Outsourcing of Core and Non-Core Competencies in U.S. Corporations

Robert Premus
Professor of Economics
Raj Soin College of Business,
Wright State University
robert.premus@wright.edu

Nada R. Sanders
Professor of Operations
Management & Logistics,
Raj Soin College of Business,
Wright State University
nadia.sanders@wright.edu

Outsourcing has been a significant industry trend over the past decade. However, some scholars have stressed that companies may have gone too far by outsourcing core, as well as non-core competencies. Using a survey of large U.S. corporations our study documents the current status of outsourcing, differentiating between core and non-core competencies. We identify functions being outsourcing, satisfaction with sourcing decisions, as well as links to organizational performance measures.

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One of the most widely discussed trends in business schools has been the issue of outsourcing. In a highly competitive environment, where product life cycles move at "clockspeed", outsourcing has been touted as the enabling factor that provides companies with needed speed and flexibility [10]. Management guru Tom Peters has been quoted as saying, "Do what you do best and outsource the rest [20]" Similarly, articles abound describing success stories of outsourcing relationships. The view of the virtual corporation where core competencies are protected and enhanced, non-core competencies are outsourced externally, and corporate knowledge centers interact seamlessly is often presented as the ideal. In contrast, companies that continue to focus on cost cutting and competitiveness of existing business units and products are frequently viewed as old relics lacking agility and strategic vision.

However, some management scholars stress that companies may have gone too far by outsourcing core as well as non-core functions [19]. In doing so they may have undermined, albeit unknowingly, the long-term competitiveness of their companies [11]. This argument underscores the importance of protecting and enhancing core competencies as the ultimate source of a company's long-term competitiveness. Advocates of this view stress the importance of competency building as part of a firm's strategy to maintain market leadership. Cost based strategies, in contrast, stress price competitiveness but overlook the importance of developing capabilities to enhance product functionality and customer value as the source of long-term competitiveness.

In this study we evaluate the current status of outsourcing among large U.S. corporations. Specifically, we explore the types of functions and competencies firms' outsource, differentiating between core and non-core competencies. We also consider the degree of satisfaction with sourcing decisions, and link these to company performance measures.

The Outsourcing Literature

Since the 1990's a major shift in managerial practice has been the focus on strategic planning, identifying core competencies, and outsourcing competencies perceived as non-core [7, 13, 22, 27, 29]. For example, the January 2000 issue of *Business Week* reported a revival in the popularity of corporate strategic planning among U.S. corporate leaders [6]. Companies such as Sears, Hewlett-Packard, Earle, Procter & Gamble, and EDS were presented as model case studies of the new emphasis on corporate strategic planning. Allegedly, a key focus of the strategic planning process has been on firms identifying their "core and non-core competencies."

Scholarly studies report similar findings on the trend toward outsourcing non-core activities in favor of placing greater emphasis on value creating, or core competencies. Core competencies of a firm consist of its assets, knowledge base, technology, and intellectual property that set the company's capabilities apart from that of other companies, allowing the company to sustain a long-term competitive advantage over its rivals [1]. Non-core business activities are activities that only indirectly support the core value creating activities of the firm. According to some management theorists, an important goal of corporate strategy is to create a lean, flexible organization by protecting or augmenting core competencies and outsourcing non-core activities [5]. Nevertheless, non-core activities are necessary for the firm's performance and efficiency.

Outsourcing has been discussed in the literature for many years under various names, such as make-buy decisions, vertical integration, transaction cost minimization, and core competencies [7, 13, 21, 28, 30]. However, the sourcing decision has become particularly complex in today's global, technology driven economy. Part of this complexity is that firms are increasingly becoming more specialized and excel in their unique areas of expertise. A firm that continues to perform those functions in-house which can be performed more efficiently by a third party can quickly place itself at a disadvantage compared to competition [11, 21]. At the same time, by relegating tasks to third parties, a company can easily lose control over functions that could prove critical to its long-term strategic interests.

A number of studies have been conducted in order to provide an understanding of the outsourcing trend [3, 16, 17, 18, 25]. These studies collectively document that the practice of outsourcing is on the rise. Particularly common is the outsourcing of logistics functions, the most common being those that are non-core routine-based or asset based. For example, Sink and Langley [25] conducted in-depth interviews with logistics executives, and surveyed 116 logistics managers in the United States and Europe, in order to explore the outsourcing trend.

