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The impact of cultural environment on entry-level auditors' abilities to perform analytical procedures

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ABSTRACT

We focus on the impact of three of Hofstede's cultural dimensions, power distance, uncertainty avoidance, and individualism, on the results of analytical procedures conducted by entry-level auditors in Mexico and the U.S. Analytical procedures are ideal for this research as they require auditors to use professional judgment and appropriate levels of professional skepticism, abilities related to all three cultural characteristics. We find no other study investigating the impact of culture on the application of auditing procedures similar across the studied cultures.

We find cultural characteristics do not affect the participants' abilities to predict income statement balances, but they may influence the ability to predict changes in balance sheet accounts. We also find culture is associated with differences in risk assessments. Our results indicate that participants rarely differentiate accounts that change according to expectation from those that change contrary to expectation, but rather alter their risk assessments to match the direction of balances that increase or decrease.

1. Introduction

1.1. Impact of culture on the audit environment

There is a presumption in the international auditing literature that a country's culture impacts its audit environment, which in turn may affect the outcome of the audit process. Three of Hofstede's (2001) cultural dimensions, power distance (PD), uncertainty avoidance (UA), and individualism and collectivism, have frequently been associated with differences in national auditing environments. We focus on these three cultural dimensions in this research study.

Prior research on the influence of national culture differences on the auditing process has focused on macro-level auditing issues, for example, differences in perceptions of independence, auditor–client disagreements and whistle-blowing (e.g., Patel, 2003; Patel, Harrison, & McKinnon, 2002; Patel & Psaros, 2000; Welton & Davis, 1990). We find no studies that investigate the impact of culture on the application of similar auditing standards. The study reported in this paper contributes to the international auditing literature by examining the impact of culture on a specific, widely-required audit procedure. Analytical procedures were selected for the study because of the similarity in international and country auditing standards, their applicability to audit clients of various industries and sizes, and because the application of analytical procedures is based

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upon auditor judgment—a professional attribute closely associated with the study of independence and auditor decision making included in prior international auditing research.

1.2. Overview of analytical procedures

Analytical procedures are by nature uncertain since they require auditors to use professional judgment rather than rules to form expectations of account balances. Auditors must also maintain appropriate levels of professional skepticism as they assess whether reported balances are logical, and based upon their expectations, prior period balances, and related current period balances. Since judgment and professional skepticism operate within a cultural milieu, it is possible that culture affects auditors' assessments of the risk of material misstatement associated with the reported balances.

The outcome of analytical procedures may be affected by structural factors as well as cultural differences. Evidence from research studies conducted in single-country environments indicates that in the absence of forming expectations without knowledge of current year results, auditors may anchor on the current year results and be less likely to identify material misstatements within the accounts (McDaniel & Kinney, 1995); that income statement accounts are generally considered to be easier to predict than are balance sheet accounts (Kaplan, 1979; Lin, Fraser, & Hatherly, 2003; Lin, Fraser, & Hatherly, 2000; McDaniel & Simmons, 2007); and that the direction of the account balance change affects the ability of auditors to identify possible misstatements (Biggs & Wild, 1985; Heintz & White, 1989).

1.3. Research focus and contribution to the literature

Salter, Lewis, and Juárez Valdes (2004) examine the cultural affects on decision making by managers in the U.S. and Mexico and note that relatively few cross-cultural studies include Latin America. In this study, we extend the single-country and cross-cultural literature to determine if differences in the cultures of Mexico and the U.S. impact the outcome of the planning stage analytical review. As noted by Cohen, Pant, and Sharp (1995), large, multinational accounting firms are working to standardize audit procedures within their global practices; accordingly, the effectiveness of firm training programs may mitigate the impact of culture on the auditing process. As a result, we focus our research on university accounting students in their last two years of study. This approach allows us to investigate the impact of culture on outcomes of the analytical procedures and provides insight into the abilities of entry-level auditors. The need for this type of research is supported by the findings of Hirst and Koonce (1996, p. 482), who reported that U.S. practitioners believe it is important to determine if accounting students are being well prepared for entry into the auditing profession, and suggest that "studies of the practice of analytical procedures in other countries would enrich our understanding of this important topic." The responses of upper-level accounting students were the basis for prior studies investigating the impact of culture on auditing (Patel & Psaros, 2000; Welton & Davis, 1990), in studies of entry-level auditors' problem solving abilities (Bierstaker & Wright, 2001; Herz & Schulz, 1999; Lee & Welker, 2007), and the accounting environment (Geiger et al., 2006; Salter, Schulz, Lewis, & Lopez, 2008).

Our results indicate that, in general, culture did not affect students' abilities to predict income statement balances; culture may, however, affect the ability of students to predict balance sheet account balances, specifically expectations associated with accounts receivable. These results are consistent with the underlying cultural characteristics of the countries. That culture has only limited impact on expectation formation bodes well for large accounting firms working to standardize their audit procedures across countries and cultures.

The results also indicate that regardless of culture, forming expectations of current year account balances did not improve the participants' abilities to appropriately assess the risk of material misstatement of the current year unaudited accounts. Prior research (Glover, Prawitt, & Wilks, 2005) suggests that embedding prompts into analytical review procedures will improve the effectiveness of these procedures, as the prompts remind auditors of the potential weakness of the procedures. Such prompts act as surrogate rules, which may help those auditors from high uncertainty avoidance cultures become confident in deciding that the results lead to negative beliefs about the appropriateness of the unaudited balance.

Within the risk assessments, we find that students in Mexico determined higher risk of material misstatement than that determined in the low power distance, low uncertainty avoidance, low collectivism culture of the U.S. This finding is contrary to our expectations but is consistent with a potentially greater propensity for error in accounts receivables in high power distance cultures (Chan, Lin, & Mo, 2003). Our results also indicate that entry-level auditors assess the risk of material misstatement higher (lower) for accounts that increase (decrease), even when that change is consistent with expectations, than they do for accounts that do not change, even when a change in balance is expected to occur. These findings suggest that planning procedures may not result in appropriate emphasis in audit programs, and point to the need to emphasize the identification and evaluation of account balance changes, or lack thereof, within auditing and professional development courses.

2. Background

2.1. Analytical procedures

International Standards on Auditing (ISA) 520 (IFAC, 2006, p. 3) describes analytical procedures as "evaluations of financial information made by a study of plausible relationships among both financial and non-financial data. Analytical procedures also encompass the investigation of identified fluctuations and relationships that are inconsistent with other