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Abstract

This paper examines the relationship between organization contextual variables and human resource management (HRM) practices in small firms. The proposed model is based on an integration of theoretical perspectives, including the resource-based approach, institutional theory, transaction cost economics (TCE), and concepts from strategic management. The model is explored empirically, with qualitative and quantitative analyses of data collected from a sample of sixteen small Dutch firms. Specific contextual variables examined include company size, the presence of a collective labor agreement, having a large firm associate, either as supplier, purchasing group or franchiser, and the company's strategic orientation toward growth (growth strategy). An important finding is the significance of having a large firm associate. Companies with a large firm associate are more likely to report having employer-based training programs. As predicted, company size is associated with more formal HRM practices, including greater regularity of performance appraisal and greater likelihood of employer-based training. A weak relationship is found between a more growth-oriented strategy and greater formality of these two HRM practices. Predictions based on collective labor agreements are not supported. The paper concludes that the findings warrant further research on the relationship between organization contextual variables and the formalization of HRM practices, although a clearer definition of the latter variable is needed in future research.

Keywords: firm behavior, labor relations, personnel management, small and medium-sized enterprises.

JEL classification: D21, D23, J50, L20,M12

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1 INTRODUCTION

Research on HRM practices in small and medium-sized businesses has captured increased attention in recent years. The basic assumptions frequently assume homogeneity among smaller firms, e.g., they are informally organized, with correspondingly informal HRM practices. A growing base of research evidence, however, shows that there are many exceptions to this pattern. Apart from firm size, other relevant contextual factors may influence HRM practices as well.

The purpose of this paper is to derive and test a model that predicts human resource management (HRM) practices of small and medium-sized firms based on certain aspects of their organizational context. The model is descriptive in nature in the sense that it aims to predict how small companies actually behave, not necessarily how they ought to approach the HRM issue. It is also descriptive in the sense that it is a preliminary model drawn on a limited number of data points and intended only as a guide to future research.

As defined by Daft (1998), organization contextual variables include company size, strategy, technology, culture and the environment (especially other organizations or institutions). These variables have been identified as possible predictors of HRM practices in several studies (Arthur and Hendry, 1990; Buller, 1988; Jackson et al., 1989; Schuler et al., 1989). In the first part of the paper, elements of various theoretical perspectives, including the resource-based approach, institutional theory, transaction cost economics (TCE), behavioral theory and other concepts from strategic management, are used to develop the rationale for proposed linkages. In the second part of the paper, we present qualitative and quantitative results of a pilot study of HRM practices in a sample of sixteen small Dutch firms intended as a preliminary test of the model. The paper concludes with recommended directions for further research.

2 THE IMPORTANCE OF HRM PRACTICES IN ORGANIZATIONS

HRM has been defined as the “process of attracting, developing, and maintaining a talented and energetic workforce to support organizational mission, objectives, and strategies” (Schermerhorn, 2001: p.240). Audretsch and Thurik (2000,2001) argue that effective HRM practices are becoming increasingly important in the new "knowledge-based" economy, as companies face the double challenge of the need for more highly trained employees coupled with a shortage of qualified labor. These challenges, coupled with the third trend toward smaller firms in general, reinforce the need for effective HRM practices in the small firm (Audretsch and Thurik, 2000, 2001).

Research on HRM practices dates back to the early decades of the twentieth century (Scott, 1915). Between mid-century and the late 1970's, HRM research primarily focused on the development of valid and fair HRM practices in large organizations. These studies examine the relationship between various HRM practices and individual performance (Asher, 1972; Campbell et al., 1970; Ghiselli, 1966; Guion, 1965) and the sources of discrimination bias in hiring and promotion (Cann et al., 1981; Tenbrunsel et al., 1996). More recent research examines the impact of more formal HRM practices on organization-level performance measures (Guest, 1997; Huselid, 1995; Huselid et al., 1997; Ichniowski et al., 1997; Koch and McGrath, 1996; MacDuffie, 1995). This line of research has led some researchers to propose a normative model of HRM practices, referred to as the "best practices" or "high commitment" theory of HRM. This model suggests that universally, certain HRM practices, either separately or in combination are associated with improved organizational performance (MacDuffie, 1995). According to the high-commitment model, for instance, well-paid, well-motivated workers, in an atmosphere of mutuality and trust, generate higher productivity gains and lower unit costs (Boxall, 1996; Lowe and Oliver, 1991; Pfeffer, 1994; Walton, 1991). The validation of HRM practices with respect to individual and organization performance reinforces their importance as an area of study.

3 Formalization of HRM practices

The "sophistication" and/or " formalisation" of HRM practices, the dependent variable in the present paper, has been studied by a number of scholars (Aldrich and Langton, 1997; Arthur and Hendry, 1990; Bacon et al., 1996; Curran et al., 1993; Deshpande and Golhar, 1994; Duberley and Walley, 1995; Hendry et al., 1991; Hornsby and Kuratko, 1990; Jackson et al., 1989; Koch and McGrath, 1996; Marlow and Patton, 1993).

In spite of its extensive use, there appears to be no universally accepted definition of formalization (or sophistication). In the context of HRM practices, formalization has been variously referred to as: 1) the extent to which a rule or procedure is written down (e.g., as in written job descriptions); 2) the degree to which a procedure is regularly applied within the organization (e.g., as in the regularity of performance appraisals); and/or 3) the degree to which the employer (vs. the employee) has assured that an activity should take place (e.g., as in employer sponsored training programs). Further, the level of "sophistication" of HRM practices has also been used to refer to the extent to which the HRM practices conform to legal requirements (e.g., equal employment opportunity), comply with professional standards (e.g., the Society for Human Resource Management in the United States), and/or are properly validated against some performance criteria (e.g., validated selection tests).

The debate over the proper meaning of formalization as applied to organizational practices in general is a theme dating back at least forty years (see for instance Hickson, 1966). It is beyond the scope of this paper to resolve this definitional problem for HRM practices. However, in our view, formalization is probably not a homogeneous concept and thus should not be treated as a single variable but as a cluster of variables. Therefore, in our pilot study, we sample from the different meanings of formalization (i.e., being written, regularly applied, or developed by the employer) but do not combine the measures à priori into one measure of “sophistication” or “formalization.”

