14 *Outsourcing human resource activities*

THOMAS J. NORMAN
California State University, Dominguez Hills

Introduction

At the end of 1999, a start-up company, Exult, signed a $600 million, seven-year contract to provide nearly all human resource (HR) services for British Petroleum (BP) in the United States and United Kingdom (Lawler *et al.*, 2004). Six years later, a cover story in *Business Week* noted that human resource outsourcing (HRO) had become the fastest-growing segment of business process outsourcing (BPO) with $13 billion in global spending (Engardio *et al.*, 2006). A newer offshoot of the BPO movement, HRO has received less attention and, with the exception of work done by Lawler *et al.* (2004, 2006), there has been little academic analysis of the levels and effects of the phenomenon. Most of the information on HRO comes from consultancies (Everest Research Institute, 2006; Giacomelli, 2007; Towers Perrin, 2008). This chapter examines the impact of the HRO decision on organizations empirically and builds upon the prescriptive advice found in earlier works on the topic (Beamon, 2004; Cook, 1999). The following analysis explores the link between levels of outsourcing HR activities and employee retention, employee satisfaction, and customer satisfaction using data collected from organizations in 2007 and 2008.

The decision to outsource redraws the boundaries between an organization and its suppliers. Innovations in information technology and the standardization of business processes have increased the types of services considered to be candidates for outsourcing thereby driving the explosive growth in BPO. This transformation has in turn attracted a great deal of attention from the management community inside and outside of academia. Outsourcing any business process involves both direct and indirect costs and benefits. Some of the more obvious direct costs of outsourcing human resource activities include: the cost of time spent identifying the business processes to be outsourced, selecting a vendor or vendors and managing the vendor relationship. Outsourcing

HR activities may also entail indirect costs such as increases in material and supply costs, training, travel, new equipment and software.

Direct benefits of outsourcing HR processes include staff time and labor costs saved and savings from additional operating efficiencies, such as lower material, equipment, and software costs. A source of indirect or hidden costs of an outsourcing agreement for HR includes increased legal, security, and technology risks faced by the organization. Another potential indirect disadvantage or cost of outsourcing an HR activity is a reduction in employee satisfaction and engagement due to changes in the service quality or attitudes towards the provider of the HR activity. Outsourcing HR activities not well suited to outsourcing may lead to reductions in quality that are difficult to measure in the monitoring of a contract, but are still felt by employees or managers. Many HRO providers rely on their clients embracing a single standardized delivery model to achieve the returns to scale needed to deliver cost reductions. Replacing a well-functioning internal HR process with a new standardized process may be detrimental to the organization and employees in ways difficult to predict and measure post outsourcing transition.

Dissatisfaction with having to seek HR services in a new manner may be temporary, as most change results in initial resistance. Outsourcing aspects of HR may lead to more lasting declines in employee satisfaction due to the reduced availability or quality of HR service and an employees changed perception of the employer and employment relationship. HRO may also affect organization's reputation in the labor market thereby affecting recruiting activities. Any reductions in employee engagement may negatively affect the customer experience and organizational productivity (Becker and Gerhart, 1996; Capelli and Neumark, 1999).

Early conversations on HRO with executives revealed the notion that HR activities could be described as relational or transactional. Transactional activities are strong candidates for outsourcing as they tend to be routine and add little value to the organization. Relational activities are high-touch involving the creation of a type of social capital for the employee and/or organization during their provision. This is the result of a social exchange that takes place between the service provider and the employee (e.g., management training) or due to the provider's position within the firm's hierarchy (e.g., performance review, mentoring).

HRO and employee retention, employee satisfaction, and customer satisfaction

Much of the strategic HR literature (Barney, 1991; Ulrich, 1997) suggests that HR practices can be a source of sustained competitive advantage. The implication of this is that outsourcing any strategic HR activities should be detrimental to aspects of organizational performance. Employee turnover is costly and has been related to declining organizational performance for decades (Hirschman, 1970). It is natural to expect that a reduction in employee satisfaction with core business processes affecting their work and personal lives, such as HR, would lead to lower employee performance due to reduced engagement, higher voluntary turnover (Shaw *et al.*, 1998) and lower customer satisfaction (Angle and Perry, 1981; Arthur, 1994). The following hypotheses assume that HR activities have a strategic component and add to overall employee satisfaction and engagement which augment organizational productivity. Replacing the customized fit of an internal group of HR professionals with a cookie-cutter approach of an HRO provider is predicted to have negative consequences. These theoretical considerations lead to three hypotheses about the use of HRO and organizational outcomes:

(H1): HRO will be *negatively* associated with employee retention (lower voluntary employee turnover).
(H2): HRO will be *negatively* associated with employee satisfaction.
(H3): HRO will be *negatively* associated with customer satisfaction.

