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# Critical Success Factors Driving IT's Contribution to Business: Evidence from CIOs

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## ABSTRACT

This paper presents industry and organizational factors that were found to play an important role in dictating IT's strategic impact on and contribution to its enterprise. Five IT executives from different industries were interviewed about their firms' investment in people, process and technology in executing operations, investment and strategy. The firms' IT organizations were categorized using McFarlan's Strategic Grid for IT. The recurring key themes revealed by the IT executives centered on People, Relationship Management, Stakeholder Management, and Strategic Planning. In addition, key observations about factors that influence IT's approach in its partnering with the business were discussed. These factors are organization breadth and size, the nature in which the firms' customer contact was managed through IT, and the influence of cloud/Software-as-a-Service offerings on IT's approach to addressing business needs.

### Keywords

IT Strategic Grid, IT Executives, Business Needs, Chief Information Officers, IT Contribution to Business

## INTRODUCTION

Average Information Technology (IT) investment presently represents anywhere from one to nine percent of corporate revenues depending on the firm's industry (Barnett, 2013). While the level of investment provides an indicator of how IT intensive a firm is, it does not provide a complete picture of how IT impacts a firm's sustainability, growth and differentiation.

IT executives from five firms were interviewed about their IT organization. These firms were then categorized into one of the four quadrants of McFarlan's (1984) Strategic Grid: Support, Factory, Turnaround and Strategic. The IT Strategic Grid is a two dimension model that assesses the business implications of an organization's (1) IT Application Portfolio and (2) IT Project Portfolio (see Figure 1). The first dimension draws out the criticality of existing IT systems and their impact on the organization they are supporting from a sustainability perspective, while the second dimension focuses on how investments in IT influence the strategic shape of the organization in how it grows and potentially differentiates itself from competitors. Where these two dimensions intersect establishes the strategic impact of IT. Due to the limited space allowed for the MWAIS Conference submission, for a complete discussion of the IT Strategic Grid please see McFarlan, McKenney, and Pyburn (1983).

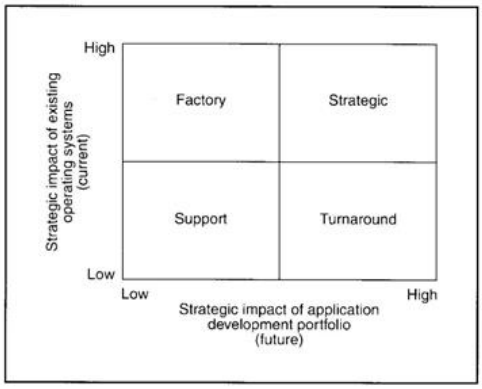

**Figure 1. IT Strategic Grid (adapted from McFarlan, McKenney and Pyburn, 1983)**

## RESEARCH METHODOLOGY AND DATA COLLECTION

To obtain direct feedback from IT leaders, a thirteen question interview was conducted with IT executives at the Vice President or CIO level of five organizations. The interview instrument items focused on the firms' investment in people, process and technology in executing operations, investment and strategy (the survey instrument is available upon request). The companies spanned fives industries, Consumer Manufactured Goods, Logistics, Financial Services and Insurance, IT Products and Services, and Biotechnology, and ranged in size from a 3 year old pre-IPO start up funded by venture capital to an 85 year old company with $22 billion in revenue. Also, the set of firms was further diversified in the manner by which the firms secure their equity, from publicly-traded companies with shareholders to privately held family-owned companies to a venture capital funded company. Data such as the age of the firm, revenues and percentage for revenues spent on IT were initially obtained through public sources and then confirmed by the interviewees (see Table 1).

| Age Range | Revenue | Holding | Industry | Interviewee | Report to | IT % Revenue |
|---|---|---|---|---|---|---|
| **3 years** | N/A | VC Funded | Biotech | CIO | CEO | N/A |
| **31 Years** | 400 million | Privately Held | IT Product and Services | CIO | CEO | IT Budget 2% of revenue, split between Innovation (52%) versus 48% run/lights on |
| **46 years** | 1.9 billion | Privately Held - Family | Logistics | CIO | CEO | 1.0 – 1.5% revenue on IT for total spend. 50:50 split between operations versus innovation/project |
| **85 years** | 22 billion | Mutual Company | Insurance and Financial Services | VP Infrastructure and Operations | CEO | Build/Run: 30:70 Total IT Spend (4%) IT Budget 1.1 billion – 400m build/250m am/ balance is I&O |
| **150 years** | 8.0 billion | Publicly Traded | Consumer Manufactured Goods | VP and CIO | CFO and CAO | Overall Spend versus revenue (new vs. run) – 25: 75 – 2% of revenue (normal in CPG) |

