		Labour turnover		Labour productivity		Quality of product/service		Financial performance	
Sophisticated recruitment	-.119	(.354)	.230	(.338)	-.552	(.325)*	-.944	(.400)**	-.263	(.283)
Induction	.181	(.328)	-.182	(.320)	.375	(.302)	.168	(.349)	.050	(.254)
Off-the-job training	-.234	(.287)	.874	(.321)***	.766	(.307)**	.670	(.284)**	.483	(.320)
Internal labour market	.288	(.331)	.675	(.365)*	.109	(.370)	-.044	(.362)	.439	(.364)
Performance-related pay	.465	(.366)	.342	(.328)	.004	(.381)	.477	(.296)	-.206	(.343)
Profit-related pay	.266	(.355)	.350	(.360)	.222	(.378)	-.128	(.408)	.289	(.316)
Performance appraisal	-.356	(.306)	-.015	(.357)	.531	(.342)	-.250	(.344)	.027	(.401)
Teamwork	.891	(.371)**	-.484	(.348)	-.232	(.372)	-.762	(.371)**	.100	(.352)
Team briefing	-.605	(.295)**	-.063	(.295)	-.506	(.347)	.951	(.306)***	.163	(.319)
Consultation committee	-.361	(.436)	-.298	(.359)	-1.239	(.503)**	-.696	(.501)	-.333	(.368)
Employee attitude survey	.008	(.355)	.129	(.309)	-.004	(.377)	.117	(.348)	.041	(.304)
Quality circles	.218	(.412)	-.987	(.432)**	-.625	(.405)	.229	(.507)	.481	(.393)
Functional flexibility	-.941	(.389)**	-.216	(.398)	-.378	(.410)	-.501	(.339)	-.859	(.333)**
Benefits	1.049	(.320)***	-.930	(.343)***	-.912	(.367)**	.288	(.375)	-.174	(.322)
Flexible working/Flexible working/family-friendly	.546	(.395)	-.040	(.393)	.801	(.416)*	1.417	(.440)***	.380	(.412)
Equal opportunities	-.011	(.378)	-.289	(.403)	-.711	(.373)*	-.403	(.352)	-1.200	(.372)***
Grievance procedures	-.594	(.326)*	-.400	(.334)	.486	(.337)	.066	(.338)	-.099	(.393)
Job security	-.450	(.470)	.520	(.542)	.341	(.652)	.466	(.594)	-.100	(.497)
F	2.520		1.400		1.870		1.450		1.750	
Prob.>F	.000		.118		.013		.094		.024	
N	127		127		127		127		127	

(Continued)

Large firms	Absence rate		Labour turnover		Labour productivity		Quality of product or service		Financial performance	
Sophisticated recruitment	.077	(.185)	.517	(.191)***	-.042	(.160)	.365	(.189)*	.194	(.183)
Induction	-.033	(.197)	-.040	(.196)	-.380	(.189)**	.168	(.179)	-.174	(.200)
Off-the-job training	-.110	(.186)	.506	(.179)***	.333	(.173)*	.292	(.182)	.390	(.186)**
Internal labour market	.096	(.185)	.192	(.198)	-.350	(.187)*	.108	(.189)	.049	(.164)
Performance-related pay	.304	(.185)	-.007	(.196)	.242	(.185)	-.303	(.176)*	.088	(.190)
Profit-related pay	-.481	(.240)**	-.095	(.267)	.610	(.210)***	.292	(.251)	.655	(.258)**
Performance appraisal	.116	(.219)	-.149	(.273)	.304	(.189)	.230	(.220)	-.104	(.197)
Team working	.113	(.183)	.082	(.196)	-.076	(.194)	-.031	(.208)	-.234	(.171)
Team briefing	.206	(.182)	.502	(.180)***	.107	(.163)	.243	(.216)	.190	(.177)
Consulting committee	-.284	(.185)	.001	(.191)	-.022	(.182)	.058	(.197)	-.230	(.215)
Employee attitude survey	-.114	(.201)	-.319	(.206)	.179	(.188)	-.191	(.212)	-.067	(.187)
Quality circle	-.105	(.194)	-.192	(.176)	.539	(.187)***	-.071	(.227)	.256	(.169)
Functional flexibility	.126	(.224)	.429	(.197)**	.226	(.206)	.417	(.195)**	.224	(.196)
Benefits	-.007	(.194)	.212	(.204)	-.339	(.183)*	-.130	(.208)	-.068	(.191)
Flexible working/family-friendly	-.150	(.211)	-.256	(.224)	.106	(.196)	.405	(.200)**	-.176	(.204)
Equal opportunity	.224	(.187)	.187	(.234)	.282	(.186)	-.049	(.180)	.064	(.168)
Grievance procedures	-.372	(.177)**	.077	(.176)	-.018	(.167)	-.037	(.177)	.113	(.159)
Job security	.000	(.260)	-.210	(.309)	.174	(.180)	.087	(.195)	.288	(.240)
F	1.590		3.460		2.500		2.280		1.200	
Prob.>F	.027		.000		.000		.000		.219	
N	601		601		601		601		601	

Notes:
Survey ordered probit analysis. All estimates are weighted.
Coefficients given (standard errors in brackets).
*significant at 10 percent, ** significant at 5 percent, *** significant at 1 percent,
Control variables entered into each equation are dummies representing industries, firm age, firm size, family ownership/involvement, union recognition and competitive environment.

between HPWPs and performance in large firms. The assessment of HPWP intensity will be able to illuminate this.

The results for medium firms demonstrate a rather striking picture. While a few of these practices are consistently and positively associated with two or more different performance measures, several other HPWPs are consistently and negatively associated with two or more different performance measures. In medium-sized firms, off-the-job training was consistently associated with lower labour turnover, higher labour productivity and better quality of product or service; flexible working/family-friendly practices are associated with both higher labour productivity and better quality of product or service. These appear to suggest that medium-sized firms may enjoy better performance through the introduction of specific HPWPs, whereas small and large firms do not.

Furthermore, in contrast to small and large firms, a significant number of individual HPWPs (5 out of 18) are linked to poor performance in medium-sized firms. Specifically, three HPWPs are negatively associated with two or more performance measures: sophisticated recruitment is associated with lower labour productivity and poor quality of product or service; functional flexibility is associated with a higher absence rate and lower financial performance; and equal opportunities are linked to lower labour productivity and poor financial performance. Such negative associations appear to offset the positive associations established by other individual HPWPs, thus leading to a non-significant impact on performance in medium-sized firms.

In addition, there are also more HPWPs (3 out of 18) in medium-sized firms than in small (1 out of 18 practices significant at the 10 per cent level) and large firms (1 out of 18 practices) that are simultaneously associated with both improved performance in one relevant measure and lower performance in other measures. In medium-sized firms, teamwork is associated with a lower absence rate but poor quality of product or service; team briefing is associated with a higher absence rate and poor quality of product or service; and benefits are positively associated with a lower absence rate, but higher labour turnover and lower labour productivity. These relationships imply that no association between HPWPs and performance in medium-

sized firms would be discovered with respect to the measure of HPWP intensity as the positive impact produced by some HPWPs may well be offset by the negative impact generated by a few other practices. Overall, these findings suggest that certain unique characteristics in medium-sized firms may well influence the operation of HPWPs in a different way to those in either small or large firms, and thus would eventually affect their potential to improve performance in medium-sized firms.