4 ORGANIZATION CONTEXTUAL VARIABLES AND HRM

The main goal of the present paper is to create a better understanding of the role of organization contextual variables in predicting the variation of HRM practices among small firms.

We build our rationale from a blend of theoretical approaches. The resource-based view is used to highlight the importance of the environment in building up human resource capabilities. Institutional theory provides a different perspective on the role of the environment in shaping expectations about management practices within the small firm. Transaction cost economics (TCE) is especially helpful in understanding how certain players from the environment (other private organizations in particular) may serve to mediate the disadvantages of size and scale effects in the small firm. Finally, the behavioral perspective and other research from the strategic management literature focuses on the role strategy may play in shaping HRM practices.

4.1 Small business and HRM practices

Entrepreneurship research supports the general finding that small organizations are more likely to operate in an informal and flexible manner than are larger firms (Chaston, 1997; Crick and Chaudry, 1997; Gibb, 1997; Hendrickson and Psarouthakis, 1998; Lee, 1995; Marlow and Patton, 1993; Pfeffer, 1994; Storey, 1994; Whittington, 1993).

These patterns of informality tend to repeat themselves in HRM practices. For instance, Koch and McGrath (1996) find that, in general, company size is positively related with the incidence of HRM planning and formal training, and with the level of overall HRM sophistication. Westhead and Storey (1997, 1999) find that both managers and employees are less likely to get formal training in a small firm. In a study by Jackson et al. (1989), smaller companies (defined as having fewer than 250 employees) are found to have less formalized performance appraisals, less likelihood of bonuses based on company productivity and less training than do larger companies (those with more than 1000 employees). Aldrich and Langton (1997) find that larger companies have more formalized recruitment practices.

In attempts to explain these HRM patterns, some scholars argue that an informal approach is more suited to the small firm. For instance, Hill and Stewart (1999) suggest that smaller firms should be more flexible and informal to be able to cope with the higher levels of environmental uncertainty. By contrast, others argue that it is lack of foresight and/or resources that leads to less use of formal HRM practices in small businesses. For instance, Hendry et al. (1991) conclude that owners of small companies view any training beyond the level necessary to perform their immediate jobs as a luxury to be provided only when the firm is making large profits.

In addition to being characterized as informal, small firms are often held to be less specialized than larger firms (Bacon et al., 1996; Jackson et al., 1989; Wagner, 1997). Employees in smaller firms often have to perform a greater variety of tasks than do employees in larger firms. Specialists are also less likely to be found in the smaller firm. Heneman and Berkley (1999) confirm this trend within the HRM function. In a random sample of 117 companies with less than 100 employees, they find that only 15 have a HRM department. Nevertheless, in that same study, the use of a HRM manager is associated with significantly higher retention rates.

In spite of the above-mentioned studies, growing evidence, largely derived from case studies and small pilot studies, suggests that HRM practices can be more sophisticated or formal than expected in the typical small firm (Arthur and Hendry, 1990; Bacon et al., 1996; Curran et al., 1993; Deshpande and Golhar, 1994; Duberley and Walley, 1995; Hendry et al., 1991; Hornsby and Kuratko, 1990; Marlow and Patton, 1993). For example, Deshpande and Golhar (1994) find HRM practices within many small manufacturing firms (defined in their study to have less than 250 employees) to be as sophisticated as those in larger companies. Similarly, Hornsby and Kuratko (1990) find that while firms of all sizes use primarily informal recruitment and selection techniques (mainly employee referrals and the interview), that even among small firms, HRM practices are often more sophisticated than they had expected. Using a small set of cases, Hill and Stewart (1999) also demonstrate variation in level of sophistication of HRM practices among smaller organizations.

In summary, although company size appears to be a strong factor in predicting HRM practices, it is clearly not the only factor, given the wide variation in the formalization of HRM practices found among smaller firms.

4.2 The resource-based view and HRM practices

According to resource-based theory, the long term competitiveness of a company depends upon the resources that differentiate it from its competitors, that are durable and are difficult to imitate and substitute (Hansen and Wernerfelt, 1989; Penrose, 1959; Mahoney and Pandian, 1992; Barney, 1991; Prahalad and Hamel, 1990; Rangone, 1999).

Penrose (1959) recognizes the special importance of human resources, noting that key resource constraints include a shortage of labor. New managerial recruits increase the growth potential of the firm. However training and integration require time and effort of existing managers. Consequently, the degree of availability of management talent is both the “accelerator and the brake" for the growth process (Penrose, 1959; Starbuck, 1965; Mahoney and Pandian, 1992).

Some authors assert that the source of sustained competitive advantage lies in the human resources themselves, and not the practices used to attract, utilize or retain them (Ferligoj et al., 1997; Wright et al., 1994). By contrast, other scholars argue that HRM practices themselves can be viewed as organizational competencies, such as the ability to motivate employees, handle internal politics and so forth (Barney, 1991; Narasimha, 2000; Oinas and Van Gils, 2001; Paauwe, 1998). For example, Narasimha (2000) suggests that HRM be viewed as an integral part of corporate strategy. In this view, selection, training, appraisal and rewards can contribute to the knowledge stock of a company. Using either interpretation, human resources are viewed as important contributors to the success of the firm.

Finally, within the resource-based approach, authors attempt to identify the contextual resources that can build up human resource competencies. These include elements in the external environment, such as other corporations, networks, industries, sectors, regions and nations (Oinas and Van Gils, 2001).

4.3 Institutional theory and HRM practices

Institutional theorists view organizations as entities that gain legitimacy and stakeholder acceptance by conforming to these stakeholders' expectations for behavior (Huselid et al., 1997; Paauwe, 1998). Examples of stakeholders are professional organizations and certifying bodies (Baron et al., 1988; Tolbert and Zucker, 1983). Government institutions in many industrialized nations frequently play a key role in defining expectations in HRM practices, such as recruiting, selection, performance measurement, training, and the administration of compensation and benefits (Paauwe, 1998). For example, in the Netherlands approximately 800 collective labor agreements (CLAs) (200 of which apply to sectors, the remaining 600 to specific companies) frequently contain requirements for more formal HRM practices. These agreements apply to about 85% of the Dutch working population (Rojer and Pulleman, 2000).