**Table 1. Characteristics of the Firms Sampled**

## RESULTS AND DISCUSSION

Several recurring themes were emphasized during the interviews with the top IT executives of the five firms. These themes focused on factors that were instrumental in driving IT's contribution to the business they supported. These key themes can be classified into four categories: People, Relationship Management, Stakeholder Management, and Strategic Planning. In addition to these recurring areas of emphasis, there were several key observations surrounding factors that influenced IT's approach in its partnering with the business. These factors were organization breadth and size, the nature in which the firms'

customer contact was managed through IT and the influence of cloud/Software-as-a-Service offerings on IT's approach to addressing business needs. These areas of emphasis are discussed in detail below.

## Factors Driving IT's Contribution to the Business

### *People*

For the five firms surveyed, the organization staffing/sourcing was greater than 80% internal and contract staff (e.g., non-outsourced) with the remaining twenty percent (or less) outsourced. With such a significant proportion of IT staffing accomplished by internal employees, all IT executives surveyed emphasized across multiple questions the importance of having employees who were engaged with leadership, each other and the business strategy. The respondents confirmed that the skills and key resources needed to support the business strategy and change initiatives reliant on technology were 80% filled. In other words, there was a consistent 20% skill gap. A number of observations centered on the fact that the gaps were most significant where skills were needed to support new technologies. In addition to having engaged employees with the right technical skills, each firm had varying approaches to supporting staff development and growth. In several of the companies, there were internal training programs emphasizing key leadership capabilities and presenting opportunities for colleagues to take leadership roles by conducting these training sessions.

### *Business Relationship Management*

Increasingly, the lines between IT and the business are blurring (Wuorio, 2011). The need for IT professionals to be able to oscillate between business and IT is therefore becoming ever more critical (Zhu, 2013). All respondents mentioned that there was a constant need to "get" what the business stakeholder was trying to address, what the key business challenges were and how to establish an associated IT solution that would satisfy the requirements. As organizational boundaries have continued to blur and the need for integrated working has expanded into the C-level suite at a significant number of organizations, it was evident from the responses that a significant corporate cultural change needs to occur. One key challenge in firms that needs to be tackled is the ability to break deep-seated perceptions that IT is just a back-office, order-taking organization to one that acknowledges that IT can enable true business change.

### *Stakeholder Management*

Going beyond merely establishing relationships with the various business units of their organizations, the IT leaders interviewed all stressed the importance of stakeholder management. This factor is intimately associated with the previously mentioned much needed change in perception of the Business Relationship Management factor. As IT evolves within corporations to a point where the boundaries between IT and business units are ceasing to exist, the ability for IT professionals at all levels to effectively manage stakeholders, both internal and external to the organization, becomes an increasingly vital skill and critical success factor for companies. Key areas of increasing importance for IT professionals include effectively managing expectations ('the art of the possible'), challenging the business on desired IT investment in order to ensure positive return on the investment, and partnering to drive business change.

### *Strategic Planning and Business Impact*

Building upon the previous two areas of consistent focus for corporate IT organizations coupled with the increasing presence of CIOs reporting directly to CEOs, IT is becoming increasingly active in the strategic planning processes of corporations. With increases in the level of consumerization of IT in people's home life, the opportunity to drive substantial business value and change through IT has skyrocketed. The five respondents stressed the evolving expectation from their corporations that "IT just works", that "100% up time" has become the default expectation and that the contribution IT makes and is measured against year over year is directly traceable back to core corporate objectives as opposed to some abstract IT objectives that are seemingly far removed from the actual corporate objectives and strategy. In almost all cases, the merit of investment had tangible savings through efficiency and/or effectiveness or contribution to revenue that would be rolled into a senior leader's budget or target. Furthermore, there was a strong emphasis in supporting strategic planning to ensure there was clear alignment with the overall corporate strategy, thus enabling teams to focus on the right thing, at the right time with the right resources.

### IT's Approach in its Partnering with the Business

#### *Organizational Size and Breadth*

One difference observed between the companies represented in the interviews had to do with the challenges management faced in connecting the behaviors and focus of colleagues in IT back to the core business of their company. As the scale and/or geographic breadth increased, so did the challenge of ensuring employees in IT stayed in tune with the core business they were supporting. Furthermore, as the size of the organization increased, the formality of organizational boundaries and models leveraged became more defined and structured as opposed to the smaller, more geographically centralized companies where a high degree of "role density" was observed.

