

# **A REVIEW OF THE IMPACT OF TECHNOLOGY CHARACTERISTICS ON INNOVATION ACTIVITIES**

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## **ABSTRACT**

“Technology” is one critical driver for economy progresses, which is stressed by many scholars. They discussed the technology effects by some technology characteristics (TC). These effects include firms’ strategies, types of cooperation, organization capabilities and market sectors. In other words, the technology characteristics are important indicators when evaluating technology innovations and capabilities /competence of organizations. This review will collect and analyse the technology characteristics of previously studies, which have been frequently studied and are closely related to innovation activities. Then, the suggestions of innovation for company and government are provided.

Key words: characteristics of technology, innovation, and capability

## **DISCUSSION AND IMPLICATION**

The technology characteristics are firstly depicted by Teece (1996). There are seven fundamental characteristics (TC) are described in Teece’s research. They are uncertainty, path dependency, cumulative nature, irreversibility, technological interrelatedness, tacitness and inappropriability. These TC are discussed in different innovation issues, for example: the uncertainty is used to discuss the issue of competitive environment; the technological interrelatedness concerning the relationship among different parts of technology, the path dependency, cumulative nature, irreversibility are related to the process of technology progress and the tacitness, the inappropriability concerns the diffusion, protection and stock of technology knowledge .

The main problem of previously study is rare to define the TC, which makes earlier suggestions usually used in some specific technologies or issues. This review argues the concept of time frame that each TC should be only discusses at specify stage of technology’s lifecycle. To sum up the interrelation of TC, the technology trajectory is related the concept of path dependence and the uncertainty. The stage that appears after the technology paradigm, the product or process innovations should be based on the characteristics of standardisation, modularity, technological interrelatedness and complexity. These TC also influence the technology paradigm.

These suggestions are concluded from the earlier/previous studies of TC. Moreover, this review will help the government and company to make the decision of technology development, especially the new technology.

## **REFERENCES**

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