

The Role of Web-based Group Decision Support Systems in Clarifying the Collective Intelligence

Abstract

The main objective of this research is to develop a conceptual framework for exploring the role of GDSSs in shaping the dimensions of collective intelligence and the expected outcomes. The ever-increasing complexities and controversial challenges in today's business environment require organizations to be recognized as adaptive systems and be examined as an evolving intelligent being. An organization is intelligent only if it is able to nurture a high level of collective intelligence. The tremendous advances in Internet and Web applications bring impetus to Web-based Group Decision Support Systems (GDSSs) development as the most recent collective intelligence systems. Based on extensive literature review, six dimensions of collective intelligence were identified in this paper. These dimensions are freedom of mind, shared memory, knowledge sharing, collective perception, collective problem-solving, and collective learning. Furthermore, the study's framework identified four major expected outcomes, involving sense and response capability, relationship quality, decision making quality, and continuous organization learning.