Such results clearly cast doubt on whether the use of HPWP intensity would improve the performance in medium-sized firms. This will be tested in Section 5.3.3.

5.3.2 Assessing the relationship between HPWP bundles and performance in small, medium and large firms

The aim of assessing the relationship between HPWP bundles (i.e. ability, motivation, opportunity and commitment) and performance is to ascertain whether firms adopting specifically defined set(s) of HPWPs perform better than other firms. This section will, first, assess which HPWP bundle(s) is/are associated with improved performance in each firm sector; and second, assess whether firms using more HPWP bundles always perform better than those using fewer/no HPWP bundles, i.e. internal fit.

i. Testing the relationship between HPWP bundle(s) and performance in small, medium and large firms

The results in Table 5.2 clearly demonstrate that the opportunity bundle is associated with both higher labour productivity and enhanced financial performance in small firms, although the use of the opportunity bundle is also linked to higher absenteeism rates. Given that none of the associations established between these individual HPWPs was statistically significant at the 5 per cent level or lower in Table 5.1, such strong associations developed by the opportunity bundle would seem to suggest that using these practices together reinforces the potential effect

to be produced by these practices, either in a positive way (i.e. enhanced financial performance) or a negative way (higher absence rates). What still remains to be seen is whether synergistic effects would occur when these opportunity practices are used in conjunction with other defined sets of practices. If more associations were found to be significant when multiple bundles of practices are used together, support would be lent to the argument that coherent HPWPs can generate synergy and yield higher outcomes over and above individual practices. This will be assessed later in the test of internal fit.

In the results concerning large firms, Table 5.2 shows that the motivation bundle is linked to enhanced performance while the ability bundle is associated with lower labour turnover. In contrast to the associations established between the opportunity bundle and performance in small firms, individual HPWPs that constitute either of these two HPWP bundles are themselves also related to improved performance in large firms. By way of example, sophisticated recruitment and off-the-job training are associated with lower labour turnover in large firms (see Table 5.1), both of which are components of the ability bundle. In contrast to small firms, the situation in large firms makes it difficult to summarise whether it is simply because these individual practices were in place or because a synergy had been generated by using such practices in combination that results in better performance. Given that, as shown in Table 5.1, more HPWPs had demonstrated strong associations with different performance measures individually in large firms than in small firms, this may imply that the pattern of the HPWP–performance link established in large firms differs from that in small firms. One implication is that large firms may benefit more from adopting a strong HRM system, i.e. HPWP intensity, rather than using specific HPWP bundle(s). Section 5.3.3 will test this.

Table 5.2 The relationship between HPWP bundles and performance in small, medium and large firms

	Absence rate		Labour turnover		Labour productivity		Quality of product or service		Financial performance	
Small firms										
Ability	.249	(.208)	.106	(.213)	-.040	(.174)	.151	(.227)	.117	(.194)
Motivation	.337	(.487)	.566	(.334)*	.441	(.265)	.214	(.355)	-.173	(.421)
Opportunity	-.788	(.270)***	-.273	(.285)	.464	(.232)**	.278	(.257)	.657	(.236)***
Commitment	.134	(.491)	-.268	(.453)	.425	(.317)	.580	(.401)	.299	(.335)
F	2.680		1.840		1.260		1.030		2.670	
Prob.>F	.001		.035		.232		.421		.001	
N	223		223		223		223		223	
Medium firms										
Ability	.089	(.269)	.012	(.298)	.474	(.304)	-.107	(.297)	.013	(.221)
Motivation	1.041	(.321)***	.281	(.321)	-.997	(.428)**	.744	(.494)	-.424	(.353)
Opportunity	-.115	(.327)	-.190	(.282)	-.366	(.290)	-.044	(.312)	.313	(.319)
Commitment	-.526	(.503)	-.764	(.550)	-.926	(.442)**	-1.123	(.477)**	-1.574	(.380)***
F	2.450		1.250		2.300		1.810		2.200	
Prob.>F	.005		.253		.008		.045		.012	
N	127		127		127		127		127	
Large firms										
Ability	-.198	(.191)	.387	(.193)**	.204	(.183)	.282	(.180)	.230	(.180)
Motivation	-.121	(.263)	.049	(.241)	.341	(.199)*	.292	(.255)	.457	(.206)**
Opportunity	.033	(.201)	.140	(.205)	.313	(.184)*	.085	(.193)	.004	(.177)
Commitment	-.195	(.216)	.154	(.243)	.025	(.176)	-.021	(.197)	-.151	(.225)
F	1.110		3.920		2.230		1.750		1.790	
Prob.>F	.344		.000		.005		.038		.033	
N	601		601		601		601		601	

Note: See estimation techniques in Table 5.1.

[1] Ability bundle includes practices such as sophisticated recruitment, formal induction, off-the-job training; motivation bundle includes practices such as internal labour market, performance-related pay, profit-related pay, performance appraisal; opportunity bundle includes practices such as teamwork, team briefing, consultation committee, employee attitude survey, quality circles and functional flexibility; and commitment set includes practices such as benefits, flexible working/ family-friendly , equal opportunity, grievance procedures procedure and job security.

Turning to the association between specific HPWP bundles and performance in medium-sized firms, the results in Table 5.3 suggest that, apart from the positive association between the motivation bundle and a lower absence rate, the rest of the statistically significant associations established between specific HPWP bundles and performance are all negative. This suggests that using HPWP bundles could do more harm than good to performance in medium-sized firms. It is also notable that potentially there are more negative associations between HPWP bundles and performance in medium-sized firms than reported for small and large firms, although a majority of associations are not statistically significant. Linking these results to those generated by the individual HPWPs reported in Table 5.1, it becomes even more doubtful that HPWP intensity would be linked to better performance in medium-sized firms. This will be tested in Section 5.3.3.

ii. Testing the relationship between internal fit and performance in small, medium and large firms

The test of internal fit aims to assess whether the progressive use of different HPWP bundles would improve performance in each firm sector.

The results of the internal fit test are presented in Table 5.3. It suggests that using more specifically defined HPWP bundles has a greater impact on enhancing performance in small firms than in large firms. By way of example, compared to those small firms adopting the highest number of HPWP bundles (i.e. three different HPWP bundles[17], used as the reference group), small firms adopting either only two or none of the four HPWP bundles were significantly more likely to have higher absenteeism rates. Similarly, lower labour turnover and higher labour productivity were found in small firms making the greatest use of the four HPWP bundles compared to other small firms. Although some of the associations are not statistically significant, the unanimously negative signs of the coefficients all indicate that the progressive use of HPWPs would increase the chance of achieving higher performance in small firms.

[17] See Footnote 16.

