IBM Global Services

Business impact of outsourcing—a fact-based analysis.

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Scientists at the IBM T. J. Watson Research Center investigated the long-term effects on companies that outsourced a major portion of their IT infrastructure between 1998 and 2002. Unlike previous research that relied on the case-study approach, the IBM Research study[1] is the first to apply rigorous statistical analysis to measure the impact of an outsourcing agreement on a company. The study concludes that companies engaged in information technology (IT) outsourcing outperformed their peers on a long-term basis in key business metrics, specifically selling, general and administrative (SG&A) expenses, return on assets (ROA) and earnings before interest and taxes (EBIT). Further, the research indicates that the larger the outsourcing contract, the more likely the improvement in bottom-line results. This white paper examines the results of the survey.

Building better bottom-line results

Revenue growth. Product and service innovation. Cost containment. Process and performance improvements. Market-share expansion. These pressing concerns top today's corporate agendas, as company executives look for ways to deliver better short- and long-term results. Executives are increasingly outsourcing information technology resources to help their companies reduce costs and better focus on core business strategies.

This rapid growth in outsourcing IT has attracted the attention of researchers and practitioners alike, as they seek to ascertain the value of outsourcing IT. Most research has been qualitative, relying on case studies, interviews and questionnaires. In some cases, teams undertook quantitative approaches to understand the financial impact of outsourcing. Typically, however, they focused on short-term stock performance.

Highlights

Using a rigorous statistical approach, IBM scientists analyzed the financials of 56 publicly traded companies—38 non-IBM clients and 18 IBM clients. The analysis revealed a correlation between major IT outsourcing deals and significant improvements in key business metrics for those companies.

IT outsourcing was clearly a part of an effective management strategy that the companies in the study used to achieve positive results.

IT outsourcing was clearly a part of an effective management strategy that the companies in the study used to achieve positive results. The study illustrates that IT outsourcing is a proven business tool that other companies should consider to build better bottom-line results and please shareholders.

"Research surrounding the impact of outsourcing proliferates. Studies show, for example, that companies across the globe are expanding their use of outsourcing, especially as it relates to IT, and that worldwide spending on IT outsourcing services is expected to rise over the next five years. Findings have also been published that looked at the expected benefits of IT outsourcing and determined that cost reduction, increased operational efficiency and improved IT effectiveness were at the top of the list. Even more promising are the results of this IBM study that measured the long-term business impact of IT outsourcing on key financial metrics."

—Dr. Marc Bertoneche, Harvard Business School, visiting professor, Finance, and coauthor of "Financial Performance"

Highlights

Points versus percent

It is important to understand the difference between the terms "points" and "percent" when they are used to describe growth or relationship with the median. Points reflect the actual numerical increase or decrease in percent. For example, when the United States Federal Reserve Bank raises interest rates from four to six percent, the bank has raised rates by two points, not two percent.

Companies that outsourced IT outperformed peers on key business metrics

Companies in the study realized better long-term improvements in business performance when compared to sector peers. The results were impressive.

Lower growth in selling, general and administrative expense

Almost three-quarters of the companies studied observed significant reduction in SG&A expenses compared to industry peers. Prior to outsourcing, the annual growth in SG&A expenses of companies in the study was already 4.2 points lower than the sector median, likely due to preexisting corporate cultures focused on business improvement. Within one to two years after IT outsourcing, these companies improved even more. Annual growth in SG&A expenses for these companies was 9.9 points lower than the sector median.

Increased growth in return on assets

Almost two-thirds of the companies studied outperformed their peers in ROA two to three years after IT outsourcing commenced. Prior to outsourcing, the annual ROA growth rate for companies in the study was 7.5 points lower than the sector median. After outsourcing, however, these companies experienced 8.6 points higher annual growth rate in ROA compared to the sector median — a substantial swing of 16.1 points.

Higher growth in earnings before interest and taxes

Nearly two-thirds of the companies studied grew earnings faster than their peers. Two to three years after IT outsourcing, companies experienced an annual rate of growth in earnings 11.8 points higher than the growth rate of the sector median.

Highlights

IT outsourcing connects global telecom company to better business results

A global telecommunications company outsourced the management of its data centers and other processes in an agreement valued at US$4 billion. The year before the company outsourced IT, its quarterly SG&A expense was US$3.1 billion. Three years into the outsourcing agreement, quarterly SG&A expense dropped 13 percent to US$2.7 billion. The result is in marked contrast to the sector's 200 percent increase in SG&A expenses during the same period.

A global supplier of advanced semiconductors reduced SG&A expenses by almost half after outsourcing.

