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Why Firms Outsource Their Human Resources Activities: An Empirical Analysis

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Série Scientifique
Scientific Series

Preliminary draft—NOT FOR QUOTATION

CIRANO
Centre interuniversitaire de recherche
en analyse des organisations

Montréal
Août 1999

Why Firms Outsource Their Human Resources Activities:
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Résumé / Abstract

Ce mémoire développe et estime un modèle causal de l'impartition des ressources humaines. Six grandes activités ressources humaines sont analysées: la paie, les avantages sociaux, la dotation, la formation, les relations de travail et les systèmes d'information de ressources humaines. Les déterminants de l'impartition proviennent de deux littératures scientifiques : celle de la théorie des organisations et de la formulation de la stratégie d'une part, et celle de la théorie économique des coûts de transaction d'autre part. Nos résultats montrent que les déterminants de l'impartition varient d'activité à activité. Les déterminants suggérés par l'approche des coûts de transaction semblent jouer un rôle particulièrement important. L'expérience qu'ont les organisations avec l'impatition de d'autres fonctions, l'incertitude de la transaction et la présence d'un syndicat ont une influence prépondérante sur la décision d'impartir les activités ressources humaines.

In this paper, we develop and estimate an explanatory model of Human Resources Outsourcing. Six HR activities are analyzed: Payroll, Benefits, Recruiting, Training, Labor Relations, and Human Resources Information Systems. The determinants of outsourcing are drawn from two fields: the field of organizational analysis and strategy formulation, and that from transaction-cost theory. Our results indicate that the drivers of HRO are rather specific to each type of activity. The transaction-cost determinants appear to play a particularly important role in the HRO decisions. In particular, the prior experience of the organization with outsourcing of other functions, the uncertainty of the transaction, and the presence of a union have a commanding influence.

Mots Clés : Impartition, gestion des ressources humaines

Keywords: Outsourcing, human resources management

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INTRODUCTION

The wave of corporate restructuring that swept the world didn't leave Canadian firms untouched. If the progression of outsourcing in Canada lagged behind that in the U.S., it has showed signs of catching up in the nineties. As a recent study conducted by Industry Canada reveals, Canadian firms have undergone, in the last ten years in particular, an unprecedented shake-up, of which reductions in personnel and in labor costs are the dominant features (Magun, 1998).

As in the U.S., this process of reorganization has spawned a reconsideration of the strategic role and size of human resources departments. The question: What functions and which activities should be managed internally, and which should be performed by outside companies has found its way on the agenda of large and small organizations (Yeung and Brockbank, 1995; Lever, 1997). Obviously, the responses to this question vary greatly from organization to organization, and from industry to industry, as Klaas et al. have pointed out (1998).

A number of empirical studies have tracked the trend of human resources outsourcing (Harkins et al., 1995; Laabs, 1993; Spee, 1995; Stewart, 1996). If the level of human resources outsourcing remains, overall, rather low (Klaas et al., 1998a), there is some evidence that outsourcing is pervasive for some activities and that it is rising. For instance, a survey of 1750 senior human resources executives and specialists revealed that over 90% of firms were outsourcing at least one of their human resources activities and that a vast majority were planning to rely more on outsourcing in the future. With the notable exception of McIntyre's analysis (1996) of the outsourcing of training activities by Canadian firms, we know of no comprehensive study using firm-level Canadian data.

We define human resources outsourcing (HRO) as the contracting out of part or whole HR activities to an outside supplier, in opposition to internal procurement whereas the activity is performed by the employees of the organization. Although some authors argue that outsourcing entails the existence of a long-run relationship between the parties (Burzawa, 1994; Lever, 1997; Laabs, 1993; Sharpe, 1997), we prefer to treat outsourcing in a "make-or-buy" framework. It is possible that long-run relationships play a particular role in many outsourcing relations, but we focus our attention on the essential question: who is responsible for conducting the activity? This means that our definition of outsourcing encompasses many different commercial relations, stretching from the routine contracting out of simple and repetitive activities, to the complete delegation of HR management to an outside firm.

The question we address in this paper is: what are the determinants of HRO in Canadian firms? Surprisingly, this question has received little attention. Two notable exceptions are the pioneering works of Klaas et al. (1998a, 1998b) and Lever (1997). To answer that question, we group determinants in two families and use the results of a survey conducted in Eastern Canada to empirically test the relative significance of each determinant, and each family of determinants. The two families of determinants are: 1. Organizational/strategic; and 2. Transaction-specific.

THE DETERMINANTS OF HR OUTSOURCING

We conducted a survey of the literature on HRO (Tremblay et al., 1999a) and on the motivations for outsourcing. We found two theoretical bases upon which one can build an understanding of the decision to outsource.