Institutional theorists posit that the need to conform to the requirements or expectations of these outside groups may help to explain some of the variation in HRM practices (Jackson et al., 1989). For example, in a study of US firms, Jackson et al. (1989) find unionization linked with more formal performance appraisal, higher compensation, more training for new hires, and a greater likelihood of bonuses given for company wide productivity.

4.4 Transaction cost economics and HRM practices

Reviewing the discussion thus far, we might conclude that although most small firms use informal HRM practices, this is not necessarily the most effective approach. Researchers from the "high commitment" approach find some support for the relationship between more formal or sophisticated HRM practices and improved organizational performance even among small firms, as we have seen. Furthermore, the resource-based approach suggests that companies with better-developed human resources have the potential for a distinctive competitive advantage. The resource-based approach does not, however, explain why some companies develop better resources than do others. Moreover, the institutional approach does not explain why some small companies are better at complying with the same stakeholder expectations.

Some have argued that TCE can be of help in gaining a better understanding of differences among small firms. Zacharakis (1997) uses TCE to explain entrepreneurial entry into foreign markets. Although not related to HRM practices per se, the study demonstrates that utilizing a partner with some knowledge of the target market can help leverage the entrepreneur's resources (with an export agent, licensing, joint ventures, etc.), thus lowering their transaction costs.

Using the TCE perspective, Nooteboom discusses the special case of the small firm in detail (Nooteboom, 1993). He explains that small firms are often at a disadvantage relative to large firms with respect to costs, due to smaller volume produced (scale) and fewer products (scope). They may also be characterized by less experience and more limited capacity for the acquisition of knowledge (Nooteboom, 1993). As Nooteboom points out, whereas TCE generally focuses on the make-or-buy decision among large firms, for small firms, neither choice may be valid. The small company may have neither the resources to develop needed programs in-house nor the resources to search, evaluate and negotiate for quality programs from the outside. Nooteboom concludes that small companies often lack more sophisticated programs because they lack the resources to implement them, not because such programs are less appropriate to the small firm.

Nooteboom suggests that there may be strategies to lower transaction costs for small firms, either through their own initiatives, such as collective cooperation among a group of small firms (e.g. for technology development or a buying group) or with outside help. For instance, technology transfer programs sponsored by the government or other institutions may provide a way to lower the "thresholds in transaction costs" so that adoption can take place (Nooteboom, 1993: p. 294). Research by Goss et al. (1994) provides a good practical demonstration of this point. They examine a group of companies wishing to receive the national designation of Investor in People from the British government. Goss et al. (1994) provide case support for the ability of small companies to learn to copy HRM practices. In particular, they report that participating companies are often successful at adopting more sophisticated practices after being given the proper structure or blueprint for more formal HRM systems. Using Nooteboom's logic, one could argue that by absorbing the search and development costs for HRM, this program reduces the transaction costs for those companies adapting these techniques.

The application of TCE within entrepreneurship research is still in its early stages and does not always obtain clear predictive support. For instance, Klaas et al. (2000) find a lack of support for TCE predictions regarding outsourcing of the HRM function in smaller firms. Nevertheless, TCE may provide an added theoretical basis for certain predictions involving HRM practices within smaller firms.

In sum, the rationale drawn from TCE is that the lack of formal HRM practices in smaller firms is not due to size per se, but can be attributed to the generally higher costs required to develop specific programs that fit the needs of the smaller firm. However, as Goss et al. (1994) and Zacharakis (1997) demonstrate, government assistance and/or private-sector partnerships may serve to lower a small company's transaction costs for introducing new HRM practices. This may explain some of the differences in the formalisation or sophistication of HRM practices among similarly-sized firms.

4.5 The Behavioral perspective: contingency models of strategy and HRM practice

Within the context of HRM research, Naylor et al. (1980) define the behavioral perspective as the use of personnel practices as tools for shaping patterns of behavior that help to achieve organizational goals and objectives. Building on this perspective, Schuler and Jackson (1987) test the notion that each of Porter's three generic strategies (Porter, 1985) fits a certain constellation of HRM practices. They posit that those businesses that select HRM policy and practices appropriate to particular generic strategies will also experience higher work performance. Thus, they posit that companies pursuing a quality strategy should have explicit job descriptions and high employee participation. Those with a cost minimization strategy should use tight narrow policies and those pursuing an innovation strategy should reward longer term goals and broad career paths. In a review of this research, Barney and Hesterley (1996) note that empirical support of the hypotheses laid out by the behavioral perspective is relatively weak.

Nevertheless, the argument of fitting strategy and HRM practices is compelling. Rather than look at generic strategies and HRM practices, a different group of researchers posit a link between growth-oriented strategies and greater emphasis on HRM development. For instance, Lengnick-Hall and Lengnick-Hall (1988) posit a reciprocal interdependence between a firm's business strategy and its HRM strategy. In their model, demand for skilled employees may be dictated by competitive strategy. In turn, organizational readiness (the availability of necessary human resources) may affect competitive strategy. They argue further that high corporate growth expectations coupled with organizational readiness can lead to expansion. On the other hand, low human resource readiness and low growth expectations may lead to redirection of strategy to more attainable goals (Lengnick-Hall and Lengnick-Hall, 1988).

There is some empirical support for the proposed linkage between a growth-oriented strategy and HRM strategies to improve human resource readiness. For instance, Thakur (1999) concludes in a case-based research study of several Indian establishments that companies with a goal of new venture growth tend to have more professional HRM practices. Matthews and Scott (1995) find in a study of 130 small firms that entrepreneurial firms (i.e., defined as those aimed at higher growth) engage in more sophisticated planning than small firms in general although they find that as the perception of environmental uncertainty increases, strategic and operational planning decrease.

In sum, although it is not clear that the generic strategies as defined by Porter are necessarily linked to different sets of HRM practices, there may well be some correlation between aspects of strategy such as growth orientation and the HRM practices that evolve.

