

RISK-TAKING PROPENSITY OF MANAGEMENT ACCOUNTANTS: CERTIFIED vs. NONCERTIFIED

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Abstract

"Don't stick your neck out or you're liable to get it chopped off" is an old cliché that applies to decision making. The literature indicates that all business decisions involve risk taking. This is true for all functional areas of business, including accounting. The purpose of this research is to investigate the propensity or inclination to take risk and the management accountant. Specifically, the study focuses on difference in risk-taking propensity between certified and noncertified controllers. The study finds significant difference. In addition, the research checks to see if there is a difference in risk-taking propensity between male and female controllers. Again, the study finds significant difference.

Introduction

A controller's charge is to manage his/her firm's accounting system, and that system should facilitate the decision-making process of managers. If successful decisions are made, the resources of the firm are effectively and efficiently utilized.

The financial data base managed by the controller is used for planning future operations and evaluating current operations. As a result, the controller is both directly and indirectly involved in the firm's decision-making process. Chow, Toole, and Wong-Boren [1986] recognized this involvement and suggested management accountants work closely with management and even learn to think like a manager.

Business is inherently risky. Miller [1987] suggested that all decisions in business involve risk. The literature either states or implies that managers are risk takers [Church, 1984; Olson, 1986; Sansolo, 1986; Gitman and McDaniel, 1987; Reece and O'Grady, 1987]. If controllers are involved in

the decision-making process then it is reasonable to assume they are involved in risk taking.

The Study

The purpose of this study is to examine the risk-taking propensity of controllers. The paper will examine whether gender and professional certification affects their inclination to take risk.

Gender is the first factor examined in this study. Prior studies found that women have a lower propensity for taking risk. For example, Pettigrew [1958] and Wallach and Caron [1959] found females to be more risk averse than males in decision making. What is of interest is to know whether women controllers are more averse to risk than their male counterparts or at least equal in risk taking.

Differences in risk-taking propensity may exist between certified (CPAs) and noncertified controllers due to

differences in their training and experience. Certified controllers often have several years of public accounting experience. As a result they may have a more diversified background that is centered on the attest function. On the other hand, the noncertified controllers' experience may result in more specialized industry or firm specific. The academic preparation necessary for successful completion of the CPA exam may also be a factor differentiating the certified and noncertified controller.

Differentiating the risk-taking propensity is of interest for two reasons. First, if differences exist, it will help management clarify the type of controller needed in the firm's approach to taking risk. Second, it will assist accountants in understanding their role as a controller.

Risk Propensity

Weiss said, "Taking risks means different things to different people. What one person sees as a threat because he thinks he will fail, another person sees as a challenge because she thinks she will succeed" [1985:15]. Moore and Gergen [1985] studied risk taking in the organization. They indicated that individual risk taking involved: 1) a propensity or the inclination to take or avoid risks, 2) decision-making skill, and 3) experience with risk taking in an organization. They said, "The process of risk taking involves both making the decision to take risk and developing a strategy that minimizes the risk. Well seasoned risk taking requires careful decision making" [1985:73]. Other researchers who have investigated risk-taking behavior indicated propensity to take or not take risk is often linked to rigidity of organization structure [Miller and Toulouse, 1986], previous training and experience [Libby and Fishburn, 1977], responsibility avoidance [Neihouse, 1986], and organizational change [Moore and Gergen, 1985].

Garfield's research on highest-performing managers indicated a greater inclination to take risks. "They are not content with safe, predictable performance, but rather insist on stretching beyond current levels" [1984:20]. Others [Atkinson, 1957; Meyer, Walker, and Litwin, 1961; Murray, 1984, Aero and Weiner, 1985; Shwiel, 1986] discussed the motives for risk taking which normally related to achievement.

For the purpose of this study, the Brockhaus definition of risk-taking propensity will be used. That is,

"the propensity of risk taking is defined as the perceived probability of receiving the rewards associated with success of a proposed situation, which is required by an individual before he will subject himself to the consequences associated with failure, the alternative situation providing less reward as well as less severe consequences than the proposed situations" [1980:513].

Measurement Instrument

Martin [1981] discussed various theories of risk taking and the implications for accountants. One theory he reviewed was the Kogan and Wallach theory of motivation and cognition. He said this theory had relevance for accountants because it stresses the rationality of the decision-making process. The Kogan and Wallach theory and instrument were utilized for this study.

The Choice Dilemmas Questionnaire (CDQ) developed by Wallach and Kogan [1959, 1961] obtains probability preferences in 12 everyday life situations. The questionnaire requires the respondent to give advice with respect to level of risk one should take in pursuing a desired goal. The respondent must choose between a risky and a safe course of action and indicate the probability of success needed for selecting the risky alternative. The task of the CDQ is to produce a deterrence

of failure index [Kogan and Wallach, 1964]. A typical item is:

Mr. B, a 45 year old accountant, has recently been informed by his doctor that he has developed a severe heart ailment. The disease would be sufficiently serious to force Mr. B to change many of his strongest life habits - reducing his work load, drastically changing his diet, giving up favorite leisure-time pursuits. The physician suggests that a delicate medical operation could be attempted which, if successful, would completely relieve the heart condition. But its success could not be assured, and in fact, the operation might prove fatal.

