The role of Information Technology in the High Performance Organization

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THE
POWER
TO KNOW.

Management summary

Ever increasing demands of stakeholders force organizations to adapt faster to growing international competition and to compete simultaneously on the basis of price, quality, flexibility, delivery times, and after-sales support. They are pressured into defining the elements that make up high performance, as there is a growing consensus that effective approaches to management offer organizations competitive advantage. In the wake of the landmark book *In Search of Excellence* and the more recent bestsellers *Built to Last* and *Good to Great*, managers have developed a strong interest in learning the characteristics of high performance organizations (HPOs) to help them in their quest for excellence. HPOs are defined as organizations that achieve results (both financial and non-financial) that are better than those of their peer groups over a period of time of at least five to ten years.

After a five year study the characteristics were defined which are part of all excellent organizations worldwide *and* can be influenced by managers so they are able to take targeted actions to start achieving superior results. The research involved examination of over 280 publications on studies performed in the last 30 years in the area of high performance. The common themes that were found were tested in a worldwide survey executed at over 3100 profit, non-profit and governmental organizations. Figure A depicts the results of the study.

Figure A: The five factors of a High Performance Organization

There are five factors that constitute a HPO. *High quality management:* managers of a HPO have an effective, confident and strong management style and are trusted by al organizational members. *High quality workforce:* a HPO has a diverse and complementary management team and workforce which are flexible and resilient. *Long term orientation:* a HPO finds long-term commitment to be far more important than short-term gain, and extends this long-term commitment to all stakeholders of the organization. *Openness and action orientation:* a HPO has an open culture and focuses on using this openness to take dedicated action to achieve results. *Continuous improvement and renewal:* a HPO has a strategy that sets the organization apart from its peer group, and structures its processes, products and services in such a way that this unique strategy is achieved in an innovative way.[I]

The research results show that there are many things managers traditionally considered important which turn out to be non-distinctive for becoming a HPO. One of these is information technology (IT). Many organizations traditionally spend a lot of time and resources on implementing new IT systems so that many processes in the organization, as depicted in Figure B, are supported.
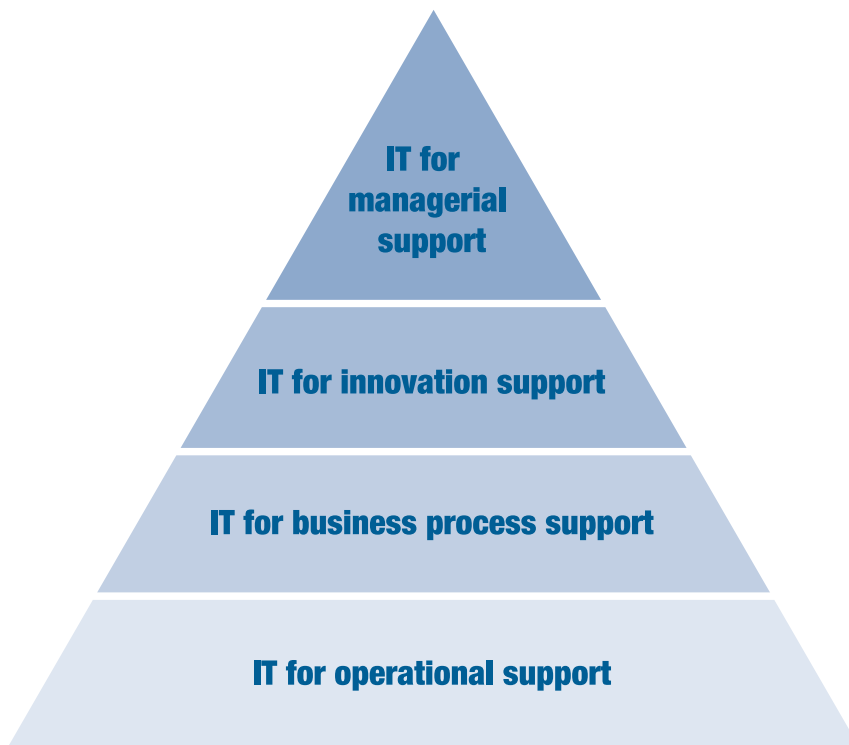

