

strategy&

*Maximizing
the value from
technology
investments*

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**Spending smart
instead of just
spending big**



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Executive summary



As technology reshapes virtually all industries, companies continue to make sizable investments. Yet many such investments fail to deliver their promised returns. We recently analyzed 250 global companies to determine whether increased technology spending could lead to improved financial performance. The results clearly show no direct correlation between technology investments and profitable growth; spending more on technology does not necessarily lead to better financial performance. This by itself is not a new revelation, but our research further shows a strong correlation between technology and profitable growth if the investments are focused on targeted capabilities, augmented with the right operating model and implementation skills.

Based on this research, we developed an index to assess the effectiveness of technology spending in improving corporate performance: the Technology Investment Fitness Index (TIFI). Using TIFI, companies can assess their position relative to peers and better understand the steps they can take to maximize value from IT investments. This index includes four components:

1. Alignment between IT spending and business capabilities
2. The technological capacity to execute IT initiatives
3. The ability to assess the potential value from a particular IT initiative relative to its risk
4. An optimal IT operating model to sustain results from the new technology

As part of this research, we developed an online index tool that can help companies quickly determine their technology fitness, along with how they compare with peers in their industry. Find the tool at https://surveys.strategyand.pwc.com/Technology_Investment_Fitness_Index/.

Targeting the technology

The pervasiveness of technology today means that companies need to make continuous investments in IT to gain operational efficiencies and improve customer service. Yet based on our research, many are not happy with the returns they get on their IT spending. Companies often go in believing that enterprise-wide IT investments such as new enterprise resource planning (ERP) or customer resource management systems will solve their problems, but these projects ultimately fail to either solve problems or deliver value.

A central mistake is not aligning the technology investments to targeted capabilities. Our work with clients frequently shows disconnects between the ways a company differentiates itself in the market and what the new technology enables it to do. Despite corporate governance and approval processes, companies often get distracted by promising new technology, allowing this disconnect to grow.

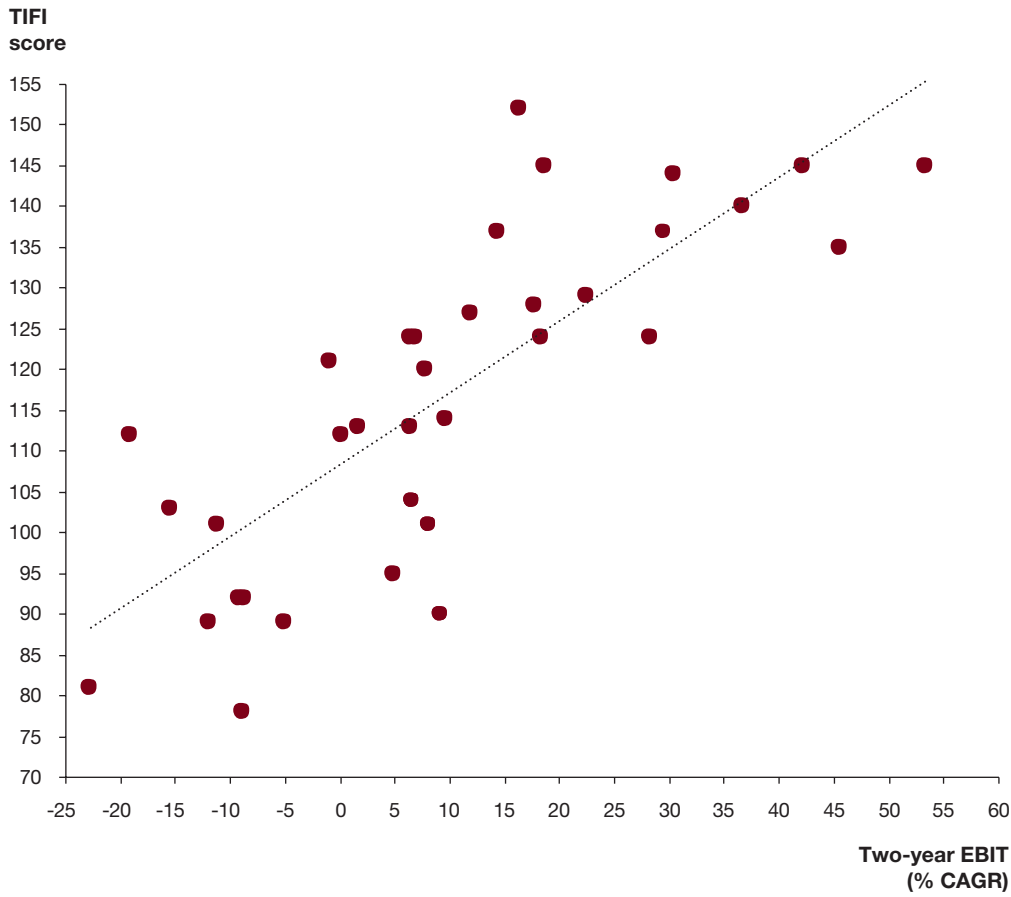
We recently analyzed 250 publicly traded global companies in the engineering, manufacturing, automotive, and consumer packaged goods (CPG) sectors, looking at their IT investments and their overall financial performance to see if we could find meaningful relationships. Specifically, we looked at their overall spending on IT and their profit growth as measured by earnings before interest and taxes (EBIT) from 2011 to 2013.