#### *Customer Contact*

For IT in firms where the customer, their contact information and the handling of the goods or services they consumed from the companies was reliant on an IT interface, there was a strong emphasis on driving standards to make sure efficient and effective master data management was in place to ensure that the customer/consumer needs were handled in the most efficient and convenient way. This focus on master data management extended into the business where there was a high degree of data ownership by management within the owning business function of that particular data. The extent to which this customer contact impacted revenue and strategic growth of the company generally depended upon the industry in question.

#### *Cloud Influence*

With the continued maturing of cloud solutions in the marketplace, the opportunity for such solutions presented by IT leaders has been invaluable in focusing discussion on the 'must haves' of system implementations while focusing on how to drive change and focus more on business innovation. The speed to market capability has driven a change in dialogue and has allowed the business and IT to focus on the 80% of functionality that truly matters. Furthermore, with younger companies, an emphasis on "cloud first" architecture standards and approaches has allowed IT organizations at a smaller scale to deliver with a deep set of capabilities in a fairly short time without having to staff up to accomplish delivery.

## CONCLUSION

Gates (2000) stated: "Information technology and business are becoming inextricably interwoven. I don't think anybody can talk meaningfully about one without talking about the other." This holds truer in the 21st century than ever before. Although IT is seen as being increasingly critical to the success of most companies, this research sheds light on some key influences that are out of IT's control yet ultimately determine the extent by which IT impacts the strategy of an organization.

Based on the observations gathered from the IT executives, the most substantial influence in how IT impacts the firm appears to be the industry and more specifically the products and services the firm delivers to its customers.

In a number of the firms that had IT functions landing in the *Strategic* quadrant of the IT Strategic Grid, the IT function and IT in general had a direct impact on that firm's end customers in how they consumed the purchased service. Furthermore, these firms where IT was more strategic, the firm was either actively expanding its current products and/or services beyond its current customer base leveraging IT (e.g., IT based products/services), were expanding revenues through the delivery of IT systems, or relied on IT as the strategic arm to deliver on corporate innovation. Where IT was not driving growth for the company, it was still apparent that IT is absolutely critical to sustaining most organizations where firms fell within the Factory quadrant.

In the firms surveyed where IT had a greater impact on flawless delivery of IT, IT was still making a critical contribution in sustaining the business and the firms' competitiveness within the market. In these companies, it was the experience customers had in using their systems in order to manage their accounts, handle and track claims and otherwise consume the companies' services that delivered a strong return on investment or supported parity with the firm's competitors as far as digital presence and customer service.

Further assessing the impact IT plays in firms where IT fell either in the Strategic or Factory quadrant, there seems to be an increased theme and reliance on ensuring that the knowledge needed to drive the requirements of the business should reside with employees. There was a significant limit to the volume of outsourcing within the companies assessed. Additionally, when the topic of outsourcing arose, it was often addressed with comments about ensuring the firm maximized value from IT and its operations. References were made several times to the use of cloud computing and SaaS solutions as the new form of outsourcing, once again, allowing for IT to emphasize more focus on impacting the business and its strategy rather than

worrying about building systems to meet 100% of the system users requirements. This reliance on internal talent resonates back to the key theme that having strong employee engagement at all levels of the organization becomes increasingly important in a model that has less outsourcing and more reliance on employees.

Ultimately, what was observed is that IT is increasingly more critical to the firm either from an operational or strategic standpoint and that the shift to CIOs reporting directly to the CEO speaks volumes to the importance of IT in their organizations. That said, there seems to be very little influence on whether a firm was publicly or privately held on how it assessed the merits of investment in IT. Rather, of greater importance was the level of value generated by IT in support of the core business.

## LIMITATIONS AND FUTURE RESEARCH

Although our findings are compelling, we recognize that our sample of five companies across five industries does not constitute a statistically significant sampling of firms to derive key findings with a degree of confidence. Thus, the findings of this research project are in no way generalizable. Future research that would seek to further substantiate the key findings and conclusions presented is warranted. Four avenues of research that could provide further support for our findings are listed below:

Industry focus – explore the influence of industry on how IT impacts the firms in question. This would require a deeper analysis within firms in a particular industry to ascertain whether the industry and its IT function would consistently fall within a particular pattern of strategic impact.

Goods and Services Impact on IT's strategic impact – do the goods and services a particular firm sells influence its IT function's strategic impact. This would help to specifically assess whether the firms' revenue is dependent upon IT systems.

Customer Contact and the influence on IT as a strategic enabler – further analysis into industries and firms where customers/consumers interact with multiple systems that IT delivers in order to derive a customer experience; how much impact does that customer experience have on retaining and growing a firm's customer base?

Is Outsourcing on a decline? – based on the firms reviewed to date, there is a drastic shift away from traditional outsourcing, with a number of firms supplementing internal IT staff skills, capabilities and systems with offerings from Cloud and/or SaaS providers.

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