Organizational/strategic factors

The first basis or theoretical underpinning is what might be called the business strategy model. A first explanation, and one that is often found in the professional literature, is that firms will outsource the activities that are not "strategic" and keep in-house those that are closely linked to their core business. This suggests that firms which reorganized with the strategic aim of concentrating on their core-business would have outsourced other activities –IT, financial, etc.- as well: hence the existence of a "pattern". It also suggests that the decision to outsource HR activities depends on how close to the core business the HR activities are seen by top management.

On an organizational level, outsourcing might be seen as a strategic issue whose outcome should depend on the political power of the HR staff, on the organizational structure and culture of the firm and on the perceived relative performance of the firm's HR management.

Equally important is the impact on the make-or-buy decision that a union might have by imposing constraints on management.

Transaction-specific factors

Transaction Cost Economics (TCE) offers a powerful framework for the analysis of make-or-buy decision. It has been extensively used in recent years to analyse the choices made in a myriad of industries between different governance structures.

Under the usual maintained hypotheses of TCE (Williamson, 1985; Milgrom and Roberts, 1991): competitive markets, bounded rationality, positive transaction costs, and opportunism, the probability that a (boundedly) rational decision-maker will prefer to internalize a given transaction depends on many transactional characteristics. Williamson (1975, 1985), Klein, Crawford and Alchian (1978), Grossman and Hart (1982), and others have laid the bases of the characterisation of transactional context which is still under way.

Among the prevalent transactional characteristics of HR activities, TCE suggests the following play an important role:

- *Asset specificity*: the more specific the physical and human assets deployed by the HR department are, the less likely the firm is to contract out an HR activity. In the case of HR activities, one can conjecture that specificity will play a greatest role for human capital assets. As the required firm-specific skills, know how, and idiosyncratic features become more important for an HR activity, the risk of hold-up for the firm and the necessity to provide the asset owner with appropriate incentives reduce the likelihood that the activity will be outsourced;

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- *Measurability*: performance ambiguity curtails the efficiency of contracts. As measurement problems become more important, control of behavior will be chosen over control of output: a rational decision-maker will prefer to coordinate and motivate employees rather than manage a contract;

- *Complexity:* this transaction characteristic could lead to more or less outsourcing. Infrequent and very complex activities are more likely to be outsourced, whereas complexity makes the internalization of recurrent activities more likely;

- *Predictability of volume:* an unpredictable level of HR activities might lead to mixed strategy solutions where the firm maintains and develops resources in-house to meet the predictable component of demand and outsources the "peak period" requirements.

- *Firm size*: TCE suggests that firm size matters because, as firm size increases, the disadvantages of internal procurement arising from possible economies of scale diminish. As firm size increases, transaction costs play an increasingly important role vis-à-vis production costs (Williamson, 1985). Lever (1997) and McIntyre (1996) have found an inverse statistical relationship between size and HRO.

- *Relative Production Costs:* The trade-off between internal procurement and outsourcing will predictably be influenced by the comparative cost advantage or disadvantage of in-house production.

- *Experience and Contracting Costs*: Prior experience with outsourcing might also reduce the transaction costs of HRO as learning which can be transferred from one area to the other certainly occurs.

THE HYPOTHESES

We formulate the following hypotheses:

H1: HRO is more likely to be found in firms which have undergone a major reorganization and focused on their "core" activities

H2: HRO is more likely to be found in firms which have outsourced other activities – finance, IT, etc.

H3: HRO is more likely to be found in firms where top management strongly backs "contracting out"

H4: HRO is less likely to be found in firms with strong and strategically involved HR departments

H5: HRO is less likely to occur in unionized firms

H6: HRO is less likely for highly firm-specific, idiosyncratic activities

H7: HRO is less likely when measurement problems and performance ambiguity plague outcome-based contracts

H8: HRO is more likely when the demand for HR activities fluctuate and is unpredictable

H9: HRO is more likely to occur in firms with a "Pay Leadership Strategy "

METHODOLOGY

The survey

We conducted a survey of 1450 firms in Quebec, both private and public organizations. Questionnaires were sent to the person in charge of the human resources department (vice-president, director, etc.). The list of respondents was provided by the Professional Association of Quebec Human Resources Management (*Ordre des Conseillers en Relations Industrielles du Québec*).

The respondents were asked to supply information on their organization in general, on the structure and performance of the HR division, and on the way thirty specific human resources activities were being conducted. These could be grouped into six major activities: 1.Payroll; 2. Benefits; 3. Recruiting; 4. Training; 5.Labor relations; and 6. HR Information Systems.

