The Effects of Perceived Locus of Control and Perceived Income Adequacy on Satisfaction with Financial Status of Rural Households

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ABSTRACT: The purpose of this study is to examine the relationships among selected socioeconomic variables—perceived locus of control, perceived income adequacy, and satisfaction with financial status. Results of the study indicate that age, household income, household net worth, perceived locus of control, and perceived income adequacy are significantly related to satisfaction with financial status. Household income and household net worth have indirect effects on satisfaction through perceived locus of control and perceived income adequacy. Perceived locus of control also has an indirect effect on satisfaction through perceived income adequacy. These findings suggest that counselors and educators should emphasize the importance of perceptions of income adequacy and control over financial aspect in their courses and programs.

KEY WORDS: perceived income adequacy, perceived locus of control, satisfaction with financial status, socioeconomic variables.

Introduction

Katona (1975) suggested that psychological concepts such as perception, attitude, value, optimism, pessimism, and satisfaction are
important factors in determining consumer behavior. Katona's studies focused on how consumers perceived their economic environment and how their perceptions affected their economic behavior. Psychologists, however, are more interested in investigating individuals' perception of themselves and their ability to control their behavior. Rotter (1966) introduced the term perceived locus of control to describe individuals' perceptions of their ability to control what happens to them. Perception of self-control or locus of control and its modifications along with its impact on other behavior is a major interest of psychologists (Blankstein & Polivy, 1982).

Rotter's concept was a general locus of control rather than a specific behavior control, although it has been applied to various specific behaviors. The concept of locus of control has been applied to health (Lau, 1982), religious beliefs (Furnham, 1982), educational settings (Feather, 1975), economic behavior (Furnham, 1986), and organizational behavior (Spector, 1982).

Family economists have employed the concept of perception in their studies and have examined how families perceived their adequacy of resources or income and how these perceptions affected their perception of economic well-being. These studies indicated that perceived income adequacy was related to socioeconomic characteristics and economic behavior of consumers (Deresa, 1987; Hafstrom & Dunning, 1973; William, Nall, & Deck, 1976).

The purpose of this study is to examine the relationships among selected socioeconomic characteristics—perceived locus of control, perceived income adequacy, and satisfaction with financial status. This study also investigates the mediating effects of perceived locus of control and perceived income adequacy between socioeconomic characteristics and satisfaction with financial status. Investigation of this relationship will enhance an understanding of the role of psychological dimensions of human beings and their impact on subjective economic well-being. Rowland, Dodder, and Nickols (1985) emphasized that information on how families perceived the adequacy of their resources could help not only educators but also families to analyze the reality of household managers' goals in relation to their resources. From a financial management perspective, understanding the significance of feelings in control of one's financial situation will help emphasize the development of appropriate managerial activities that enhance the feelings of control.
financial resources in the managerial process. Perceived adequacy of financial resources will affect action sequencing in planning.

**Previous Findings**

Campbell, Converse, and Rodgers (1976) concluded that satisfaction reflected a perceived gap between aspiration and achievement and that it could range from perception of fulfillment to that of deprivation. Satisfaction was a better indicator of subjective well-being than happiness because it allowed a more stable and generalized assessment of individuals' reaction to their current situation.

Researchers have used a variety of concepts to describe economic well-being of families and have proposed several measures of these concepts. Only a few, however, have defined the concept of economic or financial well-being. Several terms frequently used in previous studies were family economic well-being, family financial well-being, economic status, financial status, economic situations, and economic conditions.

Lown (1986) defined financial well-being as ownership of and control over durable goods, services, and property. She argued that individuals' own assessment of their level of financial well-being was the best estimate of this concept, but the acquisition of material resources was not an adequate measure of economic well-being. Bailey (1987) suggested that financial well-being of families be measured by the amount of consumer goods and services purchased by family income. He also pointed out that money income was not the only measure of the financial well-being of families nor was it the only method of obtaining goods and services. Thus it was important to take into account the total value of goods and services available from all sources.