Imagine that you are advising Mr. B. Listed below are several probabilities or odds that the operation will prove successful.

Please check the lowest probability that you would consider acceptable for the operation to be performed.

- _____ Place a check here if you think Mr. B should not have the operation no matter what the probabilities.
- _____ The chances are 9 in 10 that the operation will be a success.
- _____ The chances are 7 in 10 that the operation will be a success.
- _____ The chances are 5 in 10 that the operation will be a success.
- _____ The chances are 3 in 10 that the operation will be a success.
- _____ The chances are 1 in 10 that the operation will be a success.

The CDQ is scored in such a way that the maximum score is 120 and the minimum is 12. The higher scores are associated with greater conservatism while lower scores are associated with less conservatism. Kogan and Wallach [1964], using the Spearman-Brown formula, determined odd-even reliability coefficient for the CDQ and reported reliabilities of .53 for men and .62 for women. They concluded that the inter-

nal consistency of the instrument is adequate.

The Selection Process

The Kansas Society of Certified Public Accountants (KSCPA) provided a mailing list of accountants (certified and noncertified) who were not working in public accounting. From this list, 188 questionnaires were mailed to accountants in controller positions. Sample-size determination followed techniques offered by Krejcie and Morgan [1970]. The mailing included a cover letter explaining the purpose of the study. The questionnaire had a section for demographic data and the CDQ. No follow-up questionnaires were used due to the confidentiality of the material. A total of 80 usable questionnaires were returned, a 42.5 percent response rate.

The Hypotheses

To examine the risk-taking propensity of controllers, two hypotheses were developed and tested. Stated in their null form the hypotheses are:

1. Male and female controllers have the same propensity to take risks.
2. Certified and noncertified controllers have the same propensity to take risks.

Methodology

In order to test the hypotheses for this study, data from the CDQ were used. The data were analyzed on an IBM 4381 mainframe using SAS (Statistical Analysis System) with the Analysis of Covariance Procedure and the LS Means Procedure. The CDQ score was the dependent variable. Age and annual income were used as covariates. Position (certified and noncertified) and sex were independent variables.

Results

The controllers had an overall

mean CDQ score of 69 and a standard deviation of 16.1 using a random sample of 80 respondents. Kogan and Wallach [1964] reported an overall mean CDQ score of 70.3 and a standard deviation of 12.1. A null hypothesis that the overall population (controllers) mean is greater than or equal to 70 was tested at the 0.05 significance level. The null hypothesis was accepted. This indicates results consistent with those reported by Kogan and Wallach.

Age and annual income were used as covariates to improve precision; however, both covariates were not significant. The mean age of the respondents was 40 and the mean annual income was \$44,625. The summary of the analysis of covariance is displayed in Table 1.

The hypothesis of equal mean CDQ scores by sex was tested. The results indicated the CDQ least squares mean for males was significantly larger than the CDQ least squares mean for females at the 0.10 level of significance. The hypothesis was rejected. CDQ LS Means by sex are presented in Table 2.

The hypothesis of equal mean CDQ scores by position (certified and non-certified) was tested. The results indicated the CDQ least squares means for certified controllers was significantly larger than the CDQ least squares mean for the noncertified controllers at the 0.07 significance level. Therefore, the hypothesis was rejected. CDQ LS Means by position appears in Table 3.

Discussion

The purpose of this study was to investigate the risk-taking propensity of controllers. Hypotheses examining the affect of gender and certification status were tested. The results indicate that certified controllers tend to be more conservative in their propensity toward risk than their noncertified counterparts. It is interesting to note that the mean CDQ score for the cer-

tified controllers (CDQ = 71) is close to the national norm of the Kogan and Wallach studies. This indicates that certified controllers tend to be moderate risk takers. Noncertified controllers (CDQ = 64) on the other hand have a greater propensity to take risk than certified controllers and the population as a whole.

A question these results raise is whether the differences detected exist due to the development of cognitive risk-taking behavior. In other words are risk-taking behavior inherent or learned by individuals who become controllers. This is a question for future research.

Female controllers were found to be greater risk takers than males. This result disagrees with the literature. For example, Kogan and Wallach [1959] reported that women are more conservative under conditions of uncertainty. One might question whether females have been socialized to take greater risks in order to succeed within a business organization. Strengthened creditability among peers in a traditionally male-dominated group might be the motive. Once again, further research to describe why this phenomenon occurs is warranted.

Summary

This study found that gender and accounting certification are factors that are reflected in the risk-taking propensity of controllers. Female controllers are greater risk takers than male controllers. Noncertified controllers have a greater propensity to take risk than their certified counterparts.

TABLE 1
Analysis of Covariance on CDQ

Source	df	SS	F	Level of Significance
Sex	1	456.5166	1.80	0.1835
Position	1	985.0769	3.89	0.0523
Age	1	84.7579	0.33	0.5647
Income	1	56.4605	0.22	0.6382

TABLE 2
CDQ LS Means by Sex

Sex	CDQ LS Means	Standard Error	Level of Significance
Male	68.193	2.076	.1012
Female	56.928	6.655	

TABLE 3
CDQ LS Means by Position

Position	CDQ LS Means	Standard Error	Level of Significance
Certified	66.544	3.384	.072
Noncertified	58.577	4.862	

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