We found no direct relation between the size of investments and financial performance. Simply put, spending more does not lead to better performance. However, we found a strong correlation to profitable growth when the investments aligned with a company's targeted capabilities and were supported by the right operating model and implementation skills.

The Technology Investment Fitness Index (TIFI) was developed as part of this analysis. It is a means of scoring a company's effectiveness in identifying and prioritizing IT initiatives to ensure high business value realization. As *Exhibit 1, next page*, shows, companies with higher index scores are far more likely to successfully translate IT investments into meaningful business value (as measured by two-year EBIT growth).

Spending more does not lead to better performance.

Exhibit 1
Technology investment vs. profitable growth



Four key components

The TIFI consists of four key components (*see Exhibit 2*). Together, these should be priorities for companies looking to make IT investments that can unlock greater value.

Alignment with differentiating capabilities

Companies that achieve high returns on IT investments focus their spending on the unique capabilities that differentiate them in the market. This requires expanding the scope of IT investments beyond the competitive necessities and foundational investments the company needs to keep the lights on. Instead, winning companies focus their IT investments on distinct opportunities that give them an edge in the marketplace.

Exhibit 2 TIFI's four components

Alignment with differentiating capabilities	<ul style="list-style-type: none">– Technology investments explicitly build differentiating capabilities that lead to growth and increased profit
Technical ability to execute	<ul style="list-style-type: none">– The organization has — or can acquire — the technical strength to successfully implement large IT projects– The target technologies and technical capabilities align with the company's overall technology strategy and road map
Value generated relative to risk	<ul style="list-style-type: none">– The company has identified the potential value it will generate through the IT investment– It also has clear insights regarding the executional, transitional, and operational risks
Operating model to sustain performance	<ul style="list-style-type: none">– The business has the right organization and processes to adopt technology solutions– The IT function is set up to support, enhance, and scale the solution — in collaboration with business units — in the most cost-effective way

Source: Strategy& analysis

For example, retail companies that place an emphasis on customer experience can invest in developing a world-class omnichannel strategy to better engage their customers. Retail companies can also invest in pricing optimization as another differentiating retail capability (particularly now that several e-commerce retailers are able to dynamically change their product prices multiple times in the course of a day). Similarly, industrial companies that focus on operational excellence can invest in telemetry technology that allows them to track inventory and shipments in real time and collect data from all locations, so that they can wring out inefficiencies and reduce costs.

To increase the alignment of IT spending to capabilities, organizations need to start by defining the specific capabilities they need to create a winning position in the market. Doing this effectively is not a one-time exercise but an ongoing process, and requires a strong relationship between business and IT. This often requires that the IT division of the company evolve from the role of mere order taker and become a true partner with an intuitive understanding of the business and the ability to bring transformative ideas to the table. Finally, business units and IT must be willing to invest in areas that may be inherently riskier than foundational IT activities.

Technical ability to execute

The second key priority is the ability to deliver complex projects. As companies in all industries seek to transform themselves through technology, the ability to implement large-scale IT initiatives will become critical. Winning organizations understand the skills required to execute their technology strategy, and they can make an honest assessment of their current strengths and weaknesses.

For example, a company that seeks to develop strong analytics capabilities should consider whether it has the right talent and resources to build the required infrastructure, collect and govern data, analyze that data, and generate real insights from it. In most cases, companies need to reevaluate the delivery model for IT. Too often, critical roles are outsourced and the internal organization does not have the skill to figure out the right set of requirements and capture the opportunity.

Finally, many companies lack a technology road map that supports their overall strategy. This road map is not just a sequencing chart for how a company's current initiatives are likely to play out in the future, but rather a definition of future capabilities, the technology architecture that is required to stand up these capabilities, a gap assessment from the current state, and a clear path to guide investment decisions. Developing the road map is not a "one-and-done" effort. The organization needs to regularly evaluate progress against the road map, with sufficient flexibility to adapt to emerging trends and disruptions — in both technology and the marketplace.

Winning organizations understand the skills required to execute their technology strategy.

Value generated relative to risk

Third, companies that generate value from their IT investments understand the business case for that spending. They can accurately determine the total value they are likely to generate, including benefits and costs. Moreover, they understand the risks inherent in their investments, including executional (related to the implementation phase), transitional (related to getting employees to work in new ways to maximize value from the technology), and operational (i.e., capturing and sustaining benefits over the long term). In general, projects that present a high degree of risk should offer a correspondingly high level of potential value.