254 questionnaires were returned, for a response rate of 17%, which is comparable to firm-level surveys. Table 1 describes the characteristics of our sample.

Table 1
Sample: Summary Statistics

Sample Size (N)	254
Average Number of Employees	1 747
Average Size of HR Staff	69
Percentage of Private Firms in Sample	72
Percentage of Unionized Firms	63

The dependent variable

For the purpose of analysis, the <u>mean scores</u> (score on a four-point scale) for each of the six major activities were calculated and treated as our dependent variables. Table 2 shows the descriptive statistics for the mean level of outsourcing for each major HR activity.

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Table 2
Mean Levels of Outsourcing-Six major Groups of HR Activities

	N	Minimum	Maximum	Mean	Std. Deviation
PAYROLL	254	1,00	4,00	2,0315	,9955
BENEFITS	252	1,00	4,00	1,9064	,7966
RECRUITMENT	254	1,00	3,60	1,6340	,5348
TRAINING	254	1,00	3,25	1,6516	,5044
HR INFORMATION SYSTEMS.	233	1,00	4,00	1,6116	,6842
LABOR RELATIONS	213	1,00	4,00	1,8052	,6291

Payroll activities are the most often outsourced. A score of 2 means that, on average, 25 % of the activity is being outsourced. At the other end of the spectrum, HR Information Systems appear to be the least outsourced, with a mean score of 1.6, meaning that roughly 15 % of the activity was contracted out. Note that the overall level of outsourcing appears to be modest, in the same range as the reported levels in Klaas et al. (1998). Finally, it is interesting to note that some firms outsource in totality each group of activities.

The estimating method
To test the hypotheses about the relevance of the strategic/organizational and transaction-specific determinants of HRO, we ran six ordinary least-squares regressions, one for each major activity, using SPSS 8.0.

The independent variables
Because the strategic decision to outsource might well be conditioned by regulations or norms or conventions that are sector-specific, there is a possibility that industrial patterns emerge. To control for these, we included in the estimating equations a set of dichotomous variables, one for each industry (in fact we ran the regressions with an intercept and dropped one industry variable).

To test H1, we had asked our respondents whether or not their organizations had been involved in reengineering or in systematic benchmarking over the last three years (the dummies REENG and BENCH take value1 when reengineering or benchmarking has been declared practice). We expect positive signs on those variables, although it can be argue that benchmarking might be used as a substitute to outsourcing, particularly in the public sector.

EXP is a dummy which takes value 1 when the organization outsources other activities. EXP is expected to be positively signed.

SUPPORT serves us in testing H3. The respondents were asked to rate the proposition: "Top management is seen as supporting the outsourcing of HR activities" on a five-point scale. We expect a positive sign on SUPPORT.

HRSTRAT measures the degree to which the HR department and the HR vice-president or human resources director are perceived as being strategically important. The variable was measured by a four-item scale with a Cronbach statistic of 0.845. We expected that variable to be negatively correlated to the extent of outsourcing.

UNION is a dichotomous variable which takes the unit value when the firm was unionized. We defined unionization as a positive fraction of employees belonging to a union. Political constraints applied by the union on the strategic choices of the top management lead us to expect a negative coefficient on UNION. We also included in the regression an interactive dummy to catch the specific influence of unions in the private sector, since public sector organizations in Quebec are overwhelmingly unionized.

SPEC measures the level of specificity involved in each HR activity. The variable is constructed as the sum of the scores on a five-point scale for two questions: one concerning the idiosyncrasies of the activity ("Our methods, procedures, and equipment are very different than those of our competitors"), and the other relating to the importance, in conducting each activity, of a good knowledge of the organisational culture. We expect SPEC to be negatively signed.

MEAS is an index of measurement problems related to each activity. It is the answer, on a five-point scale, to the question: "In our organization, it is difficult to measure with precision the quality of the services in this particular area". We expect MEAS to have a negative sign.

VAR measures the variability in the demand for the services of each activity. It is also measured on a five-point scale. VAR is expected to be positively signed. We also asked respondents if the demand for the goods and services provided by the organization was hard to forecast. DEMAND captures this difficulty.

COMP is an index of task complexity related to each activity. It is the answer, on a five-point scale, to the question: "In our organization, the problems we have in this HR area require a complex analysis and can rarely be solved on the spot".

SIZE is a measure of the size of the firm, based on the number of employees. We expect SIZE to be negatively correlated with outsourcing.