IT for managerial support

IT for innovation support

IT for business process support

IT for operational support

Figure B: The IT Practices Capability Framework

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[1] *For a detailed account of the research and of the HPO factors, see: A.A. de Waal (2007), High performance organizations: een stand van zaken, Holland Management review, no. 116*

The IT Practices Capability Framework consists of four layers. The IT for operational support layer consist of the IT needed to ensure effective and efficient operations. The IT for business process support layer focuses on the deployment of IT to facilitate the management of business processes and people internally and externally. The IT for innovation support layer facilitates the creativity and exploration of new ideas. The IT for managerial support layer consist of the IT capabilities and expertise to assist executive and functional managers in decision making. By filling-in the layers of this framework with relevant IT tools, an organization is able to foster its efficiency and effectiveness.

The results of the HPO research however show that investing in IT [II] does not make organizations necessarily a HPO. At the same time, this does not mean that IT is not important for an organization: many of the HPO factors (especially continuous improvement and renewal) cannot be improved without IT systems. The research shows that merely implementing new IT systems and technology does not 'automatically' help the organization perform continuously better than its competitors. To investigate this surprising finding, a follow-up study was started to investigate what role IT does play in the creation and maintenance of a HPO. First, it was checked whether there is scientific evidence for the existence of a relationship between investments in IT and positive payoffs. Then the HPO factors were identified that could be positively impacted by investments in IT. Finally it was tested whether the theoretically relationships between IT investments and HPO factors could be found in practice, by interviewing CIOs, CFOs and Information Managers from the following prominent companies: ABN-AMRO, ABP, Albert Heijn (Ahold), Cap Gemini, Centric, CSS Installation Services, Corus, CZ, Gartner, GTI, KLM Royal Dutch Airlines, Office Depot, Sanoma International, Sanoma Netherlands, SAS Netherlands, and Schiphol Group.

Thirteen HPO characteristics were identified on which IT could have a positive effect (Figure C). Examples of these effects were taken from the literature and combined with the opinion and examples given by the interviewees. When combining these results with the IT Practices Capability Framework, it becomes clear that IT has the most impact on the operational, business process and managerial layers. *In the IT for operational support* and *IT for business process support* layers IT can and does have a huge contribution in making the processes of an organization more efficient and effective, both internally and externally in dealings with suppliers and customers. Many of the examples given by the interviewees, especially those dealing with the improvement of processes, have a bearing on the business support layer.[III] In both the layers IT has the role of 'strategic necessity': investing in IT will not give a competitive advantage but without investing the organization will eventually die.

[II] *For 'IT' one can also read 'IT capabilities'*
[III] *These examples are described in the white paper.*

HPO factor	HPO Characteristic	Framework layer	Contribution literature	found in: interviews
Management Quality	Management applies fast decision making.	Managerial support	Y	Y
	Management applies fast action taking.	Managerial support	Y	Y
Openness and Action Orientation	Management frequently engages in a dialogue with employees.	Business support	N	N
	Organizational members spend much time on communication, knowledge exchange and learning.	Innovative support	Y	Y
Long-term commitment	The organization is aimed at servicing the customers as best as possible.	Business support	Y	Y
	The organization grows through partnerships with suppliers and / or customers.	Business support	Y	Y
Continuous Improvement	In the organization processes are continuously improved.	Business support	Y	Y
	In the organization processes are continuously simplified.	Business support	Y	Y
	In the organization the processes are continuously aligned.	Business support	Y	Y
	In the organization everything that matters to the organization's performance is explicitly reported.	Managerial support	Y	Y
	In the organization both financial and non-financial information is reported to organizational members.	Managerial support	Y	Y
	The organization continuously innovates its core competencies.	Innovative support	N	Y
	The organization continuously innovates its products and services.	Innovative support	Y	Y

Figure C: HPO characteristics with actual IT influence combined with the IT Practices Capability Framework