The following types of HR activities are commonly outsourced: recruitment and selection, training and development, pay and benefits, mergers and outplacement, performance appraisal systems, HR planning, and organizational climate and culture (Galanaki and Papalexandris, 2005; Mahoney and Brewster, 2002). In order to measure the level of HRO in 2007 a questionnaire was developed listing these activities and several others suggested during interviews with dozens of HR and finance executives at a variety of large organizations in nine major industries. These organizations included major retailers, manufacturers, high-tech firms, an airline, financial service companies, and larger local governments. The goal of these initial interviews was to select a set of activities covering the entire domain of HR and to include activities thought to be both well suited to HRO and poorly suited to obtain

contrasting measures. The questionnaire was refined and expanded to measure thirty-four distinct HR activities. Each of these activities is labeled in the second column of Table 14.2 (see p. 386).

Research design

The data used in this study was collected through a series of online and paper survey deployments. The data collected provides a cross-sectional study of organizations in several industries for 2007. Concerns about the size of the effect size led to a power analysis (Buchner *et al.*, 2001; Erdfelder *et al.*, 1996) prior to data collection which suggested that at least 200 organizations should complete the questionnaire. The majority of the data analyzed was collected from three online deployments of the survey questionnaire. Two market research firms were engaged to reach a national cross-section of HR professionals. Both Market Tools and Greenfield Online are market research firms that have a panel of professionals who have indicated a willingness to complete surveys on business topics. Market Tools sent invitations to participate for the first online deployment of the survey in 2007 as well as for the final deployment in early 2008. Greenfield Online distributed electronic mail invitations to its panel of HR and finance professionals in the fall of 2007.

Voluntary employee turnover was measured by asking each organization's respondent to refer to its data archives for the most recent year available. The voluntary turnover figure was defined as "employee initiated turnover" and excluded planned retirements. The reason for excluding planned retirements is that a planned retirement is not expected to signal employee dissatisfaction with the organization and is not expected to be influenced by the decision to increase HRO. Overall employee turnover was also collected for comparison and was defined as "employee initiated and employer initiated turnover." Planned retirements were included in the overall turnover category.

Measures of employee satisfaction have been validated in numerous studies with the most common items listed in Fields (2002). The design of the organizational questionnaire assumed that the overall employee satisfaction measure collected by most organizations would be similar enough to compare with other overall employee satisfaction measures. Overall employee satisfaction was measured by asking four questions relating to: overall organizational employee satisfaction score, total

possible points for the score, creator of the survey used and the year in which the data was collected. This data was transformed to a percentage of the maximum score possible to create a variable with a possible value ranging from 0 to 100. The variable was included only for organizations with employee satisfaction data from the past two years 2005 through 2007.

The level of overall customer satisfaction was estimated by asking each respondent to provide the organization's most recent overall customer satisfaction score, the total possible points, the year the customer satisfaction survey was conducted, and the creator of the survey used. This data collected was transformed to a percentage of the maximum score possible to create a variable with a possible value ranging from 0 to 100. The variable was included only for those organizations with customer satisfaction data from the past two years 2005 through 2007.

Three of the most commonly used control variables in the analysis of organizational outcomes were included in the regression model to account for effects due to size, industry, and location. Size was measured both in terms of employees and 2007 annual revenues. In the case of publicly traded and most privately held companies, 2007 revenues and employee levels were verified using the Hoover's database. In the case of most organizations in the public administration category, using 2007 revenues of a measure of size did not make sense and therefore this measure of size was not used. In most cases, employment levels could be verified for accuracy using publicly available data.

The organization's primary industry was coded using the North American Industrial Classification (NAIC) system at the two digit level. Some of these categories were combined due to small numbers of respondents in industries such as agriculture and mining. Each responding organization was coded by the state or country in which its headquarters was located. For the organizations headquartered in the United States one of four regional codes was assigned (Northeast, Midwest, South, and West) with non-US representing the omitted category.

Descriptive statistics

Data was collected on the 2007 outsourcing levels from more than 400 organizations. Of these, 294 organizations provided data on

the primary dependent variables and met the aforementioned stringent standards of verification for accuracy. The current dataset is a representative sample of organizations doing business in the United States. This sample is very representative of the United States economy in terms of industry and geographic location. The participating organizations represent nineteen different industry groups. A comparison of the percentage of respondents by industry to the share of that industry group as a percentage of the gross domestic product revealed very good coverage by primary industry type.

An analysis of the participants by industry reveals that the largest number of responses (18 percent) came from manufacturing, followed by health care (12 percent), accommodation and food services (10 percent), and professional and business services (9 percent). The most underweighted sector is public administration (5 percent). The majority (85 percent) of the organizations included represent the private sector. Of the private sector organizations, 35 percent were publicly traded companies. The non-profit and public sectors each make up about 8 percent of the sample.

An analysis of the geographic distribution of respondents reveals that this sample comes from organizations from around the United States and a comparison of the states included with each state's share of national GDP reveals fairly representative coverage. This sample is overweighted for Minnesota and underweighted for New York and Texas. No observations were collected from Alabama, Alaska, Montana, North Dakota, New Hampshire, Oklahoma, South Dakota, Wyoming, and Vermont.