Fergusson, Horwood, and Beutrais (1981) differentiated family economic well-being from material well-being. They argued that family economic well-being was a level of financial input received by a family and the transactions performed with this input. Family material well-being described only goods and services to which family members had access. Bauer, Danes, and Rettig (1990) viewed economic well-being of families as an interdependent element of overall well-being. They defined family economic well-being as the family's access to goods, services, and leisure.

Money income measured as gross, net, earned, or unearned was the most frequently used indicator of economic well-being (Bahr, Chadwick, & Stauss, 1975; Bianchi & Farley, 1979; Bradbury, Danziger, Smolensky, & Smolensky, 1979; Fergusson et al., 1981; Keith, 1985; Wilhelm, Iams, & Rudd, 1987). The dollar value of family assets, liabilities, and expenditures was also used to measure economic well-being (Fergusson et al., 1981; Wilhelm et al., 1987). Other indicators included the estimated dollar value of employee benefits, household production, public assistance, and interfamilly grants (Olson & Olson, 1986).

Researchers have used a variety of variables to measure individuals' perception of their economic situation, including satisfaction with overall economic condition, debt, savings, and income (Keith, 1985; Titus, Fanslow, & Hira, 1989; Wilhelm et al., 1987; Winter, Morris, & Rubio, 1988); perception of income adequacy (Fergusson et al., 1981; Keith, 1985; Wilhelm et al., 1987); and perception of change in financial condition between present, past, and future (Wilhelm et al., 1987; Winter et al., 1988).

Blankstein and Polivy (1982) defined self-control as an individual's influence over and regulation of his or her own psychological, behavioral, and physical processes. Their study showed that individuals who exercised self-control were able to regulate their own behaviors, emotions, actions, and desires by emitting responses to inhibit, maintain, or change behavior in a desired direction.

Rotter (1966) viewed individuals as having different abilities to control what happened to them. He introduced the term perceived locus of control to describe individuals' perception of their ability to control (and the extent to which they feel personally responsible for) what happened to them. Perceived locus of control had two dimensions: internal control and external control. Internal control referred to individuals' perception that events depended on their own behavior. External control referred to events such as luck, chance, and fate as being under the control of powerful others. According to Lefcourt (1976), perceived control was a generalized expectancy for internal instead of external control of reinforcement. Internal control was a perception of positive or negative events as consequences of one's own behavior and therefore under personal control. External control meant that events were unrelated to one's own behavior and therefore beyond personal control.

Researchers have developed devices for measuring locus of control. Rotter (1966) developed the well-known 23-item Rotter's I-E Scale on which the items were constructed to assess a general conception of locus of control. This scale focused on different goals, for example, achievement, social recognition, love, and affection. The James inter-
n-al-external locus of control scale consisted of 60 Likert-type items (Lefcourt, 1976). The 60 statements assessed the general concept of locus of control.

Newer assessment devices for measuring locus of control known as I (Internal), P (Powerful others), and C (Chance) Likert scales were presented by Levenson (1981). The I-P-C Likert scales were a reconceptualization of Rotter's I-E Scale and measured the extent to which people believed that they had control over their lives, depended on powerful others, and were powerless in the face of luck or of chance. Lefcourt (1976) concluded that individuals' perception of control significantly influenced the ways they encountered stresses. Ness and Williams (1991) used a family resource management model and an economic psychology perspective to conceptualize perceived locus of control as an intervening variable between demographic characteristics, management practices, and satisfaction with consumption. Demographic characteristics and management practices were considered as resources and activities of families that influenced the output (satisfaction) through the effect of locus of control. This study concluded that respondents who felt more in control of their lives were more satisfied with their consumption.

Danes, Retting, and Bauer (1991) conceptualized a causal model of the relationships among perceived income adequacy, perceived locus of control, and the intention to change financial situation. They found that locus of control mediated the effect of perceived income adequacy on intention to change. Respondents who perceived their income to be more adequate experienced more internal control over various aspects of their lives, and those with more internal control had higher intention to change their financial situation. Age was the only demographic variable that had a significant effect on locus of control and intention to change. Younger respondents perceived that they had more internal control and had higher intention to change their financial situation.