As it is fairly easy for organizations to copy the IT investments of their competitors, no organization can in principle create a competitive advantage with IT for long in these layers. At the same time, no organization can afford not to invest in IT. So investing in IT will not give a competitive advantage but without investing the organization will eventually die. In the *IT for managerial support* layer IT again has a significant contribution in making the decision-making and action-taking process faster and more effective, by providing the right kind of information on the right time to the right people. In the *IT for innovation support* layer more examples of actual IT support could be found during the interviews than in the literature. It seems that IT literature still has to catch up in regard to IT's contribution to the innovation layer. In both these layers IT capabilities play a distinctive role to make the organization stand out from its peer group as these capabilities are difficult to copy.

The results of the research show that IT is considered, both in the literature and by the interviewees, to be non-distinctive to become and stay a HPO but at the same time is important for the survival of the organization. IT enables better decision-making, faster action taking, better tracking of processes, improved insight into costs, shorter delivery times, and higher customer satisfaction. These benefits are usually not realized immediately but after a certain time lag which can be up to three years after the initial investment. As IT supports an organization especially in the operational, business and management processes it is safe to say that it is important for the continuity of an organization. However, the research shows that IT is not seen as a tool which naturally brings competitive advantage. This is because IT always works through intermediates and these should be one of the five HPO factors. Only then can IT make a real contribution to an organization being a HPO, thus making it a 'strategic precondition' to become a HPO: IT might in itself not create a competitive advantage but without the support of IT it is virtually impossible to improve the HPO-factors. However, too often IT is only a 'strategic necessity' instead of a weapon of competitive destruction. This may be caused by the fact that organizations seem to be having difficulty in applying IT to support the innovation process, the key area where competitive advantage can be achieved. IT is an important enabling factor which opens the door to success. By applying innovative IT in order to make all organizational processes, but especially the innovation and managerial processes, world-class, an organization can make sure IT will continue to add increasingly more business value, year after year. The IT Practices Capability Framework can now be adapted to depict the division between IT as strategic precondition and strategic necessity (Figure D). In the so-called HPO IT Practices Capability Framework the bottom two layers (IT for operational support and IT for business process report) consist of relatively easy to copy IT technology and therefore are the layers of strategic necessity. The top two layers (IT for innovation support and IT for managerial support) consist of difficult to copy IT capabilities and thus form the layers of strategic precondition.
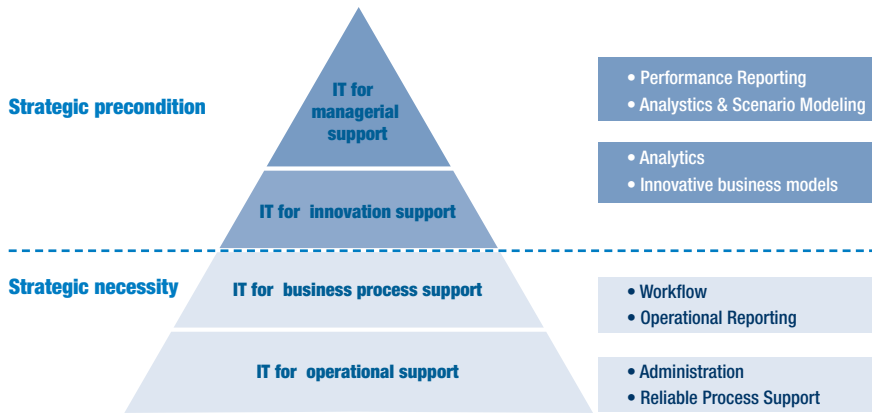
Figure D: The HPO IT Practices Capability Framework

