

December 2007

Information Systems Strategy & Implementation: A Decade of Change

Lance Revenaugh
Wilberforce University

Raymond Papp
University of Tampa

Follow this and additional works at: <http://aisel.aisnet.org/amcis2007>

Recommended Citation

Revenaugh, Lance and Papp, Raymond, "Information Systems Strategy & Implementation: A Decade of Change" (2007). *AMCIS 2007 Proceedings*. 312.
<http://aisel.aisnet.org/amcis2007/312>

This material is brought to you by the Americas Conference on Information Systems (AMCIS) at AIS Electronic Library (AISEL). It has been accepted for inclusion in AMCIS 2007 Proceedings by an authorized administrator of AIS Electronic Library (AISEL). For more information, please contact elibrary@aisnet.org.

“Information Systems Strategy & Implementation: A Decade of Change”

Raymond Papp
The University of Tampa
rpapp@ut.edu

Lance Revenaugh
Wilberforce University
revenaugh@wilberforce.edu

Information systems strategy implementation remains a key concern among executives and it has consistently been ranked among the top five issues by both CEOs and CIOs (Papp, 2004; Lacy, 2003; Datz, 2002; Luftman, 1996; Martin, 1983). This year marks the eleventh anniversary of the Information Systems Strategy and Implementation mini-track, which was first run back in 1996. It is the longest running and one of the most successful mini-tracks at AMCIS.

This mini-track focuses on the ways in which organizations effectively implement information systems strategies in their organizations. Specifically, what factors and issues are involved in successful strategy implementation? First, we must ask if *truly useful* frameworks and models can even be developed to assist organizations in implementing their IS strategy? Or, is strategy implementation primarily unique to the people and functions within an organization? The answers to these questions cannot be assumed and often allude even the most knowledgeable of "experts." Exploring these issues are at the heart of the IS Strategy & Implementation mini-track.

A major piece of beginning to answer some of these questions is to study strategic information systems and our ability to measure the success of IS strategies on the organization's productivity and profitability. So what constitutes a strategic information system? For the purpose of this mini-track, we define an information system to be strategic if it is aligned with business goals and strategies and if it has an impact on organizational performance.

Traditional methods of developing business strategies have failed to take full advantage of technology. In the past, information technology (IT) was typically treated as a “cost center” or viewed as an “expense” rather than an enabler of business value. Strategic information systems shed new light on technology and its role in the development of business strategies. In today’s increasingly “flat world” (Friedman, 2006), it is no longer economically feasible to treat IT as a lower level support tool; failure to leverage IT may seriously hamper the firm’s performance and viability in today’s global, information-intensive world. The need to integrate business strategies with IT goals and objectives to evaluate and assess the level of integration of business and IT strategy within firms is paramount. By concentrating on the integration of strategy and infrastructure, firms may not only achieve synergy and facilitate the development of business plans, but increase the profitability and efficiency of their firm within its industry (Papp, 1998). These tangible benefits allow management to focus on the application of IT as a means to leverage their core competencies, skills, and technology scope, resulting in improved efficiency. The major reason is to ease the development and implementation of cohesive organization and IT strategies that enable firms to focus on the application of IT to improve the business. By understanding and leveraging the Business/IT partnership, organizations can concentrate on the application of IT to enable the business strategy (Luftman, Papp & Brier, 1999; Papp, 1995). This harmony can be extended and applied throughout the organization as new opportunities are identified.

Over the past several decades, extremely large sums of money have been invested in information systems and technology. Nevertheless, organizations seem to find it difficult or impossible to harness the power of information technology for their own long-term benefit, even though there is worldwide evidence (Earl, 1983 & 1993; Martin, 1983; Robson, 1994; King, 1995) that IT has the power to

transform whole industries and markets. Strategic alignment, a method of applying IT in an appropriate and timely way, in harmony with business strategies, remains a key concern of business executives (King, 1995; Henderson and Venkatraman, 1990 & 1996; Earl, 1983 & 1993; Luftman, 1993 & 1996; Goff, 1993; Liebs, 1992). In fact, alignment's importance has been well known and documented for more than 30 years (McLean & Soden, 1977; IBM BSP, 1981; Mills, 1986; Brancheau & Wetherbe, 1987; Dixon & John, 1991; Niederman, et. al., 1991; Earl, 1983 & 1993). This classification has continued as indicated via its persistent top ranking in the business press by executives. Alignment seems to grow in importance as companies strive to link technology and business in light of dynamic business strategies and continuously evolving technologies (Papp, 1995). Importance aside, what is not clear is how to achieve this harmony between business and IT, and what the impact of misalignment might be on the firm (Papp, 1995). The ability to achieve and maintain this synergistic relationship is anything but easy. For years, firms have been channeling billions of dollars into technology in an attempt to successfully incorporate technology into their processes and long-term plans. Many of these efforts have failed despite overwhelming evidence of IT's ability to transform both individual firms and entire industries.