Companies may have gone too far by outsourcing core as well as non-core functions

They found outbound transportation, freight payment/auditing, and warehousing operations to be the functions most commonly outsourced. They also reported that functions such as information systems, cross docking, and traffic management/fleet operations are most likely to be outsourced in the future. Similarly, a study by Boyson, Corsi, Dresner, and Rabinovich [4] found that in addition to routine functions that have been historically outsourced, such as warehouse operations, freight payments and auditing, carrier selection and rate negotiations, companies had recently started outsourcing areas that require more in-depth strategic knowledge and expertise. This included areas such as information systems, inventory management and customer-order fulfillment. These past studies also found firms to be generally satisfied with the improvements resulting from their outsourcing decisions.

The reasons for outsourcing are found to be improvements in cost reductions and customer service levels. Sheffi [24] identified the major contributing factors to outsourcing to be pressures from increased competition, increasingly high levels of service expectations, worldwide deregulation, and advances in computers and communication technology. Some studies have indeed shown outsourcing to contribute to corporate competitiveness. For example, Lau and Hurley [15] found a significant relationship between global outsourcing and profitability margins. Their study found Chrysler's profit margin to be four times as high as that of GM due to effective global outsourcing through strategic alliances. However, outsourcing can lead to failures and problems. Outsourcing can reduce a company's control over how certain services are delivered, which in turn may raise the company's liability exposures [9, 21]. Some argue that outsourcing can negatively affect employee morale, with workers fearing the loss of jobs [9]. Additional problems can arise due to problems of confidentiality and security [23].

Discussions of outsourcing in the popular literature can lead one to believe that firms are outsourcing functions en masse. The purpose of our study is to objectively evaluate the true degree of outsourcing in firms, focusing on specific functions being outsourced and the degree of satisfaction with sourcing decisions. Also, we evaluate outsourcing relative to organizational performance measures.

Study Methodology

To perform our study, a questionnaire instrument was

Table 1
Companies Surveyed by Industry Categories

Industry Categories	Receiving the Survey (%)
Manufacturing	84,7 %
Departmental Store	4,5 %
Transportation	3,6 %
Warehouse & Distribution	7,2 %

mailed to the President or CEO of primarily large manufacturing companies with sales in excess of $4.5 billion annually. Our goal was to focus on large firms typically seen as leaders in the areas of SCM and outsourcing. Our survey was targeted at the most senior ranking officer as our questions focused on the strategic nature of sourcing, and differentiation between core and non-core competencies.

The questionnaire was initially field tested by twelve members of the Council of Logistics Management (CLM) and the National Association of Purchasing Managers (NAPM), and was then modified accordingly. Most of the modifications entailed question clarification and shortening the survey length. The survey was then mailed to 2,000 U.S. industrial companies. About 85 percent of the companies surveyed had annual sales in excess of $5 billion annually. According to Table 1, of the companies receiving the questionnaire, about 84.7 percent are listed as manufacturing firms. The remaining firms are classified as department stores/mass retailers (4.5 percent), warehouse and distribution firms (7.2 percent), and transportation firms (3.6 percent).

Of the responses received, about one third were unanswered because of a corporate policy prohibiting company participation in research studies of this nature. From the remaining 1,340 potential company participants, 116 useable, completed questionnaires were returned. Although the response rate was only about 8.7 percent, given the high corporate level at which the survey was performed, the total response rate of 116 is quite useful. The typical respondent to the survey held the title of President, CEO, Vice President, or Director of Procurement and Purchasing.

To ensure adequacy of the response data, our study tested for non-response bias. Non-response bias was tested by progressively comparing the demographics of the first and second wave of respondents [2]. The logic behind this practice is that the last wave of respondents should be most like that of non-respondents, compared to the first wave. Dimensions tested were average sales, market share growth, and industry mix. No significant differences were found.

All questions in the survey used a five-point Likert type scale, and collected information on the organizations strategic planning process, outsourcing decisions, achievements on specific performance measures, and general company information. Purification of the scales was performed through the use of confirmatory factor analysis. Scale items with high residuals or low factor loadings were deleted from the analysis [8]. Cronbach's coefficient alpha was used to measure scale reliability and an alpha value of 0.72 was achieved. Cronbach's alpha values above 0.60 are deemed acceptable.

Survey Findings

According to our survey, outsourcing has been increasing over the past five years, although our findings do not support the view that we are experiencing an overwhelming rise in outsourcing activity. The majority of firms (62.7 percent) reported only a modest increase in outsourcing activity in their respective companies over the period of past three years. Another 21.8 percent of the firms reported a significant increase in outsourcing in their respective industries. The trend toward greater outsourcing is definitely documented in our study, but the view that the pace is accelerating does not receive support.

