

Fast Technological Innovation of A Product With R&D Project Management
Process: Evidence From Bicycle Light Trigger Mechanism

賀力行, 賴以軒, 羅馬度

Technology Management

Management

ho@chu.edu.tw

Abstract

Fast innovation and growth was developed as a unique capability to address client needs from customer insight development from idea generation to commercialization. When speed becomes the basis for competition, rivals are compelled to seek newer sources of technological knowledge and rely on accelerated innovation to drive product differentiation and competitive advantage.

The purpose of this research is to extract and provide practical knowledge and example from both theory and practice in order to clarify some practices that can be used in the implementation of fast technological innovation process.

To illustrate this fast innovation process, we conduct a new product innovation which is “bicycle lights and mechanism Trigger”. The bicycle lights are hybrid because to generate power, the lights are equipped with solar energy sensor receiver and an electric battery incorporated inside the lamps. To turn on or off the lights, both hand switch mechanism and kickstand can be used as lights trigger.

The Patent guider (patent mapping), CAD (for designing product prototype) and Goldfire Innovator software (Root Cause Analysis, Function modeling, value analysis and Value Engineering, Theory of Inventive Problem solving; TRIZ) are used to conduct the fast innovation process.

Keyword : Fast innovation process, bicycle, lights, trigger,