Weerawit Uthorn 2011: Impact of Critical Factors on Successful Implementation of Enterprise Resource Planning System: A Case Study of Electricity Generating Authority of Thailand. Master of Business Administration, Major Field: Business Administration, Interdisciplinary Graduate Program. Thesis Advisor: Mr. Sawat Wanarat, D.B.A. 177 pages.

The objectives of this research were to study the factors concerning the implementation of enterprise resource planning system, and to investigate the factors leading to an implementation success. The variables were the demographic factor, the technical system factor, and the critical factors comprising of: 1) top management support, 2) formal project planning, 3) effective communication, 4) education and training, and 5) employees' individual skills. The sample group was personnel at Electricity Generating Authority of Thailand who used SAP software. The data were collected by using a questionnaire. Then, the data were analyzed by using percentage, mean, standard deviation, factor analysis, t-test, ANOVA, correlation coefficient, and multiple regression analysis, at the 0.05 level of significance.

The major results indicated that the level of the success of implementation of enterprise resource planning system was at a moderate level. Each the level of top management support, formal project planning, effective communication, education and training, and employees' individual skills was at a high level. The demographic factors such as work experience affected the success of implementation of the system. The top management support, formal project planning, effective communication, education and training, and employees' individual skills positively related to the success of implementation of the system. The support factors could be predicted the success of implementation of the system such as top management support, formal project planning, and effective communication.

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