Danes (1991) examined causal relationships among selected demographic variables—locus of control, perceived gap between the standard and the level of living, and satisfaction with that gap. She found that respondents from larger households experienced less internal control over their lives, perceived a larger gap, and were less satisfied with that gap. Household size, off-farm employment, and income influenced satisfaction through the effect of locus of control. Respondents from larger households who worked off the farm and those with lower income were less satisfied with the gap because they experienced less internal control over their lives.

Furnham (1986) divided economic locus of control into four catego-

ries: (a) internal, which described perception of personal control over financial affairs; (b) chance, which concerned uncontrollable luck, or chance factor, which controlled financial affairs; (c) external-denial, which was related to the denial that poverty existed; and (d) powerful others, which referred to the power of others over one's economic position. He found that gender, age, and education were each significantly related to chance orientation, which indicated that females, older, and lower-educated respondents believed in uncontrolled luck.

Based on the previous work by Katona (1975), Van Raaij (1981), and Deacon and Firebaugh (1988), a theoretical framework for this study was developed. It was conceptualized that individuals' socioeconomic characteristics influence their perception of locus of control and income adequacy and satisfaction with their financial status. Furthermore, it was conceptualized that perceived locus of control and income adequacy influence satisfaction with financial status.

Methodology

The Data

The data for this study were obtained from the Regional Research Project NC-182, "Family Resource Utilization as a Factor in Determining Economic Well-Being of Rural Families." Eight states, Arizona, California, Illinois, Indiana, Iowa, Kansas, Michigan, and Minnesota, participated in this project. Two rural counties from each state were selected systematically by the following procedures: (a) rural counties were identified in which 20% or more of employed persons were involved in agriculture, livestock, forestry, mining, and/or fishing; (b) these counties were ranked by changes in per capita income (ranging from the greatest to the smallest change) from 1975 to 1985 and then placed in quartiles; (c) one county from the bottom quartile and one from the top quartile were randomly selected. Households in each county were identified through the use of a commercial mailing list from a large direct marketing corporation and were randomly selected. Data were randomly collected through a mail survey during the spring of 1988. The total sample consisted of 2,510 households from 16 counties, in which 52% of the total households were from the bottom quartile and 48% were from the top quartile. Response rates for individual states ranged from 30.2% to 56.3% with an overall response rate of 36.3%.

Independent Variables

Independent variables included money managers' gender, age, employment status, household income, and household net worth. The gender of the money manager was coded 1 for males and 0 for females. Age of the money manager was the age in years at the time of the interview. Age reflects an individual's
experience and maturity, which influences development of personal characteristics. Individuals' attitudes and behavior are related closely to their age. Employment status was defined as the respondents' participation in the labor force. The variable was coded 1 for employed or self-employed, otherwise was 0. Employment status describes an individual's activity in the market where he or she earns a living. An absence from market activity means the loss of an important source of earned income.

Household income was defined as the dollar amount of the money manager's household income after taxes from all sources for each year. Income is a major financial resource used to achieve a family's various needs. An insufficient income might limit a family's ability to attain some of its goals. Income has been frequently used as an indicator of economic well-being (Ferguson et al., 1981; Keith, 1965; Wilhelm et al., 1987).

Household net worth was measured by subtracting household debts from household assets. Net worth represented major net material assets owned by a family that can be an important source for future use. Household debt was assessed by asking the respondents to indicate one of the 15 level-of-debt categories ranging from no debt = 1 to $100,000 or more = 15. Household assets were measured by asking the respondents to select one of the 15 level-of-asset categories ranging from $0--$999 = 1 to $200,000 or more = 15. Because both household debts and household assets were measured in categorical variables, household net worth cannot be measured directly by subtracting the categorical debt variable from the categorical asset variable. To compute the household net worth, the household debts and assets were estimated by transforming the categorical measurements into continuous measurements. A statistical method for estimating the mean values of categorical variables was developed by Snedecor and Cochran (1989) and Neter, Wasserman, and Whitmore (1979). This method used an approximation of the class midpoints—the average of the two class limits for estimating the continuous values of each observation. This approximation assumed that the values of observations in a class were evenly distributed throughout the class.