If an organization wants to deploy IT in a more strategic manner so that it will help the organization to become and stay HPO, it has to deliberately invest in the two top layers. Figure E proposes the relation between IT investments and impact on the HPO status of an organization: the more an organization invests at the strategic precondition layers, the more impact this will have on improving the HPO status of the organization as the investments are made in IT capabilities which are difficult to imitate (at least on short notice).
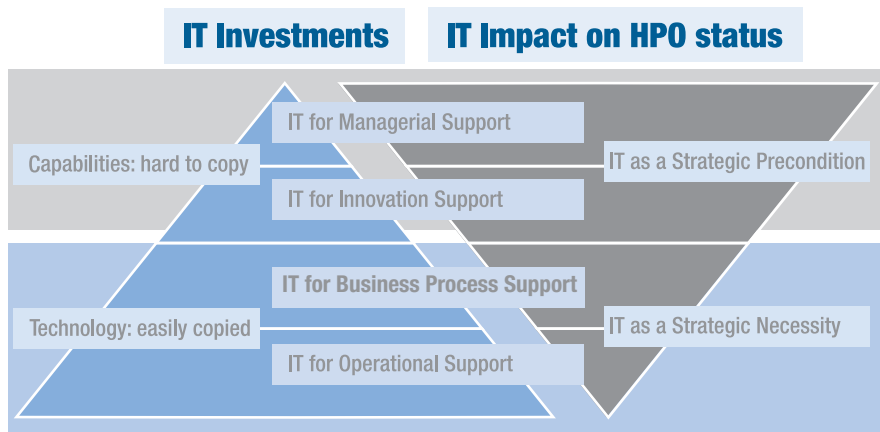

Figure E: Proposed relation between IT investments and impact on HPO status

The role the CIO has to play in applying IT both as a strategic necessity and as a strategic precondition is twofold (Figure F). The CIO has to provide seamless and faultless IT processes and systems, and help set the strategic agenda for the organization. As both roles each require dedicated time, effort, knowledge and skills, it is better to divide the roles over two people. The first role is that of the Chief IT Process Officer (CiPO) and connects mainly with the bottom two layers in the HPO IT Practices Capability Framework, thereby making sure IT as strategic necessity is taken care of. The second role is called the Chief IT Intelligence Officer (CilO) and mainly connects with the top two layers in the IT Practices Capability Framework, ensuring that IT as strategic precondition is looked after. The two functions both support and report to the CIO and have to work closely together. They depend on each other as the CilO can only build innovative IT capabilities on the basis of a solid IT foundation provided by the CiPO), and the CiPO relies on the input of the CilO to be able to improve the basic IT support systems and processes. By dividing the two roles over two people, the CIO can be sure that two dedicated people are working on supporting the organization in its operational, business process, innovation and managerial processes.
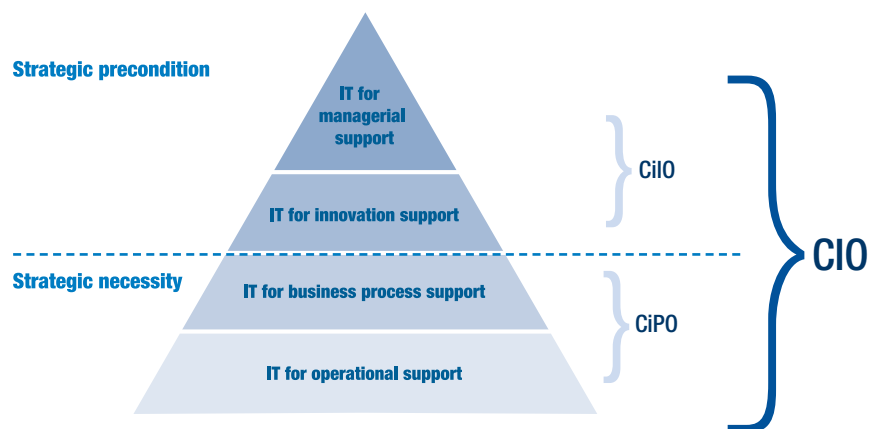

Figure F: The roles in the IT function

The evolution from the IT Practices Capability Framework to the HPO IT Practices Capability Framework is supported by the interviews with the executives. It opens up opportunities for further research to answer questions like: How can investments in IT be optimized? Will these investments have a greater impact on the results of the organization? Is it possible to shorten the IT performance time lag?