The sample analyzed includes small to very large organizations measured in terms of total employment. The distribution is as follows: organizations with fewer than 100 employees (18 percent), organizations with 100–499 employees (40 percent), organizations with 500–999 employees (8.5 percent), organizations with 1,000–4,999 employees (15 percent), organizations with 5,000–9,999 employees (6 percent), organizations with 10,000–49,000 employees (6.5 percent), and 50,000 or more employees (6 percent). The sample includes 30 of the 2007 *Fortune* 500 companies.

Revenue information was requested of organizations participating in the later survey waves, as the number of smaller organizations participating was not anticipated in the first survey deployment. Financial

Table 14.1 *Descriptive statistics for the dependent variables*

Dependent variable	n	Mean	Min	Median	Max	Standard deviation
Overall turnover	288	25	1	10	296	34.0
Voluntary turnover	271	16	0	15	200	22.0
Employee satisfaction	96	78	20	80	96	15.0
Customer satisfaction	69	84	50	85	100	11.0

databases were used to obtain 2007 revenues for companies that did not report this number, as well as to verify the number supplied. Revenue information was obtained for 240 organizations (82 percent) of the sample and is biased towards larger companies. Organizations with revenues less than $10 million comprise 21 percent of the sample. Another 22 percent of the sample had 2007 revenues between $10 and $100 million. About 12 percent were between $100 million and $1 billion and 26 percent were larger than $1 billion. These percentages are calculated from the total number of 294 participants of which 2007 revenue data was not available for 18 percent.

Table 14.1 reports the descriptive statistics for the dependent variables and overall employee turnover. Voluntary employee turnover data was collected from 271 organizations, which is 92 percent of the sample. The mean value was 16 percent and the median value was 15 percent. Some organizations reported no voluntary turnover and the highest level reported was 200 percent. Such high levels are not uncommon for retailers, hotels, and restaurants. Overall employee turnover was collected from 288 organizations, which is 98 percent of the sample. The mean value was 25 percent, but the median value was 10 percent. This level is certainly affected by economic factors and was expected to be larger and have higher variation. The standard deviation was 34 for overall turnover compared to 22 for voluntary turnover.

Employee satisfaction scores were collected from 96 organizations, which is 33 percent of the sample. Customer satisfaction scores were received from 69 organizations, which is 24 percent of the sample. Companies were more guarded with these last two organizational performance measures than data on their outsourcing

levels. At these levels, the statistical power is not adequate to recommend hypothesis testing using multiple regressions on these dependent variables.

The level of HRO measure is based on the answer to the thirty-four items asking "Estimate the percentage of work measured in terms of time or effort spent on each of the following HR activities by *external parties/vendors* (i.e., consultants, independent contractors, service providers)." Each responding organization provided an estimate of their 2007 level of outsourcing of thirty-four HR activities. The responses received for each HR activity are divided into four columns in Table 14.2. The first column lists the number of organizations for which 2007 HRO estimates for the activity were available. The second column lists the percentage of organizations reporting no outsourcing of the HR activity. The third column gives the average percentage of the activity outsourced by the entire group of responding organizations and the fourth column provides the standard deviation. The number of responses for the six categories added after the pilot survey is substantially lower than the majority of the HR activities. In addition, several organizations did not have union employees or foreign employees which decreased the number of responses for the union and expatriate HR activity items.

As would be expected for a new phenomenon, the mean values for many individual activities tended to be low with half of the HR activities averaging 7 percent or lower. The most common response for every category of HR was zero. Similarly, the median value for every HR activity except pre-employment testing and employee assistance programs (EAP) was zero. By this measure, the ten most heavily outsourced HR activities in order of reported percentage outsourced are: EAP, pre-employment testing, technical and computer training delivery, management training delivery, salary surveys, employee attitude surveys, annual benefit enrollment, development of customized training programs, relocation assistance, resumé screening, and executive recruiting.

Analysis of column two in Table 14.2, which reports the organizations outsourcing an HR activity, shows that EAP is the most commonly outsourced HR activity followed by pre-employment testing, training delivery, executive recruiting, employee surveys, customized training development, and salary surveys. This compares to the findings reported in Lawler *et al.* (2006) that EAP and benefits were the most

Table 14.2 ***Reported outsourcing levels of 34 HR activities – overall dataset organization reporting no outsourcing***

		Level of outsourcing			
Item	Description of HR activity	n	Percent reporting zero outsourcing	Mean percent of outsourcing	Standard deviation
1.	Addressing employee complaints about co-workers	294	66.3	5.5	12.8
2.	Addressing employee complaints about mgmt.	293	66.9	5.2	13.3
3.	Communicating performance results to employees	292	72.3	5.0	12.8
4.	Communicating culture and vision to employees	290	73.8	4.0	10.4
5.	Design of organization structure	288	71.9	4.0	10.0
6.	Union/labor relations management	273	71.8	6.9	17.2
7.	Conducting employee attitude/opinion surveys	287	58.5	15.5	29.1
8.	Pre-employment testing and assessment	293	44.4	22.7	33.6
9.	Job analysis and developing job descriptions	294	67.0	7.9	17.9
10.	Relocation assistance and reimbursement	285	68.8	12.2	27.1
11.	Employee assistance program	289	43.6	31.3	41.9
12.	Resumé screening	288	66.0	10.5	22.1
13.	Interviewing for non-exempt positions	286	72.7	5.7	14.9
14.	Annual employee benefit enrollment	293	51.2	15.4	25.9
15.	HRIS/HRIT and employee data management	198	63.6	9.7	21.5
16.	Salary surveys	285	60.0	16.4	30.3

