

**CITY UNIVERSITY OF HONG KONG**

香港城市大學

**An Analysis of Technology Innovation Adoption:**

Enterprise Mobility in Cebu, Philippines

宿霧菲律賓公司的企業移動的技術創新採用分析

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## Abstract

This study focuses on an organization's adoption of enterprise mobility, a trend to allow access to real time information anytime, anywhere, and on any device. Enterprise mobility normally has two components: internet-connected devices and cloud server/storage. For some, the third component is the software that processes and analyzes the data.

This study tries to analyze the most important factors in predicting how organizations adopt enterprise mobility. This study is anchored on two innovation theories: Roger's Diffusion of Innovations Theory (DOI), and Tornatzky and Fleisher's Technology-Organization-Environment Framework (TOE).

Both theories have 12 elements which are broadly defined into three main sub-groups:

- a.) Technology (relative advantage/ compatibility/ complexity / trialability / observability);
- b.) Organization (top management support / organizational readiness/ firm size);  
and
- c.) Environment (competitive pressure/ trading partner pressure/ regulatory support).

Following a literature review of a few dozen studies conducted worldwide on these two theories, most studies confirmed these two theories as predictors of innovation. However, while most studies validated many of its elements, it was also noted that different elements were found to be more significant in different cultures and countries.

Thus, the author also reviewed Hofstede's Cultural Dimension Theory which is one of the main theories that describes how a society's culture can affect the values of its members.

In its latest version posted on the web, it noted that the Philippines scored quite high in power distance, which means that income distribution is relatively uneven, and therefore people tend to believe in strong leaders, and strict hierarchy compared to the United States or countries in Western Europe. On another cultural trait, it was noted that in 'western' cultures, the individual "I" consciousness is quite strong, while in 'eastern' cultures like the Philippines, people tend to believe in extended families, and "We" groups. These cultural dimensions were noted to correlate with the elements of the adoption theories. Moreover, to support Hofstede, I also went over dozens of cultural values stories pertaining to Filipinos, and noted its predominant traits such as filial piety, deep religiosity, love of festivals, extended family characteristics, as well as the Filipinos general traits of being passionate, emotional and hospitable.

It noted that the three predominant traits associated with Filipinos are *utang na loob* (debt of gratitude), *pakikisama* (concept of team spirit), and *hiya* (the Filipino sense of shame). These traits were subjectively correlated with the hypothesis' findings. In short, Hofstede and the cultural studies were consistent as to the reasons why compatibility, top management support and organizational Readiness are the three most significant predictors of DOI and TOE theories that would predict enterprise mobility and technology adoption in Philippine companies.

In this study, the researcher sent a survey instrument to close to 200 potential respondents. A total of 106 valid responses were generated from the survey instruments sent.

The results show that DOI is a significant predictor of enterprise mobility, and TOE even more so. It also validated that all elements taken together tend to make the correlation higher than the individual elements. For the twelve elements, the author notes the three most significant predictors are:

- a.) Compatibility. This says that a company would like to invest or succeed in technology that is compatible with its existing infrastructure and practices. This can also be related to the fact that the culture has a strong reliance on uncertainty avoidance.
- b.) Top management support. This notes that the willingness of top management to provide financial investment, resources, and support is crucial to make the adoption work. This is not surprising since the power distance of the Philippines is a high 94, and therefore it is almost a given that followers will look up to the leaders to deliver the punch to succeed.
- c.) Organizational Readiness. This means the availability of the manpower with expertise as well as financial resources is essential to the success of the enterprise.

The elements that were significant predictors vary with other studies conducted in different countries and cultures but appear to be consistent with Hofstede's cultural dimension factors.

This author concludes with observations on the practical implications of selling and adopting technology here in the Philippines particularly Cebu, and also noted some of the limitations of the study:

- a.) While the survey was conducted using quantitative methods and accepted statistical tools, the respondents were mostly limited to a fairly small geographical area consisting mainly of companies that the author's companies do business with.
- b.) About 200 questionnaires were sent out, and only 122 were received. After applying the Cronbach analysis for consistency, only 106 responses were considered valid.

- c.) The interpretation on cultural factors correlation was done using mainly the writer's personal experiences. While additional support was gathered from Hofstede's studying, and also various other studies on cultural values based on short stories and writings, it has to be noted that these are mainly observations and may be subjective.
- d.) An in-depth interview or focus group discussions with some respondents could have revealed more detailed insights.