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STRATEGIC AND TACTICAL PERCEPTION DIFFERENCES OF OUTSOURCING GOAL ACHIEVEMENT: AN EMPIRICAL STUDY

MARC J. SCHNIEDERJANS
UNIVERSITY OF NEBRASKA-LINCOLN
Mschniederjans1@unl.edu

QING CAO
UNIVERSITY OF MISSOURI-KANSAS CITY
caoq@umkc.edu

ABSTRACT

While the boards of directors acting in their role as strategic planners make information systems (IS) process outsourcing decisions, it is tactical-level IS professionals who must implement outsourcing. The decision to outsource is driven by the perception of how organization's can achieve goals with this strategy. The question this paper explores is possible perceptual differences between decision making board members and those IS professionals who see the actual goal achievement. The result of this IS outsourcing in US commercial banks study reveals a significant difference in the perceptions between board members and IS professionals on a variety of differing strategic goals. Specifically, board members consistently and significantly rate the goal achievements of outsourcing at a higher level than IS professionals. The study also found that other factors, such as the bank size and outsourcing project size while significant, but do not alter the perceptual difference conclusions.

Keywords: IS outsourcing, IS banking management, empirical research, perception research, strategic planning

INTRODUCTION

It is not surprising to find in current research that management of information systems (IS) dominates the practice of outsourcing. In a *Conference Board* research study [11] it was observed that 79 percent of the companies surveyed outsourced IS processes (e.g., help desk) and that IS processes were outsourced three times as much as any other functional area within the firms surveyed. Other research on outsourcing confirms the growing world-wide importance and use of the outsourcing strategy [8,9,10,27].

One of the early adopters of IS outsourcing was the US commercial banking industry [2]. Unfortunately the banking industry's rush to use outsourcers without adequately investigating their practices and technological abilities has resulted in the banks spending much more money for low quality work, as well as other detrimental results [6,38]. Failure rates for banks and the outsourcing industry as a whole have been reported as high as 50 percent [16, 31, 39].

Despite the high failure rate, banks seem to be driven to use the outsourcing strategy. Baldwin et al. [2] found that perceptions of benefits were primary divers in the outsourcing decision for banks. Another study by Jayatilaka et al. [20] on a US bank found perceptions of possible

benefits on a range of organization goals represent primary factors that can drive outsourcing decisions for any bank.

It is in part this apparent paradox between the highly used outsourcing strategy and its significant failure rate motivates this paper's research. MacInnis [30] and others suggest firms who set goals too high will undoubtedly fail to achieve their objectives. For MacInnis [30] the issue is one of warped expectations or misperceptions of benefits that outsourcing can bring to IS. While many of the IS outsourcing initiates are brought to their boards of directors by a chief information officer (CIO) or other IS personnel [2], what drives the adoption decision has been the perceived opportunities for organizations to achieve a variety of goals using outsourcing [2,3]. The decision makers driven by these perceptions are the bank's boards of directors that make the outsourcing decision [2,21]. Baron [3] states that stakeholders, particularly board members whose perceptions of goal achievement possibilities are a major decision factor for outsourcing. While a board of director's perception determines the decision to outsource, it is the tactical planners at lower-levels in the organization that implement outsourcing and who see first-hand what benefits actualize from the perceptions [33]. It is reasonable to assume that perceptions of outsourcing goal achievement should be similar between the strategic decision maker on the board and the tactical IS implementer at lower management levels in a bank. If there are differences in the outsourcing goal achievement perceptions in these two groups, then the discrepancy constitutes an inaccuracy of information on which the outsourcing decision is made and brings into question the outsourcing decision. Indeed, many outsourcing consultants feel the high percent failure rate of outsourcing is due to inaccurate perceptions of what outsourcing will realize for a firm [16,30].

The purpose of this paper is to see if there are differences in the perceptions of how well outsourcing achieves organization goals, specifically, to measure and compare the perceptual differences between the strategic decision makers on boards of directors of US commercial banks and the tactical IS professional planners who help implement outsourcing projects in the functional area of IS. No study reported in the IS literature has dealt with a comparison of strategic and tactical groups on the subject of outsourcing goal achievement. For purposes of clarity the strategic decision maker group will simply be referred to as "board members" and the tactical IS planners as "IS professionals" hereafter.

