# Developing a Model for the Determinants of Financial Satisfaction: An Exploratory Study

A model for understanding the determinants of financial satisfaction that can be used in helping improve consumers' quality of life is presented in this paper. Using a random sample of white-collar clerical workers, this study proposed an exploratory model for the determinants of financial satisfaction. Indirect as well as direct effects on financial satisfaction have been identified using path analysis. Implications and recommendations for consumer and family economists are drawn from the findings.

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Over the past 20 years a great deal of theoretical work has been devoted to the conceptualization and measurement of personal financial well-being, which is defined to include an individual's satisfaction with their present financial situation. Researchers such as Hayhoe (1990), Porter and Garman (1993), Strumpel (1976), and Wilhelm and Varcoe (1991) have suggested that a model to explain and predict personal financial satisfaction is needed within the broad context of consumer and family economics. Researchers and educators have argued that a conceptual model of the determinants of financial satisfaction is needed because it is becoming increasingly difficult to fulfill the mission of the consumer sciences profession, namely, the enhancement of the quality of life of individuals and families within society, without a better understanding of the factors that influence financial satisfaction.

For instance, Porter and Garman (1993) documented a need for a conceptual model that could be used to guide research within the domain of financial satisfaction. They suggested that such a model be multidimensional by including objective, subjective, and reference-point measures. Porter and Garman also pointed out that such a model had yet to be concurrently developed and accepted by researchers in the field. Little has changed since this insight was originally documented.

The purpose of this paper is to present the findings of an exploratory study that was designed to identify the determinants of financial satisfaction. An exploratory model of financial satisfaction is presented. It is hoped that the model presented in this paper will lead to a better understanding of the relationships between and among determinants of financial satisfaction of individuals.

## Review of Literature

The terms financial well-being and financial satisfaction are often used interchangeably (Joo, 1998). Williams (1983) theorized well-being as a function of material and non-material aspects of one's financial situation, including objective and subjective measures. In general, financial satisfaction includes contentment with one's material (objective) and non-material (subjective) financial situation.

Over the past two decades consumer and family sciences researchers have attempted to model the determinants of financial satisfaction using diverse research methods (e.g., Hayhoe, 1990; Joo, 1998; Porter & Garman, 1993; Wilhelm & Varcoe, 1991; Williams, 1993). However, few attempts to examine the determinants of financial satisfaction have incorporated objective, subjective, and behavioral measures into a single empirical test of individual financial satisfaction. Specifically, previous financial satisfaction research has failed to take into account objective scales of economic status, subjective perceptions of personal finance, behavioral assessments of personal financial management, overall satisfaction with a particular financial situation, and financial solvency within a single model.

## Theoretical Determinants of Financial Satisfaction

A number of factors have been found to influence financial satisfaction. Among the most common factors are demographic characteristics, such as gender, marital status, education, ethnicity, age, income, and home

ownership (Joo, 1998; O'Neill, 1995; Porter & Garman, 1993). For example, it has been confirmed that financial satisfaction is positively related to income, education, and age. Financial stressors also are commonly assumed to influence financial satisfaction. Financial stressors are generally defined as life events that impact a family unit which produce changes in a family social system (McCubbin & Patterson, 1983).

Financial behaviors can also affect financial satisfaction. Personal financial solvency also has been used to assess financial satisfaction (e.g., DeVaney & Lytton, 1995; Joo, 1998). Additionally, researchers have argued that financial attitudes and knowledge play an important role in determining a person's financial satisfaction (Joo, 1998; Porter & Garman, 1993). Grable and Lytton (1998) and Sung and Hanna (1996) concluded that there appears to be a common psychological profile among risk tolerant individuals and those with more financial knowledge that allows them to make different financial decisions, which often lead to greater attained levels of financial satisfaction.

While the literature suggests that demographics, financial behaviors, financial solvency, financial risk tolerance, financial knowledge, financial stressors, overall stress levels, and financial stress levels impact on financial satisfaction, results from previous studies have not been consistent in their findings. Much of the past inconsistency appears to be the result of misspecification of measurements and the assumption that each determinant factor has a direct influence on financial satisfaction (e.g., see Porter & Garman, 1993). This assumption may, in fact, be incorrect. Joo (1998) suggested that in many cases demographics, financial stressors, and financial behaviors, have an indirect effect on financial satisfaction which has not been tested for in previous studies.

