



# Employee Perceptions of Outsourcing of Information Technology Operations: An Empirical Investigation

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## ABSTRACT

*Little research exists addressing employee perceptions of Information Technology (IT) outsourcing, and its effects on IT employees. This study investigated perceptions of employees directly involved in IT outsourcing in an effort to correlate these perceptions with factors identified in earlier studies. The following human resource factors associated with outsourcing were evaluated: job security, benefits and compensation, morale, productivity, training and skills, and career opportunities. The study evaluated four hypotheses that contended transitioned employees benefited more from IT outsourcing. Results substantiated those of previous studies of employee perception of IT outsourcing. However, there was no statistical evidence to support the contention that transitioned professionals benefit more from outsourcing than retained professionals. To assist management with addressing these issues a Modified Management Outsourcing Adoption Model, based on an earlier study, is presented as a tool for use in management action plans to incorporate employee perspectives into the outsourcing process and potentially led to more successful outsourcing ventures.*

## INTRODUCTION

Loh and Venkatraman (1992) defined Information Systems (IS)/Information Technology (IT) outsourcing as the significant contribution external vendors provide in physical and human resources (HR) associated with the entire or specific components of the IT infrastructure. Hirschheim and Lacity (2000) said IT outsourcing involves transferring assets, leases, staff, and management responsibility for delivery of services from internal IT management to third-party vendors.

Outsourcing usually affects employees in one of three ways (Palvia & Parzinger, 1995). The outsourcing company can retain affected employees. Personnel can be transitioned to vendors payrolls. Finally employees may be released through attrition, layoffs or retirement incentives.

Research revealed little emphasis is given to identifying and integrating non-upper level management employee concerns about outsourcing into the outsourcing process. HR issues are addressed from perspectives of upper-level management and from perceived benefits of involved companies (Khosrowpour et al., 1995; Laribee & Michaels-Barr, 1994). This may produce a false sense of perceived outsourcing success from HR perspectives.

## Literature Review

Hirschheim and Lacity (2000) categorize the wealth of IT outsourcing research as: descriptive case studies; surveys of current practices; surveys of practitioners perceptions of risks/benefits; studies of outsourcing determinates and best practices that identify or distinguish successes verses failures. This review offers a brief representation of literature addressing HR issues relevant to this study. First is a general discussion of these issues. A discussion of the two studies specifically dealing with employee perspectives of outsourcing follows.

Due' (1992) interviewed IS personnel involved in outsourcing and uncovered several serious concerns. The most significant were the outsourcing process had negative effects on employee morale and presented uncertainty for employee's futures. These were fueled by rumors of lay-offs, benefits loss or reduction, transfers, and migrations to new or different technologies. When management did not address these rumors, low productivity and personnel exodus resulted.

Khosrowpour et al. (1995) examined outsourcing problems from both an organizational and personnel perspective. They stated personnel problems associated with outsourcing often are reflected in employee perceptions and actions. They contended it was important for managers to understand these perceptions so they could deal effectively with problems arising as outsourcing evaluation or transition progressed.

Cooper (1999) reported on two *Quality of Working Life Surveys* conducted with 5000 junior managers through Chief Executive Officers (CEOs). These studies revealed where major corporate restructuring involved downsizing or outsourcing, there were adverse effects on employee loyalty, morale, motivation and perceived job security. There was a marked difference in perceived impact based on ones level in the managerial hierarchy. Chairpersons, CEOs, and managing directors perceived the initiative increased their morale, motivation and loyalty. Senior, middle, and junior managers perceived these same factors more negatively. All levels perceived their sense of job security decreased.

Elmuti and Kathawala (2000) performed an exploratory empirical study seeking to establish a positive relationship between global outsourcing programs and organizational effectiveness. Major factors associated with global outsourcing successes or failures were fear of change, access to adequate training and skills, choice of sourcing partners, and comprehensive plans detailing expectations. Fear of job loss, which negatively affected employee morale and job performance, was perceived the most serious problem in global outsourcing.