RELATED RESEARCH AND HYPOTHESES

As Kishore et al. [24] explain, the theoretical basis for research on outsourcing has followed a variety of differing approaches to explain motivations or decision drivers. Decision drivers for a board of directors to choose outsourcing as a strategy for business success are important considerations in this study. Some research, such as Grover et al. [15] has focused narrowly on a singular goal like IS service quality as the driver of the outsourcing strategy. Other researchers, such as Saunders et al. [35] focused on a wide-range of drivers that can lead boards of directors to choose an outsourcing strategy. While there can be many goals a board of directors can assign to a particular outsourcing project, prior research reveals a fairly consistent set for IS outsourcing. In a review of outsourcing literature for this study we found the twelve outsourcing goals cited in Table 1 appear to be the most frequently listed in the IS literature. For purposes of this study and recognizing that more possibly exist, these twelve goals are used as a preliminary set of goals for comparison between the board member and the IS professional.

Perception research on outsourcing topics exists in the IS literature [8,11,25]. This research has shown an outsourcing project's successfulness (or not) can be can be measured by Likert-type survey methods. Downing et al. [8] used a Likert scale to measure IS professional opinions about strategic and tactical goals on software development. Yet, mapping the dimension of goal success, as Shenhar et al. [36] found for project management studies can be difficult. They found the best project assessments came from either multiple evaluators of a single project or multiple evaluators of project success in general (i.e., based on prior experience). According to DeRomualdo and Gurbaxani [7] a similar finding applies to strategic intent of IS outsourcing. If a comparison between two individuals is to be made about strategic outsourcing, it is best to test their opinions on both a specific outsourcing project and separately on their general opinion of outsourcing as a strategy.

Table 1: Summary of IT Outsourcing Goals and Literature Sources

IT outsourcing goals	Related source
Improve core competencies	[1,4,5,11,12,14,20,25,26,37]
Reduce risks of operation	[4,5,12,14,25,26,34]
Lower the cost of service	[1,2,5,8,11,12,14,20,25,26,37]
Improve operation flexibility	[4,5,12,14,26]
Improved system-wide efficiency	[1,2,12,25,26]
Improve information system process efficiency	[5,8,12,14,20,25]
Gain outside expertise or technology	[5,11,12,25,26]
Gain market share or marketing advantages	[5,12,26]
Improved customer satisfaction	[1,2,5,8,12,14,25,26]
Improve speed of service or reduced waiting lines	[2,5,8,34]
Improve service quality	[4,5,8,11,1214,15,25,28,34]
Gain human resources	[12,34]

Based on the outsourcing goals and the suggestions in the literature, this research will seek to test the following null hypotheses:

> H1: There is no significant difference in the perceived goal achievement for specific outsourcing projects between board members and IS professionals in US commercial banks.

> H2: There is no significant difference in the general perceived goal achievement of outsourcing projects between board members and IS professionals in US commercial banks.

A one-way analysis of variance (ANOVA) tests are used to compare the means of the respondents for testing H1 and H2. In addition, one-tailed *t*-tests are conducted to compare the means on each of the individual goals in the survey to identify the direction of differences between the board members and IS professionals. While it is logical to assume there should be no difference in the perceptions of goal achievement between the strategic board members and the tactical IS professionals for a specific outsourcing project that both have experienced, there have been suggestions in the literature that there are perceptual differences in goal achievement and that these differences can lead to outsourcing failure [16,30,31]. We therefore expect to reject these null hypotheses.

In addition to the goals commonly assigned to outsourcing projects, this research has identified at least two additional factors that might impact the way individuals perceive outsourcing goal accomplishment. These factors include the size of the business undertaking the outsourcing project and the complexity of the project. Kishore et al. [24] found that the size of the investment in information technology assets alters perceptions and decision making on outsourcing choices. The results of this study showed the greater the assets, the more willing a firm is to undertake outsourcing. They also reported that outsourcing task complexity or the size of the project is also an outsourcing decision driver. They found that the larger the size of the project (and its perceived benefits), the more likely the firm to undertake the outsourcing strategy. The same result was found in [17] for a project management study where size of the project goal accomplishment where significantly related. Jayatilaka et al. [20] found that a firm's assets were related to outsourcing decisions based on the needs or goals of the organization. They found the greater the firm's assets, the more likely the firm is to perceive a realization of the goals they seek by using an outsourcing strategy.