Table 5.3 The relationship between internal fit and performance in small, medium and large firms

	Absenteeism rates	Labour turnover	Labour productivity	Quality of product/service	Financial performance
Small firms					
Two-HPWP-bundle[1]	-1.008 (.350)***	-.875 (.405)**	-.544 (.369)	-.090 (.477)	-.006 (.395)
One-HPWP-bundle	-.297 (.303)	-.348 (.387)	-.563 (.332)*	-.188 (.402)	-.095 (.338)
Non-HPWP-bundle	-.669 (.276)**	-.568 (.376)	-.837 (.337)**	-.522 (.400)	-.253 (.341)
F	2.450	1.420	1.250	1.320	2.460
Prob.>F	.004	.151	.246	.201	.004
N	223	223	223	223	223
Medium firms					
Two-HPWP-bundle[2]	.475 (.483)	.456 (.413)	.023 (.383)	-.674 (.478)	.130 (.507)
One-HPWP-bundle	.560 (.365)	.079 (.355)	.493 (.445)	.012 (.366)	.802 (.508)
Non-HPWP-bundle	.004 (.349)	.022 (.288)	.198 (.367)	.323 (.267)	.325 (.502)
F	1.630	1.250	1.420	1.120	1.220
Prob.>F	.089	.258	.164	.347	.277
N	127	127	127	127	127
Large firms					
Three-HPWP-bundle[3]	-.233 (.605)	-.088 (.348)	.321 (.287)	-.048 (.263)	.487 (.297)
Two-HPWP-bundle	-.193 (.601)	-.126 (.341)	-.063 (.227)	.162 (.217)	.058 (.258)
One-HPWP-bundle	-.419 (.617)	-.482 (.332)	.006 (.266)	-.210 (.269)	.213 (.273)
Non-HPWP-bundle	-.066 (.621)	-.641 (.316)**	-.542 (.285)*	-.264 (.317)	-.087 (.281)
F	1.610	3.420	2.090	1.590	1.440
Prob.>F	.067	.000	.009	.071	.122
N	601	601	601	601	601

Note: See estimation techniques in Table 5.1.
[1, 2] Reference category="Three-HPWP-bundle"; [3] Reference category="Four-HPWP-bundle".

Compared to a few strong associations in small firms, there is only one association that is significant at the 5 per cent level, and it suggests that large firms using all four HPWP bundles are more likely to have a lower labour turnover than those large firms using no such sets. One implication is that the greatest use of such HPWP bundles did not always bring about the best outcomes in large firms. Moreover, the positive sign of a few associations further casts doubt on the view that large firms would benefit the most from adopting a large number of different HPWP bundles.

Turning to the results for medium-sized firms, none of the associations in Table 5.3 is statistically significant. This suggests that the progressive use of HPWP bundles would barely make any difference on the performance in medium-sized firms when compared with a much lower use of such bundles. Such a result is not totally out of expectation in light of the negative associations developed between HPWP bundles and performance in Table 5.2. It nonetheless reinforces the previous suspicion that no relationship would be established between HPWP intensity and performance in medium-sized firms.

5.3.3 Assessing the relationship between HPWP intensity and performance in small, medium and large firms

The assessment of the relationship between HPWP intensity and performance is to ascertain whether a strong HRM system (as described by Bowen and Ostroff, 2004) will improve the performance in each firm sector.

The results in Table 5.4 demonstrate a strong association between HPWP intensity and higher labour productivity in small firms. HPWP intensity is also weakly associated with better quality of product or service and enhanced financial performance. In comparison with that established by the opportunity bundle as shown in Table 5.2, the marginally significant association with financial performance nonetheless suggests that simply pooling a few HPWPs from different HPWP bundles together could cancel out the positive effect on financial

Table 5.4 The relationship between HPWP intensity and performance in small, medium and large firms

	Absence rate		Labour turnover		Labour productivity		Quality of product or service		Financial performance	
Small firms										
HPWP intensity	.008	(.035)	.033	(.034)	.097	(.031)***	.063	(.035)*	.062	(.036)*
F	1.740		1.810		1.600		1.150		3.290	
Prob.>F	.066		.054		.102		.327		.000	
N	223		223		223		223		223	
Medium firms										
HPWP intensity	.038	(.045)	-.053	(.046)	-.011	(.046)	.019	(.052)	-.003	(.053)
F	1.780		1.450		1.620		2.350		.290	
Prob.>F	.066		.160		.103		.012		.987	
N	127		127		127		127		127	
Large firms										
HPWP intensity	-.022	(.035)	.066	(.027)**	.088	(.034)**	.083	(.027)***	.059	(.027)**
F	1.240		4.830		2.730		2.630		1.790	
Prob.>F	.252		.000		.001		.002		.046	
N	601		601		601		601		601	

Notes:
Survey ordered probit analysis. All estimates are weighted.
Coefficients given (standard errors in brackets).
*significant at 10 percent, ** significant at 5 percent, *** significant at 1 percent,
Control variables entered into each equation are dummies representing industries, firm age, firm size, family ownership/involvement, union recognition and competitive environment.

performance created by the opportunity bundle. Thus, small firms only appear to benefit little from just adopting more HPWPs. Alternatively, this would suggest that internal fit between HPWPs may have limited impact on performance in small firms.

The results of similar tests in large firms reveal some interesting findings. In Table 5.4, HPWP intensity is strongly associated with all the performance measures except absenteeism rates, suggesting that the adoption of more HPWPs is linked to enhanced performance in large firms. Compared to the evidence that HPWP bundles are not associated with performance (Section 5.3.2), the results generated by the HPWP intensity measure here would seem to imply that performance in large firms would improve when more HPWPs (i.e. a strong HRM system) are adopted.

The results of the assessment in medium-sized firms demonstrate that none of the associations are statistically significant. Another striking finding here is that the sign of the coefficients of these non-significant associations are all negative except for absenteeism rates and quality of product or service, indicating that a greater use of HPWPs might be linked to potentially poor performance in medium-sized firms. This contrasts with the results relating to small and large firms. Although the rest of the associations in small firms are not significant, the signs of the coefficients of the other performance measures are in the anticipated direction, i.e. a greater use of HPWPs is linked to better performance. There are significant differences, therefore, in the association between HPWP intensity and performance in medium-sized firms, compared to small and large firms.

5.4 Discussion and conclusions

This chapter had three aims. Its first aim was to assess and identify which HPWP(s) is/are associated with performance in small, medium and large firms separately. The second aim was to evaluate whether firms that adopt specific HPWP bundle(s) or firms with a progressive use of these HPWP bundles were more likely to report higher performance than other firms. The

third aim was to assess whether a strong HRM system (i.e. HPWP intensity) is associated with higher levels of performance in every firm sector.

The testing of individual HPWPs suggests that, in small firms, there are very few HPWPs (specifically, only two) that are associated with improved performance. In medium-sized firms, some HPWPs are positively associated with performance, some are negatively associated with performance and a few others are simultaneously associated with both better performance in one performance measure and poor performance in other performance measures. In large firms, there are more HPWPs that are individually associated with improved performance than in small and medium-sized firms, though the proportion of such practices among the total HPWPs asked about remains low (6 out of 18).

The testing of HPWP bundles indicates that small firms with internal fit are more likely to achieve performance superior to the other small firms (to be specific, improved performance has been reported in performance measures such as absence rates, labour turnover and labour productivity). Small firms using the opportunity bundle are more likely to improve their financial performance; in medium-sized firms, performance would not benefit from HPWP bundles; and in large firms, the benefit from HPWP bundles is very limited.

