

## **Adoption Determinants of Xml-Based Invoices: an Exploratory Investigation**

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### **Abstract**

*The digitalization of all business processes along the supply chain is a crucial method for cutting down administrative costs, improve productivity, and achieving transparency. One major business document being exchanged in almost any business transaction in the invoice. Electronic invoices are of great potential especially when automatically processing structured data (e.g., XML data). We conducted a qualitative study to understand the adoption determinants of XML-based invoice standards. Therefore, we analyzed interview material and organized the results in the technological, organizational, and environmental (TOE) framework. Within the technological element the simple XML special characteristics play a crucial role for its adoption. The organizational element is characterized by internal aspects like monetary and technical resources as well as available knowledge and expertise. Network effects and competitive pressure are adoption determinants set exogenous and are depicted in the external task environmental element.*

**Keywords:** Electronic invoice, XML-based invoice standard adoption, critical success factor, qualitative study, expert interview

### **1 Introduction**

The automated creation and procedure of electronic invoices (e-invoices) increase the efficiency of invoice business processes and is seen as a key factor for an economic growth for large as well as for small and medium sized organizations (Cuylen et al. 2012). An e-invoice can be received, transmitted and processed digitally which leads to no media discontinuity and thus optimizes and streamlines the business process. Legal requirements and the lack of knowledge how to deal with e-invoices were only some challenges to initiate the e-invoice process.

In Germany, the law of Simplifying Tax in 2011 with the objective of equal treatment of paper and e-invoices and a lot of effort and enlightenment of the government, the European Union (EU) as well as independent organizations are reasons for the debate about e-invoices and their acceptance. Many transmission protocol, structure data formats and standards are used for the data exchange (Kuehne et al., 2015). This involves many challenges for the adoption and acceptance since the effort is high to unify the business processes of invoice procedure.

E-invoices do not only save time and money but also protect the environment by using less paper and avoiding the actual transportation. Organizations rethink their behavior on the environment and owning therefore a positive aspect at the side of the employees (Base ware, 2012). The key advantages can be realized when the e-invoice is not only an electronic document, like a PDF file sent via e-mail but rather when structured data sets, e.g., EDIFACT (Electronic Data Interchange for Administration, Commerce and Transport) or XML (Extensible Markup Language) are used.