Table 14.2 ***(cont.)***

Item	Description of HR activity	Level of outsourcing			
		n	Percent reporting zero outsourcing	Mean percent of outsourcing	Standard deviation
17.	Delivery of employee performance reviews	287	79.1	4.8	14.0
18.	Design of group level bonus programs	283	76.0	5.8	16.5
19.	Merit pay increase planning & implementation	282	79.8	3.9	12.8
20.	Employee recognition programs	282	70.2	7.5	18.7
21.	Responding to questions about pay and benefits	281	65.8	7.7	17.3
22.	Tracking employee training and competencies	287	74.2	6.6	18.3
23.	Development of customized training programs	280	59.3	13.0	24.2
24.	Delivery of technical and computer training	286	56.6	17.5	29.2
25.	Delivery of management training	280	52.1	16.6	27.2
26.	New employee orientation sessions and training	281	74.0	4.7	12.3
27.	Tuition reimbursement	281	83.6	5.4	18.8
28.	Mentoring	282	78.0	4.6	14.0
29.	Coaching	201	72.6	5.0	13.5
30.	Succession planning	190	74.2	3.7	9.4
31.	Expatriate selection and assignment	189	84.1	4.1	15.1
32.	Expatriate training and preparation	187	79.7	4.4	14.1
33.	Interviewing for exempt positions	158	61.4	7.7	16.7
34.	Executive recruiting	179	58.1	9.8	20.2

frequently completely outsourced HR activities. While not reported in Table 14.2, the HR activities most frequently found in the moderately outsourced category are: management training, benefits enrollment, and computer and technical training. Lawler *et al.* (2006) reported that benefits and employee training were the HR activities most frequently partially outsourced.

Examining the role of HRO on organizational outcomes

The first step to examining our hypothesis is to perform the regression analysis with only the control variables. Tables 14.3 and 14.4 show the base model used to test the hypotheses. The results were generated by using OLS regression using standard errors clustered by region using the most current version of the statistical analysis program, Stata 10.0. The base model includes three typical control variables used in organizational analysis: size, industry, and location. The dependent variable is the voluntary employee turnover percentage in 2007 for the participating organizations.[1] The first run of the base model includes two variables that control for size of the organization: 2007 annual revenues measured in millions of dollars and number of employees measured as FTEs. The second run of the base model drops revenues to permit the inclusion of organizations for which revenue is not appropriate, such as governmental entities. The primary industry classification of the organization is also controlled for at the two-digit NAIC level by using fourteen dummy variables for those industries representing organizations consisting of at least 2 percent of the sample. Finally, the region in which the responding organization's headquarters was located was controlled for by using a dummy variable for each of the four regions defined by the US Census Bureau (Northeast, Midwest, South, and West) and those organizations located outside the US served the comparison group.

The regression model used is:

$$Y_{it} = X_{it}ß + u_i + e_{it}$$

In the regression model Y is the dependent variable, X represents the matrix of independent variables, u_i represents individual fixed effects, and e_{it} represents errors that are assumed to meet the independently and identically distributed assumption.

Table 14.3 ***Base model: control variables only (includes revenue) 2007 voluntary employee turnover (percent per year) clustered standard errors (44 states)***

	Coefficient	Standard error	P-value
Intercept	8.242765	5.223438	0.122
Control variables:			
Organizational size			
2007 Annual revenues (millions USD)	.000031	.000053	0.58
2007 Number of employees (FTEs)	.0000251	.0000491	0.612
Primary industry			
Agriculture/Mining	.0000251	.0000491	0.612
Utilities	−7.833623	4.39032	0.081*
Construction	−10.8135	4.217111	0.014**
Manufacturing	−2.689649	7.497993	0.722
Wholesale/Retail trade	1.951201	4.31723	0.654
Transportation	−6.690282	5.73325	0.250
Information	.3793655	7.38585	0.959
Finance/Insurance/Real estate	−1.366507	6.688042	0.839
Business and professional services	3.625266	5.282428	0.496
Education	−5.797824	5.606153	0.307
Health care	−2.9011	5.046629	0.568
Arts/Entertainment	−4.517812	5.000816	0.371
Accommodation	28.68723	32.73811	0.386
Public administration	7.052695	6.700666	0.298
Geographic location			
Northeast	4.627087	3.063334	0.138
Midwest	8.098702	2.998107	0.010***
South	12.40537	4.063465	0.004***
West (non-US omitted)	9.972758	4.546657	0.034**
Model statistics			
R-squared	0.1318		
Adjusted R-squared	0.0454		
F (20, 43) Clustered standard errors	4.27		
Probability > F	0.0000		
Observations	222		