Lacking a well-defined measure of each firm's relative cost position, we use the respondent's answer to a question regarding their organization's position on pay leadership. Presumably, when a firm pays relatively higher salaries, it also pays higher compensation for its entire HR staff. PAY is a dichotomous variable which takes value one when the firm has a strategy of "Pay Leadership" and declares its labor costs are above 110% of the industry median. We expect higher costs firms to outsource more. Although the relationship between pay leadership and outsourcing ultimately depends on the "efficiency wages" paid to workers: pay leaders may simply attract the best and most productive workers. If this were the case, their relative cost position would not be disadvantageous and their incentive to rely on HRO reduced.

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RESULTS AND DISCUSSION

We first ran Ordinary Least Squares regressions (OLS) of the six dependent variables on all the control variables, including a set of industry-specific dummies to investigate the inter-industry patterns. Five of the six estimating equations were statistically significant. The Benefits equation, quite clearly, was not. We could not reject the null hypothesis that all estimated coefficients were jointly equal to zero with a F-test : the computed value was 1.07. The associated adjusted R-square was 0.009. The model did not explain the behavior of the dependent variable Benefits, and the Benefits equation was dropped from the analysis.

The performance of the model for Labor Relations was also very weak. But separate estimations for the private and public firms led, in this particular case, to markedly contrasting results. Essentially, outsourcing of Labor Relations by the private-sector firms was much better explained than it was in the public sector. And there are good institutional reasons to that. In Quebec, industry-wide collective agreement are negotiated between the provincial government and the labor unions. This leaves very little room for decision-making at the firm or organizational level. Hence the "constrained" decisions observed in the answers from the public sector firms concerning Labor Relations. The Labor Relations equation was then estimated twice: on the two sub-samples for private and public firms in our sample.

Table 3(a)
OLS Results – Payroll Equation

Payroll

	Coefficients	Std. Error
INTERCEPT	0.866	0.712
BENCH	-0.300**	0.141
REENG	-0.038	0.151
EXPERIENCE	0.391**	0.156
SUPPORT	-0.031	0.051
HRSTRAT	0.143*	0.082
SIZE	-0.059	0.047
DEMAND	0.158***	0.051
UNION	0.364	0.325
PRIVATE*UNION	-0.603*	0.351
PAY STRATEGY	-0.049	0.202
MEAS (Payroll)	-0.056	0.065
VAR (Payroll)	0.121	0.093
COMP(Payroll)	-0.033	0.037
SPEC(Payroll)	-0.072*	0.039
FINANCE	0.942***	0.351
COMMERCE	1.277***	0.344
MANUF.	0.771**	0.318
TRANSPORT	0.811**	0.405
TECHNO	0.912***	0.320
PRIMARY	0.196	0.388
SERVICE	0.555	0.411
MUNICIPAL	0.033	0.342
GOVERNMENT	-0.299	0.361
EDUCATION	-0.618	0.425
STATE ENTER.	0.523	0.329
R^2	0.281	
F-Stat	3,315**	
N	237	

Sig : * < 10%, ** < 5% and *** < 1%

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Table 3(b)
OLS Results – Recruiting Equation

Recruiting

	Coefficients	Std. Error
INTERCEPT	0.935***	0.325
BENCH	-0.145*	0.076
REENG	-0.005	0.083
EXPERIENCE	0.193**	0.084
SUPPORT	0.090***	0.028
HRSTRAT	0.047	0.045
SIZE	0.058**	0,026
DEMAND	-0.019	0.027
UNION	0.114	0.182
PRIVATE*UNION	0.050	0.195
PAY STRATEGY	-0.041	0.109
MEAS (recruiting)	0.003	0.031
VAR (recruiting)	-0.058*	0.030
COMP(recruiting)	-0.020	0.021
SPEC(recruiting)	-0.009	0.026
FINANCE	0.327*	0.196
COMMERCE	0.226	0.198
MANUF.	0.376*	0.180318
TRANSPORT	-0.019	0.228
TECHNO	0.416*	0.185
PRIMARY	0.359*	0.217
SERVICE	0.444*	0.223
MUNICIPAL	0.107	0.185
GOVERNMENT	0.290	0.196
EDUCATION	0.187	0.218
STATE ENTER.	0.118	0.177
R^2	0.274	
F-Stat	3.177**	
N	235	

