Promoting innovation and application of Internet Of Things in an organization; Case Study from Petrochemical Commercial Company (PCC)

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ABSTRACT

The purpose of the study was to investigate factors promoting innovation and application of internet of things (IOT) in Petrochemical Commercial Company (PCC) which was as an organization in which massive various data is daily exchanged and processed.

Information professionals, information system technologists and queuing functions that normally consume big data and technological resources were involved in the process of data collection using structured questionnaire and content analysis.

The results of this study showed that the software development, potential opportunities and capabilities, specific features of IOT, auxiliary technologies, effective technologies and management strategies have tremendous impact on internet of things. Moreover, fitting test showed that the research model has properly fitted the collected data; however, this study suffered from some limitations which were basically beyond the control of the research.

Keywords: Internet Of Things, Software Development, Effective Technologies, Management Strategies

1. INTRODUCTION AND BACKGROUND INFORMATION

The Internet Of Things (IOT) was initially used by Kevin Ashton in 1999 and described a world in which anything like lifeless things had a digital identity enabling the computers to manage and organize them. IOT is a new concept in technology and commination and in general is a modern technology which enables any human, animal or thing to send data through connected networks (like internet or intranet) and can be managed and controlled via available applications in smart phones and tablets.

Technologic challenges and innovations leads to a mechanism which can bring a solution for technical problems of IOT all around the world. To reach this achievement, involved organizations and people in IOT should have acquired sufficient knowledge, technological skills and experience in innovation process management. Difference in understanding of innovation, is one of the problems. Nowadays, progress is technologies is daily up growing and organizations are compelled to be adopted to any peripheral changes. Whereas, pioneer organizations are also innovative, hence they are highly needed to have a proper understanding of innovation to resolve the technical problems in IOT.

Tanwar et al. [18] studied on the applications of IOT in development of smart cities and found out that IOT was the main object of this development, since by means of this technology an integrated network of relationships are connected to all elements of the city. Therefore they resulted that by more learning the IOT, development of smart cities will be possible in next years. Makori [12] developed the application of IOT in scientific and research organization and found that innovation in utilization of IOT causes a big change in all processes of these organizations which leaded to promoting in data access, education and relationship between organization and customers. Hossain et al. [9] studied the application of IOT and cloud computing in various organizations. In their research, they presented a new IOT based service framework in which customers' data were collected by portable