**An empirical investigation of the level of electronic data interchange (EDI) implementation and its ability to predict EDI system success measures and EDI implementation factors**

ABSTRACT

Electronic data interchange (EDI) is a critical technology used in supply chain management systems involving logistics functions. This study explores the construct of õlevel of EDI implementationö in order to establish its relationship with system success and the criticality of selected implementation factors. Using the survey method that employed a pair of questionnaires for a customer-supplier dyad engaged in EDI, the final data set consists of 128 firms constituting 64 dyads. Level of EDI implementation is positively related to one out of four EDI system success measures and is associated with the criticality of the following implementation factors: use of cross-functional EDI teams, the conduct of pilot projects, the inclusion of security and auditing controls, the conduct of training for end users, maintenance of trading partner relationships, use of value-added network services, and guidelines for digital signatures.

**Keyword:** Alignment; Channel relationships; Electronic data interchange; Implementation; Logistics; Supply-chain management