The DBA program is pleased to let you know that Ahmad Kabil will be making a final defense of his dissertation on Monday November 4th starting at 11am.  The defense will take place in Hyland 4303.

The right balance: a search for the best fit between business and ethical factors in software that aids strategic decision making

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ABSTRACT

With the expansion of using Decision Support Systems (DSS) in making strategic business decisions and the wide spectrum of stakeholders affected by such usage, the need for considering ethical issues in the system arises. Despite the growing use of DSS, numerous scandals due to unethical decisions have been reported. Several scholars recommend considering ethical attributes along with the business attributes that are usually employed in the design of DSS. However, the balanced fit between DSS and both business and ethical requirement attributes has not been investigated. The current research is of an exploratory nature to investigate the impact of achieving such balanced fit on system performance. The scope of the study focuses on enterprise resource planning (ERP)-based DSS.

A research model leveraging the theory of Task-Technology Fit (TTF) is proposed to examine the impact that attaining a balanced fit between ERP-based DSS and both business and ethical requirement attributes has on perceived system performance. A large-scale study was conducted using a random sample of IT practitioners in private commercial companies in the U.S. The U.S. has one of the highest rates of ERP adoption in the world and should offer insights relevant to practitioners in organizations worldwide.  Existing scales were adapted and used for most constructs that comprise the research model, while a q-sorting procedure was conducted to develop and validate new constructs. The survey was pilot tested and revised before participants were solicited for the large-scale study.

The data analysis was conducted in three phases: Descriptive Statistics and Scale Reliability, Multi Regression Modeling, and Partial Least Squares Structural Equation Modeling (PLS=SEM). The results show that most ERP-based DSS implementations place a greater emphasis on business requirement attributes over ethical requirement attributes, which results in lower levels of a system’s balanced fit. Organizations that equally emphasize and have a balanced fit between business and ethical attributes have a significant impact on the perceived system performance. Achieving a balanced fit accounts for more variance in perceived system performance than focusing on business or ethical attributes alone.  The company’s ethical environment has a positive effect on achieving a balanced fit between business and ethical attributes.

This dissertation contributes to the DSS literature in three ways. First, it demonstrates empirically the need for achieving a balanced fit of DSS to both business and ethical requirement attributes. Second, it extends TTF to “Task-Technology Balanced Fit.” Third, it adds a new concept of “Ethics-Governance-by-Design” to the DSS research area.

*Keywords:*DSS; ERP-based DSS; Theory of Task-Technology Fit (TTF); Task-Technology Balanced Fit (TTBF); Ethics-Governance-by-Design.