* P < .10, ** P < .05, *** P < .01

Table 14.4 ***Base model: control variables only (omits revenue) 2007 voluntary employee turnover (percent per year) clustered standard errors (46 states)***

	Coefficient	Standard error	P-value
Intercept	15.31225	6.292134	0.019**
Control variables:			
Organizational size			
2007 Number of employees (FTEs)	.0000267	.0000464	0.567
Primary industry			
Agriculture/Mining	−15.17442	6.871341	0.032**
Utilities	−18.91196	6.591541	0.006***
Construction	−12.40966	9.460624	0.196
Manufacturing	1.282274	3.60223	0.724
Wholesale/Retail trade	−14.37592	7.390217	0.058*
Transportation	−8.009214	7.825197	0.312
Information	−10.77433	8.452524	0.209
Finance/Insurance/Real estate	−5.628383	7.484657	0.456
Business and professional services	−12.19733	7.663086	0.118
Education	−10.59828	7.465132	0.163
Health care	−11.64544	7.285372	0.117
Arts/Entertainment	5.543222	19.50073	0.778
Accommodation	−1.169864	8.252483	0.888
Public administration	−13.90214	7.036125	0.054*
Geographic location			
Northeast	6.162712	2.928647	0.041**
Midwest	8.431873	2.674957	0.003***
South	12.1846	3.603967	0.002***
West	11.19445	3.630372	0.003***
Model statistics			
R-squared	0.0855		
Adjusted R-squared	0.0168		
F (19, 45) Clustered standard errors	4.68		
Probability > F	0.0000***		
Observations	273		

* P < .10, ** P < .05, *** P < .01

One assumption of ordinary least squares (OLS) regression is that e_{it} is independently and identically distributed. This is likely not the case and as information on location is available but cannot be accounted for with individual dummy variables for each state and country due to the sample size, so clustered standard errors were used. Table 14.3 shows that the overall regression equation for the base model is highly statistically significant with an F-statistic of 4.27 ($p = 0.000$). One industry dummy variable (construction) is significant at the .05 level and is associated with lower voluntary turnover. The dummy variables for Midwestern, Western, and Southern states are also significant at the .05 level and are associated with higher voluntary turnover compared to non-US companies. The R-squared value is 13.2 percent. The adjusted R-squared value of 4.5 percent is quite small. The lack of significance for the control variables in this base model should not be a concern as *a priori* there is no reason to expect the control variables to be individually or jointly associated with the dependent variable – voluntary employee turnover.

Table 14.4 provides the results of the regression analysis after including those organizations for which annual revenue data was not available and dropping the control variable for 2007 revenues. While this increases the power to detect the effect of relevant variables, an important variable is being omitted which creates a specification problem. When regression analysis is conducted on the larger sample the F-statistic remains highly significant at 4.68 ($p = 0.000$). Three of the industry dummy variables are significant at the .05 level (agriculture and mining, utilities, and public administration). Each of these industries is associated with lower voluntary turnover. All four regional dummy variables are significant at the .05 level and the coefficients are positive, meaning that they are associated with higher voluntary turnover than the base category of non-US organizations. However, the adjusted R-squared value suffers when the revenue variable is dropped, falling from 4.5 percent to a disturbingly low 1.7 percent.

A test of whether the source of the data (Market Tools, Greenfield Online, or direct contact with the researcher) biased the results, dummy variables were created for each of the three online survey deployments and added to the above model with the paper questionnaires representing the base group. An examination of the F statistic of 0.40 showed that a test for joint significance of these variables could also be rejected

and the results of the partial F tests also suggest that the source of the data was not a concern.

Voluntary employee turnover and HRO

Tables 14.5 and 14.6 report the results of regression equations that include an independent variable measuring the lack of any significant HRO. This dummy variable zero HRO equals one of the organization reports zero outsourcing of any HR categories. The results in Table 14.5 for Model 1a (revenues included) show that the zero HRO dummy variable is significant at the .05 level and is negative as hypothesized with a coefficient of −6.5. This finding provides evidence that HRO is associated with an economically significant increase in voluntary employee turnover. The coefficient of negative 6.5 is interpreted as follows: not outsourcing any HR activities is associated with more than a six percentage point drop in voluntary turnover. In other words, those organizations not engaging in HRO have higher employee retention (lower voluntary turnover) after controlling for size, industry, and location.

Overall Model 1a is highly significant with an F-statistic of 5.24 ($p = 0.000$). A partial F test on the addition of the zero HRO dummy variable yields an F-statistic of 5.03 ($p = 0.03$). Adding the zero HRO variable increases the explanatory power compared to the Base Model (revenues included) by about one percentage point as the R-squared value increases to 14.4 percent and the adjusted R-squared value increases to 5.4 percent. Several control variables are significant at the .05 level. Industry remains important for utilities and is associated with lower voluntary turnover. The regional dummy variables for each region except the Northeast are statistically significant at the .05 level and are higher than the non-US organizations.