Outsourcing Core and Non-Core Activities

Our survey findings reveal that both core and non-core activities of the firm are possible candidates for outsourcing. According to Table 2, about 53.1 percent of the respondents indicated that their companies frequently outsource non-core competencies in comparison to the 31.5 percent that indicated their companies frequently outsource core competencies. Only 8.1 percent indicate never outsourcing non-

Table 2
Outsourcing Core and Non-Core Activities

	Never (%)	Infrequently (%)	Frequently (%)
Core Competencies	16,2 %	52,3 %	31,5 %
Non-Core Activities	8,1 %	38,7 %	53,1 %

core competencies and 16.2 never outsourcing core competencies. This evidence clearly reveals that outsourcing is a fairly established practice in U.S. industries but the surprising finding is that many firms show little resistance to outsourcing their core capabilities.

We conducted a number of statistical tests to shed light on what influences the decision of some firms to outsource core competencies. In particular, the evidence suggests that the firms that place less emphasis on identifying core and non-core competencies in their strategic planning process are the firms most likely to outsource core competencies. On the other hand, the firms that invest more heavily in strategic planning, particularly in differentiating core and non-core competencies, our found to outsource core competencies less frequently. These results are determined through correlation analysis and are found to be statistically significant at the 0.05 level. Firms that outsource core competenecies presumably have a better understanding of the competencies that underpin their long-term competitiveness and are therefore more discerning in their outsourcing strategies. We find a negative correlation coefficient between the "emphasis a firm places on delineating its core and non-core competencies" and its decision to "outsource core competencies" which is statistically significant at the 0.05 percent level.

A "bandwagon effect" also appears to be present itself in the outsourcing decisions of firms. Our statistical analysis found that firms that perceive themselves to be in industries where outsourcing is more common tend to be more likely to outsource their core competencies themselves. The correlation coefficient between a company's perception of the extent of outsourcing by firms in its industry and its own outsourcing decision is statistically significant at the 95 percent level. These results are shown in Table 3.

Degree of Outsourcing by Function Type

Table 4 provides findings regarding the specific types of activities firms are outsourcing, shown in descending order. Insourcing is found to dominate outsourcing for all of the major business functions. Moreover, when outsourcing occurs it is largely restricted to a relatively few of the business functions, such as the transportation/distribution, warehousing, and MRO (general maintenance, repair, and operations) functions. The outsourcing of these functions is consistent with past studies. For example, the transportation/distribution function, the most frequently outsourced business function, is performed in-house by 56.5 percent of the companies and outsourced by 43.5 percent of the companies responding to the question. The warehousing and MRO functions are performed in-house by 75.9 percent of the companies and are outsourced in 24.1 percent of the companies, respectively.

Table 3
Correlation Values Between Outsourcing Variables

Outsourcing variable	Outsourcing Core Competencies	Outsourcing Non-Core Competencies	Industry Trend in Outsourcing
Outsourcing Core Competencies	-	.356*	.307*
Outsourcing Non-Core Competencies	-	-	.312*
Industry Trend in Outsourcing	-	-	-

Note: All values are statistically significant at the 0.05 level.

A partial explanation for our findings may be that transportation and warehousing play a major role in the SCM policies of companies. SCM policies are concerned with efficiency in the physical flow of resources and products from suppliers to manufacturers and from manufacturers to the final consumers. A key competency of logistics companies is the ability to synchronize the physical flows in a way that satisfies the JIT needs of manufacturers and the JIT needs of retailers [11]. These are asset based functions that require significant capital to acquire. The logistics of having fleets of trucks, planes, and ships to move cargo is well beyond what most companies can afford or manage. Contracting out for logistic services has become the preferred option for slightly less than one-half of the major industrial and commercial companies, as verified by our survey results.

Our respondents seem divided on outsourcing of the warehousing function. Warehousing, as a function, has experienced many innovations such as cross docking and the move toward super regional distribution centers. Also, the shift to customized products has impacted procurement and warehousing through the process of postponement. Given the increased expectations placed on warehousing, outsourcing this function is clearly an alternative for many companies.