These categorical variables were transformed into continuous variables by using methods adapted from Snedecor and Cochran (1990). Suppose an individual was in the asset value category of $1,000--$1,999. The absolute asset value was estimated by the following formula:

\[
\text{Asset value} = 1,000 + ((\text{random number}) \times (1,000--1,999))
\]

Because it was assumed that the asset value in each category was normally distributed, each respondent was assigned a different random number ranging from 0 to 1 calculated by the SPSS (1988) program. By assigning the random number ranging between 0 and 1 to the above formula, the estimated value of the assets in that category would be between $1,000 and $1,999 or within the bottom and upper limits of the specified category. A similar formula was applied to different individuals with different asset and debt categories. The dollar value of household net worth was estimated by subtracting the approximate dollar amount of debts from the approximate dollar amount of assets.

The data did not specify the upper limit for the last and highest categories of debts and assets. For the purpose of estimating debts and assets by using the above formula, the ranges before the last category were assigned to the highest category. Consequently, the asset and debt estimates for the highest category would not be as accurate as the estimation for the lower categories.

Dependent Variables

Perceived locus of control. Eight items were used to assess perceived locus of control variables:

1. When I make plans, I am almost certain that I can make them work.
2. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad luck.
3. Many times I feel that I have little influence over the things that happen to me.
4. What happens to me is my own doing.
5. My financial situation depends on my control of the situation.
6. It is impossible for me to believe that chance or luck plays an important role in my life.
7. Sometimes I feel that I don't have enough control over the direction my life is taking.
8. Sometimes I feel that I don't have enough control over the family income.

Respondents were asked to indicate the extent to which they agreed or disagreed with each of the above statements. The response categories were ranked on a scale ranging from strongly disagree = 1 to strongly agree = 5. The statements were adapted from Rotter's Locus of Control Scale (known as Rotter's I-E Scale). In Rotter's Scale, these statements were presented as a forced choice format. The respondents were asked to select four of the eight statements that they believed best represented their opinions. Four statements represented internal control (i.e., numbers 1, 4, 5, 6); thus, when the respondents chose these four statements, they acknowledged having strong internal control. The other four statements represented external control in which the respondents perceived that they had little influence on their behavior. The assessment of perceived control for this study was designed to differ from Rotter's I-E Scale. By using a Likert scale format instead of a forced choice format, this study allowed respondents to answer all statements by indicating scores for each statement. Thus respondents could measure the degree to which they felt they had control over what happened.

Unfortunately, this new method of assessment created a problem. Higher scores for each statement did not give the same meaning. "strongly agree" for the first statement meant that the respondent had strong internal control, whereas "strongly agree" for the second statement meant that one felt external factors had strong control on one's situation. To overcome this problem, statement numbers 2, 3, 7, and 8 were recoded as follows: (5 = 1) (4 = 2) (2 = 4) (1 = 5). In this way all variables were made consistent in direction.

Based on the results of factor analysis, four of these eight statements were
selected to represent the best index of perceived locus of control. This index consisted of items numbered 2, 3, 7, and 8 and had the coefficient of reliability alpha of 0.75.

Perceived income adequacy. Perceived income adequacy was assessed by asking respondents to indicate the extent to which they thought their income was enough to live on. The response categories were ranked on a scale ranging from not at all adequate = 1 to can afford about everything and still save money = 5.

Satisfaction with financial status. Satisfaction with financial status was measured on the basis of respondents' satisfaction with four specific aspects of their financial situations: (a) current total family income; (b) material items (food, clothing, housing, transportation); (c) resources available to meet a financial emergency; and (d) net worth (viz., all assets minus all debts). Responses were measured on a 5-point Likert-type scale ranging from very dissatisfied = 1 to very satisfied = 5. The four satisfaction variables were summed to form an index with a coefficient reliability alpha of 0.88.

Hypotheses

H1: Socioeconomic characteristics (viz., gender, age, employment status, household income, and household net worth) directly influence perceived locus of control.

H2: Socioeconomic characteristics and perceived locus of control directly influence perceived income adequacy. Socioeconomic characteristics also influence perceived income adequacy indirectly through perceived locus of control.

H3: Socioeconomic characteristics, perceived locus of control, and perceived income adequacy directly influence satisfaction with financial status. Furthermore, socioeconomic characteristics affect satisfaction with financial status indirectly through perceived locus of control and perceived income adequacy. Perceived locus of control also affects satisfaction with financial status indirectly through perceived income adequacy.