Table 14.6 shows the results from the larger dataset that omits revenue as a control variable. The zero HRO variable adds to the explanatory power of the model with a partial F-statistic of 7.96 ($p = 0.07$). The absolute magnitude of the coefficient for the zero HRO variable in Model 1b (revenues omitted) is greater at a negative 8.6, representing a larger drop in voluntary turnover for organizations eschewing HRO. The coefficient on this independent variable is significant at the .01 level. The overall model is highly significant with an F-statistic of 5.33 ($p = 0.000$). Compared with Model 1a (revenues included), the

Table 14.5 ***Model 1a: zero HRO variable added (includes revenue) 2007 voluntary employee turnover (percent per year) clustered standard errors (44 states)***

	Coefficient	Standard error	P-value
Intercept	9.941856	4.996941	0.053*
Control variables:			
Organizational size			
2007 Annual revenues (millions USD)	.0000204	.0000536	0.706
2007 Number of employees (FTEs)	.0000251	.0000501	0.619
Primary industry			
Agriculture/Mining	−6.863798	4.11554	0.103
Utilities	−12.34451	3.974601	0.003***
Construction	−3.716978	7.363784	0.616
Manufacturing	1.513031	4.928907	0.760
Wholesale/Retail trade	−6.792209	6.187785	0.278
Transportation	−.1854512	7.812655	0.981
Information	−1.961251	6.734932	0.772
Finance/Insurance/Real estate	2.502779	4.969404	0.617
Business and professional services	−5.625802	5.336062	0.298
Education	−4.129467	4.809902	0.395
Health care	−5.057905	4.982556	0.316
Arts/Entertainment	27.44953	32.71673	0.406
Accommodation	7.488339	6.786151	0.276
Public administration	−5.806341	4.366388	0.191
Geographic location			
Northeast	5.163949	2.781508	0.070*
Midwest	7.501209	2.648902	0.007***
South	12.02272	3.906064	0.004***
West	9.530596	4.177631	0.028**
Independent variables:			
Zero human resource outsourcing	−6.477411	2.888716	0.030**
Partial F-statistic	5.03	0.0302**	
Model statistics			
R-squared	0.1439		
Adjusted R-squared	0.0541		
F (21, 43) Clustered standard errors	5.24		
Probability > F	0.0000***		
Observations	222		

* P < .10, ** P < .05, *** P < .01

Table 14.6 ***Model 1b: zero HRO variable added (omits revenue) 2007 voluntary employee turnover (percent per year) clustered standard errors (46 states)***

	Coefficient	Standard error	P-value
Intercept	17.10177	6.673608	0.014**
Control variables:			
Organizational size			
2007 Number of employees (FTEs)	.0000241	.0000461	0.604
Primary industry			
Agriculture/Mining	−13.7215	6.574874	0.043**
Utilities	−20.50836	6.814048	0.004***
Construction	−13.27032	9.435607	0.166
Manufacturing	1.217133	4.29504	0.778
Wholesale/Retail trade	−14.57422	7.893869	0.071*
Transportation	−8.138339	7.843791	0.305
Information	−11.78648	8.265555	0.161
Finance/Insurance/Real estate	−6.94133	7.517517	0.361
Business and professional services	−11.43734	7.329961	0.126
Education	−12.01022	7.576455	0.120
Health care	−11.87317	7.373585	0.114
Arts/Entertainment	5.961133	19.40937	0.760
Accommodation	−.1689117	8.279582	0.984
Public administration	−14.33287	7.398417	0.059*
Geographic location			
Northeast	6.534254	2.950272	0.032**
Midwest	7.896956	2.371254	0.002***
South	12.05298	3.586083	0.002***
West	10.7795	3.309974	0.002***
Independent variables:			
Zero human resource outsourcing	−8.570191	3.037597	0.007
Partial F-statistic	7.96	0.0071	
Model statistics			
R-squared	.1044		
Adjusted R-squared	.0333		
F (20, 45) Clustered standard errors	5.33		
Probability > F	0.0000***		
Observations	273		

* P < .10, ** P < .05, *** P < .01

R-squared in Model 1b (revenues omitted) falls to 10.4 percent and the adjusted R-squared decreases to 3.3 percent.

As was the case for Model 1a (revenues included), in Model 1b several control variables are significant at the .05 level. Industry remains important for both the utilities and agriculture and mining sectors and is associated with lower voluntary turnover. Each of the four regional dummy variables is significant and positive at the .05 level compared to the non-US organization.

Employee satisfaction and HRO

The concerns about the power to detect a relationship with employee satisfaction were well founded. Model 2 uses regional controls but cannot use clustered standard errors for state effects. The number of employees to control for size but dummy variables for industry effects could not be included due to the small sample size. Robust standard errors were used instead of clustered standard errors. Model 2 has an F-statistic that is significant at the .01 level, but the adjusted R-squared value falls to zero. As Table 14.7 shows, no statistically significant relationship exists with the independent variable of interest (zero HRO) in Model 2.