4.6 Combined perspectives

Some researchers have attempted to further the understanding of HRM practices through a combined theoretical approach. For instance, Paauwe (1998) combines elements from the resource-based view, institutional theory and the strategic contingency approach. According to his model, firms are constrained by several factors when developing their HRM policies. These factors are grouped into three categories: factors concerning the nature of the product, market, and the technologies used, factors concerning the organisational configuration and administrative heritage, and social, cultural and legal factors. Within these constraints, the stakeholders of the firm determine the final choice of HRM policies. This choice depends not only on the constraints, but also on the values, expectations and goals of these stakeholders. Together, differences in constraints and expectations can explain the heterogeneity of HRM practices (Paauwe, 1998).

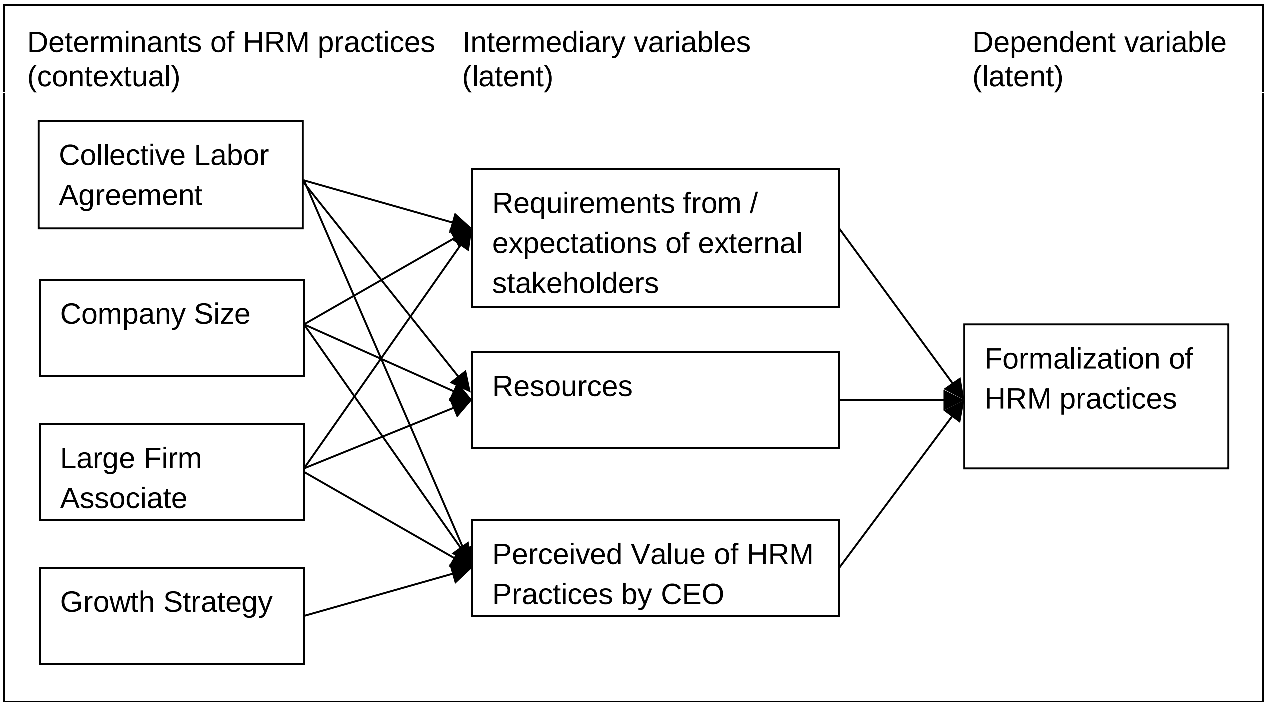
Lepak and Snell also provide an interesting blend of theoretical frameworks to explain the heterogeneity of HRM practices, drawing from transaction cost economics, human capital theory and the resource-based approach (Lepak and Snell, 1999). In their model, HRM practices converge on two dimensions: value and uniqueness of employee skills. Where required firm skills are valuable and unique (specialized to the firm), they suggest that the firm should pursue a strategy of internal development (including training and career development). Where skills are valuable but not unique, the firm may pursue a strategy of acquisition, e.g., hiring a certified public accountant (CPA) to work as the chief financial officer (CFO). On the other hand, where human resources are low in value, either simple outsourcing or an alliance with a partner with more unique resources may be in order.

5 The Proposed Model and Hypotheses

To recapitulate briefly what has been learned thus far, although smaller firms, in general, have less sophisticated and/or less formal HRM practices (variously defined), a substantial amount of unexplained variation still remains across small firms. The objective of this study is to identify possible underlying explanations for this variation. We propose a model that explains the level of formalization of HRM, combining elements from the resource-based approach, transaction cost economics, the institutional approach and the strategic contingency approach.

The proposed model is depicted in figure 1. The model presents a short list of independent contextual variables: in addition to company size, we investigate the impact of the presence of a CLA, access to a larger company supplier or customer closely associated with the company (referred to as "large firm associate" in the model) and the orientation toward growth as a strategy (referred to as "growth strategy"). These four contextual variables together are thought to influence the degree of formalization of HRM practices. The reader should note that the model is not intended as a comprehensive list of all possible organization contextual predictors, but rather as a starting point upon which other research can build.

Figure 1: A model of HRM Practices



The proposed model includes a set of three intermediary "latent" variables. These are variables not directly measured in this research, but provide the underlying rationale for the linkages between the independent and dependent variables. The underlying assumption is that if the small company CEO has the resources, the know-how, and the recognition of the importance of more formal HRM practices, he or she will develop and implement them. The specific hypotheses to be tested that are implied by this model will be discussed in the remainder of this section.