Companies reduced SG&A expense

Compared to the sector median, the growth of SG&A expenses for companies with large outsourcing contracts was 9.9 points lower. More impressive, relative to overall sector performance, virtually three-quarters of those companies lowered SG&A expenses two years after outsourcing. One notable performer, a global supplier of advanced semiconductors with annual revenue of about US$1.3 billion, reduced SG&A expense by almost half after outsourcing IT. Meanwhile, SG&A expenses for the semiconductor supplier's competition grew by 9 points over the same period.

Companies improved ROA

Companies with outsourcing agreements over US$50 million achieved an annual growth rate in ROA of 8.6 points higher than the sector median. More than 60 percent of those companies outperformed their competitors in ROA. A global provider of travel and real estate services, for example, grew ROA by more than 300 percent, while its competitors' ROA dwindled by 29 percent.

Highlights

Research by IBM scientists indicates that the larger the outsourcing contract, the more likely the improvement in bottom-line results.

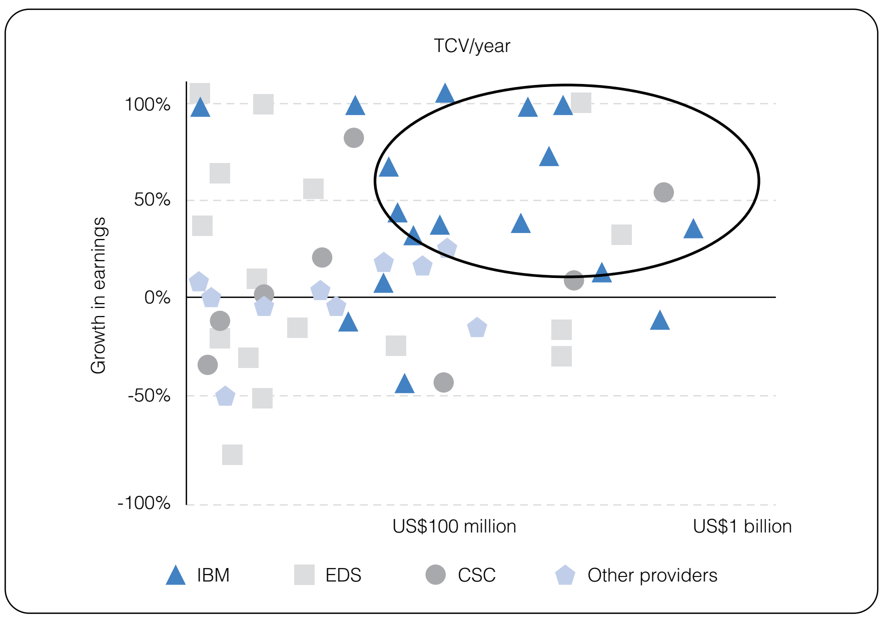
Companies boosted EBIT

Companies in the study showed an 11.8 point annual improvement in EBIT compared to the sector median. Furthermore, 63 percent of those same companies grew EBIT faster than their sector peers. To better understand the dual impact on earnings, please see the Appendix.

IBM Research results

Research by IBM scientists indicates that the larger the outsourcing contract, the more likely the improvement in bottom-line results. While 54 percent of companies engaged in IT outsourcing agreements of less than US$100 million per year experienced positive earnings growth, 71 percent of companies engaged in IT outsourcing agreements of greater than US$100 million per year realized positive growth in earnings. (See figure 1.)

Figure 1: Relationship between the size of the IT outsourcing agreement and growth in earnings



Highlights

Outsourcing for stronger financial health

A healthcare insurance company outsourced management of its data centers, PC support, companywide help desks and data networks to a service provider in January 2002 with a ten-year agreement worth over US$700 million. Prior to outsourcing, the company's quarterly EBIT was US$47 million. Two years into the agreement, the company's quarterly EBIT grew to US$119 million. The 153 percent increase in EBIT was ten times greater than the rate of earnings growth in the sector as a whole.

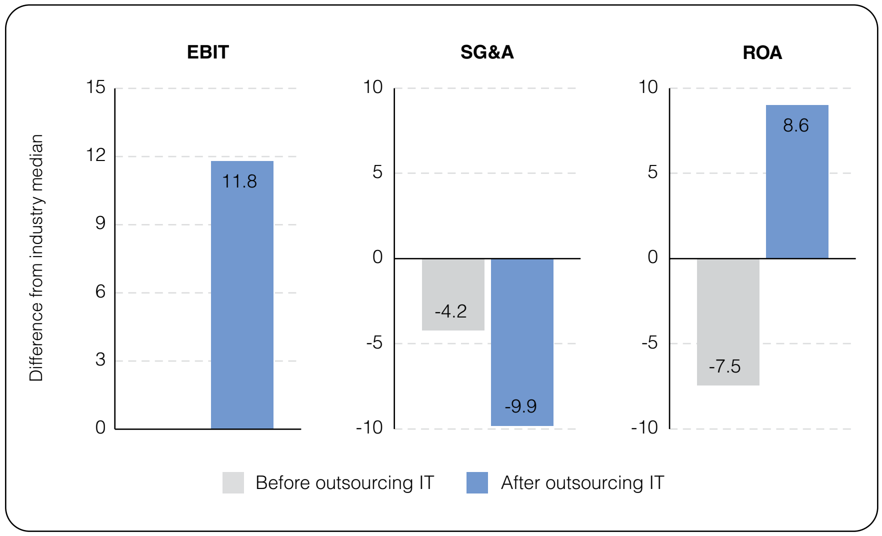
Research analysis and methodology

IBM scientists analyzed quantitatively the financial performance of each company.

