Evaluation Life Cycle Management Model on the Basis of Result to Evaluate Information Systems

Sangwon Lee\(^{2}\), Sunghyun Kim\(^{1}\), Sungbum Park\(^{2}\), Hyunsup Ahn\(^{2}\)

\(^{1}\)Division of Information and Electronic Commerce (Institute of Convergence and Creativity), Wonkwang University

\(^{2}\)Big Data Strategy Center, National Information Society Agency

\(^{2}\)Department of Wirtschaftsinformatik, Technische Universität Braunschweig

Abstract

Enterprises or public organizations have invested in development of their information systems and operated them repeatedly. Since these information systems projects have unique characteristics such as technology sensitiveness, network effectiveness, embeddedness, and externality, these investment projects have been not taken care of in the field of administration and evaluation. And then, it is difficult to manage and monitor them. In this research, we propose a evaluation life cycle management model on the basis of result to evaluate information systems. This life cycle model with ten stages would furnish a guide to introduction of total evaluation systems.

Keywords: Information Systems; Evaluation; Management Model; Monitoring

I. Introduction

Most of enterprises or public organizations have invested in development of their information systems and operated them repeatedly. But, these information systems projects have unique characteristics such as technology sensitiveness, network effectiveness, embeddedness, and externality. So, these investment projects have been not taken care of in the field of administration and evaluation. And then, it is difficult to manage and monitor them. In this research, we propose a evaluation life cycle management model on the basis of result to evaluate information systems.

II. Practice-Based vs. Result-Based Monitoring and Evaluation Systems

Traditional monitoring and evaluation systems are practice-based ones. They are considered so as to propose a question, "are the actions for monitoring and evaluation done?" That is to say, it focuses on compliance. They are interested in insourcing investment resources, monitoring projects or policies, and linking them with each responsibility unit. But it is impossible to know whether projects succeed or fail with these monitoring and evaluation systems. By this way, result-oriented monitoring and evaluation systems are devised in order to propose a question, "so what?" This new systems are interested in what is the goal of each organization, whether this goal is performed well or not, and how the accomplishment of the goal is proved. In sum, the practice-based monitoring and evaluation systems are used traditionally in various projects. In the other hand, result-based monitoring and evaluation systems are used in various intervention measures or strategies of the projects.
III. Evaluation Life Cycle Management Model

Now, we propose a evaluation life cycle management model on the basis of result to evaluate information systems. There are ten stages in the model such as evaluating preparedness, agreeing on performances, selecting critical performance indices, collecting data, setting up goal, monitoring results, using evaluation information, reporting results, using results, and operating systems (Figure 1). The Stage 1 as Evaluating Preparedness considers organizational capability and political will to monitor and evaluate the goal of projects. The Stage 2 as Agreeing on Performances checks the importance of performance and the whole procedure of general agreements. The Stage 3 as Selecting Critical Performance Indices handles all kinds of indices for performance measurement. The Stage 4 as Collecting Data establishes standard data for indices. The Stage 5 as Setting up Goal defines the target number and considers related factors. The Stage 6 as Monitoring Results checks the types and degrees of major monitoring and relations between practice monitoring and result monitoring. The Stage 7 as Using Evaluation Information considers the period of evaluation, differences between plannings performance and real performances. The Stage 8 as Reporting Results makes conclusions for monitoring and evaluating results. The Stage 9 as Using Results considers the usage of performance results and feedback benefits. The last Stage 10 as Operating Systems examines the major factors affecting result-based monitoring and evaluation systems.

IV. Conclusions

This above-proposed life cycle model with ten stages would furnish a guide to introduction of total evaluation systems. And this model gives a great help to performing smooth readiness assessment and evaluation.

References