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SMEs' tax compliance costs and IT adoption: the case of a value-added tax

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ABSTRACT

The objective of this study is to examine the factors behind the adoption of a tax-compliant accounting system among small and medium-sized enterprises (SMEs) using the technological–organizational–environmental (TOE) framework, particularly the role of tax compliance costs in fostering the adoption of this system. This study makes a novel contribution by attempting to link the influence of tax compliance costs to the information technology (IT) adoption literature. Questionnaires were distributed to 401 SMEs, and data were analyzed using partial least squares. The results suggest that the TOE framework is useful for examining factors that affect SMEs' IT adoption decisions; the influence of perceived compatibility, complexity, relative advantage, and mimetic and regulatory pressure is important for the adoption of a value-added tax (VAT)-compliant accounting system. Moreover, the impact of compatibility, learning from external sources, and perceived coercive pressure on the adoption of a VAT-compliant accounting system is moderated by tax compliance cost.

1. Introduction

A value-added tax (VAT) has been implemented in 160 countries because it is an efficient method of tax collection. VAT is perceived to be highly efficient in terms of tax turnover because it provides greater revenue collection and, at the same time, narrows deficits (Lee et al., 2013). VAT has a different effect on businesses, increasing both their start-up and ongoing operating costs; this effect is stronger for small and medium-sized enterprises (SMEs) (Evans et al., 1996; Gunz et al., 1995). VAT compliance activities consume a substantial amount of time for SMEs compared to other types of taxes, such as capital gains tax and income tax (Hansford and Hasseldine, 2012). SMEs are also more likely to rely on internal resources rather than external sources, such as external tax advisors, to comply with tax law (Eichfelder and Schorn, 2012; Eichfelder and Vaillancourt, 2014; Hanefah et al., 2002). One major impact of VAT on SMEs' internal resources is the adoption of VAT-compliant accounting systems, which tag transactions with specific codes that enable an accurate calculation of VAT amounts (including taxes firms have charged to their customers as well as the taxes charged by their suppliers). The difference between these two amounts is the amount of VAT that firms pay to, or claim as, refunds from the government. These tax compliance activities are facilitated by the accounting system. Prior literature (Eichfelder and Schorn, 2012; Halabi et al., 2010; Marriott and Marriott, 2000) has found that these tax compliance activities are a major reason behind SMEs' adoption of an accounting system.

One way to measure the amount of resources that a firm utilizes for tax compliance activities is to use the firm's tax compliance costs. Tax compliance costs (Sandford et al., 1989) are defined as

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> those costs incurred by taxpayers, or third parties such as businesses, in meeting the requirements laid upon them in complying with a given tax structure...For a business, the compliance costs include the cost of collecting, remitting and accounting for tax on the products or profits of the business and on the wages and salaries of its employees together with the costs of acquiring the knowledge to enable this work to be done including knowledge of their legal obligations and penalties (p.10).

Existing research on SME tax compliance costs has been primarily concerned with factors that influence compliance costs and how these costs can be measured effectively (Evans et al., 1996; Hansford et al., 2003). Hansford et al. (2003) found that firms using a computerized accounting system usually record higher tax compliance costs than those using a manual method. One possible reason for this is that firms allocate costs attributed to the computerized accounting system separately while costs associated with the manual method are included as part of the many roles performed by SME owner-managers. The researchers highlighted the need to examine the relationship between taxation and information technology (IT) adoption. Evans et al. (1996) indicated that SMEs incur relatively greater tax compliance costs than bigger firms and that a trend exists toward greater utilization of computers for tax purposes. These studies offer insights into possible links between tax compliance costs and accounting system adoption.

The current study contributes to the literature by empirically examining SMEs' perception of their tax compliance costs as an important factor in their accounting system adoption. Our study attempts to position tax compliance costs in the IT adoption framework for SMEs. In doing so, we provide a more comprehensive picture of the factors that affect SMEs' adoption of an accounting information system. In other words, instead of focusing exclusively on tax compliance costs as the sole factor in SMEs' adoption of an accounting system, we examine the influence of tax compliance costs as one factor in IT adoption. This study also contributes to practice by providing managers and management teams with an understanding of the factors affecting accounting system adoption. This understanding enables managers to make informed decisions regarding integration and use of a tax-compliant system in their organizations' accounting system, particularly in the initial stages of the system's adoption.

We selected the technological–organizational–environmental (TOE) framework (Henderson et al., 2012; Kuan and Chau, 2001; Tornatzky and Fleischer, 1990) as an appropriate theoretical foundation for investigating this type of adoption among SMEs. A VAT-compliant accounting system not only facilitates the recording and calculation of tax returns, but also provides proper recordkeeping. We believe that a VAT-compliant accounting system improves the compliance and monitoring of companies' transactions in regard to VAT payments because of the requirement to map the VAT taxonomy to these transactions. Survey data from 401 SMEs were used to test the TOE framework. Based on partial least squares analysis, the results suggest that all the technological factors significantly influence the adoption of a VAT-compliant accounting system. Only the environmental variable, perceived coercive pressure, does not significantly influence the adoption of a VAT-compliant accounting system. In addition, the organizational variable, learning from external sources, does not significantly influence the adoption of a VAT-compliant accounting system. Tax compliance costs, as a measure of tax compliance activities, have a moderating effect on perceived comparability, learning from external sources, and perceived coercive pressure; these variables belong in technological, organizational, and environmental factors, respectively. Our study offers insights into the impact of the early stages of VAT implementation on SMEs.

The paper is organized as follows. First, the background of the VAT system in Malaysia is presented, followed by the literature review and theoretical background of the study and the hypothesis development section. Next, the methods and findings are presented. Last, discussion and implications of the study are presented.

2. SMEs and the goods and services tax in Malaysia

SMEs in Malaysia have played an important role in the economic growth of the nation. According to the 2011 Malaysian Economic Census, SMEs accounted for 97.3% of total business establishments in 2010 or 645,136 business establishments (SME Corp, 2016). SMEs contribute 35.9% to Malaysia's gross domestic product (GDP), 65% to total employment (about 6.2 million employees), and 17.8% of total exports (SME Corp, 2015, 2016). SMEs are defined as businesses in the manufacturing sector with sales turnover not exceeding RM50 million (USD12 million) or employing fewer than 200 full-time employees; the term also covers businesses in other sectors either with sales turnover not exceeding RM20 million (USD4.8 million) or that employ fewer than 75 full-time employees (SME Corp, 2016). Based on this definition, large numbers of SMEs have been affected by the introduction of the GST in Malaysia because this tax required businesses to be GST-registered at the low threshold of a yearly turnover of more than RM500,000 (approximately USD120,000) of taxable supplies. The government had repeatedly attempted to introduce the GST in Malaysia in 2005 and 2007, but it was not implemented until April 2015 (Ng, 2013). Prior to introduction of the GST, sales tax and service tax applied and only affected certain businesses. Sales tax applied only to manufacturers and importers while the service tax was imposed on service providers that met certain revenue thresholds.

Prior literature (Evans et al., 1996; OECD, 2009, 2013) has found that tax compliance activities affect SMEs more than larger organizations. The impact of being GST-registered for SMEs is that they either become first-time adopters of an accounting system or, for those that already have an accounting system, must ensure that their accounting system is GST compliant and able to accommodate GST requirements (Star, 2014). This has significant implications for SMEs due to the demands that GST puts on their operational and financial activities. For example, having voluminous transactions per month would pressure SMEs to have a dedicated staff with adequate competency to monitor the GST charged to customers and refunds from the government. GST-registered companies are also subject to audits and investigations by relevant authorities and, thus, exposure to possible fines