To examine the possible impact of the size of the bank undertaking the outsourcing project, a common criteria of asset size of the bank is used in this study. The *Federal Deposit Insurance Corporation* (FDIC) categorizes the size of commercial banks into three groups based on assets [10]. A small bank has assets less than $100 M, a medium sized bank has assets between $100M and $1 B, and a large bank will have assets of more than $1 B. Using this three size levels as a scale for size, this study will test the following hypotheses:

> H3: There is no significant difference in the perceived goal achievement for a specific outsourcing project when factored for respondent type (board members or IS professionals) in US

commercial banks or factored for different sized banks.

H4: There is no significant difference in the general perceived goal achievement of outsourcing projects when factored for respondent type (board members and IS professionals) in US commercial banks or factored for different sized banks.

A two-way univariate ANOVA is used to test H3 and H4. The two independent variables used as factors in the two-way tests are type of respondent (i.e., board member or IS professional) and the asset size of the bank (i.e., small, medium or large). The prior outsourcing research [20,24] suggests that factoring for the size of the bank assets should result in a significant difference. Based on these studies, we believe that both of the null hypotheses will be rejected.

To examine the possible impact of the complexity of the outsourcing project, the size of the project (i.e., the number of IS processes outsourced) was estimated by the respondents. Using a continuous scale of seven values (i.e., a 1 representing a single IS process being outsourced, to 7 representing most IS processes outsourced) as a measure for the size of the project, this study will test the following hypotheses:

H5: There is no significant difference in the perceived goal achievement for a specific outsourcing project when factored for respondent type (board members or IS professionals) in US commercial banks or factored for different sized outsourcing projects.

H6: There is no significant difference in the general perceived goal achievement of outsourcing projects when factored for respondent type (board members or IS professionals) in US commercial banks or factored for different sized outsourcing projects.

We will again use a two-way univariate ANOVA to test H5 and H6. The two factors in these tests are the type of respondent (i.e., board member vs. IS professional) and the size of the outsourcing project. Based on the prior project research [17] and outsourcing research [24] factoring for the size of the project should be significant. As such, we believe that both of the null hypotheses will be rejected.

METHODOLOGY

Subjects

The extensive experience the banking industry has in IS outsourcing makes them a good candidate for a study on outsourcing. The unit of measure in this study is a US commercial bank. To identify the initial sample of the specific banks, the website of the FDIC (www2.fdic.gov/idasp/index.asp) was utilized. To seek a representative sample of US commercial banks, six banks per state were randomly chosen from the FDIC website for a total of 300 initial contacts. Most of the 300 banks board members or contact points were researched from bank websites or by subsequent phone calls and e-mails.

From each bank a member of their board of directors (excluding the chief executive officer-CEO) was selected from those listed in their banks directories or by phone contacts as a candidate for the sample. The CEOs were not included because of their unique dual role of being on the board and an executive officer responsible for implementation of outsourcing. These boards of director subjects represent the strategic outsource planners in this study. From each bank a member of the IS department, was selected by the board member as the tactical outsource planner for the study. It is the comparisons between the strategic board members and their respective tactical IS professionals that this study seeks to undertake.

Data collection

The data were collected with a two-phased survey approach. In the first phase we sought to identify willing board member participants. The 300 board members where contacted by their preferred or requested means of snail mail, e-mail, or by phone, and were asked the questions in Appendix A. Those board members who answered all the questions in the affirmative, were selected to participate in second phase of the survey. The two main reasons given for non-participation were that the board member was to busy or a policy on privacy. Of the 300 survey candidates, only 134 of which were qualified to participate in the second phase of the survey.

In the second phase the actual surveys were mailed or e-mailed to the board members of the 134 banks who would distribute a paired survey to an IS professional (i.e., a total of 264 surveys). This group constitutes the sample size of this study. The survey questions are presented in Appendix B. The surveys were returned anonymously by snail mail and by e-mail. In order to protect the anonymity of the subjects the only coding of the surveys were to identify the size of the bank by assets (i.e.,

three codes of 1-small, 2-medium, and 3-large bank) and to identify the paired set from the same bank's subjects (i.e., the same bank's board member and IS professional).