Although earlier studies predict an expansion of the range of functions being outsourced, our findings do not show evidence of this trend. Functions such as IT capabilities and select operations activities are

Table 4

Outsourcing by Function Type Shown in Descending Order

FUNCTION TYPE	N[1]	Primarily 'In-Sourced' (percentrage of respondents)	Primarily Outsourced (percentrage of respondents)
1. Transportation/Distribution	108	56,5 %	43,5 %
2. Maintenance, Repair, and Operating Items (MRO)	108	75,9 %	24,1 %
3. Warehousing	108	75,9 %	24,1 %
4. IT Capability	105	81,9 %	24,1 %
5. Select Operations Activities	105	81,9 %	18,1 %
6. Product Returns & Repair	98	89,8 %	10,2 %
7. Routine Office Functions	108	89,8 %	10,2 %
8. Select Procurement Activities	105	95,2 %	4,8 %
9. Inventory Management	106	97,2 %	2,8 %
10. Customer Service Activities	105	99,0 %	1,0 %
11. Locating/Screening Suppliers	108	99,1 %	0,9 %
12. Negotiating Purchasing Agreements	108	100 %	0 %

1N is equal to the total number of respondents; Brackets indicate significant differences between functions at the 0.05 level.

Table 5
Degree of Satisfaction with Sourcing Decisions

Function Type	N[1]	Degree of Satisfaction (percentrage of respondents) Dissatisfied/Highly Dissatisfied	Neutral	Satisfied/Highly Satisfied
IT Capability				
Primarily 'In-House'	(N=86)	25,8	40,4	33,8
Primarily Outsourced	(N=19)	21,1	42,1	36,8
Select Operations Activities				
Primarily Outsourced	(N=86)	23,2	36,1	**52,5***
Primarily Outsourced	(N=19)	14,7	35,2	50,1
Inventory Mmgt				
Primarily 'In-House'	(N=103)	23,3	52,0	24,7
Primarily Outsourced	(N=3)	-	-	-
Transportation/Distribution				
Primarily 'In-House'	(N=61)	19,6	39,1	41,3
Primarily Outsourced	(N=47)	9,7	26,8	**63,5***
MRO				
Primarily 'In-House'	(N=82)	37,1	4,8	**58,1***
Primarily Outsourced	(N=26)	17,4	30,4	**52,2***
Select Procurement Activities				
Primarily 'In-House'	(N=100)	13,0	37,7	49,3
Primarily Outsourced	(N=5)	-	-	-
Warehousing				
Primarily 'In-House'	(N=82)	19,6	37,5	42,9
Primarily Outsourced	(N=26)	24,0	43,8	32,2
Product Returns & Repair				
Primarily 'In-House'	(N=88)	16,4	47,6	36,0
Primarily Outsourced	(N=10)	10,0	60,0	30,0
Customer Service				
Primarily 'In-House'	(N=104)	1,2	35,4	**63,3***
Primarily Outsourced	(N=1)	-	-	-
Locating/Screenling Suppliers				
Primarily 'In-House'	(N=107)	17,3	33,4	49,3
Primarily Outsourced	(N=1)	-	-	-
Negotiating Purchasing Agreements				
Primarily 'In-House'	(N=108)	13,7	30,1	**56,2***
Primarily Outsourced	(N=0)	-	-	-
Routine Office Functions				
Primarily 'In-House'	(N=97)	17,9	37,4	44,7
Primarily Outsourced	(N=11)	-	27,3	72,7

1N is equal to the total number of respondents; Bold indicates observation significantly higher than others in category; response values of N<10 are not reported in the statistical analysis due to small sample size.

outsourced in 18.1 percent of the firms. Two functions, product returns/repair and routine office functions were listed as being outsourced in 10.2 percent of the firms. Surprisingly, inventory management was listed as being outsourced in only 2.8 percent of the companies. Other functions, such as customer service, locating and screening suppliers, and negotiating purchasing agreements were almost exclusively listed as in-house functions. Finally, the survey evidence indicates that select procurement activities, such as purchasing and supplier selection, are outsourced in 4.8 percent of the firms. It is interesting that very few companies outsource the procurement function (less than 5 percent), and no respondents outsource negotiating purchasing agreements or locating and screening suppliers. Even routine activities are rarely outsourced, such as office functions (10.2 percent) and handling product returns/repairs (10.2 percent).

Degree of Satisfaction With Outsourcing Decision

Our study further evaluates the extent to which firms are satisfied or dissatisfied with results of their decisions to retain a function in-house or to outsource the function to a third party. The respondents to the survey were asked to rate the degree of satisfaction/dissatisfaction with their company's outsourcing decisions with respect to each of the business functions presented in Table 4.