Statistical Analysis

Pearson correlation analysis was used to examine a bivariate relationship between two variables and to detect the presence of multicollinearity between variables that might influence further analysis. Factor analysis was used to determine a number of variables that can represent the best index of perceived locus of control. Agresti and Finlay (1986) pointed out that one of the purposes of factor analysis was to reduce a large number of variables to a smaller number of statistically independent variables. Factor analysis identifies the underlying dimension or factors that can explain sources of perceived control variable. A reliability test was performed for a dependent variable (viz., satisfaction with financial status) and an intervening variable (viz., perceived locus of control).

Path analysis was performed to investigate the hypothesized relationships. Gender, age, employment status, household income, and household net worth are called independent variables. Perceived locus of control and perceived income adequacy are called intervening variables because they occur in sequence between variables, they are dependent on some other variables, but they are, in turn, causes of other dependent variables. Satisfaction with financial status is called a dependent variable. The independent variables affect perceived locus of control. In turn, both independent variables and perceived locus of control affect perceived income adequacy. Finally, independent variables—perceived locus of control and perceived income adequacy—influence satisfaction with financial status.

One of the goals of path analysis is to provide estimates and directions of each path in the model. These estimates can be obtained from ordinary least square regression. Path analysis consists of several multiple regression equations constructed to test causal relationships among dependent variables and a set of independent variables. According to Agresti and Finlay (1986), the standardized regression coefficients (i.e., beta) represent path coefficients that show both the relative strength of association between variables and the sign of the influence, controlling for other variables in sequence.

Path analysis also enables researchers to decompose the total effects of independent variables into direct and indirect effects (Agresti & Finlay, 1986). According to Alwin and Hauser (1981, p. 125), a total effect tells us how much change in a consequent variable is induced by a given shift in an antecedent variable, irrespective of the mechanisms by which the change may occur. Indirect effects are those parts of a variable's total effect that are transmitted or mediated by variables specified as intervening between the cause and effect of interest in a model. The direct effect of one variable on another is simply that part of its total effect that is not transmitted via intervening variables. It is the effect that remains when intervening variables have been held constant. A method developed by Alwin and Hauser (1981) was used to decompose the total effects of independent variables into direct and indirect effects.

Results

Descriptive Statistics

Sociodemographic characteristics. Descriptive statistics for all variables are presented in Table 1. About 52% of money managers were males and 48% were females. The median and mean ages of money managers were 53 years. Approximately 60% of money managers were employed. The mean of annual household income was $26,613 and the median was $22,569. The mean of household net worth was $23,438 with a median of $9,027. The mean and median of household
TABLE 1
Descriptive Statistics of Variables, N = 2,510

<table>
<thead>
<tr>
<th>Variables</th>
<th>Percent</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>52.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>48.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>52.60</td>
<td>18.50</td>
<td>53.00</td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>60.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonemployed</td>
<td>40.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household income</td>
<td></td>
<td>$26,613.00</td>
<td>19,437.00</td>
<td>$22,569.00</td>
</tr>
<tr>
<td>Household net worth</td>
<td></td>
<td>$23,438.23</td>
<td>53,504.47</td>
<td>$9,027.48</td>
</tr>
<tr>
<td>Household assets</td>
<td></td>
<td>$38,429.40</td>
<td>53,362.97</td>
<td>$18,527.79</td>
</tr>
<tr>
<td>Household debts</td>
<td></td>
<td>$15,238.46</td>
<td>22,462.11</td>
<td>$5,686.42</td>
</tr>
<tr>
<td>Dependent variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived locus of control</td>
<td>11.00</td>
<td>0.06</td>
<td>11.00</td>
<td></td>
</tr>
<tr>
<td>Perceived income adequacy</td>
<td>3.00</td>
<td>0.02</td>
<td>3.00</td>
<td></td>
</tr>
<tr>
<td>Satisfaction with financial status</td>
<td>13.20</td>
<td>0.08</td>
<td>14.00</td>
<td></td>
</tr>
</tbody>
</table>

assets were $38,429 and $18,527, respectively. The mean and median of household debts were $15,238 and $5,686, respectively.

