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Innovating with IT

“A framework developed by Cranfield can help organisations to consider and assess their current approaches to business innovation with IT.”

Information technology is now part of the very fabric of almost all organisations. Indeed, few could survive for very long without their IT systems. While IT provides tremendous opportunities for innovation, most non-technology organisations struggle to take advantage of these opportunities. A global survey that we conducted as part of our research to help such organisations be more proactive in their approach to business innovation with IT, revealed that only 14% of large companies believe that they are maximising the potential of IT. This is an astounding statistic given the potential that technology offers.

Opportunities for IT innovation come from one of two sources. IT may respond to requirements that come from the business, what is known as 'business-pull'. Alternatively, 'IT-push'

sees emerging technology or new combinations of existing technology provide the motivating force for business innovation.

If the IT innovation agenda is going to have any real chance of success, there must be an acute awareness of the trade-off between 'push' and 'pull' factors. While our data revealed that over 80% of innovation is instigated by demand-pull factors, this results in more incremental innovation. A good way to describe the limitations of such pull is to think of the famous Henry Ford quote: "If I had asked people what they wanted, they would have said faster horses."

'IT-push' innovation tends to lead to far more radical innovation. Yet, because of the uncertainty in outcomes, it is often more difficult to obtain

funding for technology-push projects and therefore many IT executives simply ignore or minimise such efforts and focus on supporting and aligning with demand-pull requirements.

Our research led us to develop a framework that maps 'IT push' against 'business-pull', highlighting the specific issues and challenges that must be grappled with when considering business innovation with IT (see Figure 1). This has proved to be a powerful framework in our work with executive teams; giving IT a more innovative mandate and helping them to understand the trade-offs that they unknowingly make. The framework also highlights four specific 'traps' that executives can fall into that have profound implications for any organisation seeking to promote an IT innovation agenda.

On the push side are technologies that are either 'known' to the organisation, or exist in the market, but are as yet 'unknown' to it. On the pull side are problems and opportunities that are either 'defined' or exist but have not yet been identified and thus remain 'undefined'. Problems tend to be grounded in the existing organisation and its strategy. Opportunities mean doing something different and new.

In the 'known-defined' quadrant are problems and opportunities but with known solutions. The 'known-undefined' quadrant captures the situation where a new technology is identified that may have potential for the organisation. This potential has yet to be identified and defined and requires investigation to seek out what these might be.

The 'defined-unknown' quadrant is where a problem is highlighted and a search is conducted to identify potential technology solutions.

The bottom-right 'undefined-unknown' quadrant represents the fact that there are problems and opportunities that have yet to be defined and that there are technologies the organisation is currently unaware of.

This simple framework can be used by organisations to consider and assess their current approaches to business innovation with IT. A key question to be addressed is whether you have initiatives in all quadrants. The framework also highlights a number of traps that organisations can fall into when looking to innovate with IT.

The 'complacency trap' occurs when organisations believe they are innovating when in fact they are applying a known technology to a defined problem or opportunity. The innovation might be new to them but it is certainly not providing any competitive differentiation. The 'credibility trap' occurs when a technology with potential application is identified and due to the poor credibility of the IT department or lack of appropriate business relationships,

it fails to gain any traction in the business. The 'imitation trap' arises when the organisation simply copies what others have done in applying technology to a business problem or opportunity. Finally, organisations fall into the 'ignorance trap' when they fail to acknowledge that there are problems and opportunities still to be defined and technologies to be identified.

An organisation needs to operate in all four quadrants, recognising that not all their actions will lead to competitive advantage. Ultimately, all innovations end up in the 'known-defined' quadrant as it is difficult to keep any innovation secret for very long. Your competitors are continually watching your strategic moves, just as you are theirs. The challenge is to ensure that your organisation is operating in the other three quadrants while simultaneously avoiding the traps. MF

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Figure 1