Hancox and Hackney (2000) studied practices and perceptions of IT outsourcing in the United Kingdom. They reported one population sector, non- and upper-level managers, often had significant misgivings about outsourcing, but for different reasons. Upper-managers usually were more concerned with the enterprise's economical welfare, whereas non-managers often felt excluded from management's decisions that affected their employment and careers.

By early 2002 only two studies dealing specifically with employee perceptions of outsourcing were published. Khosrowpour et al. (1996) studied perceptions of IS professionals, how outsourcing affected them, and career and communications issues. They asserted successful outsourcing dealt effectively with the following critical human factors: attracting/retaining talented IS professionals, employee resistance to outsourcing, job security, morale, productivity, training, and opportunities and career paths. This required management understand what perceptions exist within employee ranks, and was best accomplished with communication and employee participation in the process. They noted IT employees did not perceive their welfare was key to IT management

as it made outsourcing decisions. Management routinely did not seek input from employees to assess the impact the impending deal had on employees.

They proposed a Management Action Plan (MAP) for addressing productivity and low morale issues, and a Management Outsourcing Adoption Model (MOAM) for managers use to involve employees in the outsourcing process. The action plan posited a correlation between productivity levels when management implemented a plan to deal with employee perceptions and when they did not. It was based on management communication and employee participation, factors cited as most critical to addressing employee perspectives. They suggested that should management implement a plan addressing employee concerns, the decrease in productivity during adjustment periods would be significantly less than without such a plan.

Kessler, Coyle-Shapiro and Purcell (1999) performed a case study of non-IS professionals involved in an outsourcing deal in London. They noted the lack of research of employees' perspectives of outsourcing, and sought to identify potential impacts these perspectives had on outsourcing success. They measured work attitudes focusing on organizational commitment, job satisfaction, and HR practices including rewards, career development, training, communication and involvement. Their evaluation attempted to link consequences of outsourcing to change in employees' assessment of HR practices, to whether initial employee expectations were met, and to the extent there was change to important attitudinal outcomes following outsourcing.

## RESULTS

This study investigated IT employees' perceptions about outsourcing relative to various HR issues, and attempted to determine whether these perceptions might affect outsourcing success. This perceived success was interpreted as a positive perception of outsourcing issues under study. The study was an attempt to validate results from the two previous employee studies against a more specific IT population, employees who have been or were currently involved in outsourcing initiatives, particularly retained and transitioned employees.

An empirical investigation was conducted to evaluate eight research questions and four hypotheses. The survey instrument, a modified version of the Khosrowpour et al. (1996) instrument, had the same general format as the original: Section 1, 15 questions on demographics, involvement in, and feelings about outsourcing; Section 2, 16 questions addressing the research questions and hypotheses, completed only by those who had been involved in an outsourcing initiative; and Section 3, 6 opinion questions. The Appendix summarizes responses for items from Section 2.

The survey population included 1000 professionals of an international IS professional organization and a U.S. business unit of a major IT corporation. Participants returned 201 valid surveys, yielding a 20.1% return rate. This exceeded the 14.6% rate reported by Khosrowpour et al. (1996), which they stated as consistent and expected for this type research. Of the respondents, 150 (74.6%) had been involved in an outsourcing initiative: 13 displaced; 115 transitioned; 43 retained; 1 did not specify.

Since this study evaluated perceptions of those involved in outsourcing initiatives, and more specifically those retained or transitioned, major perceptions centered on two issues: (1) *feelings when going through outsourcing* and (2) *feelings today when the word "outsourcing" is mentioned*. Qualifying participants answered survey Section 2 based on their response to issue 2.

### Feelings About Outsourcing

An analysis of issue 2 verses issue 1 revealed an overall 10.5% increase in positive user feelings about outsourcing, an 8.4% increase of neutral feelings, and an 18.8% decrease in negative feelings. The 19.5% positive and 80.5% neutral/negative percentages for issue 1 tracked closely with those of Khosrowpour et al. (1996): 19.2% and 80.1% respectively.