Perceived locus of control. The average score for the perceived locus of control index was 11.0 (i.e., between strongly disagree and mixed). The median score for the index was also 11.0, which indicated that 50% of the money managers perceived they had control over their situation and the remaining 50% perceived that external events influenced their situation.

Perceived income adequacy. The mean score of perceived income adequacy was 3.0, which indicated that money managers perceived that they could afford few of the things that they wanted. The median score was also 3.0, which indicated that 50% of the money managers perceived their income to be more than adequate and the remaining 50% perceived their income to be less than adequate.

Satisfaction with financial status. The average score of satisfaction index was 13.2 (i.e., between mixed feelings and satisfied). The median score was 14.0, which indicated that 50% of money managers were very satisfied with their financial status and the remaining 50% were very dissatisfied or dissatisfied.

TABLE 2
Correlation Matrix among All Variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Age</td>
<td>0.032</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Employment status</td>
<td>0.147**</td>
<td>—</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Household income</td>
<td>0.144**</td>
<td>0.104**</td>
<td>0.248**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Household net worth</td>
<td>0.087**</td>
<td>0.260**</td>
<td>0.107**</td>
<td>0.296**</td>
<td>—</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Perceived locus of control</td>
<td>0.028</td>
<td>0.038</td>
<td>0.041*</td>
<td>0.217**</td>
<td>0.151**</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>7. Perceived income adequacy</td>
<td>0.116**</td>
<td>0.172**</td>
<td>0.019</td>
<td>0.384**</td>
<td>0.281**</td>
<td>0.330**</td>
<td>—</td>
</tr>
<tr>
<td>8. Satisfaction with financial status</td>
<td>0.019</td>
<td>0.333**</td>
<td>0.189**</td>
<td>0.176**</td>
<td>0.241**</td>
<td>0.352**</td>
<td>0.352**</td>
</tr>
</tbody>
</table>

*p<.05, two-tailed. **p<.01, two-tailed.
internal control, perceived their income to be more adequate, and were more satisfied with their financial status.

Perceived locus of control and income adequacy were positively related to satisfaction with financial status. Money managers who perceived that they had more internal control and perceived their income to be more adequate were more satisfied with their financial status.

**Path Analysis**

Table 3 presents three models of regression analyses predicting perceived locus of control, perceived income adequacy, and satisfaction with financial status. The first model described the direct effects as well as the total effects of socioeconomic variables on perceived locus of control. The second model described the direct effects of socioeconomic variables and perceived locus of control on perceived income adequacy. The third model described the direct effects of socioeconomic variables, perceived locus of control, and perceived income adequacy on satisfaction with financial status. All coefficients in the models represent the standardized betas.

**Predictors of perceived locus of control.** The first model in Table 3 was the regression analysis of perceived locus of control on all socioeconomic variables. The $R^2$ of the equation was 0.08, which indicated that approximately 8% of the variance in the perceived locus of control index was explained by all socioeconomic variables. Gender and age did not have significant effects on perceived locus of control. Controlling for other variables, males and females did not differ in their perceived locus of control. Furthermore, no difference in sense of control existed among respondents of different ages. These results were contrary to findings reported by Danes et al. (1991). In their study, age was the only sociodemographic variable that had a significant effect on perceived locus of control.

Employment status, household income, and household net worth had significant and positive influences on perceived locus of control. Controlling for other variables, employed money managers, those with higher household income, and those with higher household net worth perceived that they had more internal control over various aspects of their lives than those who were unemployed, had lower household income, and had lower household net worth. Danes (1991) similarly reported that income and type of employment were significantly associated with perceived locus of control.

**Predictors of perceived income adequacy.** The second model in Table 3 was the regression analysis of perceived income adequacy on socioeconomic variables and perceived locus of control. Approximately 28% of the variance in perceived income adequacy was explained by socioeconomic variables and perceived locus of control.