Hypothesis 1

In the Netherlands, CLAs often prescribe the expected approach to be taken in HRM practices. These prescriptions are often are of a more formal nature: e.g. to have written job descriptions, to carry out performance appraisals or develop formal training programs for employees. These CLAs vary by sector, with some being more specific than others. Generally, such documents primarily provide expectations of labor unions and the government. Nevertheless, for some sectors (e.g. metal) actual tools may be provided in the agreement, such as examples of written job descriptions for each of the standard job classifications. In those cases, the development costs for implementing such programs are reduced and the adoption rate is expected to be higher. Further, the Dutch government generally provides neither funding or assistance to execute such agreements, nor sanctions against nonexecution of part or all the agreement unless an employee files a grievance. However the latter is rarely done. Thus, in the proposed model, the CLA requirements are presumed to have an indirect impact on HRM practices primarily by heightening the awareness of such HRM practices by the CEO, and by clarifying the expectations of certain stakeholder groups (organized labor and the government). To the extent that an understanding of such expectations influences the CEO's decisions in implementing various HRM practices, and in accordance with institutional theory predictions, we propose the first hypothesis as follows:

> *HYPOTHESIS 1: Small companies with collective labor agreements are more likely to make use of formalised HRM practices than companies without such agreements.*

Hypothesis 2

Scale effects, based on company size, have been fairly well substantiated in the literature and are also included in the proposed model. The TCE perspective provides one rationale for the impact of size on the development of more formalised practices. Most formalised HRM practices, including training programs, performance appraisal instruments, and written job descriptions, require considerable development costs to be done correctly (Klaas et al., 2000). According to both the resource-based and the TCE perspective, most small firms lack the resources for development costs, in spite of a possible need for specialized programs. With the advantages of scale, larger companies have more resources to cover development costs (Nooteboom, 1993). Company size may also affect the formalization of HRM practices by way of the proposed intermediary variables presented in Figure 1. For instance, larger companies may be held to different legal standards by the government, as in the United States. Given their size, they may also be more likely to have HRM specialists on staff familiar with more professional (and frequently more formal) HRM practices. Larger companies may also have a greater need to systematize their practices to manage a large-scale labor force more efficiently. For all these reasons, we propose Hypothesis 2 as follows:

HYPOTHESIS 2: The larger the company, the more formalized the HRM practices are likely to be.

Hypothesis 3

Using the TCE perspective and resource-based perspective, we posit that a larger firm partner or "associate" can help the small firm to reduce the transaction costs associated with development of more formalized HRM practices (Gales and Blackburn, 1990; Zacharakis, 1997). The rationale for Hypothesis 2 already explains why we would expect larger firms to have more formalized and sophisticated HRM practices. Small companies working with a larger firm may benefit from this knowledge. In particular, smaller companies that work closely with a larger company, either as a supplier, customer, or franchiser, may gain access to relevant HRM programs from the larger firm (e.g. a training module or performance appraisal instrument). This lowers the development costs (and thus the resources required). The large firm associate may also communicate higher expectations to their associated small firms regarding the value of more sophisticated HRM practices (e.g. through ISO9000 standards, etc.). Finally, close contact with a larger firm associate may result in a better understanding by the small firm CEO of some of the benefits of such practices. Thus, Hypothesis 3 is as follows:

HYPOTHESIS 3: Small companies associated with a larger firm (through a supply or customer network or franchise) are likely to have more formalized HRM practices than those companies that lack such an association.

Hypothesis 4

Finally, based upon the behavioral and strategic contingency perspectives and other empirical research (Lengnick-Hall and Lengnick-Hall, 1988; Thakur, 1999), we propose that companies that are more growth-oriented may also be more apt to recognize the perceived value of HRM practices to build a more competent employee base. Thus, these firms are more likely to develop more formalized HRM practices than those without a growth-oriented strategy. The fourth hypothesis is therefore as follows:

HYPOTHESIS 4: Small companies with a growth strategy are likely to have more formalized HRM practices than those small companies without a growth strategy.

6 Methodology

6.1 Sample and data collection techniques

To test the model and hypotheses presented in the previous section, a series of semi-structured interviews were conducted in the summer of 1997 with twenty

Dutch SMEs. Four companies are excluded from analyses—three are subsidiaries of larger firms and one is an outlier with respect to size (125 employees). The remaining companies range in size from 10 to 41 employees, representing four different sectors: metal products and machinery manufacturing (metal), food retail, cleaning services and information and communication technology (ICT). The first three sectors are subject to CLAs.

Given the exploratory nature of the research and the small sample size, it was decided to include companies past the initial start-up phase, which were assumed to have solidified their HRM practices. Thus, only firms five years and older were selected to participate in the pilot study. Table 1 provides a description of the participating companies by sector and size.

Table 1: Sector and company size statistics for the sample

Sector:	Firms	Size (no. of employees [a]) mean	range
Cleaning services	3	14.0	10-18
Metal products and machinery manufacturing [b]	5	17.0	10-25
Information and Communication technology	3	19.0	12-25
Retail (food)	5	22.8	10-41
Total	16	17.6	10-41

a) excluding owners

b) size data missing for one company

The structure of the semi-structured interviews is based on a classification system of HRM practices developed by Fisscher (1988). Within this system, three classes of HRM practices are distinguished: practices pertaining to flow of employees into and out of the organization, control procedures, and development activities (e.g. training and career development). Though this approach provides a rather detailed set of comments, because of the methodology used (i.e., open-ended questions), comparable and codeable data are only available for a limited number of practices: written job descriptions, regularity of performance appraisal and the availability of employer-based training.

Figure 2 summarizes the way in which each of the independent and dependent variables are measured. Two variables are used as indicators for collective labour agreements. The variable CLA contains the scores on a three-point scale that takes account of the heterogeneity of the CLAs, as far as HRM requirements are concerned. The lowest score is reserved for companies without a CLA, the highest score for companies with detailed HRM requirements (metal sector). Alternatively, the sector dummy for metal can be used as an indicator for companies with CLAs that contain detailed HRM requirements. In the case of the metal sector, the CLA specifies extensive requirements, including use of predefined job descriptions (provided within the CLA document), an annual training program and the requirement to give a donation to an organization to promote and develop training courses.