On issue 2, 29.5% had positive and 70.5% negative/neutral feelings. Transitioned professionals had the largest change from negative to

positive feelings: 25.0% decrease in negative; 12.9% increase in neutral; 12.1% increase in positive. For retained, the largest change was a 5.6% decrease of negative feelings.

The majority of respondents retained initial feelings toward outsourcing: 57.5% still negative, 51.3% still neutral, and 57.1% still positive. Half the transitioned employees with negative feelings at the outset had developed neutral (31.3%) or positive (18.8%) feelings. Retained employees were 76.5% still negative, while 17.6% were now neutral and 5.9% positive. There was a comparable change between the two groups for employees who began with positive perceptions. For transitioned employees, 59.1% remained positive, while 40.9% now had neutral (36.4%) and negative (4.5%) feelings. Similarly with retained employees, 69.2% maintained positive feelings whereas 30.8% now had neutral feelings. No retained employee with positive feelings during outsourcing indicated they had negative feelings today.

## Research Questions

Research questions were formulated from the literature review. These addressed HR issues including job security, morale, productivity, training, skills, benefits, and career opportunity.

1. *What effect has outsourcing had on transitioned employees?*
2. *What effect has outsourcing had on retained employees?*
3. *What are perceptions of outsourcing process, either positive or negative?*
4. *What are perceptions of whether venture enhanced or hindered IT career objectives?*
5. *What are perceived levels of change in commitment from either company towards furthering career objectives?*
6. *What effects do employees perceive their attitudes about outsourcing initiative will/will not impact success of overall outsourcing?*
7. *What is perception that quality of service provided by outsourcer will be affected by employees' attitudes toward outsourcing?*
8. *What perceived effects of outsourcing imitative as result of communication by either company – was enough done up-front; had enough continued?*

## Hypotheses Analysis

Independent Sample *t*-Tests were run on filtered responses. Data was analyzed for transitioned and retained employees (independent variables). An *alpha* level of .05 was used for all statistical tests. The critical *t* value required to reject each null hypothesis shown below was 1.960, since each had *df*>120. The critical *F* was 3.84.

- $H_{01}$ : *Outsourced IT professionals benefit the same in career opportunities as retained professionals* (All items section 2).
- $H_{02}$ : *Outsourced IT professionals have same positive view of outsourcing process as retained professionals* (items 26, 27, 28).
- $H_{03}$ : *Outsourced IT professionals career objects are met the same as retained professionals* (items 16-22, 26, 27, 31).
- $H_{04}$ : *Outsourced IT professionals are equally satisfied with levels of communication involved with outsourcing as retained professionals* (29, 30).

Table 1 shows results of Independent Sample *t*-Tests for each hypothesis. None was rejected, even though the calculated *F* for  $H_{01}$  and  $H_{04}$  exceeded the criterion *F*. Their associated *t* value was evaluated to determine if variance in means warranted rejecting the null hypotheses. Since both were less than criterion *t*=1.960, neither hypothesis was rejected.

A fifth issue, labeled *Attitude* in Table 1, was evaluated using same technique employed for the hypotheses. This issue addressed whether IT professionals perceived their attitudes affect the success of outsourcing relationship between companies and quality of service they provided. These issues addressed research questions 6 and 7. This researcher examined these collectively to determine if there was significant difference in means of perceptions between the two groups. Individually each item had more positive responses from transitioned respondents than retained respondents. Results showed that both groups perceived their attitudes and quality of services provided positive impact.