The quantitative analysis was performed by scientists in the Mathematical Sciences Department at the IBM T. J. Watson Research Center. They analyzed each company's financial performance in the year prior to outsourcing and measured results up to three years after outsourcing began. Following the theoretical and empirical evidence that the key reasons for outsourcing include cost reduction and focus on core operation,[2,3] IBM scientists focused their investigation on SG&A, EBIT and ROA.

Highlights

Figure 2: Difference in points in annual growth, as compared to sector median, prior to and after outsourcing IT



The IBM team utilized a patent-pending methodology to measure change in business performance.

Figure 2 shows the before-and-after business results. Other studies that explored the effects of outsourcing have only analyzed periods of months before and after the beginning of an outsourcing agreement. The IBM team utilized a patent-pending methodology to measure changes in business performance of diverse companies over a longer-term period—starting from one year prior to outsourcing and up to three years after.

Highlights

IBM used the Datamonitor ComputerWire database of historical services signings to identify candidates for the study. On July 15, 2004, the database listed 5,085 services engagements announced between May 1994 and May 2004. To minimize the selection bias, an automatic filter was implemented to search the database using the following criteria:

- *Multinational company listed on a U.S. stock exchange*
- *Announced total contract value (TCV) of US$50 million or higher to a single provider/vendor*
- *Outsourcing agreement announced between January 1, 1998, and November 31, 2002; end date chosen to allow sufficient time window for the impact analysis*
- *Scope of outsourcing contract was predominantly IT, such as data centers, desk-side support and hosting*
- *Contract was the company's first major IT outsourcing announcement*

The analysis demonstrates a strong correlation between outsourcing IT resources and the financial performance of the companies studied.

The analysis demonstrates a strong correlation between outsourcing IT resources and the financial performance of the companies studied. It is important to note, however, that the results do not imply that outsourcing was necessarily the sole driver behind this improvement.

To further establish confidence in the results, the IBM Research team ran a Monte Carlo simulation computing the probability of observing the same result in a random population of companies. The team randomly selected 56 companies while preserving the same industry distribution, and ran the same analysis 1,000 times. The same financial improvements occurred in less than 5 percent of the samples, indicating a 95 percent confidence level in the results.

Highlights

Furthermore, an independent study recently released by the Katz School of Business at the University of Pittsburgh confirmed the results measured by the IBM team. Using different data, methodology and business metrics, the study concluded that firms experience significant improvements in operating efficiency for each of the first three years following the outsourcing contract.[4]

Conclusion

Outsourcing IT is a strategic business decision that is likely to boost a firm's performance.

Outsourcing IT is a strategic business decision that is likely to boost a firm's performance. Most of the existing research on the effects and benefits of IT outsourcing is based on case studies and client interviews. The IBM study used robust statistical methods to take a fresh look at outsourcing, investigating its long-term impact on companies. Besides the wealth of knowledge on why and how to outsource, the results shed new light on the value that a well-structured and well-executed IT outsourcing agreement can deliver to a company. The study also emphasizes the potential that large-scale IT outsourcing strategies offer to boost the business performance and bottom-line objectives of companies.

Find out more

To obtain more information on how IT outsourcing can help your company dramatically improve its bottom line, please visit:

ibm.com/services/stratout

Appendix

Earnings before interest and taxes is determined by revenue, less costs; selling, general and administrative general expenses; as well as depreciation and amortization expenses. SG&A expense, also known as overhead, typically varies as a percent of revenue from 16 percent to 25 percent across industries.[5]

IT expense is typically accounted for within SG&A expense. IT expense as a percent of revenue also varies by industry—from 1.43 percent in construction to 6.64 percent in financial services.[6] According to a study across multiple industries, IT expense accounts for half of a company's capital expenses on average.[7] Most Fortune 500 companies use accrual-based accounting, depreciating IT assets over three to five years.[8] Over the long term, IT outsourcing has been shown to reduce IT expenses by 20 percent to 30 percent.[9]

IT and capital expenses should decrease when a company successfully outsources IT. The expense reductions enable a company to realize lower SG&A expenses, as well as depreciation and amortization expenses, compounding the improvement in earnings.

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