The testing of HPWP intensity (i.e. a strong HRM system) suggests that HPWP intensity can mildly improve performance in small firms in general (to be specific, significantly improved labour productivity but marginally improved quality of product and financial performance). There is no relationship between HPWP intensity and performance in medium-sized firms. In stark contrast, HPWP intensity is strongly associated with all performance measures in large firms except for the absence rate.

It is clear, therefore, some similarities between small and large firms with regard to the HPWP–performance link exist, while medium-sized firms somehow differentiate themselves from both small and large firms. The rest of this section will first discuss these results in

relation to small and large firms and then move on to deliberate on the results in medium-sized firms.

Small firms

Small firms appear able to benefit the most from adopting a specific HPWP bundle (i.e. the opportunity bundle) in terms of higher economic return, and the economic return can only be improved mildly when HPWP intensity is used. Compared to these, the performance effectiveness of individual HPWPs in small firms is very limited. Only two (out of 18) HPWPs are associated with improved performance in small firms: a formal induction programme is associated with better quality of product or service, and an internal labour market is associated with higher labour productivity. This finding is in marked contrast to that in large firms where six HPWPs were associated with enhanced performance, given that more individual HPWPs associated with performance should have been expected in small firms than in large firms. This contradicts the argument that the impact of individual HPWP on performance would be more direct in small firms than in large firms as they are more likely to be engaged in frequent direct communication and have flatter hierarchies (Bacon et al., 1996; de Kok and Uhlaner, 2001).

The strong associations demonstrated between the opportunity bundle and higher labour productivity, enhanced financial performance and higher absenteeism rates are notable findings. Given that none of the HPWPs allocated to the opportunity bundle is associated individually with financial performance, the enhanced financial performance would seem to suggest that using a few HPWPs belonging to the opportunity bundle together may assist in targeting and tackling a specific HRM problem in a reinforcing manner and thus subsequently increasing the economic return in small firms.

That said, small firms need to be aware of the fact that negative associations may also occur and may eventually reduce the benefit gained. Although the precise reason for such a negative association is beyond the scope of this analysis, the negative signs of associations between the individual HPWPs belonging to the opportunity bundle (except for the quality circles) and absenteeism rates, although not statistically significant, nonetheless suggest that these practices

potentially might have similarly negative associations with performance. Such associations would become significant when the set of HPWPs were used together. It could be possible that practices such as training multi-skilled employees to perform jobs other than their own and/or work in teams may well stretch the available resources in small firms and thus lead to more employees being absent from work. If informality prevails in the small firm sector, intensive overlaps between jobs/tasks may create tension on the shop floor, make jobs much more stressful and thus result in greater sickness leave. Indeed, it would seem to indicate that the adoption of HPWPs always comes with a cost and it is whether the gains from such an adoption would eventually compensate the cost that matters (Sels et al., 2006; Way, 2002).

In testing whether small firms would benefit more from adopting a strong HRM system, i.e. many different HPWPs, both of the high absence rates and enhanced financial performance linked with the opportunity bundle disappeared when it was used in conjunction with other specifically defined HPWP bundles and combined into a single index of HPWPs, i.e. HPWP intensity. Given that the HPWP intensity measure is only strongly associated with labour productivity (at the 1 per cent significance level), it would nevertheless imply that, constrained by resource poverty, small firms probably need to select HPWPs to deal with HRM priorities so that HR investment would mainly target such problems (Hoque and Bacon, 2006; Wager, 1998). By doing so, small firms may be able to improve their management and develop a committed workforce and eventually yield higher economic returns.

Large firms

Compared to the findings in small firms, the results for large firms suggest that large firms can benefit more from individual HPWPs (6 out of 18 in large firms compared to 2 out of 18 in small firms) and thus combining these practices would generate a complementary effect and improve performance in large firms (the HPWP intensity measure is consistently associated with all performance measures except the measure of absenteeism rates in large firms).

What also makes the HPWP–performance link in large firms differ from that reported in small firms is that using HPWP bundles can improve performance in large firms, but in a very mild way. With only the ability bundle associated with lower labour turnover and the motivation

bundle associated with enhanced financial performance, the performance effectiveness of HPWP bundles in large firms is rather limited in comparison with that in small firms. Nonetheless, this seems to suggest that large firms may be highly concerned about overall impact of HPWPs on performance. A possible interpretation for this is that the widespread use of these HPWPs may well have already constructed routine procedures and thus balancing the development of practices in different HRM domains would be the priority, thereby it is likely to be a case of whether enough practices like these have been adopted (Boxall and Purcell, 2008). This could be because large firms are more experienced in providing their employees with opportunities to participate in decision-making in relation to employment relations issues. Hence, the workforce would be more likely to perceive the presence of sufficient policies and practices as a message conveying genuine trust and fairness from the top, which in turn would affect individual performance and subsequent performance at the firm level as a whole. It could be, therefore, that the overall coverage of these practices is essential for large firms to achieve better performance than others.

Medium-sized firms

In marked contrast to the HPWP–performance link established in small and large firms, using more HPWPs in medium-sized firms appear to barely improve performance in these firms, it is using the right HPWP that matters. Although medium-sized firms have a few HPWPs that are positively associated with enhanced performance across various performance outcomes, medium-sized firms also have the largest number of HPWPs linked to poor performance across different performance measures and the largest number of HPWPs simultaneously associated with both better performance in one performance measure and poor performance in other performance measures. Although little is known about these processes, the results seem to suggest that in medium-sized firms the performance benefits of HPWPs to develop the company could be offset by the negative impact on the performance of other practices introduced to manage difficult HRM problems. No matter whether such a finding could be an indication of 'deadly combination' (Delery, 1998), it would definitely offer great potential for future research.

Indeed, an overall negative effect on performance would occur if the positive impact is outweighed by the negative impact. It could also be the case that using these HPWPs together may reinforce the potential negative effect and subsequently damage performance in medium-sized firms. These would indicate that the adoption of HPWPs *per se* is unlikely to solve all of the problems medium-sized firms face; it is adopting the right HPWPs that matters.

An explanation of why the use of HPWPs can barely improve performance may reside in a dilemma that most medium-sized firms are likely to face. That is, medium-sized firms may stretch their resources to introduce new HPWPs if they also suffer from resource poverty as small firms do (Storey, 2002). In addition, medium-sized firms also face increasing problems of co-ordinating work between an expanded workforce (Greiner, 1972). As medium-sized firms may require external funding to grow, these firms may demonstrate their credibility and accountability to external financers by showing plans for formalising and professionalising their management either through installing more HPWPs (Frormann, 2006) or hiring new CEOs who are experienced in developing formal HRM practices and are keen to adopt more HPWPs (Baron et al., 2007). It is also possible that medium-sized firms would attempt to adopt such practices as a universal approach to improve their performance, and would be able to convince potential investors that their investment would guarantee high returns. Nevertheless, the former strategy is likely to result in tension where HPWPs are adopted to impress external funders rather than to address the need to deal effectively with coordinating the work of employees and managing their motivation and commitment.