Sig : * < 10%, ** < 5% and *** < 1%

Table 3(c)
OLS Results – Training Equation

Training

	Coefficients	Std. Error
INTERCEPT	0.918***	0.338
BENCH	-0.066	0.074
REENG	0.006	0.082
EXPERIENCE	0.226***	0.084
SUPPORT	0.063**	0.028
HRSTRAT	0.008	0.044
SIZE	0.044	0,025
DEMAND	-0.018	0.027
UNION	-0.102	0.175
PRIVATE*UNION	0.155	0.189
PAY STRATEGY	-0.013	0.109
MEAS (training)	0.041	0.030
VAR (training)	0.043	0.038
COMP(training)	0.041*	0.021
SPEC(training)	-0.029	0.023
FINANCE	0.074	0.188
COMMERCE	0.129	0.185
MANUF.	-0.006	0.168
TRANSPORT	-0.315	0.217
TECHNO	0.098	0.172
PRIMARY	0.121	0.207
SERVICE	-0.161	0.218
MUNICIPAL	0.079	0.185
GOVERNMENT	0.027	0.193
EDUCATION	-0.123	0.216
STATE ENTER.	0.198	0.177
R^2	0.202	
F-Stat	2.139**	
N	236	

Sig : * < 10%, ** < 5% and *** < 1%

Table 3(d)
OLS Results – Labor Relations Equation
Full Sample

Labor Relation

	Coefficients	Std. Error
INTERCEPT	1.397***	0.507
BENCH	0.055	0.110
REENG	0.085	0.120
EXPERIENCE	0.296**	0.122
SUPPORT	-0.011	0.040
HRSTRAT	0.064	0.064
SIZE	-0.007	0,037
DEMAND	-0.020	0.040
UNION	0.400	0.295
PRIVATE*UNION	-0.791**	0.313
PAY STRATEGY	-0.222	0.151
MEAS (labor rel.)	0.012	0.043
VAR (labor rel.)	-0.070	0.043
COMP(labor rel.)	-0.042	0.030
SPEC(labor rel.)	0.027	0.033
FINANCE	0,610*	0,310
COMMERCE	0,871***	0,305
MANUF.	0,607**	0,282
TRANSPORT	0,448	0,351
TECHNO	0,565*	0,307
PRIMARY	0,544*	0,329
SERVICE	0,424	0,360
MUNICIPAL	-0,276	0,246
GOVERNMENT	-0,222	0,268
EDUCATION	0,104	0,284
STATE ENTER.	-0,036	0,246
R^2	0,184	
F-Stat	1,521	
N	194	

Sig : * < 10%, ** < 5% and *** < 1%

Table 3(e)
OLS Results – Labor Relations Equation
Private Firms

Labor Relation

	Coefficients	Std. Error
INTERCEPT	2.276***	0.608
BENCH	0.270*	0.146
REENG	0.120	0.147
EXPERIENCE	0.363**	0.164
SUPPORT	0.010	0.052
HRSTRAT	0.059	0.081
SIZE	0.008	0,048
DEMAND	-0.107*	0.054
UNION	---	---
PRIVATE*UNION	-0.426***	0.135
PAY STRATEGY	-0.041	0.195
MEAS (labor rel.)	-0.054	0.052
VAR (labor rel.)	-0.067	0.055
COMP(labor rel.)	-0.077*	0.040
SPEC(labor rel.)	0.026	0.040
FINANCE	-0,015	0,231
COMMERCE	0,288	0,225
MANUF.	0,025	0,183
TRANSPORT	-0,106	0,271
PRIMARY	-0,043	0,251
SERVICE	-0,191	0,333
R²	0,218	
F-Stat	1,688*	
N	134	

Sig : * < 10%, ** < 5% and *** < 1%

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Table 3(f)
OLS Results – HR Information Systems Equation

HRIS

	Coefficients	Std. Error
INTERCEPT	1,496***	0,505
BENCH	-0.041	0.108
REENG	0.092	0.120
EXPERIENCE	0.067	0.126
SUPPORT	0.029	0.040
HRSTRAT	0.043	0.061
SIZE	0.061*	0.037
DEMAND	-0.021	0.040
UNION	0.074	0.257
PRIVATE*UNION	0.066	0.277
PAY STRATEGY		
MEAS (hris)	-0.076	0.047
VAR (hris)	-0.099	0.062
COMP(hris)	0.071**	0.031
SPEC(hris)	-0.028	0.033
FINANCE	0.098	0.281
COMMERCE	0.030	0.283
MANUF.	-0.118	0.253
TRANSPORT	-0.170	0.330
TECHNO	-0.112	0.257
PRIMARY	-0.108	0.318
SERVICE	-0.138	0.333
MUNICIPAL	-0.497*	0.284
GOVERNMENT	-0.245	0.267
EDUCATION	0.001	0.302
STATE ENTER.	-0.219	0.247
R²	0.181	
F-Stat	1.645*	
N	211	