Instrument development

To measure the perceptions of outsourcing goal accomplishment the survey instrument in Appendix B was developed. An initial draft was piloted with the Board of Directors at the University of Nebraska Federal Credit Union in Lincoln, Nebraska. In addition, to help support content validity of the instrument, experienced IS professionals screened and helped improve the questions and format of the survey.

Consistent with other IS perception instruments [13,29], the survey uses a Likert scale on goal achievement where 1 (i.e., not satisfied at all) to a 7 (i.e., fully satisfied) on questions dealing with goal achievement (Questions 4 and 5 in Appendix B). Question 3 is designed to obtain a measure on the size of the outsourcing project. The goals listed in Question 4 were those commonly found IS outsourcing literature cited in Table 1. Question 4 was used to measure the dependent variable of perceived goal achievement for a recent, specific outsourcing project. Question 5 was used to measure a second dependent variable of perceived goal achievement for outsourcing in general.

An important consideration in this survey is to provide a direct, one-to-one comparison on goal achievement perceptions between a board member and their related IS professional. This was accomplished in several ways. First, the Phase 1 survey question required the board member to find an IS professional with the desired experience. If they could not, they were excluded from the survey. A second way was through the coding of the pairs of surveys. This coding was used to insure the board member of a bank and his/her related IS professional both responded. A third means to insure that both subjects were measuring the same outsourcing project, was that both had to respond with the same answer to Question 2 on who authorize the outsourcing project. A fourth means to insure a direct comparison was with Question 4. It is logical to assume that both the board member and the IS professional would be able to identify the same basic set of goals for a particular outsourcing project completed in the last three years. If they differ on the same set of goals, they where excluded from the study.

DATA ANALYSIS AND RESULTS

Descriptive statistics

Of the 134 paired (or 268 individual) questionnaires sent out, only 227 were returned by the deadline set for the survey. Of these, five individual surveys (i.e., no match between the board member and IS professional from the same bank) were excluded. A total of ten more individual surveys were excluded because they chose to not answer the questions (i.e., selected to answer on Questions 1 and 7 only). Of the remaining 106 paired surveys, three had inconsistent goals listed and were excluded from the study. That resulted in a total of 103 paired (or 206 individual) surveys returned, or a response rate of 76% that are used as the sample for this study. The descriptive summary of the 103 banks or 206 subjects is presented in Table 2. Based on the responses to Question 6 it should be noted that almost all (95%) the IS professionals are CIOs. Based on some written comments from the respondents it appears the high return rate is due mostly to the brevity of the survey and the phase 1 screening phone calls that help to dispel concerns about the authenticity of research.

Table 2: Descriptive Summary of Survey Sample

Item	Categories	Frequency	Percentage
Banks	Number of	103	100
Size of bank	Small	112	54.4
	Medium	74	35.9
	Large	20	9.7
Subjects	Board members	103	50
	CIO	98	48
	IS Dept. Head	5	2

Statistical analysis

Of the 206 individual surveys, all respondents acknowledged in Question 2 that the board of directors made the decision for the recent, specific outsourcing project. All categories of the size of the project where represented in the responses for Question 3, forming a fairly normal distribution over the 1 to 7 size scale. Of the twelve possible outsourcing goals listed in Question 4, only eleven where used and the respondents did not list any additional goals. The goal that dropped out was "Sought to gain human resources." Construct reliability or internal consistency was assessed using Cronbach's alpha for the eleven measures. Using SPSS for Windows, version 13 the resulting alphas ranged from 0.965 to 0.799, well above the 0.70 acceptable level. The responses to the various goals in Question 4 were recoded into a single estimate by averaging the set of goal achievement measures selected by the respondents into a single estimate for comparison. This was necessary because each pair of respondents chose a differing set of goals which prevented the use of the ANOVA models from making a one-to-one comparison on H1, H3, and H5 for a specific outsourcing project. Again to provide for construct reliability, Cronbach's alpha were computed for both the newly coded variable representing the specific outsourcing project goal achievement dependent variable and the general outsourcing goal achievement dependent variable. The composite measure from Question 4 alpha was 0.934 and the resulting alpha for Question 5 was 0.941, both well above the acceptable level of 0.7.