Customer satisfaction and HRO

Concerns about the power to detect a relationship between HRO and customer satisfaction were even greater. Again due to the smaller sample size, Model 3 uses only regional controls and number of employees as control variables and replaces clustered standard errors with robust standard errors. Model 3 is highly significant overall with an F-statistic of 4.92 ($p = 0.001$). Table 14.8 shows a statistically significant relationship exists with overall customer satisfaction and those organizations not engaging in HRO of any activities. The size of the coefficient is −8.57 percentage points, which is a materially significant finding. In other words, those organizations not engaging in HRO have customer satisfaction scores 8.6 percentage points higher than a comparison group that does engage in HRO. The R-squared value for Model 3 is 15.4 percent compared to 14.4 percent in Model 1a (revenues included) and the adjusted R-squared value is 7.1 percent

Table 14.7 ***Model 2: zero HRO (omits revenue) regressed on 2007 employee satisfaction scaled to percentage of maximum score***

	Coefficient	Standard error	P-value
Intercept	73.36015	10.75641	0.000
Control variables:			
Organizational size			
2007 Number of employees (FTEs)	−.0000171	.0000114	0.143
Geographic location			
Northeast	2.800367	11.2101	0.804
Midwest	8.230758	10.87696	0.454
South	4.952988	11.05635	0.657
West	4.322057	11.13808	0.700
Independent variables:			
Zero HR outsourcing	−.9916174	7.155279	0.891
Model statistics			
R-squared	0.0249		
Adjusted R-squared	−0.0408		
F (6, 34) Robust standard errors	2.57		
Probability > F	0.0365***		
Observations	96		

* P < .10, ** P < .05, *** P < .01

compared to 5.4 percent in Model 1a. The relationship between customer satisfaction and HRO merits additional investigation.

In light of these results each hypothesis is revisited to reflect on the findings.

(H1): HRO will be *negatively* related to employee retention (lower voluntary employee turnover).

This hypothesis has the strongest support of the three. The regression analysis provides evidence that the organizations engaged in HRO have higher voluntary employer turnover compared to those with zero (or a negligible) HRO. The size of the effect is in the double digits and should be something to note for organizations, as reducing turnover by ten percent has large potential to reduce hiring and training costs. While evidence of association is provided by these findings the causality is

Table 14.8 ***Model 3: zero HRO (omits revenue) regressed on 2007 customer satisfaction scaled to percentage of maximum score using robust standard errors***

	Coefficient	Standard error	P-value
Intercept	75.27858	11.70021	0.000
Control variables:			
Organizational size			
2007 number of employees (FTEs)	.0000198	7.11e-06	0.009***
Geographic location			
Northeast	3.729693	11.97295	0.758
Midwest	6.682477	11.93972	0.580
South	12.14596	11.70842	0.308
West	6.584533	11.89044	0.584
Independent variables:			
Zero HR outsourcing	9.343181	3.322002	0.009***
Model statistics			
R-squared	0.1535		
Adjusted R-squared	0.0716		
F (6, 62)	3.25		
Probability > F	0.0076***		
Observations	69		

* P < .10, ** P < .05, *** P < .01

indeterminate. It is possible that organizations with higher voluntary employee turnover have turned to HRO as a means of getting better quality HR services. Testing the consistency of this finding should be done with additional studies ideally of a longitudinal design.

The data collected for this study do not support the second hypothesis:

(H2): HRO will be *negatively* related to higher employee satisfaction.

As noted this result may be due to a lack of power to detect such an association due to the smaller number of organizations providing measures of employee satisfaction or engagement. However, if this result stands with a larger sample it would be troubling as one would expect theoretically that any differences in employee turnover would

result from reductions in employee satisfaction or engagement. Testing the third hypothesis provides some potentially important results for managers.

(H3): HRO will be *negatively* related to higher customer satisfaction.

In spite of the very low power of the test, there is a statistically significant and sizable relationship between customer satisfaction scores and use of HRO. An improvement of 9 points on a 100 point customer satisfaction scale is noteworthy as is the level of significance ($p = 0.01$). This finding merits additional study.

Limitations

The study reported in this chapter has some major limitations. The cross-sectional design cannot establish a causal link. The results do not tell us about the direction of the relationship and causality could plausibly run in either direction. It could be that those organizations that choose to live with higher levels of employee turnover, or otherwise place less value on their human capital, are more likely to engage in HRO to eliminate the trouble. For example, an organization that chooses to outsource an activity such as training and coaching, might do so knowing they have lower than average employee retention anyway and therefore there is less to lose by replacing HR staff with a vendor.

Another concern is that the percentage of variance explained by each of the three models is relatively low so including other important unobserved factors, such as HR strategy, may alter this relationship. An alternative explanation for the negative relationship between HRO and employee retention and customer satisfaction could be that organizations that engage in higher levels of HRO have less effective HR practices overall or are in less healthy industries and these other factors are the cause of lower satisfaction and retention levels. Future work should look at changes in HRO levels and changes in employee turnover over time.