According to our survey, the preponderance of firms seem to be satisfied, at least to a degree, with their company's sourcing decision. This is true for both companies that have decided to retain a function in-house or outsource the function to a third party. This leads to the observation that companies that are outsourcing do not perceive themselves to be short changed or disadvantaged by the decision. For example, of the companies that decided to keep the transportation/distribution primarily as an in-house function, about 41.3 percent of the respondents indicated an average or above average level of satisfaction with the decision. On the other hand, of the companies outsourcing the transportation/distribution function, about 63.5 percent expressed an average or above average level of satisfaction with their decision. Another way to look at it is that only about 19.6 percent of the companies were dissatisfied with the decision to retain the function in-house versus about 9.7 percent of the companies who were dissatisfied with their decision to outsource the transportation/distribution function. A similar pattern of only minor dissatisfaction occurred with respect to the firms' decisions to insource or outsource warehousing, MRO, and other functions.

Profiling Firms with a High Degree of Outsourcing

In order to develop a deeper understanding of corporate outsourcing, we attempted to create a profile of firms that engaged in outsourcing to a high degree. A number of organizational variables were correlated with degree of outsourcing of non-core competencies. These variables included product positioning strategy, environmental uncertainty, and firm size. None were found to be statistically significant.

One variable that did show significant correlations with degree of outsourcing was length of product life cycle. Table 6 shows these findings. We note that responses were based on a five-point Likert type scale with responses ranging from extremely short to extremely long. As there were no responses for the extremely short category, these were collapsed into one category indicated as short/extremely short.

Statistical significant values are shown in bold. It is evident from the table that companies with a somewhat long or extremely long product life cycle are found to have a significantly higher degree of outsourcing compared to those with short or moderate life cycles. Also, the degree of outsourcing seems to be increasing linearly with the length of the product life cycle.

Table 6
Degree of Outsourcing Versus Length of Product Life Cycle

Length of Product Life Cycle	Frequency of Outsourcing non-core activities (as a percentage of respondents)		
	Never/Rarely	Occasionally	Frequently/very Frequently
1. Short/Extremely Short	12,5	**62,5**	25,0
2. Moderate	12,5	43,9	43,6
3. Somewhat Long	5,0	32,5	**62,5**
4. Extremely Long	9,0	27,3	**63,7**

Note: Boldface/asterisk indicate significantly higher values than those in the same product life cycle category at the 0.05 level.

Table 7
Correlation Values Between Outsourcing Variables and Performance Measures

	Outsourcing Variable		
Performance Measure	**Outsourcing Core Competencies**	**Outsourcing Non-Core Competencies**	**Industry Trend in Outsourcing**
Sales	.032	.349*	.215
Market Share Growth	.231	**.309****	.173

Note: Single asterisk values are statistically significant at the 0.05 level; double at the .10 level.

This finding is interesting and may suggest that companies with shorter product life cycles may not be able to develop the type of evolving relationship with a third party, required to support a shorter product life cycle.

Link to Organizational Performance Measures

The last element of our study was to evaluate the relationship of outsourcing to organizational performance measures, differentiating between the outsourcing of core and non-core competencies. Two measures of performance were considered, market share growth and sales. Our findings, shown in Table 7, reveal that outsourcing of non-core competencies indeed is positively correlated with both performance measures, whereas outsourcing of core-competencies is not. Further, companies in industries with a greater trend toward outsourcing did not significantly correlate with the performance measures.

The finding that firms would outsource core competencies is counterintuitive from a long-term viewpoint. According to strategic planning theory, firms carefully differentiate between core and non-core competencies consistent with their purpose and strategic vision. Companies such as Wal-Mart, Cisco, Proctor & Gamble, and General Electric are examples of firms who have maintained “world class” status over the years by carefully managing and deploying their strategic assets and competencies.

Outsourcing core competencies exposes the firm to a number of potential risks. For example, the outside supplier could renege on quality or deploy other methods to hold its customer firm hostage for better terms. Another concern is that knowledge spillovers are more likely to occur to the benefit of the firms’ competitors, while at the same time undermining the firm’s unique sources of long-term competitive strength. For these reasons, the conventional wisdom is that informed firms are not likely to find outsourcing core capabilities an attractive option. Our findings show that they are also not likely to result in improvements in bottom line measures.

Conclusion

We surveyed 116 large U.S. firms to evaluate the current status of outsourcing, focusing on the outsourcing of both core and non-core competencies. Although outsourcing is indeed on the rise, our findings show a caution among firms in following the trend. Functions perceived as non-core are continue to be most frequently outsourced, such as transportation, warehousing, and management of MRO (maintenance, repair, and operating items). An interesting finding is that many firms outsource for what they believe are their core competencies and long-term strategic interests. There is a comparable degree of satisfaction between firms choosing to outsource versus performing the functions in-house. These findings show that the outsourcing decision is complex and that no one model fits all firms. Finally, the outsourcing of non-core competencies is found to correlate positively with performance measures of market share growth and sales, whereas the outsourcing core competencies did not.

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