To use the ANOVA tests it is necessary to show the independence of the variables and that they come from populations with equal variances. SPSS Mann-Whitney tests as well as Kolmogorov-Smirnov tests confirmed the independence of the goal achievement variable measures (for both the specific outsourcing project composite measure and in the general measure) at a 0.001 level of significance. Levene's test for homogeneity of variance was also conducted. This test showed no significant difference in any of the variances in the goal achievement variables at a 0.05 level of significance.

Content validity is general agreement among the subjects and researchers that the instrument has measurement items that cover all aspects of the variables being measured [29]. In addition to the IS professionals who found the coverage of outsourcing goals adequate, no additional goals where added by the respondents. We feel this helps to validate our selection of the goals and their coverage of the goal achievement variable measured by Question 4 in the survey.

As an additional measure of sampling result validity, the resulting sample percentage distribution of banks from Table 2 was compared with the proportions available from the FDIC. A chi-square test of proportions found no significant difference between the proportions of the US commercial bank population and the resulting sample from the respondents ($p<0.011$). We feel this helps to validate the representative of our sample to permit generalizations to the population of the US commercial banking industry.

Non-response bias was considered in the design of the survey. In anticipation of looking at this bias, Question 7 (Appendix B) sought to help identify problem issues in the survey design. Of the ten non-response surveys returned, all ten indicated the reason for not completing the survey was either the respondent "Didn't have the time to fill out the survey by the deadline" or "For purposes of privacy." We feel the very high response rate of 76% and the responses to Question 7 show no major non-response bias problem in this survey.

Results of hypotheses tests

In Table 3, the ANOVA tests for H1 and H2 are presented. In both tests, the computed F ratio is significant ($p<.000$). As expected from the literature, we reject H1 and conclude there is a significant difference in the perceived goal achievement for specific outsourcing projects between board members and IS professionals in US commercial banks. Likewise, we reject H2 and conclude there is a significant difference in the general perceived goal achievement of outsourcing projects between board members and IS professionals in US commercial banks.

In Table 4, the mean values for each of the eleven outsourcing achievement goals measured in the survey are listed. As can been seen, the mean values for the board members are all larger than the means for the IS professionals. To determine if these individual goal achievement measures are perceived as being significantly greater by the board members (when compared to the IS professionals) additional one-tailed *t*-tests for paired comparisons were undertaken. The SPSS software generates two-tailed *p*-values for each of the eleven tests as presented in Table 4. Adjusting for a one-tailed *t*-test is accomplished by doubling the *p*-value of the two-tailed *t*-test. The results reveal that all eleven are still significant ($p<0.05$). From these *t*-tests it appears the strategic board members who make the decision to utilize outsourcing perceive the individual goal achievements of outsourcing significantly higher than the perceptions of the tactical IS professionals who implement the strategy, regardless of the goals they seek achieve.

Table 3: ANOVA Test for H1 and H2

H1: Goal achievement perception differences on specific outsourcing projects between board members and IS professionals					
	ss	df	ms	F	Sig.
Between groups	94.874	1	94.874	39.484	.000
Within groups	490.182	204	2.403		
Total	585.056	205			
H2: Goal achievement perception differences on outsourcing in general between board members and IS professionals					
	ss	df	ms	F	Sig.
Between groups	53.519	1	53.519	17.067	.000
Within groups	639.709	204	3.136		
Total	693.228	205			

Table 4: Specific Goal Achievement Perception Statistics for Individual Goals and *t*-test Values

		Board members		IS professionals			
Goals	n	Mean	S.D.	Mean	S.D.	t	p
Lower the cost of service	98	4.9449	1.49805	3.5337	1.43297	13.481	.000
Gain outside expertise or technology	87	4.9011	1.43685	3.3851	1.12586	14.086	.000
Gain market share or marketing advantages	41	3.6146	1.35380	3.2024	1.15098	2.629	.012
Improved customer satisfaction	95	3.8526	1.41006	3.4726	1.41507	8.117	.000
Improve speed of service or reduced waiting lines	89	3.8820	1.37598	3.3933	1.25976	7.374	.000
Improve service quality	82	3.9366	1.43669	3.6646	1.40760	2.733	.008
Improve core competencies	101	4.1386	1.82093	3.4188	1.42609	7.894	.000
Reduce risks of operation	54	4.5741	2.13331	3.2037	1.79496	8.067	.000
Improve information system process efficiency	98	4.7357	1.56398	3.3092	1.29917	13.609	.000
Improved system-wide efficiency	97	4.5474	1.49388	3.3680	1.28975	11.319	.000
Improve operation flexibility	92	4.4467	1.46366	3.2228	1.15198	11.388	.000