Table 1 Hypothesis Statistics ( $\alpha=.05$ , critical  $t=1.960$ , critical  $F=3.84$ )

Hypothesis	Total Responses to items N	Levene's Test for Equality of Variance (F)	t-test for Equality of Means (t)	df	Reject Hypothesis
1	1644 Transitioned 462 Retained	9.527	1.875	2104	No
2	309 Transitioned 87 Retained	.099	.797	394	No
3	1027 Transitioned 288 Retained	.293	1.422	1313	No
4	206 Transitioned 58 Retained	17.465	-.095	523	No
Attitude	1. Transitioned 116 Retained	.075	1.580	525	Not applicable

For this study population, respondents disagreed with or were neutral on 62.5% of items, and agreed with remaining 37.5% items. This closely correlated with, and thus validated, those published in Khosrowpour et al. (1996). When examining each item individually, *Agree* was majority response 68.8% and *Disagree* was a majority 31.2%. Neutral was never a majority response. This researcher concluded the issues under study are perceived as affecting success/failure of outsourcing initiatives.

Another issue under study was whether outsourced employees perceived they benefited more from outsourcing than retained employees. No null hypothesis was rejected, even though two showed significant variance in means between groups. Therefore there was no statistical evidence to support this contention for this study population.

## CONCLUSIONS

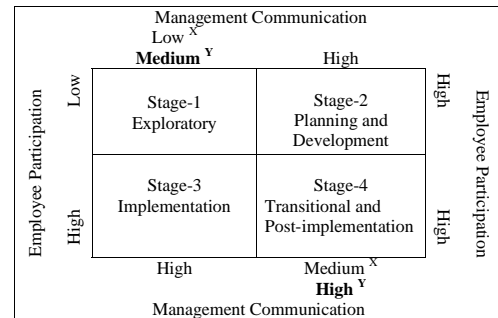
Results of this study revealed HR issues cited in earlier studies still present major concerns. Professionals undergoing IT outsourcing still have issues with job security, benefits, compensation, morale, productivity, training and skills, welfare, and career opportunities. While results did not support transitioned employees benefit more from outsourcing, there was evidence suggesting management must do more to ensure employee perceptions do not adversely affect the outsourcing. This researcher concurred knowing how affected employees perceive outsourcing effects on their personal and professional lives would allow management to better construct agreements benefiting all parties. Knowing and addressing these issues from the onset of outsourcing should lead to more successful outsourcing agreements from the HR perspective.

Khosrowpour et al. (1996) reiterated the most significant problem with outsourcing was the negative effect on morale that translated into low productivity. They attributed this loss to lack of communication, neutral or negative feelings about outsourcing, and the fact that 78% of their respondents disagreed the welfare of employees was considered in outsourcing decisions. This study validated these perceptions related to: feelings when employee is going through outsourcing process (80.9% negative/neutral); lack of communication (74.5% neutral/disagree on level of effective communication); and welfare of employee being key to management (disagree/neutral: 73.1% outsourcing company, 71.1% contracting company).

Results also support the contention that absence of actions by management during outsourcing results in loss productivity (Khosrowpour et al., 1996). They incorporate perceived effect of factors from their MAP onto the four stages of outsourcing. Their MOAM suggested employee participation should be low in Stage-1 but high in remaining stages, and management communication about outsourcing should be low in Stage-1, high during Stage-2 and -3, and taper to medium during Stage-4. Comments in this study, plus analysis of research questions, suggest a modification to the Khosrowpour et al. model. This researcher is proposing the Modified Management Outsourcing Adoption Model (MMOAM) shown in Figure 1.

This model reflects respondents of this study wanted continued communication throughout the entire process. Comments from 72% of respondents that management should acknowledge the company is ex-

Figure 1. Modified Management Outsourcing Adoption Model



$X$  = Khosrowpour et al. (1996) model

$Y$  = this research model

ploring outsourcing, communicate this early and honestly, and provide periodic updates on the process suggest Stage-1 may require medium levels of communication instead of low levels. Not enough evidence existed to suggest employee involvement during Stage-1 warranted moving from low levels. Continued communication following the implementation was an issue for 78% of the respondents. Again this suggests instead of communication waning, it should continue at high levels during Stage-4.

This researcher is proposing that a management action plan involves implementing the MMOAM. This study suggests this tool should more realistically allow for addressing reduced productivity levels by increasing employee involvement and bringing their concerns to management earlier in the process. Management should use this tool to definitively outline steps and actions required in each outsourcing stage for addressing specific employee concerns. These steps should be jointly constructed by both management and employee representatives.