Figure 2: The independent and dependent variables used in the pilot study

Independent Variables:

Company Size: Number of full-time and part-time employees
Collective Labor Agreement (CLA)
- 1=firms without a CLA
- 2=firms with a CLA with limited requirements regarding HRM practices
- 3=firms with a CLA specifying extensive requirements

Metal Sector
- 1=All other sectors
- 2=metal products and machinery manufacturing sector

Large firm associate
- 1=no association with an outside firm
- 2=association with a larger firm, either as supplier or franchisor

Growth strategy
- 1=intention to contract
- 2=intention to remain stable
- 3=intention to grow

Dependent variables:

Written job descriptions
- 1=absence of written job descriptions
- 2=presence of written job descriptions

Regularity of performance appraisal
- 1=never
- 2=seldom
- 3=regularly

Formal (Employer-based) Training Program
- 1=training nor or seldom offered, or offered ad hoc as an initiative by employees

6.2 Data analysis

Both qualitative and quantitative analysis techniques are applied to the data set. In the qualitative analysis, respondent comments are sorted according to the main HRM practices, including HRM planning, recruitment, selection, performance appraisal, compensation and benefits, training and development, and team building. Because these categories are different than those used in the original study (set up by a different team of researchers), data are missing and/or not uniform enough for quantitative comparison for all categories. However, the available case studies provide a preliminary look at some aspects of the model presented in Figure 1.

In spite of the small and nonrandomly drawn sample, in the second part of the analysis quantitative statistical techniques are used to examine the four proposed hypotheses. In cases where both independent and dependent variables are dichotomous variables, Fisher's Exact Test is chosen to test for independence of the two variables. The Fisher's Exact Test is particularly well suited to this dataset because of the very low count in some of the cells of the 2x2 tables. For these analyses, the Phi coefficient is then used to test for the direction of the relationship. For the remaining relationships (i.e. where at least one of the two variables was an ordinal variable with three or more data points) the Pearson Product-Moment Correlation Coefficient is used to measure both the strength and direction of the relationship.

7 Results

7.1 Qualitative analysis

For the qualitative analysis, we discuss five of the sixteen cases examined. A summary of the qualitative results is presented in the appendix. Within the size range of relatively small companies included in the study (between 10 and 50 employees), companies display a large variation in approach to HRM practices. This is consistent with the findings in previously reported studies.

Case 1, a small specialty grocery store, fits the stereotype of the typical small firm. The degree of formalization of HRM practices is limited. The CEO reports that he provides periodic performance feedback, but recruitment remains informal -- within the immediate circle of family and friends. Moreover, training and development is not carried out and team building consists of an annual outing with employees.

By contrast, Case 2, a somewhat larger supermarket, has fairly highly developed HRM practices. Perhaps some of this difference is due to its larger size. The respondent also makes specific reference to the influence of the large firm associate on HRM practices—in this case a large Dutch grocery-purchasing group. The CEO specifically notes that the purchasing group impacts overall HRM planning, as well as the training program. Recruitment is also more formalized, with reliance on a job center, newspaper advertisements and shop posters. The CEO in Case 2 also seems to pay more attention to the CLA that applies to food companies. He reports that job descriptions as well as rewards follow the guidelines of the food retail CLA. Thus, although size is definitely an issue here, the influence of the large firm associate and greater attention paid to the CLA (perhaps as an interaction with size) is also relevant for this case.

Cases 3 and 4, both in the ICT sector, are not covered by a CLA in the Netherlands. Whereas Case 3 reports a larger company business partner, IBM, as its large firm associate, Case 4 reports no large company associations. Again, HRM practices for these two companies, matched for size, are quite different. The influence of the business partner comes through strongly in several aspects of HRM practices found with Case 3, including HRM planning, training programs, and written job descriptions. This firm also reports more formalized approaches to recruitment, using far more channels outside the immediate circle of family, friends, and employees, and the use of a selection test for programmers. Again, given the small company size, these cases appear to demonstrate the relative importance of the large firm associate in explaining company differences. The higher growth orientation of Cases 2 and 3 may also help to explain their more advanced HRM practices relative to the other firms.

Case 5, roughly within the same size range as the other cases, belongs to the metal sector. In spite of a rather strict CLA spelling out a number of requirements for more formal HRM practices, Case 5 tends to have a fairly informal approach to HRM practices. Case 5 aims at somewhat limited growth. It has adopted a few formal HRM practices, including the use of a temporary employment agency for recruitment, using skill level as a criterion when hiring, and performance appraisals when employees perform poorly. Also, it pays attention to some of the CLA requirements (in compensation but not job descriptions). It may be argued that because of a very low turnover rate (less than one employee per year), and a relatively limited growth rate, more formalized HRM practices are not considered particularly important. It is somewhat surprisingly nevertheless, that Case 5 fails to use written job descriptions since examples are provided for all metal job classifications in the metal CLA.

7.2 Quantitative analysis

Table 2 provides a summary of other sample characteristics, in addition to the size and sector data presented previously in Table 1 for the total group of sixteen firms.

Table 2: Other descriptive statistics of the sample

Variable:	Valid observations	Characteristic present	Valid Percent (%)
Large firm associate	16	5	31
Growth strategy	15	5	33
HRM specialist	16	0	0
Regular performance appraisals	13	3	23
Written job descriptions	16	6	38
Formal training program	16	5	31

About a third report the intention to grow with or without a recent growth spurt and one-third report having a link with a “large firm associate”. About two-thirds are covered by a CLA. Although none of the companies have an HRM department or even HRM staff, about a quarter to one-third do report having formal training programs (5 out of 16 companies), written job descriptions (6 out of 16 companies) and/or regular performance appraisals (3 out of 13 companies).

Table 3 presents results of the quantitative tests for the four proposed hypotheses, as well as tests for the interrelationships among the independent and dependent variables.

Table 3: Correlation matrix for dependent and independent variables

Variable:		**1**	**2**	**3**	**4**	**5**	**6**	**7**
Collective Labor Agreement a)	**1**							
Metal sector	**2**	.85						
Size (number of employees)	**3**	-.09	-.13					
Large firm associate	**4**	-.32	-.46 b)	.61**				
Growth strategy	**5**	-.16	.10	.53**	.46*			
Regularity of performance appraisal	**6**	.00	-.25	.52*	.47	.57*		
Written Job descriptions	**7**	.42	.59 b),**	.35	.04 b)	.26	.00	
Formal training program	**8**	-.51**	-.45 b)	.68***	.71 b),**	.46*	.23	.04 b)

*:p<.10; **:p<.05; ***:p<.01

a) Within our dataset, the variable 'Collective Labor Agreement' is equivalent to a dummy for the ict sector.

b) Phi test of association used instead of Pearson's correlation. Reported significance levels are based on Fisher's exact test.