Gender and age were statistically significant in predicting perceived income adequacy. Controlling for other variables, male money managers perceived their income to be more adequate than did female money managers; the older the money managers, the more adequate they perceived their income to be. Employment status was not significantly related to perceived income adequacy, which indicated that controlling for other variables, employed and unemployed money managers did not differ in their perceptions of income adequacy. This finding might reflect the situation of respondents who were retired and had adequate household income.

Household income, household net worth, and perceived locus of control were significantly and positively related to perceived income adequacy. Respondents with higher household income perceived their income to be more adequate; those with higher household net worth also perceived their income to be more adequate. Respondents who perceived more internal control over various aspects of their lives per-
ceived their income to be more adequate than those who perceived external events controlling their situation. Similar findings were reported by Danes et al. (1991), Deressa (1987), and Williams, Nall, and Deck (1976).

Predictors of satisfaction with financial status. The third model in Table 3 was the regression analysis of satisfaction with financial status on socioeconomic variables, perceived locus of control, and perceived income adequacy. About 43% of the variance in the satisfaction index was determined by its predictors.

Gender was not statistically related to satisfaction with financial status, which indicated that controlling for other variables, male and female money managers did not differ in their level of satisfaction with their financial status. Age was significantly and positively related to satisfaction with financial status. The older the money managers, the more satisfied they were with their financial status. Employment status had a significant negative effect, indicating that employed money managers were less satisfied with their financial status than unemployed ones. This might be because employed money managers were not satisfied with the amount of income they earned and with the amount of their net worth and, as a result, were less satisfied with their financial status.

Household income, household net worth, perceived locus of control, and perceived income adequacy were significant and positive predictors of satisfaction with financial status. The higher the household income, the more satisfied the money managers were with their financial status; likewise, the higher the household net worth, the more satisfied the money managers were with their financial status. Controlling for other variables, the more internal control the money managers perceived and the more adequate they perceived their income to be, the more satisfied they were with their financial status. Danes (1991) and Ness and Williams (1991) reported similar findings.

The beta coefficients in the path diagram showed both the strength of the relationship between variables and the signs of the influences. Based on the beta coefficients, the first strongest predictor of satisfaction with financial status was perceived income adequacy (beta = 0.460), and the second strongest predictor was perceived locus of control (beta = 0.184) (Table 3). This finding indicated that satisfaction with financial status was mostly influenced by perceived income adequacy and perceived locus of control, which served as intervening variables, than by socioeconomic variables. Furthermore, perceived income adequacy appeared to be a stronger predictor than perceived locus of control. Conceptually, satisfaction with financial status is closely related to perceived income adequacy because both variables measure the subjective feeling of financial situation. Satisfaction with financial status measured respondents' satisfaction with various aspects of their financial situation, including satisfaction with income. Perceived income adequacy measured respondents' feeling about the adequacy of their income.

The R² of the third model was 0.43, which indicated that 43% of the variation in satisfaction with financial status was explained by socioeconomic and intervening variables. Approximately 57% of the variation in satisfaction with financial status was unexplained in the model. The regression equation included only four socioeconomic variables as predictors of satisfaction with financial status. Perhaps some other socioeconomic variables can explain satisfaction. Education, marital status, and household size are among the variables that were not included in the model. Therefore, some portion of the variation in satisfaction remained unexplained.

Indirect effects of socioeconomic variables. The standardized coefficients in Table 3 represented the direct effects of the explanatory variables on the dependent variables. Further to examine perceived locus of control and perceived income adequacy as intervening variables in the model, total, direct, and indirect effects of the predictors were calculated and are presented in Table 4.

Household income and household net worth were significant predictors of perceived locus of control, perceived income adequacy, and satisfaction with financial status. Furthermore, both perceived locus of control and perceived income adequacy were significantly related to satisfaction with financial status. These conditions met the criteria established by Rosenberg (1968) to examine the indirect effects of household income and household net worth on satisfaction through the effects of perceived locus of control and perceived income adequacy. The indirect effects of gender, age, and employment status on satisfaction through perceived locus of control and perceived income adequacy could not be examined according to Rosenberg's method because they did not have significant influences on both intervening and dependent variables.

