Chapter 4

An Analysis of the Determinants of ITF R&D Projects Commercialization in Hong Kong’s Logistics and Supply Chain Industry: Industry User Perspective

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ABSTRACT

Innovation and technology are determinants of sustainably the competitive advantage of the company in Hong Kong. In order to deliver the message from industry users to R&D technologist to improve the rate of adoption of R&D technology into the logistics and supply chain industry in Hong Kong, a quantitative survey to collect the industry user concern and expectation of R&D technology is necessary. This chapter aims to develop a novel project management model to have a good grasp of factors influencing R&D project commercialization through a multi-perspective methodology. Through the quantitative survey methodology to collect the data from the industry side, the comprehensive data analysis will be conducted. The main concerns are whether the developed technology applied to the company can create the value for the company to solve the problem and add value.
INTRODUCTION

According to NewGOV.HK (2017), it stated that “The SAR Government has been attaching great importance to the development of innovation and technology, and it was designated in 2009 as one of the six industries where Hong Kong enjoys clear advantages. It is a long-term investment to develop innovation and technology. Over the past decade, Hong Kong’s research and development (R&D) expenditure has been increasing at an average annual growth rate of about 7%. The R&D expenditure by the public sector (including Government and higher education sectors) has increased at an average annual growth rate of 4.7%, from HK$5 billion in 2001 to HK$7.5 billion in 2010, accounting for 57% of the gross R&D expenditure.” The research aims to break down technology barriers from initial stage of R&D to commercialization the R&D deliverables to the Industry. In addition, the research results will contribute towards the R&D design and adoption of unified the industry standard of ITF R&D technology adoption to the Logistics and Supply Chain Industry in Hong Kong.

Though quantitative survey study to understand the viewpoints of Industry Users for analysing the gap among 5 development stages of MSTAM model. The quantitative data analysis from demand side will be evaluated. The target people is a person who is working in Hong Kong Logistics and Supply Chain industry or has much working experience in this area.

Problem of ITF R&D Project Commercialization in Hong Kong’s Logistics and Supply Chain Industry

ITF R&D project starting from science stage (science) develop the R&D technology to the industry (market) through basic research, applied research and experimental development to verify the developed technology is beneficial for the industry. (Ho and Chuah 2018). ITF R&D project involves many operations steps and conditions need to be fulfilled for monitoring whether ITF project deliverables are matching with industry requirement for further commercialization and adoption. The operation of ITF project has many control points such as progress report for the technical and administrative status of the project and audited account to check whether the funding used in a suitable area in complying the regulation. (Ho and Chuah 2018). According to Ho and Chuah 2017 & Ho and Chuah 2018 research stated that many ITF projects were not successful completed and transferred the developed technology in the Hong Kong’s Logistics and Supply Chain Industry. The common problems were:

- **Problem 1:** Control and Time Issue - Long period of time for approval in proposal stage
- **Problem 2:** Time and Control Issue – Project development process is too long (From proposal stage to project completion stage)
- **Problem 3:** Quality Issue - R&D project deliverable cannot match against industry demands
- **Problem 4:** Communication and Motivating Issue - Misunderstanding of the project expectation within each stakeholder in the project