# **A Sample of Level 4 – SUBSTANTIVE EDITING for Academic Research**

Various vistas exist in the innovation research literature (e.g., Pavitt, 1984; Schumpeter, 1939; Tidd et al., 1977), defining innovation as a process through which innovative ideas are transformed into commercial products and services. In amplifying this body of theoretical research, Freeman (1974) postulated that innovation involves technical design, manufacturing, management, and commercialisation of new or improved products. Rogers (1962, 1995, 2003) commenced the epoch of innovation proliferation by defining diffusion as the means by which an innovation is communicated through certain channels over time among the members of a social system. This prompted Utterback and Abernathy (1975) to depict the innovation process as an S-shaped curve, marked by an initial period of turbulence, followed by rapid improvement, and finally diminishing returns. Concurring with this perspective, Anderson and Tushman (1990) posited that technological change is cyclical and is ultimately displaced by a new technological discontinuity. Nearly six decades ago, Vernon (1966) developed *product life cycle* model explicating the product substitution process within the aforementioned S-shaped pattern. The author defined innovation diffusion as a product/process innovation that progresses through the stages of introduction, growth, maturity, and decline. More recently, Kline and Rogers (1986) proposed the *chain-link model* as a concretisation of the interactionism between technological innovations and the economy. It was subsequently augmented by Caraça, Ferreira, and Mendonça (2007) who incorporated interpretive characteristics of the activities within the feedback loops of the *chain-link model*. The resulting *chain-interactive innovation model for the learning economy* provides a novel framework for handling customer−innovator interactions. Nevertheless, further research on the topic of *customer−innovator interaction*, as well as the feedback loop envisaged by the *chain-link model*, is needed to elucidate the *micro-level characteristics of activities*. Even though the *chain-interactive innovation* *model* is presently in use, limited empirical data exist to confirm the validity of this concept. Particularly, it would be beneficial to explain the *interactive mechanism* between a customer and an innovator of *radical innovations* through positive and negative *feedback loops* and elucidate concrete *characteristics of activities* of the *chain-link model* within and between subsystems, focusing on the *technology-push hypothesis*.