To determine if factoring for the size of the banks in assets might alter the difference in the perceived goal achievement for either the specific project (i.e., H3) or in general (i.e., H4), two-way univariate ANOVA tests were conduced. The results of these tests are presented in Table 5. The results show the main effects of factoring the independent variables of respondents (i.e., board member and IS professional) or for size of the bank (i.e., small, medium, or large) on the dependent variable of perceptions of goal achievement are both significantly different. Because the interaction of the independent variables are both insignificant (p=0.743 and p=0.307), they help to confirm the significance of the main effects of the

ANOVA analysis [19, p. 74]. All of the SPSS *post hoc* tests (Turkey HSD, Scheffe, Gabriel, Hochberg and Dunnett) were performed as suggested in behavioral research [18, p. 440; 23, p. 328] and confirmed the asset bank size variable significance. To explore the direction

of the relationship of bank size and goal achievement, Pearson correlations were computed for both variables. The resulting correlations (r=0.551, p<.000; r=0.563, p<.000) show a significant positive correlation between the independent variable of bank size and both dependent variables of goal achievement for specific projects and outsourcing in general. It appears that as the size of the bank increases, the perception of the goal achievement of outsourcing also increases significantly.

Table 5: Two-way Univariate ANOVA Tests for H3 and H4

H3: Perceived goal achievement for a specific outsourcing project between board members and IS professionals (i.e., Respondents) in US banks or between different sized banks (i.e., Assets).

Factor	ss	df	ms	F	Sig.
Respondents	50.634	1	50.634	32.522	.000
Assets	177.877	2	88.938	57.126	.000
Respondents*Assets	.927	2	.464	.298	.743
Error	311.378 200		1.557		
Total	4162.000	206			

H4: General perceived goal achievement of outsourcing projects between board members and IS professionals (i.e., Respondents) in US banks or between different sized banks (i.e., Assets).

Factor	ss	df	ms	F	Sig.
Respondents	31.436	1	31.436	15.170	.000
Assets	220.337	2	110.169	53.164	.000
Respondents*Assets	4.926	2	2.463	1.189	.307
Error	414.446 200		2.072		
Total	3549.000	206			

To determine if factoring for the size of the outsourcing project might alter the difference in the perceived goal achievement for either the specific project (i.e., H5) or in general (i.e., H5), we again used a two-way univariate ANOVA test. The results of these tests for both independent variables are presented in Table 6. The results show the main effects of the perceptions of goal achievement are significantly different whether factored for respondents (i.e., board member and IS professional) or for size of the outsourcing project (i.e., 1 to 7 scale). Because the interactions of the independent variables were both insignificant (p=0.340 and p=0.787) this again helps to confirm the significance of the main effects (respondents and project size variables). The SPSS *post hoc* tests (i.e., Turkey HSD, Scheffe, Gabriel, Hochberg and Dunnett) were performed and confirmed the outsourcing project size independent variable significance. To explore the direction of the relationship of size of the outsourcing project and goal achievement, Pearson correlations were computed for both variables. The resulting correlations (r=-0.391, p<.000; r=-0.459, p<.000) show a significant negative correlation between the independent variable of outsourcing project size and both dependent variables of goal achievement for specific projects and outsourcing in general. It appears that as the size of the outsourcing project increases, the perception of the goal achievement of outsourcing decreases significantly. This inverse relationship is interesting in light of the Kishore et al. [24] study, which found outsourcing was motivated by the largeness of projects.

Table 6: Two-way Univariate ANOVA Tests for H5 and H6

H5: Perceived goal achievement for a specific outsourcing project between board members and IS Professionals in US banks or between different sized outsourcing projects (i.e., Project size).

