Chapter 60
Taxonomy of IT Intangible Assets for Public Administration Based on the Electronic Government Maturity Model in Uruguay

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ABSTRACT

This chapter presents a taxonomy of IT intangible asset indicators for Public Administration, relating the indicators to the Electronic Government Maturity Model proposed by the Uruguayan Agency for Electronic Government and Information Society. Indicators are categorized according to a consolidated intellectual capital model. The Taxonomy is mapped at the indicator level against the EGMM subareas covering all of the relevant aspects associated with the intangible IT assets of the Public Administration in Uruguay. The main challenges and future lines of work for building a consolidated maturity model of IT intangible assets in Public Administration are also presented.

INTRODUCTION

When analyzing assets related to Information Technology (hereafter IT), the importance of intangibles that originate competitive advantage comes into play. The purpose of this article is to provide a taxonomy of IT intangible asset indicators for Public Administration as defined by Garbarino and Delgado (2011) that may allow to build, in the future, a valuation model of IT intangible assets. The objective is to support the effective management of IT resources in the Public Administration.

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At this stage, the taxonomy is expanded and completed by traceability with the Electronic Government Maturity Model (hereafter EGMM) proposed by the Uruguayan Agency for Electronic Government and Information Society (hereafter AEGIS, AGESIC in Spanish), in order to consider the factors related to the evolution and maturity of electronic government in Uruguay.

The original taxonomy is based on a group of indicators previously defined by Zadrozny (2005). Indicators are categorized according to a consolidated model for intellectual capital where the indicators are grouped into two categories (appropriate and inappropriate). The indicators are then classified according to a consolidated intellectual capital model presented below. According to this taxonomy, it is established that each one of the six intellectual capital classes proposed in the model exists within the Uruguayan Public Administration.

The expanded taxonomy proposed is an extension and adaptation of the model proposed by Merino-Rodríguez *et al.* (2003), which emerged from models such as Intellectus (Trillo & Sánchez, 2006), after being adapted and revised by external experts.

With the taxonomy obtained, each indicator is mapped to EGMM subareas so that it considers all relevant aspects regarding the intangible IT assets of the Uruguayan Public Administration.

The model defined in García de Castro *et al.* (2004) and Medina (2003) for public Spanish companies is used as a basis. Then, this model is adapted taking into account the characterization of the evolution of the Uruguayan Public Administration carried out by Garbarino and Delgado (2011) and the need for identifying the intangibles of the Public Administration, measuring their potential, directing public policies toward a change in the focus and meaning of public service (Merino-Rodríguez, et al., 2003; AGESIC, 2011) and transforming it into a tool that supports Public Administration IT Governance. Finally, a taxonomy of intangible IT indicators is built according to the reality of the Public Administration of Uruguay (Garbarino & Delgado, 2011).

INTANGIBLE ASSETS

Definitions

According to IASC (2009), intangible assets "*are characterized as identifiable assets, without physical substance, and that are allocated for use in the production or supply of goods and services to be lent to third parties, or for administrative ends.*" Baruch Lev (2001) defines intangible assets in the following manner: "*an intangible asset is a claim to future benefits that does not have a physical or financial (a stock or a bond) embodiment. A patent, a brand, and a unique organizational structure (for example, an Internet-based supply chain) that generate cost savings are intangible assets.*"

Classification Models for Intangible Assets

There are several models whose purpose is to serve as tools for identifying, structuring, and to a lesser degree, assessing intangible assets. Some of these are: Balanced Business Scorecard (Kaplan & Norton, 1996), Intellectual Assets Monitor (Sveiby, 1997), Skandia Navigator (Euroforum, 1998), Intellect Model (Euroforum, 1998), Intellectus Model (CIC-IADE, 2003), the AIE model for assessing intangibles (Hubbard, 2007), and MERITUM (Kaplan & Norton, 1996), among others.

Our taxonomy will be based particularly on three models: the proposal by the MERITUM project, the Intellect model and its evolution, Intellectus. MERITUM proposes the need of a common, internationally accepted framework of reference. This framework would serve as a basis for companies to identify, to measure and

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