Another explanation could be that medium-sized firms may be experiencing growing pains. The reason for such a conjecture is that medium-sized firms are more likely to confront co-ordination problems given the expanded size of their workforce in comparison to small firms (Baron et al., 2007; Greiner, 1972; Kotey and Slade, 2005). Although they are larger than small firms, their size is still not large enough to justify adopting a wider range of HPWPs. However, frequent face-to-face communication may no longer be effective or sufficient to manage employees in most medium-sized firms.

Taking these discussions together, this chapter details three notable findings. First, the relationship between individual HPWPs and performance is not universal. Although more individual HPWPs are associated with improved performance in large firms than those in small and medium-sized firms, only a small proportion of such practices are associated with better performance across different firm sectors. Moreover, in medium-sized firms, some HPWPs are positively associated with performance and some others are negatively associated with performance, implying the HPWPs that medium-sized firms adopt do not necessarily help managers to resolve a complex range of problems The results do not necessarily support Delery's (1998: 294) argument that "deadly combination" of HPWPs would damage firm performance, they suggest that choosing the right practices is essential for medium-sized firms. Such choices may be vital because medium-sized firms are in a development stage where specific concerns emerge and HR practices are required to target these particular problems to assist medium-sized firms to evolve from one development stage to the next (Greiner, 1972).

Second, enhanced financial performance is reported by small firms when the set of HPWPs that seek to enhance the opportunity for employees to participate are used together. Small firms using different HPWP bundles in combination (i.e. internal fit) also have a better chance to achieve higher performance in a number of performance measures compared to other small firms, although such a use does not necessarily lead to higher financial performance. This could be because HRM problems are more readily identified as relating to specific HRM domain(s) in small firms, given the less complex structure in these firms compared to that in medium and large firms.

Third, while large firms require a strong HRM system to improve their performance, the relationship between HPWP intensity and performance in small firms is unclear (except for higher labour productivity) and there is no relationship between HPWP intensity and performance in medium-sized firms. This could be an indication that encouraging small firms to use as many HPWPs as found in most large firms may stretch the already limited resources in small firms and thus result in no significant improvement in financial performance (Storey,

2004), while in medium-sized firms, potential tensions from conflicting HPWPs in operation could well cancel out any positive impact some practices would have on performance.

Overall, the findings in this chapter lend support to the argument that medium-sized firms are not simply 'scaled-down' versions of large firms (Storey, 2002: 250), or scaled-up versions of small firms. The characteristics embedded in medium-sized firms appear to result in a unique pattern of HPWP–performance linkages distinct from that demonstrated by other firms.

This provides further support to the argument that small and medium-sized firms are likely to have different HRM concerns (Hoque and Bacon, 2008). The different pattern of HPWP–performance links in small compared to medium-sized firms presented in this chapter suggests that in future, research on small and medium-sized firms should be analytically split into two distinct groups in order to generate a better understanding of whether and how the theory and principles of HRM developed in large firms would apply to different firm sectors. The implications for government policies that aim to offer effective business support to SMEs will be discussed in the next chapter.

Chapter 6 Conclusions

As discussed in Chapter 2, this thesis had three aims. Its first aim was to examine the extent to which the uptake of HPWPs in small firms differs from that in medium-sized firms. The second aim was to assess whether the contextual factors associated with the uptake of HPWPs in small firms differ from those in medium-sized firms. The third and final aim of the thesis was to explore whether there is a relationship between HPWPs and performance in small and medium-sized firms and, if so, whether such a relationship follows a different pattern in small firms compared to medium-sized firms. Any differences to be revealed in these analyses would add to the argument that small and medium-sized firms should be analytically split into two independent groups in future research. The analysis in the thesis generated several key findings.

6.1 The difference in the uptake of HPWPs between small and medium-sized firms

As stated in Chapter 2, several authors suggest that HPWPs are used in a piecemeal manner in SMEs (Storey, 2002; 2004; Storey and Westhead, 1997). However, the positive correlation between the uptake of specific HPWPs and firm size reported in a few studies (Forth et al., 2006; Kotey and Slade, 2005) suggests that medium-sized firms are likely to use more HPWPs than small firms and firm size thereby appears to be the key determinant of the variation in the use of such practices between small and medium-sized firms. Nonetheless, the assessment in Chapter 3 yielded several findings that contradict what the literature would lead us to believe.

First, in the assessment of the uptake of HPWPs between small, medium and large firms where individual HPWPs are concerned, medium-sized firms were more likely to use eight HPWPs than small firms and were less likely to use eight HPWPs compared to large firms. However, the number of HPWPs that were more often used by large firms compared to medium-sized

firms reduced to four after controlling for a range of variables. This suggests that there are factors other than firm size that may also explain the lower uptake of such practices in medium compared to large firms. Firm size appears to account for the variation in the uptake of HPWPs between small and medium-sized firms to a much greater degree than it does between medium and large firms.

Turning to the assessment where HPWP bundles are concerned, the findings suggest that medium-sized firms compared to small firms were more likely to use two HPWP bundles, i.e. the motivation bundle and the commitment bundle, and had a slightly greater use of the opportunity bundle. On the contrary, no such difference was found between medium and large firms. These findings would seem to suggest that medium-sized firms may have difficulties particularly in these two HRM domains compared to small firms, but that they do not have many distinct HR concerns from those of large firms.

The evidence provided on HPWP intensity suggests the difference in the extent of the uptake of HPWPs between small and medium-sized firms is greater than that between medium and large firms. This implies firm size is more likely to explain the differentiation in the extent of uptake of HPWPs between small and medium-sized firms than it does between medium and large firms.

Overall, these findings suggest that, although medium-sized firms have fewer employees than large firms, the available resources may still allow them to benefit from economies of scale compared to small firms, thereby leading to a higher uptake of such practices than small firms (Lynch and Black, 1998). Hence, the evidence presented here does not suggest that small and medium-sized firms suffer equally from resource poverty.

Second, there is considerable formality in the small firm category and the threshold of formality in small firms is firms with 25 employees. The evidence shows a step-increase in the uptake of HPWPs first emerges when the size of the firm passes the threshold of 25 employees and the second step-increase does not appear until firm size becomes very large, i.e. 50,000 or

more employees. Hence, firms with as few as 25 employees may well have as many HPWPs as are often found in many large firms in order to accommodate a more complex organisational structure than smaller firms (Roberts et al., 1992). One possible conclusion is that formality starts to take root once the size of the firm passes this threshold of 25 employees. Such results also indicate that the difference in the use of HPWPs between medium and large firms is mainly driven by very large firms, i.e. firms with 50,000 or more employees. Overall, the results suggest the use of HPWPs in small firms is not completely *ad hoc* (for example, formality develops in small firms with 25–49 employees), but it is in part a response to workforce size. Nevertheless, these findings need to be interpreted with caution as the analysis was based on the sample of small firms that were standalones. (See justifications for this analysis in Footnote 8 and Footnote 9.)

Finally, there is a great degree of consistency in the uptake of HPWPs within the medium-sized firm sector and a notable heterogeneity within the small firm sector. The consistently higher uptake of HPWPs in medium-sized firms, coupled with the much greater use of the motivation bundle and commitment bundle compared to small firms (but not lower than large firms), would suggest that medium-sized firms may have similar HRM concerns and therefore have a tendency to use similar numbers of HPWPs and also probably adopt very similar HPWPs (Greiner, 1972), i.e. a set of HPWPs that seeks to motivate the workforce and a set of HPWPs that seeks to elicit high commitment among employees.