Factor	ss	df	ms	F	Sig.
Respondents	80.420	1	80.420	44.001	.000
Project size	126.759	6	21.126	11.559	.000
Respondents*Project size	12.505	6	2.084	1.140	.340
Error	350.917 192		1.828		
Total	4162.000	206			

H6: General perceived goal achievement of outsourcing projects between board members and IS Professionals in US banks or between different sized outsourcing projects (i.e., Project size).

Factor	ss	df	ms	F	Sig.
Respondents	42.623	1	42.623	18.277	.000
Project size	184.561	6	30.760	13.190	.000
Respondents*Project size	7.387	6	1.231	.528	.787
Error	447.761 192		2.332		
Total	3549.000	206			

DISCUSSION AND CONCLUSIONS

The results and comparisons in this survey were made after the completion of at least one the outsourcing project within a three year period. Both respondents acknowledged the completion of the recent outsourcing project being compared and undoubtedly were aware of the strategic and tactical results. As the survey results (i.e., Question 2) have confirmed and as the outsourcing literature suggests [7], boards of directors of banks make the outsourcing decision. If a board of directors is basing their outsourcing decision on perceptions of what they think is possible with outsourcing and those perceptions are not consistent with the realities the IS professionals observe, the board of directors will not be making an accurately informed decision about the use of outsourcing as a strategy for business success. The rejection of all six of the null hypotheses in this study is consistent with what MacInnis [30] and others [31] have observed about inaccurate expectations of outsourcing. We can conclude from comparisons that regardless of the size of the bank, the size of the outsourcing project, or the individual goals sought, strategic decision making boards of directors of US commercial banks consistently and significantly perceive the goal achievement of an outsourcing strategy at a higher level of achievement than the tactical IS professionals who implement outsourcing. Specifically, there is a significant difference of opinion on outsourcing goal achievement between the strategic decision maker and the tactical implementer. It is possible that the resulting differences between the board members and IS professionals may help to partially explain some of the outsourcing failures reported in the literature where the expectations of outsourcing were in excess of the realities realized [16,31,34,39].

One obvious implication of the perceptual mismatch is that boards of directors may be inappropriately using the outsourcing strategy based on perceptual information they have been given that does not agree with the realities observed by their IS professionals. The consequences of using a strategy like outsourcing based on higher achievement goals than will be realized, is as MacInnis [30] suggests, a prescription for failure.

One practical implication of this research and for further research is the need to identify why boards of directors do not have the same perception of goal achievement as the IS professionals and to try an align there per-

ceptions to better reflect the realities observed by the IS professional. Boards of directors receive information on outsourcing from CEOs, outside consultants, IS professionals who propose outsourcing projects to board members, and from their own unique sources of industry and trade information. Most banks have enough experience to provide a fairly clear picture of the true value of any outsourcing project. Perhaps a joint review of reports on the aftermath of an outsourcing projects presented to both board members and IS professionals might be a necessary first step to eliminate perceptual differences. *Outsourcing teams* that head the projects or as Greaver [14, p. 272-273] suggests an *oversight council* might be appointed to provide reviews and reports that can be shared with both board members and IS professionals may help to provide some consistency and alignment in perceptions.

Another implication for further research might be found in the exploratory correlation of the size of the outsourcing project variable. The negative correlation of the size of the outsourcing project and goal achievement, suggest that on a relative basis, the larger the project, the more likely you are to experience negative goal achievement. This correlation suggests that a large outsourcing project for any sized bank is more likely to result in a negative goal achievement for the banks. This may explain why recently some very large outsourcing projects are being cancelled or "backsourced" to the original client firm [22,32]. On the other hand, smaller outsourcing projects might result in better goal achievement for any sized bank.

While the results of this study are chiefly limited to US commercial banks, we feel the results can be generalized to most all US commercial banks since the sample was found to be consistent with the distribution of the US commercial banks totals from FDIC and the fact that most boards of directors and IS personnel follow the same basic management procedures in their roles in banking operations. We recognize that there may be difference results when examining differing functional areas (other than IS) and leave the determination of those differences for future research.