Looking first at the interrelationships among the independent variables, company size is associated with both growth strategy and the presence of a large firm associate. In addition, the presence of a large firm associate is related with growth strategy. The CLA variable is highly correlated with the metal sector dummy variable, but this is to be expected since both are based on the sector classification of the companies. The presence of a CLA is unrelated to the other three independent variables. The three dependent variables (regularity of performance appraisal, written job descriptions and the availability of a formal (employer-based) training program) are also completely unrelated to one another, even though they each measure some aspect of formalization. Therefore, hypotheses were tested for each dependent variable separately.

8 Discussion

8.1 Support for hypotheses

Hypothesis 1 posits that the presence of a CLA will be associated with more formal HRM practices. No support is found for this hypothesis. The one significant finding (between CLA and the presence of a formal training program) is opposite to the predicted direction. However, the metal sector dummy variable is positively associated with the presence of job descriptions (which is in the expected direction). Perhaps this is due to the fact that the CLA for the metal sector has the most specific requirements for written job descriptions and also includes examples for companies to use. Thus, in addition to clarifying stakeholder expectations, added resources are provided to implement this requirement.

The weak support for Hypothesis 1, with the above exception, points to the possibility that external stakeholder expectations alone have only a minor influence on the actual practices chosen to implement. Added supplemental resources (as are provided by the job descriptions provided in the metal CLA), or the appreciation for the value of a practice by the CEO may be required to assure the development and implementation of mandated HRM practices. The presence of a CLA is even negatively associated with formal training programs in spite of the fact that it is specifically required in the metal sector. Given the small sample size, it is difficult to distinguish the CLA effect from other sector effects. For instance, within the ICT sector, where state-of-the art learning is critical to maintain competitiveness, much attention is paid to training and development. Further research examining CLA and sector effects separately and using a broader range of CLA and nonCLA sectors is needed to test this hypothesis further.

Hypothesis 2, with company size as independent variable, is most clearly supported for the degree of formalization of training programs ($r=.68$; $p<.01$). A positive correlation ($r=.52$; $p<.1$) between company size and the regularity of performance appraisal also suggests a relationship to be tested using a larger sample. Comparing the results of hypotheses 1 and 2 would attribute more explanatory power to the TCE perspective and resource-based approach than to institutional theory.

Empirical support for the third hypothesis is limited to a significant relationship between the presence of a large firm associate and the degree of formalization of training programs. Statistically speaking, this relationship is rather strong ($r=.71$; $p<.01$). The hypothesis is not supported, however, for regularity of performance appraisal or written job descriptions.

Given that size and the large firm associate variable are strongly correlated, both with one another and with the dependent variable (formal training program), an obvious question is whether the large firm associate variable has an effect on training independent of company size. Further analysis of the data using partial correlations provides support for this conclusion. Controlling for firm size, the partial correlation between the large firm associate variable and the dependent variable of formal training becomes 0.49, which is significant at a 10% significance level. It is again noted that the data set is very small and conclusions should be revalidated on larger, randomly drawn samples.

Finally, relatively weak but consistent support is found for Hypothesis 4, the relationship between growth strategy and formalization of HRM practices. For two of the three indicators - regularity of performance appraisal and formal training programs – the relationship found is significant at the 10% significance level. This effect may be weak due to the small sample size and small number of companies pursuing a growth strategy. However the trends hint at the potential usefulness of pursuing this line of thinking in further research on a larger randomly drawn sample of small companies.

8.2 Further discussion and suggestions for future research

The results of this pilot study point to a number of interesting directions for further exploration. First, consistent with past research, even within a small sample with relatively narrow size ranges, company size appears to be an important predictor of at least two of the indicators of formal HRM practices. This confirms the importance of scale in predicting the overall shape of organizations.

Second, even though the overall sample is fairly small, the companies studied in our research demonstrate that small firms vary widely in the types of HRM practices used. Thus, in spite of the importance of company size, this variation suggests that other factors may also shape HRM practices in the organization. In particular, our findings point to the possible fruitfulness of other organizational contextual variables, including aspects of the firm's environment and strategy as explanatory factors.

Third, the lack of interrelation among the various dimensions of formal HRM practices is rather striking. For instance, companies that have developed an employer-based training program do not necessarily appraise performance on a regular basis or write out their job descriptions. These results suggest that in spite of a historical tendency by scholars to treat formalization as a homogeneous concept, that they might not want to make this assumption for HRM practices without further empirical verification.

Fourth, the patterns of results in this study appear to support the importance of resource availability rather than external stakeholder expectations, as the primary influence on HRM practices in small firms. For instance, on the one hand, the mere existence of a CLA, which spells out some of these external stakeholder expectations by labor groups and by the Dutch government, appears to have little influence in the HRM practices implemented. Only where the CLA actually provides direct assistance on how to implement the requirement (e.g. by providing examples of written job descriptions in the case of the metal sector) does the CLA appear to predict HRM practices. On the other hand, small companies with a large company partner or associate are more apt to implement certain practices for which search and development assistance was provided. Taken together, these patterns appear to give more support to the resource-based and TCE perspectives than to institutional theory predictions. Of course, further research is needed to validate these conclusions.

For instance, the current data set does not allow us to test for the impact of the three latent intermediary variables (resources, external stakeholder expectations, and the perceived value of HRM practices by the CEO). These variables might be operationalized and measured in future research to improve our understanding of the determinants of HRM practices.

Fifth, consistent with the behavioral and strategic contingency perspectives in strategic management theory, there is weak evidence that the nature of the overall competitive strategy, especially an orientation toward growth, influences the choice of certain HRM practices.

Sixth, given the wide variation in HRM practices in small companies, future research is needed to further clarify the relationships between the various HRM practices and small firm performance. Though not empirically tested in our paper, future research should validate the importance of formalization of HRM practices relative to firm performance.