Companies that fail to understand this relationship often undertake projects that never come to fruition, or when the projects finally do cross the finish line (at considerable expense and turmoil), they deliver returns that are insufficient to make the effort worthwhile. For example, a new ERP system can promise high value, but the risk required to unlock that value may be unacceptably high. Similarly, when a company is investing in new technologies with which it has limited or no experience — such as developing mobile “Internet of Things” solutions — it may want to limit its spending to a small pilot test to see if it can create value before increasing the scope and scale of the investment.

To become more effective at understanding the potential value of an IT initiative relative to risk, companies should start with an objective, rigorous analysis, including worst-case scenarios. They should also consider executional, transitional, and operational risks. And once projects get launched, leaders in IT and business units need to regularly assess and update potential benefits and risks, to factor in the inevitable changes in plans. Finally, the company’s overall risk profile should be managed at the portfolio level to ensure that there is a reasonable mix of high-risk/high-reward projects balanced with those more certain to generate benefits.

Operating model to sustain performance

Once the new IT system is in place, companies need the right organization, the right processes, and — critically — the right leadership to sustain the change and capture value over the long term. The prevalence of technology and its impact on corporate performance may lead companies to reconsider their operating model and sourcing choices. Companies need to balance internal know-how and experience with external expertise regarding best practices for their market.

To start, an organization needs to understand how its business will change as it implements new technology. This includes addressing competencies required to manage the new technology, as well as understanding the impact to core functions and operations

An organization needs to understand how its business will change as it implements new technology.

(e.g., customer service). Next, the organization needs to align its processes to the required functional enhancements. Finally, leadership needs to support the transition, and continue to navigate the organization through the transition to the desired state.

A typical example is a traditional brick-and-mortar retailer that is transitioning to e-commerce. In addition to gaining the obvious Web development skills, the company needs to understand how to apply best practices to manage digital marketing, shipping, inventory, and supply chain for the new channel.

Notably, all four components of the TIFI are crucial. Companies may have particular strengths and weaknesses in individual areas, but they need to develop all four if they are to succeed in their IT investments.

Case study: A CPG company calls “time out” on a problematic IT project

A CPG company with US\$4 billion in annual revenue had invested significant resources into one ERP system over four years. Although the new system had the potential to deliver huge benefits, in reality it proved to be a disruption, with no real uptick in revenue or reduction in costs. Furthermore, the steep ERP investment diverted capital from more promising growth areas. The company’s market share was declining, and business leaders urgently wanted to invest in developing specific differentiating capabilities.

In response, the management team took stock of the situation and decided to slow ERP implementation to a logical state where it could be picked up when funds were available. In addition, the team brought the entire senior leadership together to identify and prioritize the newly available IT investments based on their alignment with differentiating capabilities, applying strict, value-based financial rigor and gauging the organization’s ability to successfully execute in a timely fashion.

Specifically, the company felt that it could differentiate based on optimizing its pricing and trade promotion capabilities. To encourage risk taking, management allocated a small budget to experiments in areas such as mobile coupons and crowdsourced innovation, which had a high risk of failure but would also offer substantially high value if they succeeded. The company conducted quarterly workshops with senior leaders to review the road map for both efforts, make adjustments as needed, and track the value that specific measures delivered. Those experiments led to a much stronger mobile experience for customers, and helped build brand equity at a fraction of the company’s historical marketing budget.

Within two years, the company was able to build on this momentum and develop strong trade promotion and pricing optimization capabilities, which together led to a substantial increase in revenue. In addition, once it had a strong foundation and clear priorities in place, it was better positioned to complete the ERP implementation.

Key questions for management

In developing a technology strategy to improve corporate performance, management teams should consider several key questions.

- **Investment profile:** What percentage of your IT investment is aimed at building critical capabilities versus those that are more foundational? Ideally, foundational investments should be capped at no more than 40 percent of the total investments in any given year.
- **Organization focus:** Have you aimed a significant portion of your internal resources at driving innovation and/or growth? Do you have the right mix of operating processes in place to drive these investments?
- **Tenure:** Does your workforce have the right experience to get to the target state? Does your team have the right mix of skills in the right roles?
- **Investment economics:** Are you still evaluating projects and investments using traditional measures? Can you effectively balance the potential risk and value of specific investments?

Conclusion

As technology becomes more pervasive in all industries, IT investments can make the difference between being a winning company or a losing one. Yet writing a big check is not enough. Rather, IT investments must be strategic. By focusing on the areas discussed in this report, companies can improve their Technology Investment Fitness Index score and make sure they are investing in technology that can have a true impact on the bottom line.

Learn your TIFI score

Companies can instantly find out their TIFI scores, compare them to average results for their industry, and get best practices based on their survey results by using the Strategy& proprietary TIFI tool, found at https://surveys.strategyand.pwc.com/Technology_Investment_Fitness_Index/.

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