6.2 The difference in the antecedents of the uptake of HPWPs between small and medium-sized firms

In reviewing factors potentially associated with the uptake of HPWPs in Chapter 2, previous literature suggests that several external factors, for example, a competitive market, would be associated with a lower uptake of HPWPs in small firms, while some other external factors, such as the presence of larger customers would be associated with a higher uptake of HPWPs

in both small and medium-sized firms. Meanwhile, a range of internal factors, for example, firms with HR specialists in place and firms not owned by a family, were assumed to be associated with a higher uptake of HPWPs in both small and medium-sized firms. The analysis in Chapter 4 has generated findings in stark contrast to these hypotheses.

Results in Chapter 4 suggest that factors associated with the uptake of HPWPs in small and medium-sized firms are different in most circumstances. Apart from IiP recognition which demonstrates a significant association with the use of HPWPs in both small and medium-sized firms, all the other factors associated with a greater use of HPWPs in small firms were not associated with HPWPs in medium-sized firms. These findings will be discussed below.

Small firms

Apart from IiP recognition, no other external factors were associated with a greater use of HPWPs in small firms.

The association between IiP recognition and the uptake of HPWPs in small firms supports Goss et al.'s (1994) finding that IiP accreditation can help small firms to increase their uptake of HPWPs. It also suggests that IiP accreditation may well offer them a comprehensive and formal management framework compared to the relatively loosely organised information normally provided by various employers' associations and business advisory networks.

In contrast to the findings in relation to external factors, the use of HPWPs in small firms was more likely to be influenced by several internal factors. The positive association between union recognition and the uptake of HPWPs in small firms suggests that encouraging unionisation in the small firm sector could also enhance the uptake of HPWPs. Given the threshold for statutory union recognition in the Employment Relations Act 1999 is small firms employing at least 21 workers, it would be advisable for government to extend the threshold if it wished to increase the use of HPWPs (Ewing and Hock, 2003).

There is also a positive association between stand-alone workplaces and a greater use of HPWPs in small firms, suggesting that small firms with multiple workplaces do not encounter significant principal-agent problems as frequent face-to-face communication in small firm workplaces tends to make the use of HPWPs redundant.

That said, no evidence suggests that small firms with HR specialist in place had a greater use of HPWPs compared to those firms with no HR expert in place. This seems to imply that, although HR specialists have the knowledge, skills and experience related to effective employment relations management, HR specialists in small firms may find the scope for them to implement effective HR practices such as HPWPs is very limited given resource poverty. There is also no evidence that family-owned small firms tended to use fewer HPWPs compared to small firms that are not family-owned. This finding contradicts much of the small firm literature. One possible interpretation of the lack of a family-ownership effect is that resource poverty simply prevents small firms from adopting more HPWPs regardless of ownership.

Medium-sized firms

In contrast to the findings that no external factors were associated with the use of HPWPs in small firms, in medium-sized firms several external factors were associated with the uptake of HPWPs.

First, a high degree of market competition is associated with a lower use of HPWPs, suggesting market uncertainty may increase the risk of medium-sized firms investing in HPWPs.

Second, there is a relationship between participation in one business network and the uptake of HPWPs, suggesting that medium-sized firms may be more capable at adapting to the advice that may be offered compared to small firms. In part, this may occur because they have more resources to devote to HR issues, they may have higher levels of management capability, or they may be more receptive to advice because they face more complex HR challenges than small firms. Alternatively, this appears to suggest the advice provided through these networks

needs to take into account the possibility that firms in these two size categories require very different advice and guidance.

Third, there is also a positive relationship between IiP accreditation and the uptake of HPWPs, suggesting that medium-sized firms act upon the information and advice gained through the preparation for IiP accreditation. This also suggests that medium-sized firms may have specific HRM concerns and they are keen to search for solutions and take action quickly to address these concerns.

However, none of the internal factors demonstrated significant associations with the uptake of HPWPs in medium-sized firms, suggesting that the extent of the uptake of HPWPs in medium-sized firms is more likely to be influenced by external factors than internal ones and thus medium-sized firms tended to adopt HPWPs mainly in response to external pressures and advice.

Large firms

Similar to the findings in small firms, there were both external and internal factors that were associated with the uptake of HPWPs in large firms, though some of these factors are different from those in small firms.

There was a relationship between IiP recognition and the uptake of HPWPs in large firms, suggesting that obtaining IiP accreditation encourages large firms to introduce more HPWPs, or alternatively, large firms that have a greater use of HPWPs are more likely to be accredited as IiP.

There was also a relationship between participating in two or more business networks and the uptake of HPWPs in large firms. Such a result appears to be fairly similar to the one reported in small firms, though the association between multi-membership and the uptake of HPWPs in small firms is only marginally significant. However, compared to small (4.1 per cent) and medium-sized firms (5 per cent), more large firms (13.6 per cent) tended to participate in more

than two of the different business networks asked about. Therefore, large firms seem to be more willing to adopt certain HPWPs after reflecting on the information/advice collected from multiple sources, probably because they can afford to act appropriately on the information/advice they received and have the managerial capability to do so.

Turning to internal factors, it is noteworthy that very large firms with 50,000 employees tended to adopt more HPWPs than other large firms. This finding lends support to the earlier conjecture developed in Chapter 3 that these very large firms require more HPWPs to coordinate a much more complex HRM system which possibly involves developing sophisticated HR policies to cope with managing larger business divisions and workplaces (Chang et al., 2009; Parry et al., 2008).

There is also a relationship between family ownership and HPWPs, suggesting that large firms that are not family-owned were more likely to adopt more HPWPs than large family-owned firms. Although family ownership is more a feature of the literature on small and medium-sized firms (Ram et al., 2007), the results suggest this affects HPWPs only in large firms. One possible interpretation is that non-family-owned large firms can route the available resources to various requirements such as strategic development in HR resources agreed at the board level, while in family-owned large firms family members tend to dominate decision-making particularly at senior levels and thus resources may be allocated to the fields/business units that best serve the interest of the owner(s) rather than issues that can strategically affect corporate development.

As expected, and similar to the finding in small firms, union recognition was associated with HPWPs in large firms, suggesting that unions exert pressure on large firms to introduce more HPWPs (Jackson et al., 1989).

In all, the results from the assessment of the factors associated with the use of HPWPs across different firm sectors again highlight that medium-sized firms are distinct from small and large firms. While the uptake of HPWPs in small and large firms appeared to be associated with both

external and internal factors, the use of HPWPs in medium-sized firms was mainly associated with external factors. The strong relationship between external factors and the use of HPWPs would imply that medium-sized firms are particularly sensitive to aspects of their external environment.

6.3 The difference in the HPWP–performance link between small and medium-sized firms

The debates on the HPWP–performance link reviewed in Chapter 2 suggest that, although individual HPWPs are able to improve performance (Pfeffer, 1994), a much stronger association should be expected between HPWP bundles and performance (MacDuffie, 1995), and an extensive use of these practices as a complex HRM system will generate even greater effects on firm performance (Bowen and Ostroff, 2004; Huselid, 1995).

