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Information Development

Achieving structured knowledge management with a novel online group decision support system

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Abstract

Knowledge management (KM) is a complicated process that involves socialization, externalization, combination, and internalization and requires close collaboration among the people involved. Although Nonaka proposed the SECI (Socialization, Externalization, Combination, Internalization) model and the concept of *Ba*, which provides a process-oriented view of knowledge creation and transfer, practicing it is rather ad hoc. COVID-19 has provided a chance for practitioners to find a new method for KM. In this study, we adapted a group problem-solving system called *TeamSpirit* and structured it as a *Ba* for the SECI model. We then compared *TeamSpirit* with two other implementations of *Ba*, email and face-to-face communication, to evaluate their effects on knowledge externalization, knowledge combination, and knowledge internalization. Then, we evaluated whether these knowledge-conversion processes could improve knowledge acquisition and intention to share knowledge. A 3 × 2 mixed factorial design experiment was conducted. The results show that (a) *TeamSpirit* was better than the others, and face-to-face was better than email for each of the three knowledge conversion processes (externalization, combination, and internalization) and (b) the better the team's knowledge conversion process lead, the stronger its knowledge acquisition and knowledge-sharing intention.

Keywords

knowledge management, *Ba*, socialization, externalization, combination, internalization (SECI) model, group decision support system, *TeamSpirit*, knowledge adoption

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