

Chapter II

Revisiting Agility to Conceptualize Information Systems Agility

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ABSTRACT

There is no systematic study of Information Systems (IS) agility in academic and practitioner IS literature and the concept is not well defined. For rigorous academic studies of IS agility, a proper definition/conceptualization of IS agility is needed. To fulfill this objective, existing published work on agility is analyzed. The analysis demonstrates that the existing definitions may need improvement to aid in arriving at a definition of IS agility. A new definition of agility that captures its core properties is proposed. The advantages of this definition over existing definitions is demonstrated and it is used to define IS Agility. Salient features of an agile IS are discussed and the utility of the proposed definition in arriving at attributes of an agile IS is demonstrated. Efficacy and validity of the proposed definition is demonstrated through interviews with IS executives from a diverse organization set. Lastly, avenues for future research are proposed.

INTRODUCTION

Change is the rule of the game in the current business environment. The rate of change has been continuously increasing due to factors like globalization and the opportunities presented by the development and evolution of technologies. Not only are the changes occurring at an increasing rate, they are becoming increasingly unpredictable. This unpredictability can involve: when a known change will occur, what an unknown change will look like, or a combination of these. The rapid rate of change implies that an organization needs to become an expert at changing and morphing itself rapidly in response to a change. Retention of leadership position requires that an organization should be able to change at will in any direction, without significant cost and time, to counter a threat or to capitalize on an opportunity. Such an organization may be characterized as an agile organization. For most organizations the survival and/or retention of market share demands that it should be able to change faster than, or as fast as, new entrants and rivals.

Most high-level executives agree to the need for agility (Sullivan, 2005). CEO Peter Bonfield of ICL Plc (an IT company from the United Kingdom), observed as far back as 1995 that ICL's experience had taken it to the conclusion that companies do not have to become global players to survive in the global market, but they do need to be nimble enough to compete with these global players or they face the erosion of their domestic base (Bonfield, 1995). A survey of CEOs and human resources leaders in large corporations on the role of speed and agility in their organizational and HR strategy, revealed that 65% of the CEOs identified speed and agility as critical to their business plan, and 54% of the CEOs had set specific speed and performance measures in their business plan (Gandossy, 2003).

Need for Information Systems Agility

Information Systems (IS) pervade all aspects of organizational functioning. Effective and efficient information processing in today's information intensive-environment can only be achieved using computer-based IS. It can be argued that IS are a necessity for any modern organization that seeks to meet its performance expectations (Pankaj & Hyde, 2003). Information Systems embed the core of business processes in areas like ecommerce and service operations. As such, almost all changes in business processes sought by modern organizations require changes in IS. Agility of a modern organization is directly linked to the agility of its IS. If IS cannot change within the given time constraints then either the change cannot be implemented, or the efficiency and/or effectiveness of the changed business process may be compromised.

While there is a need for IS agility, changing IS in a timely fashion has traditionally been a difficult endeavor. Allen and Boynton indicated as early as 1991 that existing IS were anything but flexible^a (Brandt R Allen & Andrew C Boynton, 1991). Legacy IS, most of which are difficult to change, are still operational today and have been characterized as a ticking time bomb since they constantly hinder business improvements due to their inability to change (Friedlos, 2006). These systems support up to 50% of the critical business processes in many organizations (Friedlos, 2006) and organizations relying on these legacy IS suffer from a lack of competitive flexibility when it comes to the effective use of IT (Reddy & Reddy, 2002). These organizations face the problem of how to adapt to, and adopt, new and emerging technologies while leveraging existing IS. Many organizations that have grown through mergers and acquisitions have gathered more variety in their IS thereby further aggravating the problem of change (Reddy & Reddy, 2002).

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