## RECOMMENDATIONS

Along with using the MMOAM, further study to determine if any one HR issue has a more positive or negative effect on outsourcing success, and what the linkages to these factors may be also is recommended. Comparative studies can be conducted on early outsourcing initiatives, when employees were totally omitted from the process or received minimal communication from management, to current initiatives where some attention may be given to employee perspectives. A case study of a company that integrates the MMOAM tool into its process could further validate results of the previous studies and this study.

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## APPENDIX

### Percent Summary of Survey Section 2

Survey Item	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
<b>16. Career Opportunities for IS professionals better in IT companies.</b>					
Transitioned	1.8	15.8	18.4	46.5	17.5
Retained	0	18.6	18.6	48.8	14.0
<b>17. Compensation for IS professionals better in IT companies.</b>					
Transitioned	8.8	20.2	34.2	31.6	5.3
Retained	2.3	25.6	32.6	30.2	9.3
<b>18. Job security for IS professionals better in IT companies.</b>					
Transitioned	9.6	28.1	34.2	26.3	1.8
Retained	7.0	41.9	37.2	14.0	0
<b>19. Job satisfaction for IS professionals better in IT companies.</b>					
Transitioned	2.6	21.9	37.7	32.5	5.3
Retained	0	32.6	32.6	32.6	2.3
<b>20. Job function requires unique skills or knowledge that would be difficult to replace.</b>					
Retained	4.8	33.3	16.7	38.1	7.1
<b>21. Employer is as committed today to helping improve/enhance IS skills as at onset of outsourcing venture.</b>					
Transitioned	8.0	16.8	14.2	51.3	9.7
Retained	4.7	18.6	18.6	51.2	7.0
<b>22. Employer is as committed today to helping identify and further career objectives as at onset of outsourcing venture.</b>					
Transitioned	8.0	18.8	20.5	42.9	9.8
Retained	9.3	14.0	16.3	53.5	7.0
<b>23. Attitude about outsourcing influences level of service provided as IS professional.</b>					
Transitioned	16.8	36.3	13.3	25.7	8.0
Retained	23.3	18.6	16.3	37.2	4.7
<b>24. IS professionals providing contract services are committed to success of customers.</b>					
Transitioned	0.9	7.9	16.7	52.6	21.9
Retained	0	18.6	23.3	41.9	16.3
<b>25. IS professionals providing contract services are committed to success of employer.</b>					
Transitioned	0.9	1.8	23.9	54.9	18.6
Retained	0	2.3	34.9	46.5	16.3
<b>26. In considering outsourcing decision, welfare of IS professional is key factor in minds of outsourcing company's management.</b>					
Transitioned	16.7	39.5	16.7	25.4	1.8
Retained	20.9	34.9	16.3	23.3	4.7
<b>27. In considering outsourcing decision, welfare of IS professional is key factor in minds of contracting company's management.</b>					
Transitioned	13.2	28.9	28.1	27.2	2.6
Retained	14.0	27.9	30.2	20.9	7.0
<b>28. I have maintained positive attitude about success of outsourcing venture.</b>					
Transitioned	0.9	15.8	21.1	43.9	18.4
Retained	0	16.3	25.6	41.9	16.3
<b>29. Communication flow between companies during contract negotiations was adequate to develop positive attitude about outsourcing venture.</b>					
Transitioned	12.3	36.8	23.7	26.3	0.9
Retained	2.4	34.9	46.5	16.3	0
<b>30. Communication flow between companies since the onset of outsourcing has been adequate to keep positive attitude about outsourcing venture.</b>					
Transitioned	7.0	25.4	29.8	32.5	5.3
Retained	2.3	23.3	39.5	34.9	0
<b>31. Outsourcing venture has proved positive in advancing IS career.</b>					
Transitioned	11.4	19.3	22.8	33.3	13.2

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