The review of the debate on HRM in SMEs nonetheless indicates that it is unlikely for small or medium-sized firms to follow a systematic approach towards HPWPs (Sisson, 1993) and the use of specific HPWP(s) are generally not associated with high performance in either small (Storey, 2004) or medium-sized firms (Storey, 2002). However, other studies report that the use of HPWPs increased in small and medium-sized firms (Bacon et al., 1996; Forth et al., 2006) and some studies also report HPWPs are associated with some aspects of performance in small firms (Faem et al., 2005; Sels et al., 2006; Way, 2002). Hence, these studies suggest that the HPWP–performance link is indeed universal.

To test this, Chapter 5 explored the HPWP–performance link from a range of perspectives and the findings contradict some of the extant literature. These findings are discussed below.

Small firms

In small firms, little evidence was found of an association between individual HPWPs and performance. Only 2 out of the 18 HPWPs were positively associated with performance: an

internal labour market was associated with higher labour productivity and induction was linked to better quality of product or service. This would seem to suggest that small firms rarely benefit from using a single HPWP. Such a finding contradicts de Grip and Sieben's (2005) study reporting that training improved labour productivity in small firms and lends support to other studies that report the use of specific HPWPs such as training do not lead to improved performance in small firms (Storey and Westhead, 1997; Storey, 2004). Hence, it would appear that investing in HPWPs could be costly in small firms compared to large firms where economies of scale spread the cost across a large workforce.

However, findings in Chapter 5 also show that a specific bundle of HPWPs that seek to develop opportunities for employees to participate in work and develop their skills and abilities at work is associated with enhanced financial performance in small firms, suggesting that consistent HPWPs aiming to provide employees with the opportunities to perform are likely to provide small firms with the leverage to outperform other firms. Moreover, given that none of the HPWPs constituting the opportunity bundle are individually related to financial performance, the co-existence of these practices appears to create a reinforcing effect and eventually results in a significant improvement in economic returns. In addition, the test of 'internal fit' suggests that small firms also tend to benefit more from adopting different bundles of HPWPs (i.e. the AMOC framework) than using individual HPWPs. It appears synergy may occur between these bundles, though internal fit was not related to the distal performance measure of financial performance. A possible explanation could be that small firms are more likely to have specific HRM concerns and so using a set of closely defined HPWPs helps to focus on those concerns; however, the cost of investing in such HPWPs may outweigh the benefits these practices could generate and thus fail to result in improved financial performance in small firms (Way, 2002).

In contrast to Sels et al. (2006) who found that HPWP intensity leads to an overall increase in financial performance in small firms, the findings reported here show only a mild relationship between the overall use of HPWPs and financial performance in small firms. Although higher labour productivity has been reported in small firms with strong HRM systems, the relationship

between HPWP intensity and financial performance, as well as quality of product or service, is weak. This appears to suggest, although the use of HPWPs is associated with certain aspects of performance in small firms, the lack of economies of scale would make it costly for small firms to adopt such practices and thus reduce the chance of achieving higher economic returns.

Medium-sized firms

Aside from a few HPWPs consistently associated with poor performance on several performance measures and a few other HPWPs that are simultaneously associated with both improved performance and poor performance on different measures, there are only two HPWPs that are associated only with improved performance in medium-sized firms. Hence, the relationship between individual HPWPs and performance is weak in medium-sized firms as well as in small firms.

Similar to the findings in small firms, where HPWP bundles are concerned, reinforcing effects between closely-defined HPWPs are also reported in medium-sized firms. Most of the associations however suggest HPWP bundles would result in poor performance. Apart from the lower absence rate reported in medium-sized firms using the motivation bundle, all the other associations nevertheless indicate that using a set of HPWPs seeking to motivate the workforce by appraising performance, paying them according to appraisal outcomes and offering opportunities for promotions, appear to result in lower labour productivity. One possible interpretation could be that these practices do not overcome HRM problems in medium-sized firms, probably problems in co-ordination and control (Baron et al., 2007; Greiner, 1972), and therefore may not increase employee motivation.

In stark contrast to the finding in small and large firms, there was no relationship between HPWP intensity and performance in medium-sized firms. Such a finding is not beyond expectation as the negative associations established by a few HPWPs may well cancel out the positive effect generated by a few other HPWPs in medium-sized firms. There are two possible explanations. One is that medium-sized firms are less likely to have economies of scale compared to large firms and this makes it costly for medium-sized firms to use HPWPs. The

larger workforce in medium-sized firms compared to small firms nonetheless suggests that more HPWPs are required to deal with HRM problems such as co-ordination and control and thereby prompt such firms to move toward a bureaucratic logic (Baron et al., 2007:60). Hence, medium-sized firms would appear to be stuck in the middle: more HPWPs are required compared to small firms but they involve high costs compared to large firms, and thereby no significant improvement in performance appears as a result in medium-sized firms.

That said, it could also be the case that medium-sized firms may adopt HPWPs under external pressure and the requirement to demonstrate professional management practices in order to attract additional funding from external financers. Adopting HPWPs mainly as a result of external pressure may distract managers from addressing internal HR problems and lead to no significant impact on performance in medium-sized firms.

Large firms

Although more HPWPs (6 out of 18) were positively associated with different performance measures in large firms, the incidence of the individual HPWPs associated with improved performance remains low, suggesting that the HPWP–performance link in large firms is not universal where individual HPWPs are considered in isolation.

Evidence suggests that large firms barely benefit from the use of the various HPWP bundles either, indicating that adopting closely combined HPWPs to target specific HRM concerns does not contribute to performance in large firms.

However, significantly higher levels of performance were found in large firms with a strong HRM system. This clearly demonstrates that a strong HRM system is more likely to have a greater impact on performance (Bowen and Onsoff, 2004) in large firms than either individual HPWPs used in isolation or in various combinations. Hence, the results seem to suggest that, compared to small firms, large firms tend to adopt different HPWPs across various HRM issues in order to build a sophisticated HRM system to facilitate the operation of an

organisation with a much more complex structure compared to small and medium-sized firms. It is therefore the overall HRM system that matters in large firms.

To summarize, the findings in relation to the assessment of the HPWP–performance link suggest the overall use of HPWPs is strongly associated with performance in large firms; in small firms, a specific bundle of HPWPs that seeks to enhance the opportunity for employees to participate in management decision-making is associated with improved financial performance. In contrast, neither the overall use of HPWPs nor any specific bundle of HPWPs within the AMOC framework is associated with performance in medium-sized firms. In medium-sized firms, some HPWPs are associated with better performance, some are associated with poor performance and a few others are simultaneously associated with both improved and poor performance.

Overall, the findings in relation to the HPWP–performance link in small, medium and large firms suggest that using HPWPs, no matter how these practices are combined, does not necessarily lead to higher performance. Hence the HPWP–performance link is not universal.