In sum, future research on larger, randomly-drawn samples from multiple sectors is needed to test the hypotheses and tentative conclusions outlined here. Additionally, longitudinal research can provide a better understanding of the directions of cause and effect among the proposed linkages. Future research should also further examine both the organization contextual variables measured in this paper as well as the other omitted contextual variables (including technology and culture). Nevertheless, the trends reported here suggest that the use of organizational contextual variables in addition to company size may be a very promising line of research in efforts to predict HRM practices in smaller firms.

9 Conclusion

This paper aims at the development and preliminary testing of a predictive model that explains the formalization of HRM practices of small firms from three different categories of organization contextual variables: company size, strategy, and the environment. Two aspects of the environment are chosen for measurement: collective labor agreements, representing government stakeholder expectations, and the presence or absence of a large firm associate. The proposed model attempts to integrate key aspects from several theories. Results are most consistent with the predictions of the resource-based, behavioral and TCE perspective. They are least consistent with predictions drawn from institutional theory.

Our admittedly preliminary results point to a few practical implications. First, it may be more effective to stimulate more formal HRM practices by providing technology transfer assistance, than by mandating that specific practices are adhered to. In the absence of sanctions or additional resources, official mandates that communicate stakeholder expectations, as is customary with most Dutch Collective Labor Agreements, appear to have very small impact on adoption of appropriate HRM practices. Simply increasing the information about implementation in such documents (e.g. by providing examples of written job descriptions) may improve the adoption rate. Other efforts to lower search and development costs (as part of the total transaction costs) may also have a positive impact on HRM implementation. There is a general awareness that historically, government agencies and government-sponsored small business assistance programs can play an effective role in technology transfer to small companies. But results of our pilot study underscore the potential of transfer from larger private firms as well. As evidenced in our pilot results, large business partners or associates working with a large number of similar small companies (such as franchisers or supplier groups) can also provide technology transfer assistance, for HRM practices as well as other activities.

Our conclusions presume that more formal HRM practices are beneficial, and that we have a clear understanding of what they entail. However, shortcomings in definition and measurement in past research suggest the need for further validation of HRM practices in small firms, and a more careful definition of what is meant by formalization of HRM practices. Hopefully future research will begin to address these issues more systematically.

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APPENDIX

Results of qualitative analysis of selected cases

Case 1

Sector	Food
Size (No. of employees)	10
Large firm associate	None
Coll. Labour Agreement?	Yes
Growth orientation	Stable
HRM planning	No information
HRM recruitment	Recruit friends and family. Informal. Tried newspapers once but failed.
Selection	Employee profile must match customer profile--not too young or old.
Performance Appraisal	Performance feedback 4x a year
Compensation/Benefits	No information
Training & Development	Not important so not offered
Job descriptions	No information
Team Building	Once a year company trip
Other comments	An upscale "fresh market"

Case 2

Sector	Food
Size (No. of employees)	41
Large firm associate	Yes. Part of purchase group (C1000)
Coll. Labour Agreement?	Yes
Growth orientation	Growth-plans to expand current location
HRM planning	C1000 used for advice on HRM. HRM seen as part of overall strategy.
HRM recruitment	Use of job center, newspaper and shop posters.
Selection	Social skills are important. Two week trial period with two performance appraisals.
Performance Appraisal	Recently added bimonthly performance feedback. If specified goals not reached, employees can be fired.
Compensation/Benefits	Rewards are according to the CLA
Training & Development	Just wrote a training plan with help of C1000. Training is considered important
Job descriptions	Yes. Taken from the CLA
Team Building	Once a year company trip
Other comments	Owner took over 1 year ago, replaced 11 employees and changed purchasing group to C1000.

Case 3

Sector	ICT
Size (No. of employees)	25
Large firm associate	Yes. IBM business partner
Coll. Labour Agreement?	No
Growth orientation	Growth-Recently added a subsidiary.
HRM planning	IBM requires a quality plan with personnel policy, training plan and written job descriptions.
HRM recruitment	Various channels, including magazines, newspapers, own employees, walk-ins, and recruitment co. (last didn't help)
Selection	A test is used for programmers. The management assistant makes first cut, then the owner.
Performance Appraisal	No performance feedback. Appraisal is ad hoc. It should be improved but no time is available. Results are more important than how obtained.
Compensation/Benefits	Profit-sharing, competitive wages and several savings programs.
Training & Development	Initiative used to be with employees. Now the employer make training mandatory. No formal career development plans.
Job descriptions	Yes. Prove a helpful tool for appraisals.
Team Building	New employees are appointed to a coach. Regular company evenings and trips.
Other comments	Low turnover rate. Most employees are under 30. None are older than 50.

Case 4	
Sector	ICT
Size (No. of employees)	25
Large firm associate	None
Coll. Labour Agreement?	No
Growth orientation	Stable.
HRM planning	No information
HRM recruitment	Recruitment via friends and acquaintances; also internet advertisement.
Selection	Selection is done by the team needing a new employee, then with the director, who decides jointly with the team.
Performance Appraisal	Not done until now.
Compensation/Benefits	Profit-sharing for all employees. Everyone is expected to work late at least once a week.
Training & Development	Training budget but team/employees must take the initiative to follow the course. New employees must be employable right away.
Job descriptions	No information
Team Building	No information
Other comments	The company wants to have as few formalised procedures as possible to avoid rigidity and inflexibility.

Case 5	
Sector	Metal
Size (No. of employees)	20
Large firm associate	None
Coll. Labour Agreement?	Yes
Growth orientation	Growth-aim at limited growth
HRM planning	Limited planning. The trade association is sometimes used for assistance.
HRM recruitment	Mainly uses temporary employment agencies, but only have about 3 vacancies every five years.
Selection	Skill level is an important criterion. Whether the applicant fits in the team is also important.
Performance Appraisal	Only if employees perform badly. These are written down and if needed a second appraisal takes place.
Compensation/Benefits	Competitive wage offered (above CLA requirements)
Training & Development	Very limited training. On the job training used: Younger employees learn from more experienced colleagues.
Job descriptions	In spite of CLA regulation, the company does not yet have formal descriptions.
Team Building	Team spirit is high. Most employees are loyal. Once a year company trip.
Other comments	Low quit rate. In 16 years, one employee got fired, and one left for reasons other than retirement.