The alignment of information technology (IT) and business strategy to leverage the capabilities of IT and to transform the business has increased in importance as firms strive for competitive advantage in a diverse and changing marketplace (Faltermayer, 1994; Adcock, Helms, & Wen-Jang, 1993; Cardinali, 1992). In light of this, there has been a great deal of research and insight into the linkages between Business and IT (Chan & Huff, 1993; Luftman, 1996; Earl, 1993; Henderson, Thomas & Venkatraman, 1992), the role of partnerships between IT and business management (Keen, 1996; Ives, Jarvenpaa, & Mason, 1993), as well as the need to understand the transformation of business strategies resulting from the competitive use of IT (Boynton, Victor, & Pine, 1996; Davidson, 1996). Firms have been able to change not only their business scope, but also their infrastructure as a result of innovation regarding IT (Keen, 1991; Foster, 1986).

Strategic alignment and IS strategy implementation sheds new light on IT and its role in the development of business strategies. It considers the strategic fit between strategy and infrastructure as well as the functional integration between business and IT. By focusing on business and IT, strategic alignment addresses both strategy and infrastructure elements across the organization (Henderson & Venkatraman, 1996; Papp, 1998; Luftman, Papp & Brier, 1995). Several frameworks have been proposed to assess the strategic issues regarding the role of IT as a competitive weapon and several models have been developed to assess and measure alignment (Papp, 2001). There have also been numerous studies that focus on business process redesign and reengineering (Rockart & Short, 1989; Davenport & Short, 1990; Hammer & Champy, 1993; Hammer & Stanton, 1995) as a means to achieve competitive advantage with IT. This advantage comes from the appropriate application of IT as a driver or enabler of business strategy.

Thus, strategic IS encompass many areas and technologies that are used by organizations to leverage their use of technology for increased productivity and competitive advantage. Numerous frameworks, plans, and strategies are used to facilitate the integration of business and technology strategies. The series of papers in this mini-track focus on many of these issues and through applied research, case studies, and empirical investigation, provide managers and academics with insights into the development and implementation of information systems strategy. Although much has changed over the past several decades, information systems and technologies remain as important as ever in the quest for profitability and competitive advantage. It will be interesting to see what the next decade holds—the Information Systems Strategy and Implementation mini-track may be one place to find the answers first!

References

- Adcock, K., Helms, M., & Wen-Jang, K. (1993). "Information Technology: Can it provide a sustainable competitive advantage?" Information Strategy: The Executive's Journal, (Spring), 10-15.
- Alter A. (1995). "The Profit Center Paradox," Computerworld, (April 24), 101-105.
- Boynton, A., Victor, B., & Pine II, B. (1996). Aligning IT With New Competitive Strategies. Competing in the Information Age, Luftman, New York, Oxford University Press.
- Brancheau, J., & Wetherbe, J. (1987). "Issues in Information Systems Management," MIS Quarterly, 11(1), 23-45.
- Cardinali, R. (1992). "Information Systems--A Key Ingredient To Achieving Organizational Competitive Strategy," Computers in Industry, 18, 241-45.
- Chan, Y., & Huff, S. (1993). "Strategic Information Systems Alignment," Business Quarterly, 58(1), 51-56.
- Coleman, P. & Papp, R. "Strategic Alignment: Analysis of Perspectives," Proceedings of the 2006 Southern Association for Information Systems (March 2006), 242-250.
- Datz, T. (2002). "Strategic Alignment," CIO Magazine, August 15, 2002. (Retrieved from <http://www.cio.com/archive/081502/strategic.html> on February 28, 2007).
- Davenport, T., & Short, J. (1990). "The New Industrial Engineering: Information Technology and Business Process Redesign," Sloan Management Review, 11-27.
- Davidson, W. (1993). "Managing the Business Transformation Process," Competing in the Information Age, Luftman, New York, Oxford University Press.
- Dixon, P., & John, D. (1989). "Technology Issues Facing Corporate Management in the 1990s," MIS Quarterly, 13(3), 247-55.
- Earl, Michael J. (1983). Corporate Information Systems Management, Homewood, Illinois, Richard D. Irwin, Inc.
- Earl, Michael J (1993). "Experience in Strategic Information Systems Planning," MIS Quarterly, 17(1), 1-24.
- Faltermayer, E. (1994). "Competitiveness: How US Companies Stack Up Now," Fortune, 129(8), (April 18), 52-64.
- Foster, R. (1986). Innovation: The Attacker's Advantage, New York: Summit Books.
- Friedman, T. (2006). The World Is Flat: A Brief History of the Twenty-first Century. Farrar, Straus and Giroux, 2006.
- Goff, L. (1993). "You Say Tomayto, I Say Tomahto," Computerworld, (Nov. 1), 129.