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AUTHORS' BIOGRAPHIES

Marc J. Schniederjans is the C. Wheaton Battey Distinguished Professor of Business in the College of Business Administration at the University of Nebraska-Lincoln. He is the author of 15 books and over 90 journal articles. His teaching and research interests include operations management, management information systems, and decision sciences. He has served as a journal editor and on the editorial review or advisory boards of more than 30 journals.

Qing Cao is an Assistant Professor in the Henry W. Bloch School of Business and Public Administration at the University of Missouri-Kansas City. He has authored a textbook on e-commerce and numerous publications. His teaching, consulting, and research interests include information systems, decision support systems, and database systems.

APPENDIX A

Phase 1 survey questions by phone interview or via e-mail to board of director member (used to recruit participants)

1. Would you be willing to fill out a short seven question survey on outsourcing? Yes, No
2. Did your banking organization complete an outsourcing project of any information systems processes or tasks during the last three years? Yes, No
3. Do you remember or can you identify all of the goals of the outsourcing project? Yes, No
4. Could you distribute a second questionnaire to the CIO or the head of the IS department that was involved in managing that same outsourcing project you completed during the last three years? Yes, No

APPENDIX B

Phase 2 survey questions on perception of outsourcing goal achievement

Please answer the following seven questions by circling your response to each.

1. Do you have the time to fill out this survey or did your organization complete an *information systems* (IS) outsourcing project of any kind during the last three years? Circle one: Yes, No. If No, skip to Question 7.

2. Who made the decision to undertake the most recent information systems outsourcing project in Question 1 in your organization? Circle one: Board of directors, Internal managers, Consultants, Other (list)_____

3. How would you rate the size of the information systems outsourcing project?
1=One process outsourced (Example: Help desk service) 4=Several processes outsourced (Example: Help desk + tech maintenance + etc) 7=Most processes outsourced (Example: Most IS dept. functions)

Circle one: 1 2 3 4 5 6 7

4. Based on the outsourcing decision and experience in Questions 1, 2, and 3, rate <u>any of the following that apply</u> on how well you feel that one project achieved desired performance and efficiency goals. Circle a 1 to 7 rating, where:

1= Not at all achieved 4=Moderately achieved 7=Fully achieved

a. Sought to lower the cost of service	1 2 3 4 5 6 7
b. Sought to gain outside expertise or technology	1 2 3 4 5 6 7
c. Sought to gain human resources	1 2 3 4 5 6 7
d. Sought to gain market share or marketing advantages	1 2 3 4 5 6 7
e. Sought to improved customer satisfaction	1 2 3 4 5 6 7
f. Sought to improve speed of service or reduced waiting lines	1 2 3 4 5 6 7
g. Sought to improve service quality	1 2 3 4 5 6 7
h. Sought to improve core competencies	1 2 3 4 5 6 7
i. Sought to reduced risks of operation	1 2 3 4 5 6 7
j. Sought to improve information system process efficiency	1 2 3 4 5 6 7
k. Sought to improved system-wide efficiency	1 2 3 4 5 6 7
l. Sought to improve operation flexibility	1 2 3 4 5 6 7

If other goals were present in your project, please list and rate.

Other (please list) _____	1 2 3 4 5 6 7
_____	1 2 3 4 5 6 7

5. Based on your general experience with all outsourcing projects, how satisfied are you with the results of the projects achieving their goals?
1= Not satisfied at all 4=Moderately satisfied 7=Fully satisfied

Circle one: 1 2 3 4 5 6 7

6. Your position in the bank is which of the following? Circle one: Board member, CIO, Department head where the outsourcing project took place, Other (please list) _____

If you answered Question 6, skip Question 7 and return the survey per the instructions below.

7. Circle any of the reasons that apply as to why you are returning this survey without answering the questions? Circle any:
Have not undertaken an IS outsourcing project in the last three years,
Don't have the time to fill out the survey by the deadline,
Questions unclear, confusing or poorly written,
Design of questionnaire or questions unclear or confusing,
For purposes of privacy,
Just feel uncomfortable filling out survey questions,
Other (please write)_____

Please return the question in the attached prepaid envelope or by e-mail. Thank you for your participation. Participants (including those who do not fill out the questionnaire and others who might have any interest in the subject) may request a copy of the results and a copy of the final study by mailing a request to: ****.