Household income had a total effect of 0.266 on satisfaction with financial status (Table 4). It had an indirect effect of 0.149 (58%) through perceived income adequacy and of 0.053 (20%) through per-
TABLE 4

<table>
<thead>
<tr>
<th>Total effects</th>
<th>Direct effects</th>
<th>Indirect via adequacy</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent variable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived locus of control</td>
<td>-0.020</td>
<td>0.035</td>
<td>0.033</td>
</tr>
<tr>
<td>Perceived income adequacy</td>
<td>0.062</td>
<td>0.069</td>
<td>0.073</td>
</tr>
<tr>
<td>Satisfactory with financial status</td>
<td>0.076</td>
<td>0.070</td>
<td>0.082</td>
</tr>
</tbody>
</table>

Note: Indirect effects are parts of a variable's total effect which are mediated by an intervening variable. The direct effects are obtained by subtracting the indirect effects from the total effects which are not mediated by the intervening variables. The indirect effects are usually obtained by subtracting the direct effects from the total effects which are not mediated by the intervening variables. The results show that gender, age, household income and net worth, and perceived locus of control have significant direct effects on perceived income adequacy. The results also show that a small proportion of gender, age, household income, and household net worth's total effects are transmitted via the effect of perceived locus of control.

Summary and Conclusions

The objective of this study is to investigate the relationships among three socioeconomic variables—perceived locus of control, perceived income adequacy, and satisfaction with financial status. Path analysis is used to test the hypothesized relationships. The first hypothesis states that socioeconomic variables influence perceived locus of control. Empirical analysis shows that employment status, household income, and net worth are statistically significant in explaining perceived locus of control, whereas gender and age do not have significant influences.

The second hypothesis states that socioeconomic variables and perceived locus of control affect perceived income adequacy directly. The results show that gender, age, household income and net worth, and perceived locus of control have significant direct effects on perceived income adequacy. The results also show that a small proportion of gender, age, household income, and household net worth's total effects are transmitted via the effect of perceived locus of control.

The third hypothesis states that two socioeconomic variables, perceived locus of control and perceived income adequacy, directly influence satisfaction with financial status. The results show that age, household income, household net worth, perceived locus of control, and perceived income adequacy have significant positive influences on satisfaction with financial status. Employment status shows a significant but negative relationship with satisfaction with financial status, whereas gender is not significantly related. An analysis of direct and indirect effects shows that only household income and household net worth have significant direct and indirect effects on satisfaction. Perceived locus of control also had a significant indirect
effect through perceived income adequacy. A larger proportion of the total effects of household income and household net worth is mediated by perceived income adequacy than by perceived locus of control. Perceived income adequacy appears to be a stronger intervening variable than perceived locus of control.

The strongest predictor of satisfaction with financial status is perceived income adequacy, followed by perceived locus of control. Therefore, satisfaction with financial status is influenced much more by how financial managers perceive their income adequacy and control over various aspects of their lives than by the amount of their household income and net worth. Income and net worth are important factors used to achieve financial well-being, but the subjective perception of these financial resources is equally crucial in determining subjective well-being.

Financial managers with the same financial resources may have different perceptions about the adequacy of their resources to support their well-being. Those who perceive their resources to be adequate may adjust their standard of living to match their perceived resources and therefore feel satisfied with their financial status.

These findings provide useful information for financial counselors and educators who develop programs and courses to help families feel more satisfied with financial status. Financial counselors and educators should emphasize and clarify the importance of perceptions of the adequacy of financial resources in their courses and programs because individuals' perception of their financial resources will determine how satisfied they are with their financial status.

As financial managers perceive that they have more control over various aspects of their lives, they see themselves as major decision makers in determining the direction of their lives. They will have strong motivation to develop a better managerial process to achieve their financial well-being because they feel responsible for their own well-being. Therefore, the more control they perceive, the more satisfied they are with their financial status. Counselors and educators should emphasize the importance of perception of control in their courses and programs because it is an important determinant of satisfaction with financial status. Clients should be encouraged to learn methods and skills that may increase their sense of control over various aspects of their lives or at least over financial aspects.

Perception of income adequacy in this study is measured by the subjective feelings of the respondents. Future studies may explore development of an objective measure of income adequacy and may inclu
de other socioeconomic variables such as education, marital status, and household size to predict level of satisfaction with financial status.

References


