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Auditors' Selection of Tolerable Error and Risk Levels in the Context of Sample Size Decisions: A Cross-cultural Experiment

As cross-border mergers and acquisitions become more frequent, cross-cultural research into the practices and attitudes of auditors is needed. Since many large, national auditing firms in northern Europe nowadays are associated with one of the American Big 5 firms, harmonisation of practices and adoption of the same sophisticated methods can be expected. The present study focuses on monetary unit sampling (MUS) or dollar-unit sampling (DUS), a method that has been recommended by the American Institute of Certified Public Accountants (AICPA).

The purpose of the study was to test the effects of population size, internal control, analytical review, audit object and culture on auditors' selection of acceptable upper-precision (materiality) and risk levels, judgements required when MUS is used to determine the sample size. The experiment was designed to facilitate a full-factorial, repeated measures analysis of variance.

The results suggest that internal control and analytical review have an effect on subjects' precision limit selections. Weak internal control induces auditors to lower their tolerable error levels, and so does a warning signal resulting from analytical review. Culture, audit object and population size alone do not seem to affect these selections, but there were indications of effects of culture interacting with audit object. The Swedish respondents seem to tolerate higher upper-precision limits for the audit object raw materials inventory than the Finnish respondents, whereas the reverse seems to be true for the audit object accounts receivable.

The results are to some extent different for selected risk levels. As in the case of precision limit selections, internal control and analytical review show significant main effects, but the effect of culture is also almost significant, implying in this case that Swedish auditors are more risk-averse than Finnish auditors. In addition, there are significant interaction effects for culture and population size, as well as for culture and internal control. There is a larger difference between the cultures when the population size is large than when it is small, with Swedish auditors displaying more cautious judgements. Swedish auditors also seem to be more cautious in that they pay more attention than Finnish auditors to weak internal control.

In conclusion, the experimental results - especially the observed, significant interactions - pinpoint several interesting issues for future research:

- a) Are there cultural differences in auditors' attitudes towards the perceived importance of different audit objects?
- b) Are there cultural differences in auditors' attitudes towards the perceived need for readjusting materiality limits when population sizes increase?
- c) Are there cultural differences in auditors' attitudes towards the perceived importance of internal control quality?
- d) Do risk attitudes among auditors reflect observed cultural differences in management style?

The results of the study suggest affirmative answers to all of these questions, but studies larger in scope are needed before the questions can be considered fully answered.