Conclusions and implications for managers

This chapter provides evidence that suggests outsourcing HR activities is associated with important organizational outcomes including voluntary employee turnover and customer satisfaction. Outsourcing

HR is a strategic decision that should not be taken lightly by executives (Cooke *et al.*, 2004; Domberger, 1998). Further discussion of the suitability of particular HR activities to outsourcing and the differential effects of outsourcing particular HR activities is available in Norman (2009). The intent of this chapter is to encourage those weighing a decision to outsource an entire business function to consider the hidden costs of such a contract (Brown, 2007). It is possible that the easily identifiable savings from eliminating a group of HR employees may be outweighed by other effects on the organization. It is hoped that these initial results lead more HR professionals to research the impact of outsourcing decisions in a way that includes these other factors so that the true economic cost is considered in negotiating HRO contracts.

Note

1 Revenue, number of employees, and turnover data are assumed to represent the year 2007 or the level as of December 31, 2007. The majority of data reported was for 2007; in a small number of cases only 2006 data was available and in this case this was used.

References

Angle, H. and Perry, J. 1981. "An empirical assessment of organizational commitment and organizational effectiveness," *Administrative Science Quarterly* 26: 1–14.

Arthur, J.B. 1994. "Effects of human resource systems on manufacturing performance and turnover," *Academy of Management Journal* 37: 670–87.

Barney, J. 1991. "Firm resources and sustained competitive advantage," *Journal of Management* 17: 99–120.

Beamon, K.V. 2004. *Out of Site: An Inside Look at HR Outsourcing*. Austin, TX: IHRM Press Book.

Becker, B. and Gerhart, B. 1996. "The impact of human resource management on organizational performance: progress and prospects," *Academy of Management Journal* 39: 779–801.

Brown, R.H. 2007. "Beware of cost savings that add up to less than 10 percent," *HRO Today*. Accessed electronically at www.hrotoday.com/Magazine.asp?artID=1632.

Buchner, A., Erdfelder, E., and Faul, F. 2001. "How to use G*Power." Retrieved on December 30, 2008 from http://www.psycho.uni-duesseldorf.de/aap/projects/gpower/how_to_use_gpower.html.

Capelli, P. and Neumark, D. 1999. "Do 'high performance' work practices improve establishment-level outcomes?" *NBER Working Paper* 7374. Cambridge, MA.

Cook, M.F. 1999. *Outsourcing Human Resources Function: Strategies for Providing Enhanced HR Services at Lower Cost*. New York: AMACOM.

Cooke, F.L., Shen, J., and McBride, A. 2004. "Outsourcing HR as a competitive strategy? A literature review and an assessment of implications," *Human Resource Management* 44(4): 413–32.

Domberger, S. 1998. *The Contracting Organization: A Strategic Guide to Outsourcing*. Oxford University Press.

Engardio, P., Arndt, M., and Foust, D. 2006. "The future of outsourcing," *Business Week* January 30: 50–58.

Erdfelder, E., Faul, F., and Buchner, A. 1996. "GPOWER: a general power analysis program," *Behavior Research Methods, Instruments, & Computers* 28: 1–11.

Everest Research Institute. 2006. "Human Resources Outsourcing (HRO) Annual Report: (November)Preview Deck." Webinar presentation.

Fields, D.L. 2002. *Taking the Measure of Work: A Guide to Validated Scales for Organizational Research and Diagnosis*. Thousand Oaks, CA: Sage.

Galanaki, E. and Papalexandris, N. 2005. "Outsourcing of human resource management services in Greece," *International Journal of Manpower* 26(4): 382–96.

Giacomelli, G. 2007. "How to kill HRO," Whitepaper. SAP, AG.

Hirschman, A.O. 1970. *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States*. Cambridge, MA: Harvard University Press.

Lawler, E.E., Boudreau, J.W., and Mohrman, S.A. 2006. *Achieving Strategic Excellence: An Assessment of Human Resource Organizations*. Stanford, CA: Stanford Business Books.

Lawler, E.E., Ulrich, D., Fitz-enz, J., and Madden, V. 2004. *Human Resources Business Process Outsourcing: Transforming How HR Gets Its Work Done*. San Francisco: Jossey-Bass.

Mahoney, C. and Brewster, C. 2002. "Outsourcing the HR function in Europe," *Journal of Professional HRM* 27: 23–28.

Norman, T.J. 2009. Outsourcing human resource activities: measuring the hidden costs and benefits. Doctoral dissertation, University of Minnesota-Minneapolis. *Dissertation Abstracts International*, DAI-A 70/04, Publication No. AAT 3352808.

Shaw, J.D., Delery, J.E., Jenkins, Jr., G.D., and Gupta, N. 1998. "An organizational level analysis of voluntary and involuntary turnover," *Academy of Management Journal* 41: 511–25.

Towers Perrin. 2008. "HR outsourcing: striking the right balance" (November), www.towersperrin.com/tp/showdctmdoc.jsp?country=usa&url=Master_Brand_2/USA/News/Spotlights/2008/Nov/2008_11_20_spotlight_hr_outsourcing.htm.

Ulrich, D. 1997. *Human Resource Champions: The Next Agenda for Adding Value and Delivering Results*. Boston: Harvard Business School Press.