Abstract


Creative ideas bring impetus to innovation. The 'early idea' phase stands out as critical to increased new product development performance. Nevertheless, the management of creativity, despite persistent competitive advantage for enterprising organisations, remains one of the least understood aspects of innovative endeavour. In the present investigation, the extent to which computer-mediated communication may affect the creative performance of small groups (Studies I and II) and how external communication in terms of user involvement may yield original and valuable ideas (Studies III and IV) was studied. In Study I and Study II, two experiments were carried out in order to assess the effects of two modes of computer-mediated communication (Chat and Video conference) versus face-to-face upon creative performance. In study I, the results regarding the creative product indicated that groups in the face-to-face condition generate more ideas. Regarding the creative process, the Video conference condition scored significantly lower on incubation. Participants in the face-to-face group reported themselves to be more satisfied with both their product and process than the participants in the computer-mediated groups. In study II, the face-to-face group proved to have a better preparation phase. Furthermore, the small groups produced significantly more incubations than the individuals in the creative process and, in line with this, they also showed significantly higher flexibility. Accordingly, the participants in the face-to-face group reported themselves to be more satisfied with the process, but not with the product, than the participants in the computer-mediated conditions. In Study III and Study IV, the merit of user involvement for purposes of innovation was investigated experimentally. In Studies III and IV, different types of users and professional product developers were given the task of creating ideas for future mobile phone services. In Study III, the results indicated that creativity-trained users generated significantly more original ideas than professional developers. In Study IV, the results indicated that ordinary users generate significantly more original ideas than professional developers and advanced users. Professional developers and advanced users created more easily realizable ideas and ordinary users the most valuable ideas. The findings of each of the four studies are discussed in the context of how divergent thinking may be facilitated in order to improve the management of new product and service development.

Key words: Creativity, Innovation, Computer-mediated communication, User involvement, Divergent thinking.

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