Technology Adoption Life Cycle Management in LED Industry – Taking LED Backlight Application as an Example

Abstract

Technology Adoption Life Cycle theory discussed various behavior in different phases during the technology diffusion process to let industries learn the trend of future development. The thesis tries to analyze LED backlight application at this point of time and also tries to link up with Technology Adoption Life Cycle theory to find out intellectual property management issues in LED industry today. The LED backlight application on small LCD display, such as mobile phones, MP3, PDA, digital cameras, and GPS, had already passed through the tornado stage in the description of Technology Adoption Life Cycle theory, and it got into the main street stage for sure. On the other side, LED backlight application on medium/large LCD display is just blowing a storm now, and waiting for next killer application, general lighting, to lead the green energy industry a bright way as well. Nevertheless, the essential patents of LED are held by international firms all along. Our LED industry development is certainly limited and technology diffusion is restricted. Fortunately, LED firms in Taiwan still made a great breakthrough that Taiwan has become one of the top two LED product bases in the world. It made international LED firms have to rely on us in some degree. The next triumph to achieve may so far require licensing from big firms or to form a strategic alliance to foster it. It is our opportunity to keep improving our technology in system integration that we are good at, and cooperate with big firms to win the coming game in the foreseeable forture.

Key words: LED, Technology Adoption Life Cycle, Backlight, Netbook (or Nettop)