Sig : * < 10%, ** < 5% and *** < 1%

Table 3 (continued)
OLS Estimation—Complete Model

Variable	Payroll		Recruit.		Training		Lab.Rel. (a)		Lab. Rel. (b)		HRIS	
	Coeff.	Std.	Coeff.	Std.	Coeff.	Std.	Coeff.	Std.	Coeff.	Std.	Coeff.	Std.
Finance	0.942***	0.351	0.327*	0.196	0.074	0.188	0.610*	0.310	-0.015	0.231	0.098	0.281
Commerce	1.277***	0.344	0.226	0.198	0.129	0.185	0.871***	0.305	0.288	0.225	0.030	0.283
Manuf.	0.771**	0.318	0.376*	0.180318	-0.006	0.168	0.607**	0.282	0.025	0.183	-0.118	0.253
Transport	0.811**	0.405	-0.019	0.228	-0.315	0.217	0.448	0.351	-0.106	0.271	-0.170	0.330
Techno	0.912***	0.320	0.416*	0.185	0.098	0.172	0.565*	0.307	-0.043	0.251	-0.112	0.257
Primary	0.196	0.388	0.359*	0.217	0.121	0.207	0.544*	0.329	-0.191	0.333	-0.108	0.318
Service	0.555	0.411	0.444*	0.223	-0.161	0.218	0.424	0.360			-0.138	0.333
Municipal	0.033	0.342	0.107	0.185	0.079	0.185	-0.276	0.246			-0.497*	0.284
Government	-0.299	0.361	0.290	0.196	0.027	0.193	-0.222	0.268			-0.245	0.267
Education	-0.618	0.425	0.187	0.218	-0.123	0.216	0.104	0.284			0.001	0.302
State Enter.	0.523	0.329	0.118	0.177	0.198	0.177	-0.036	0.246			-0.219	0.247
R²	0.281		0.274		0.202		0.184		0.218		0.181	
F-Stat	3.315**		3.177**		2.139**		1.521		1.688*		1.645*	
N	237		235		236		194		134		211	

Sig : *< 10 %, **< 5 % and *** < 1 %

Estimation results for the Payroll, Recruiting, Training, Labor Relations, and HR Information Systems equations are reported in Tables 3(a)-3(f). All estimated equations, except the Labor Relations equation for public firms, are statistically significant with computed F-tests ranging from 1.688 to 3.315.

Two independent variables are never statistically significant in any equation: the indicators for reengineering and for pay leadership. HRSTRAT, our construct for the strategic implication of the HR department appears to have some influence in the Payroll equation, but otherwise is not statistically significant.

We were not too surprised by the lack of information contained in the reengineering variable because the notion of "reengineering" has become so porous in recent years. On the other hand, the benchmarking variable probably captures more closely a set of practices. We were a bit surprised by the lack of explanatory power of the pay variable. Roughly 10 % of respondents declared that their organizations were paying salaries at least 15 % over the reference group median. One would normally expect those firms to have a greater incentive to outsource. It might also be argued, on the contrary, that these are firms who commit themselves to their employees and strategically try to attract the best workers by offering better conditions: those firms would be less likely to outsource. If both types of firms are found in our sample, the net impact on HRO might be nil. Yet, Klaas et al. (1998) found a strong and statistically significant relation between pay level and HRO, but their pay ledership variable applied to the HR staff only. This may also explain the divergence between their results and ours.

We dropped REENG and PAY from the set of estimating equations and ran OLS regressions with the other independent variables. The results are presented in Table 4. As a comparison of Tables 3 (a)-(f) and Table 4 shows, the estimated parameters are fairly robust. We focus our discussion on the reduced model estimators of Table 4. As before, the F-tests are significant at the 1% level for the Payroll, Recruiting, and Training equations, and at the 5% level for the Labor Relations (private sector) and HRIS equations. The Labor Relations equation, when estimated on both public and private organizations, does not fit the data very well, as expected, and for the aforementioned reasons.

Let's turn our attention first to the organizational/strategy variables. We see that BENCH, EXPERIENCE ,and SUPPORT are very often statistically significant. On the other hand, HRSTRAT appears to play a role only in the Payroll equations, and its sign is puzzling. Quite clearly, the presence of a strong HR voice does not reduce the reliance on HRO. This negative result is robust to changes in specifications and rather independent of the activities under consideration.

Among the strategic variables examined, the reliance on benchmarking is particularly interesting. For two specific activities (Payroll and Recruiting), benchmarking appears to be a substitute for HRO; and in the case of Labor Relations in the private sector, it is complementary to HRO. Hence, the evidence on H1 is mixed.

On the other hand, H2 is strongly supported by the positive and statistically significant coefficient on EXPERIENCE for four of the five major activities. Organizational learning which occurs while a firm contracts out financial or IT services appears to play a very important role in

determining the outcome of the make or buy decision for HR activities. This learning reduces the transaction costs associated with dealing with a party external to the firm. This finding was also found by Lever (1997), which even concluded that "This organizational-level factor is the only universal factor found in outsourcing decisions." (p. 46).

