Abstract

This paper explores how a world-wide operating software solutions provider implemented environmentally sustainable business practices in response to emerging environmental concerns. Through an interpretive case study, we develop a theoretical framework that identifies four important functional affordances originating in information systems, which are required in environmental sustainability transformations as they create an actionable context in which (1) organizations can engage in a sensemaking process related to understanding emerging environmental requirements, and (2) individuals can implement environmentally sustainable work practices. Through our work, we provide several contributions, including a better understanding of IS-enabled organizational change and the types of functional affordances of information systems that are required in sustainability transformations. We describe implications relating to (1) how information systems can contribute to the creation of environmentally sustainable organizations, (2) the design of information systems to create required functional affordances, (3) the management of sustainability transformations, and (4) the further development of the concept of functional affordances in IS research.

Keywords: Green IS, environmental sustainability, business transformation, case study, socio-technical systems theory, functional affordances, sensemaking, sustainable practicing