Abstract

Due to their not having a single, uniform application, platform innovations present unique challenges to their marketers and often fail to take off completely. Most extant literature on diffusion of innovations provides little guidance for these marketers bewildered by the unexpected struggles faced before the innovation finally takes off. In order to address this obvious gap in the extant literature, the present study sought to shed light on the specific factors that influence the diffusion of these innovations.

The present study was conducted as a descriptive, longitudinal case study with a single-case design. Using a diagnostic imaging technology, magnetoencephalography, as an illustrative case and drawing from the body of biomedical literature dealing with this technology, the present study surveyed the history of this platform innovation to identify the pivotal factors that resulted in a devastating 35 years in incubation and a series of commercial failures before takeoff. The research involved extraction of adoption data from a publically available bibliographical database, estimation of the diffusion function, characterization of the adopter population, as well analysis of the factors that may have potentially contributed to the dismal rate of adoption of the case technology.

In surveying the case technology, the present study discovered that the slow adoption and delayed takeoff of magnetoencephalography could not be attributed to any single factor. Instead, a number of negative factors contributed to the slow take up. The technology was moderately more advantageous than its precursor technology, but it was also more complex and largely incompatible with the predicate technology. Magnetoencephalography also suffered from slow emergence of clustering of adopters during the early part of its lifecycle, which appeared to signify a gap between the technology pioneers and later adopters. Finally, the technology also suffered from a lack of design standards. Together, these factors seem to have led to an extremely long incubation time.

The findings of the study have several implications to a manager responsible for bringing a novel platform product to the market. Obviously, the focus of the manager should be on discovering and establishing applications for the product, a process that is naturally dependent on the cooperation (and clustering) of early adopters. The product should also be made easy to use and adopt, in addition to which careful attention should be paid on comparability of its outcomes (observability).

Key words

Innovation, platform innovation, diffusion, adoption, take off