The results in this chapter also suggest that studies of the HPWP–performance link in small and medium-sized firms should assess the use of HPWPs from a range of perspectives (i.e. individual HPWPs, several closely defined HPWPs used in combination/HPWP bundles and HPWP intensity), given that the manner of using such practices varies greatly between these firms as demonstrated in Chapter 3 and thus the pattern of such links could well differ between these firms.

Inevitably, the analysis in this thesis is subject to the caveats common to cross-sectional analyses of this nature, and the results here cannot be interpreted as causal. By way of example, the findings in Chapter 3 that financial performance is higher in situations where small firms have used the opportunity bundle does not establish that the opportunity bundle itself has caused high performance, or whether small firms with higher financial performance have taken

the opportunity to invest in this specific HPWP bundle. To ascertain causality, longitudinal data is ideally required.

Interpreting the results should also take into consideration the potential for common-method variance, as the same respondent provided data for both the dependent and the independent variables. In the case of the HPWP–performance link debate, common methods bias is likely to be associated with the phenomenon that respondents who claim to have a greater use of HPWPs are likely to rate performance more highly. However, HPWP bundles are largely associated with poor performance in medium-sized firms and the greater use of HPWPs (i.e. HPWP intensity) is not associated with improved performance. This could indicate that the positive associations between HPWP intensity and higher performance (i.e. higher labour productivity, better quality of product or service and enhanced financial performance) in small firms may be more the result of genuine performance effects rather than common method variance.

6.4 Analytically splitting small and medium-sized firms as two distinct groups

The findings in this thesis suggest that the nature of HRM in small firms is different from that in medium-sized firms, and the conventional approach of combining these firms into a single unit of analysis obscures important differences in the relationship between HPWPs and performance in small and medium-sized firms. For example, no evidence was found to suggest that off-the-job training is linked to better performance in small firms (see Chapter 5) in line with Storey (2004); encouraging small firms to invest in more training as a way to improve their performance could therefore be misguided. Nevertheless, in medium-sized firms off-the-job training is significantly associated with lower labour turnover, high labour productivity and better quality of product or service (see Chapter 5). Such contrasting results are instructive, as dividing small and medium-sized firms into two distinct groups provides a better

understanding of the impact of training on firm performance – it matters in medium-sized firms but not in small firms.

Analytically splitting small and medium-sized firms into two distinct groups also provides a good opportunity to appreciate why the HPWP–performance link varies between small, medium and large firms. The evidence presented here suggests that medium-sized firms are likely to have particular characteristics that differentiate them from both small and large firms, and additionally, a distinct pattern of HPWP–performance link in medium-sized firms has been identified. Looking at this link in medium-sized firms specifically, this thesis has demonstrated that some HPWPs were consistently and positively associated with performance, some were consistently but negatively associated with performance and some others were simultaneously associated with both better performance and poor performance. However, there is no similar evidence of such variation in the impact of different HPWPs in either small or large firms. It is clear, therefore, that analysing small and medium-sized firms separately will help in the systematic study of the relationship between HPWPs and performance in small, medium and large firms independently. Analysing small and medium-sized firms separately also provides insights into the different factors associated with the uptake of HPWPs.

The finding that there is a distinct relationship between HPWPs and performance in medium-sized firms compared to small and large firms suggests this issue would certainly prove a fruitful avenue for future research. In particular, it may be worth exploring in greater depth those HPWPs negatively associated with performance in medium-sized firms. Further analysis using WERS 2004 or case studies that focus on medium-sized firms in the future could generate new findings with regard to the nature of HRM in medium-sized firms. Such analyses, therefore, would assist researchers in both academic and government policy circles in understanding not only the differential impact of HPWPs on performance that appears to occur between small and medium-sized firms, but also to understand why using specific HPWPs could harm performance in medium-sized firms and thereby enabling analysis and policy in the future to be tailored more appropriately to the specific sector.

The findings in this thesis have relevance beyond Britain. Looking at the official websites where different countries' governments publish their national business strategies and policies, for example, Japan, Australia, the United States, Canada, China and the EU, small and medium-sized firms are routinely categorized into one single sector and are unanimously targeted by the same policy or government-sponsored initiatives. As stated in this thesis, such a combination may confound government attempts to improve performance in the SME sector. The results presented in this thesis suggest that any country that has policies specifically targeting the SME sector should be somewhat cautious with regard to the difference in the potential impact of practices such as HPWPs on performance between small and medium-sized firms.

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Appendix 1 Variable means

	Small firms	Medium firms	Large firms
HPWPs			
HPWP intensity	3.575	4.922	6.625
Sophisticated recruitment	.283	.296	.469
Induction	.356	.453	.604
Off-the-job training	.250	.510	.528
Internal labour market	.137	.314	.265
Performance-related pay	.214	.190	.394
Profit-related pay	.097	.206	.167
Performance appraisal	.474	.573	.759
Teamwork	.233	.278	.290
Team briefing	.211	.297	.247
Consulting committee	.041	.106	.121
Employee attitude survey	.172	.222	.552
Quality circle	.166	.071	.221
Functional flexibility	.201	.152	.251
Benefits	.171	.373	.622
Flexible working/family-friendly	.179	.235	.234
Equal opportunity	.096	.249	.247
Grievance procedures	.169	.332	.539
Job security	.126	.065	.114
HPWP bundles			
Ability bundle	.243	.375	.546
Motivation bundle	.223	.422	.504
Opportunity bundle	.082	.149	.246
Commitment bundle	.052	.139	.259
Performance measures			
Absenteeism	3.039	2.670	2.725
Labour turnover	2.522	2.642	2.184
Labour productivity	3.644	3.661	3.431
Quality of product or service	4.189	4.061	3.935
Financial performance	3.430	3.695	3.602
Industry sectors			
Manufacture	.199	.123	.063
Non-manufacture	.801	.877	.937
Degree of market competition	.674	.760	.749
Investors in People	.116	.269	.500

(Continued)

	Small firms	Medium firms	Large firms
No largest customer	.011	.059	.044
Largest customer <5%	.365	.412	.510
Largest customer ≥5-25%	.302	.266	.185
Largest customer ≥26%	.323	.263	.261
Not a member of any employers' network	.482	.529	.405
Member of 1 employers' network	.388	.259	.374
Member of 2 employers' network	.130	.212	.221
Firm size[1]			
5-9 employees	.523	.454	.408
10-24 employees	.390	.161	.290
25-49 employees	.087	.123	.139
50-99 employees	.000	.372	.000
100-149 employees	.000	.343	.000
150-249 employees	.000	.285	.000
250-1,999 employees	.000	.000	.345
2,000-9,999 employees	.000	.000	.292
10,000-49,999 employees	.000	.000	.216
50,000 employees	.000	.000	.147
Firm age			
0-4 years	.126	.071	.088
5-9 years	.181	.168	.156
10-19 years	.271	.202	.236
20+ years	.422	.558	.520
Family ownership			
Not family owned	.370	.488	.797
Family owned/owner not involved	.072	.230	.119
Family owned/owner involved	.558	.282	.084
Single independent workplace	.842	.177	.005
Union recognition	.034	.057	.327
HR specialist	.103	.153	.335

Note:
[1] The size categorisation for small firms (i.e. fewer than 50 employees) is based on workplace size. See justification for such a use in Chapter 3 (footnote 10 on page 62).