

## Chapter 4

# Towards Digital Transformation: Implications for Strategic Change

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### **ABSTRACT**

*This chapter seeks to explore the key strategic change lessons organizations can learn ahead of implementing digital transformation initiatives. The chapter will review the digital transformation literature and associated challenges organizations are confronted with in implementing large-scale information systems-enabled change. Key enterprise system lessons are taken from implementation, where the McKinsey 7-S framework is introduced as a lens to support organizations adopting digital transformation. Critical success factors are identified that seek to provide leaders with a more holistic arsenal when leading digital transformation initiatives. The chapter concludes with reflections for the strategic change field.*

### **INTRODUCTION**

This chapter seeks to explore the key strategic change lessons organizations can learn ahead of implementing digital transformation initiatives. The chapter begins by reviewing the literature and the key technologies associated with digital transformation. The chapter then introduces the challenges organizations are confronted with in implementing large-scale information systems-enabled change. With a view to overcoming these challenges, the chapter will introduce the key lessons learned from the implementation of enterprise-wide systems, where the McKinsey 7-S framework is introduced as a lens to support organizations adopting digital transformation. Critical success factors are identified that seek to provide leaders with a more holistic arsenal when leading digital transformation initiatives. The chapter concludes with reflections for the strategic change field.

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## **TOWARDS DIGITAL TRANSFORMATION**

To explore the rise of digital transformation within work organizations, it is firstly important to review the evolution of information systems (IS). According to Porter & Millar (1985) and Porter & Hepplemann (2014), there have been three waves of evolution associated with IS-driven competition. The first wave occurred between the 1960s and late 1980s, where organisations sought to improve operational effectiveness by automating information-based processes, or as Somogyi and Galliers noted ‘early commercial computers were used mainly to automate the routine clerical work of large administrative departments’ (1987: 30). Early computer systems were based on centralised stand-alone machines, which were used principally for data processing. The advent of such databases and more sophisticated and powerful mainframe computers during this era gave rise to the idea of developing corporate databases in order to supply management with information about the business (Somogyi and Galliers, 1987). Initially, centralised information systems from the 1960s and 1970s were deployed by organisations to assist in single application functionality, such as manufacturing or accounting systems. However, from the 1980s onwards, added pressures to deliver greater strategic and competitive advantages meant that typical business applications had grown exponentially<sup>1</sup> (Slee and Slovin, 1997). What started out as ‘islands of automation’ (McKenney and McFarlan, 1982), i.e., applications running separately from each other, by the 1980s these were often put into a single system in order to manage and centralise data better. Accordingly, such centralised databases afforded organisations an opportunity to think more strategically about information system implementation and the respective ability of leveraging greater organisational competitive advantage (McFarlan, 1984).

With the development of end user computing, which would assist in disseminating information throughout the entire enterprise, the 1980s witnessed the emergence of the second wave of IS-driven competition. Enterprise-wide information systems emerged, from vendors such as SAP, Oracle, Baan, and JD Edwards, which promised to unite disparate information systems into a single database. As noted by Loonam et al, ‘enterprise systems are the internal technological hub of the enterprise allowing data from different business functions, mainly from finance, human resources, logistics, manufacturing, and sales and marketing to be manipulated and processed by a single software package such as SAP (2018: 186-187). According to Shang & Seddon (2000), Enterprise systems (ES) provide organizations with a number of benefits, most notably (i) operational, (ii) managerial, (iii) strategic, (iv) IS infrastructure, and (v) organizational. From an operational perspective, ES facilitate a casual connection between a visual model of business processes and the software implementation of those processes, and therefore they ensure a level of integration, data integrity and security, which is not easily achievable with multiple software platforms (Parr and Shanks, 2000). From a managerial perspective, ES would enable senior leadership teams to view organizational information more holistically, where data from across all functions and divisions can be revealed in real-time to enable more effective decision-making (Loonam et al, 2014). From a strategic perspective, ES packages assist in building strategic partnerships and supporting alliances, and according to Kraemmergaard et al, they have the potential to integrate beyond the organisations own value chain, delivering inter-enterprise integration (2003). This form of integration allows a single organisation to integrate with customers and suppliers along its value chain and to other organisations with similar areas of interest thus creating opportunities for competitive advantage. From an IS infrastructure perspective, ES packages allow organisations to implement an integrated IS plan. In other words, the ES package rids the firm of old legacy systems, unstable IS architectures, and expenditure related to maintenance of these systems. Finally, from an organizational perspective, ES

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