

THE BENEFITS OF INVESTING IN

Information Technology



Introduction of new technology/computers in organisations

When computers were first introduced to organisations, they carried lots of promise for the immediate achievement of results. Managers acted in the interest of their organisations to start investing in Information Technology (IT) with an insight that this would provide a solution to all their organisational problems. Erick Brynjolfsson (1993, 1994) and Paul Strassmann (1990) showed that computers carried a lot of promise. Managers were encouraged by the notion that investing in IT correlates with higher returns and the delivery of expected results by replacing the human component in organisations. Vendors continuously sell new and emerging technological solutions to managers, thereby pressurising them to invest into IT.

Reasons why managers invest in IT

In their studies Brynjolfsson (1993, 1994); and Strassmann (1990) revealed the following reasons why managers in particular invested in IT:

- a need to create wealth;
- with the idea to improve output levels in production;
- to benefit by producing quality products;
- to improve service delivery;
- to control communication activities;
- with the expectation to achieve customer satisfaction.

Managers also hoped IT would assist in the production of products with a high level of speed and responsiveness.

Furthermore, managers expected to benefit from IT by improving efficiency through gaining competitive advantage over their competitors and increasing profits in organisations. They aimed to improve the quality of life of the information worker by enabling them to share information and knowledge. Managers anticipated that IT would improve workers' performance, with an element of facilitating document storage and trace business processes for improved production. They also thought IT would enable workers to manage their work effortlessly by saving time. Finally, managers invested in IT with expectations that it would facilitate their decision-making processes, which is a trend in many organisations.

Trends in technology investments

Today's IT industry challenges to assist organisations to survive the global economy competition and the information and knowledge-driven society. The emergence of the Internet, sophisticated IT tools, and communication solutions influence managers' perceptions towards IT as a solution. Managers' expectations are being met through the changes that IT brings towards improving organisational processes,

and the way workers fulfil their daily tasks, such as centralising information and documents. Information technology enables knowledge sharing, collaboration, and supports management processes. IT allows for communication on projects at any time and any place. Travelling can be eliminated, thereby decreasing the expenses involved. New and emerging technology helps in preserving the knowledge and information generated in organisations, and delivers expected results although there are still some challenges or pitfalls with such tools.

Challenges brought by IT

The earlier-mentioned studies by Brynjolfsson (1993, 1994); and Strassmann (1990) were conducted in search of a relationship between IT and investments, and revealed several problems that were still being experienced in organisations regardless of what had been achieved. These researchers highlighted that although managers make investment decisions, they tend to play a passive role in ensuring that such systems are used effectively and efficiently. Many people in organisations embraced IT, and some suffered major psychological and physical challenges, such as the information overload. The inability of managers to document any contribution IT has made over the years is also human centric in nature.

The researchers found that there were lags between costs and benefit, showing poor short-term results. This is seen between the time of learning and development among workers, and between the new technology or other business processes and the changes that are inevitable in organisations, which take into account the benefits and return on investments in IT that do not show immediately. These systems still crash and lead to a loss of valuable information and knowledge in organisations.

Managers are also affected by the many difficulties in quantifying the benefits of IT, e.g. the difficulties in finding appropriate measurement instruments. This brings about hitches to the benefits and rewards if work and incentives are not appropriately adjusted. The result is that IT might increase organisational slack instead of output or profits. In some instances, the rewards are directly immeasurable.

The truth is there are no comprehensive models to measure the changes IT brings. In addition, investigations on IT and productivity have not been at all satisfactory, which raises frustration and misunderstanding of the measures and methods commonly used to assess productivity in organisations and the industries.



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The following factors can be explained as immeasurable inputs and outputs:

- the lags because of learning and adjustment;
- redistribution and dissipation of profits;
- measurement errors of IT capital caused by rapid price and quality changes;
- failure of economic statistics to measure qualitative improvements in the output of service industries;
- time lags focussing on the time over which the results are expected;
- mismanagement of IT in organisations;
- learning and development in the field of IT occur over a long period for increased production from a training and development perspective;
- more contributing factors, such as the IT management styles and political issues in organisations lead to IT shortfalls.

IT management styles and political issues

The management styles and political issues play a role in ensuring IT investment payoff. However, if managers do not apply the right management style this could influence personal and workgroup performance, and productivity. While IT has more influence on the workers without their involvement, managers separated a human component from IT, and there seemed to be a lack of alignment with other organisational or business components. Management styles reflecting how managers operate technology are:

Technocratic utopianism management style, which is relying more on technology to model the organisation's IT structure and on new technology. This endangers the organisation by concentrating on technology without aligning it to other important organisational components, such as the people, organisational strategies, and organisational processes, resulting in IT failures.

Anarchy management style, which is characterised by a lack of overall information management. This endangers organisational performance in realising the benefits of IT by lack of information management, which is an important process in organisations. This results in IT to remain unused and its benefits to become invisible.

Feudalism management style, which has to do with the management of IT by individual business units; limited corporate reporting and the executives controlling technology within their divisions. This IT management style results in a lack of sharing of IT resources to maximize the results IT could bring in organisations.

Monarchy management style that encourages strong control by senior management whereby information may not be shared at lower levels of the

organisation. This management style results in IT being possessed and the information that flows within such tools not being shared with the important components of the organisation, consequently contributing to IT not paying off as expected.

Federalism management style that has to do with management of IT through consensus and negotiation about key IT decisions and structures. This management style ensures that the IT tools are used for visible results and that it pays off as expected because there is consensus with the other partners in the organisation.

A way forward

A way forward is to align all the important components appropriately to achieve results, particularly IT, the people, organisational processes, and the organisational infrastructure. This will surely bring a balance in all the important areas of an organisation. Furthermore, it will enhance the relationship between organisational business and IT, which will prove its true value. The model is based on internal and external aspects of the organisation that should be aligned to achieve results by linking business with IT, giving us more hope that IT will pay off as expected without any pitfalls.

To achieve the results of strategic alignment, managers should avail procedures and organize training to ensure that the workforce is in control of the technology, and not over shadowed. Managers should ensure that they apply a flexible IT management style, such as federalism, which is recognised as the optimum IT management style of all the components ensuring that IT provides results and that the investments pay off. They need to have clarity with regard to the purpose of IT from the onset, and should never lose sight of the original purpose. Managers need to identify exactly what they aim to reap from an IT system and what is affordable. They should prioritise end-user or people needs in organisations before making IT acquisitions or investments.

After IT acquisitions are made, a step ahead is to use technology to design components of an organisation, or to structure an entirely new type of organisation. Moreover, to provide one with tremendous flexibility in designing an organisation for increased production, IT can be used to ensure and determine corporate communication and create opportunities for an organisation. The involvement of managers in offering support to instil a culture of technology usage and developing mechanisms for allocating resources to IT will surely see IT pay off without pitfalls. A point of departure and one that is successful is for managers to perceive IT as an enabler and not as a solution.

Sources:

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