Technological Attributes That Influence RFID Adoption in Logistics Organization (A Work In progress)

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Abstract—Radio Frequency Identification (RFID) is an automation technology that provides visibility for management process in logistics. It employs tags that are connected via radio frequency and are monitored through a network to make anything with a tag visible to logistics management. Despite the high amount of data that may be placed in the tags and the evident efficiency that it may provide in tracking and tracing assets with tags, this innovation has not been fully adopted in logistics organizations. Among the many benefits of investing and adopting RFID are the reduction in waste, manual checks, costs, claims and deductions, and an overall improvement in asset utilization.[28] Using literature databases and the internet, this paper aims to study and review past studies depicting technological determinants and considerations used when adopting this particular technology. A combined TOE and DOI Framework and constructs were used to determine and explain technological determinants of RFID adoption in logistics. This paper also aims to provide key findings and pave the way for future research on the adoption of RFID in logistics. Further research is recommended to encompass all constructs, under a unified data collection method, processing and analysis to create a comprehensive work and establish determinants and the relationship under all the constructs to identify the factors that influence RFID technology adoption in logistics.

Key Words—Adoption; Diffusion of Innovations; RFID; Compatibility; Competence. Complexity