H3 is also moderately supported: the perceived support from the top management of the organization appears to tilt the balance in favor of HRO. This variable would be expected to play a central role in a political-based model of strategy formulation, just as such an approach would imply a key role for HRSTRAT.

Now, quite clearly, the estimated parameters strongly reject H4: we must conclude that the strategic importance and involvement of the HR department do not play a role in the decision to outsource HR activities. Firms with "strong" HR departments and tradition are just as likely as firms with "weak" or passive HR departments to favor HRO (Recall that the four-item scale captured the presence of the senior vice-president, human resources, on the executive committee of the firm, the appreciation of the involvement of the HR department in strategy formulation, etc.). This result is somewhat surprising, for one would believe that senior HR executives that play a strategic role would be tempted to "defend" internal management over HRO, at least to some extent.

Therefore, overall, three of the five organizational drivers are signnificant more than once, and EXPERIENCE is four times out of five. Three other control variables that were organization-specific were the presence of a unionized workforce, the size of the firm and the difficulty in predicting the demand for the organization's goods and services.

Of the three, the presence of a union is negatively correlated with reliance on HRO in three of the five cases. But this finding is stronger in the private sector. Hence, we cannot reject H5. SIZE appears to be significant in three cases, but is positively signed, contrary to our expectations. This suggests that the larger the organization, the greater the reliance on HRO. Surprisingly, in the Payroll equation, SIZE is not statistically significant: we expected smaller firms to easily outsource their payroll. It might be that the threshold for capturing economies of scale in this area has been drastically reduced because of the availability of IT services and packages which allow even the smallest firms to reap at least some of the economies and gains in efficiency that HRO would generate. That Training, Recruiting, and HRIS are positively correlated with size is slightly intriguing, Although only the Training equation contains a strong signal about the relevance of size. Finally, note that Klass et al. (1998) did not find any statistically significant relation between HRO and size. As for the unpredictability of the organization global demand, it is statistically and positively correlated with the dependent variable in the Payroll and Labor Relations (private sector) equations only. This suggests that the reliance on HRO is greater when demand is highly unpredictable, which is what a transaction-cost perspective suggests: employees are typically hired for stable, medium to long-run periods of time. Unpredictable swings in global demand could more easily be dealt with using external suppliers, thus giving the firm some external flexibility. This is consistent with the findings in Klaas et al. (1998).

Table 4
OLS Estimation—Reduced Model (a) (b)

Variable	Payroll	Recruit.	Training	Lab.Rel. (a)	Lab. Rel. (b)	HRIS
Intercept	0.865 (0.705)	0.937** (0.323)	0.063** (0.027)	1.383*** (0.497)	2.229*** (0.573)	1.519** (0.504)
Bench	-0.288** (0.135)	-0.142* (0.074)	-0.066* (0.072)	0.052 (0.108)	0.262* (0.142)	-0.050 (0.106)
Experience	0.382** (0.151)	0.191** (0.082)	0.227** (0.082)	0.290** (0.118)	0.404*** (0.152)	0.075 (0.123)
Support	-0.032 (0.051)	0.090*** (0.028)	0.063** (0.027)	-0.010 (0.040)	0.007 (0.052)	0.036 (0.040)
HRSTRAT	0.141* (0.081)	0.045 (0.044)	0.007 (0.044)	0.051 (0.064)	0.059 (0.079)	0.037 (0.061)
Size	-0.060 (0.046)	-0.058** (0.025)	0.044* (0.025)	0.001 (0.037)	0.015 (0.046)	0.067* (0.037)
Demand	0.156** (0.050)	-0.019 (0.027)	-0.017 (0.027)	-0.021 (0.039)	-0.104** (0.052)	-0.018 (0.040)
Union	0.364 (0.323)	0.111 (0.181)	-0.104 (0.174)	0.354 (0.295)		0.054 (0.256)
Private*Union	-0.608* (0.348)	0.052 (0.193)	0.157 (0.187)	-0.722** (0.310)	-0.407*** (0.133)	0.102 (0.276)
Meas (x)	-0.057 (0.065)	0.003 (0.031)	0.004 (0.030)	-0.006 (0.005)	-0.018** (0.007)	-0.073 (0.047)
Var (x)	0.120 (0.092)	-0.059* (0.030)	-0.004 (0.038)	-0.078* (0.043)	-0.061 (0.054)	-0.105* (0.061)
Comp (x)	-0.033 (0.037)	-0.021 (0.021)	0.041** (0.021)	-0.041** (0.030)	-0.079** (0.039)	0.070** (0.031)
Spec (x)	-0.074* (0.039)	0.009 (0.025)	-0.029 (0.023)	0.041 (0.032)	0.026 (0.039)	-0.022 (0.033)
R square	0.281	0.274	0.202	0.169	0.220	0.172
F-stat	3.630***	3.477***	2.347***	1.529*	1.955**	1.701**
N	237	235	236	196	196	236

a) Standard deviations in brackets
b) The sector-specific dummies were included in the regression
X: Payroll, Recruiting, Training, Labor Relations, HRIS