- Hammer, M., & Champy, J. (1993). Reengineering the Corporation: A Manifesto For Business Revolution, New York: Harper Business.
- Hammer, M., & Stanton, S. (1995). The Reengineering Revolution, New York: Harper Business.
- Henderson, J., Thomas, J., & Venkatraman, N. (1992). "Making Sense Of IT: Strategic Alignment and Organizational Context," Working Paper 3475-92 BPS, Sloan School of Management, Massachusetts Institute of Technology.
- Henderson, J., & Venkatraman, N. (1990). "Strategic Alignment: A model For Organizational Transformation via Information Technology," Working Paper 3223-90, Sloan School of Management, Massachusetts Institute of Technology.
- Henderson, J., & Venkatraman, N. (1996). "Aligning Business and IT Strategies," Competing in the Information Age, Luftman, New York, Oxford University Press.
- IBM (1981). Business Systems Planning, Planning Guide, GE20-0527, IBM Corporation, 1133 Westchester Ave, White Plains, New York.
- Ives, B., Jarvenpaa, S., & Mason, R. (1993). "Global Business Drivers: Aligning Information Technology to Global Business Strategy," IBM Systems Journal, 32(1), 143-161.
- Keen, P. (1996). "Do You Need An IT Strategy?" Competing in the Information Age, Luftman, New York, Oxford University Press.
- Keen, P. (1991). Shaping the Future, Boston, MA: Harvard Business School Press.
- King, J. (1995) "Re-engineering Focus Slips," Computerworld, (March 13), 6.
- Lacy, K. (2003). "Business/IT Alignment Concerns - Ask the Expert," CIO Magazine, June 2003.
- Liebs, S. (1992). "We're All in This Together," Information Week, (October 26), 8.
- Luftman, J. (1997). "Align in the Sand," Computerworld Leadership Series, (February 17), 1-11.
- Luftman, J. (1996). Competing in the Information Age: Practical Applications of the Strategic Alignment Model, New York: Oxford University Press.
- Luftman, J., Lewis, P., & Oldach, S. (1993). "Transforming the Enterprise: The Alignment of Business and Information Technology Strategies," IBM Systems Journal, 32(1), 198-221.
- Luftman, J., Papp, R., & Brier, T. (1999). "Enablers and Inhibitors of Business-IT Alignment," Communications of the AIS, 1, Article 11, (March, 1999).
- Luftman, J., Papp, R., & Brier, T. (1995). "The Strategic Alignment Model: Assessment and Validation," Proceedings of the Information Technology Management Group of the Association of Management (AoM) 13th Annual International Conference, Vancouver, British Columbia, Canada, August 2-5, 1995, 57-66.

- Martin, E. (1983). "Information Needs of Top MIS Managers," MIS Quarterly, 7, (3) 1-11.
- McLean, E., & Soden, J., (1977). Strategic Planning for MIS, New York, John Wiley & Sons,
- Mills, P., (1986), Managing Service Industries, New York Ballinger.
- Niederman, F., Brancheau, J., & Wetherbe, J. (1991). "Information Systems Management Issues For the 1990s," MIS Quarterly, 15(4), 475-95.
- Papp, R. (2004). "Assessing Strategic Alignment in Real Time," Journal of Informatics Education Research, (Spring 2004, Volume 6, Number 1).
- Papp, R. (2001). Strategic Information Technology: Opportunities for Competitive Advantage, Idea Group Publishing, 2001.
- Papp, R. (1999). "Business - IT Alignment: Productivity Paradox Payoff?" Industrial Management & Data Systems, 99, Issue 8, 1999.
- Papp, R. (1998). "Alignment of Business and Information Technology Strategy: How and Why," Information Management, 11, #3/4).
- Papp, R. (1995). Determinants of Strategically Aligned Organizations: A Multi-industry, Multi-perspective Analysis, (Dissertation), Stevens Institute of Technology, Hoboken, New Jersey.
- Papp, R., & Luftman, J. (1995). "Business and IT Strategic Alignment: New Perspectives and Assessments," in Proceedings of the Association for Information Systems, Inaugural Americas Conference on Information Systems, Pittsburgh, PA, August 25-27, 1995.
- Robson, W. (1994). Strategic Management and Information Systems: An Integrated Approach, London,, Pitman Publishing.
- Rockart, J., & Short, J. (1989). "IT in the 1990's: Managing Organizational Interdependence," Sloan Management Review, 30(2), 7-17.
- Strategic Alignment (2007). Retrieved from <http://strategic-alignment.com/> on February 28, 2007.