A more comprehensive test of H8 about the importance of fluctuations in the demand for HR services requires that we examine the behavior of VAR(x), which measures, on a five-point scale, the agreement of the respondents to the question: "In our organization, the volume of this HR activity is highly predictable." Transaction-cost economics suggests a negative sign on VAR(x) (which is an activity-specific variable in opposition to DEMAND, which is organization-specific). And our findings are very much supportive of this conjecture: VAR(x) is negatively correlated to HRO for three of the five activities. It is never positively correlated with HRO and its level of significance is rather high. Our results on DEMAND and VAR(x) allow us to confidently accept H8.

Finally, the coefficients on COMP(x), SPEC(x) and MEAS(x) inform us about the strength of H6-H8 and the role of transactional complexity,--hypotheses related from the transaction characteristics of the HR activities. None of those characteristics appears to have a clear impact on all the make-or-buy decisions. Instead, we found a complex picture in which one or two different characteristics impacted on each HR activity. For instance, H6 is validated for Payroll, H7 for Labor Relations (private sector), and transactional complexity appears to be a significant factor for three HR activities, but is not consistently signed: it is positively correlated to outsourcing for Training and HRIS and negatively correlated for Labor Relations.

The pattern of signs in the Labor Relations equation may have an explanation: as HRIS and Training are increasingly perceived to become more complex by organizations, the costs of developing and managing in-house resources to accomplish them appears too high. Unless the activity is seen as being close to the "core business" of the organization, it will rely more and more on outsourcing. On the other hand, complexity in Labor Relations is arguably less of a technical nature and probably pertains more to the web of interactions with the union, the culture of he firm, the composition of its labor force, and so on. Hence, in the Labor Relations equation, COMP(x) may capture elements of specificity. If this were the case, we should expect a negative sign on it. It is interesting to note that measurement problems appear to play a significant role only in the Labor Relations equation, possibly for the same reasons: while it may be possible to define reliable and rather precise indices of performance for elements in other areas, it becomes much less easy to do so in Labor Relations. On the other hand, Labor Relations is the HR activity which is more predictable: uncertainty about volume of HR activities plays no role in explaining the reliance on HRO in this case.

To sum up: we found weak evidence to support H6-H7, and we found that complexity impacts on the make or buy decision. Overall, uncertainty (about the required resources in HR and the global demand for the organization goods and services) and complexity are the two transactional characteristics which emerge as having an impact on most activities. Specificity and performance ambiguity (measurement problems) play a minor role, but one in accordance with the predictions of transactions costs economics.

Table 5 summarizes our findings about H1-H9.

Table 5
Summary of Findings

Hypotheses	Conclusions
H1: HRO and core competencies	Weak support: importance of benchmarking
H2: Interrelatedness of HRO with outsourcing in other areas	Strong support
H3: Importance of support from top management	Moderate support
H4: Strategic importance of HR department	Strong rejection
H5: Influence of unions	Strong support for private firms
H6: Idiosyncasies	Weak support—for Payroll activities
H7: Measurement problems and Performance ambiguity	Weak support—for Labor Relations in the private sector
H8: Uncertainty and fluctuations of the demand for HR resources	Strong support
H9: Pay leadership strategy	Strong rejection
Role of complexity	Complexity plays a significant role in the decisions for three activities

CONCLUSION

Five HR activities were analyzed to identify the determinants of HRO. Few determinants play a very significant role in the explanation of outsourcing in all areas. The emerging picture is one in which each family of activities appears to be driven by a specific set of factors.

Yet, prior experience with outsourcing of other functions, the presence of a union, and the level of uncertainty in the volume of the HR activity required play a dominant role in almost every decision. Overall, the empirical findings support a transaction-cost approach to HRO. On the other hand, resources-based explanations and the strategic role of the HR function do not appear to have a significant impact on HRO decisions. These negative results may be attributable to our difficulty in measuring with precision the underlying variables.

Other often-cited determinants, such as the pay strategy of the organization and its size have a weak influence, if any, on the decisions to outsource.

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