## Model

It is reasonable to hypothesize that indirect effects, as well as direct effects, on financial satisfaction may exist. The exploratory model (figure 1) shows that demographic characteristics such as, age, education, income, ethnicity, home ownership, number of financial dependents, marital status, and gender directly affect financial satisfaction. Financial stressors, financial knowledge, financial behavior, risk tolerance, objective economic status, such as financial solvency, and the level of financial stress also have direct effects on financial satisfaction.

Additional indirect effects also exist. For example, financial stress can be affected by financial stressors, demographic variables, financial knowledge, financial behavior, and financial solvency. It is logical to assume that individuals who experience many financially stressful events may also have higher levels of financial stress. Similarly, certain demographic variables, such as the number of financial dependents, marital status, and income can have an impact on financial stress levels. A person's economic condition, measured by a solvency ratio, financial knowledge, and financial behaviors can also be assumed to have impacts on financial stress levels. Therefore, the indirect effects of demographic characteristics, financial stressors, financial knowledge, financial behavior, and financial solvency, through a financial stress level, on financial satisfaction, are presented in the exploratory model.

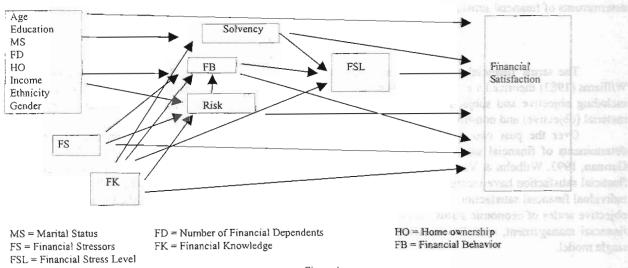


Figure 1
The Determinants of Financial Satisfaction

Financial risk tolerance is another factor that can be affected by demographic characteristics, financial stressors, and financial knowledge. Financial solvency can be affected by demographic characteristics and financial stressors. Financial behavior can be affected by demographic characteristics, financial stressors, financial knowledge, and risk tolerance.

The exploratory model (Figure 1) incorporates all of the direct effects from demographic characteristics, financial stressors, financial knowledge, financial solvency, risk tolerance, financial behavior, and financial stress levels, and all of the possible indirect effects of these variables. Thus, the determinants of financial satisfaction can be more fully understood by taking into account these direct and indirect effects.

## Methodology

A survey was undertaken in order to examine the robustness of the exploratory model by testing the determinants of financial satisfaction. A mail survey (N=500) of white-collar clerical workers was conducted during September and October of 1998. The sample was drawn from an employee directory. Clerical workers were delimited to the workers who held a job title as secretary, business manager, administrative assistant, technician, accounting clerk, clerical specialist, or administrative secretary. From the random sample, the first 143 questionnaires were analyzed for this exploratory study.

### Data Analysis

An analysis was conducted using SPSS for Windows. Correlation and path analysis were used to test the determinants of financial satisfaction. Path analysis was used because the model specifies indirect as well as direct effects of independent variables on the dependent variable.

## Dependent Variable

Respondents' satisfaction with their personal financial situation was measured with a 10-point-stair-step question. Respondents were asked to mark how satisfied they were with their present financial situation. Those who were not satisfied ended up towards the lower steps, while those who were more satisfied tended towards the higher steps. Over one-half of the respondents (58.0%) reported their satisfaction as 1 to 4 (below the average level). About two-tenths (20.2%) reported about the average (steps 5 and 6), while the remainder (21.7%) reported high levels of satisfaction (steps 7, 8, 9, and 10).

## Independent Variables

A total of eight demographic variables were examined. Age and number of financial dependents were measured as continuous variables. Household income was measured categorically but considered as interval. In the analysis, gender, marital status, education ethnicity, and home ownership were dummy coded. Respondents were coded 1, if the respondent was female, married, white, had above bachelor's degree, or home owner.

Other independent variables included financial knowledge, financial stressors, financial stress level, risk tolerance, financial behavior, and financial solvency. Respondent's self assessed financial knowledge level was examined by asking "how would you rate your financial knowledge level?" More than one-third (36.4%) of the respondents rated their financial knowledge level above average, 35.7% rated themselves as about the average, and 28% rated themselves as below average.

Respondents were also asked about the number of financially stressful events that they experienced during the past year. Approximately one-tenth (10.5%) of the respondents had not experienced a financially stressful event. Among the remaining 128 respondents, about three-tenths (28.9%) of the respondents experienced two financial stressors, and about one-quarter (26.6%) experienced one financial stressor. The average number of financial stressors for respondents who experienced a financial stressor was 2.74. The overall financial stress level of respondents was measured with one 10-point Likert-type question. About one-third (32.3%) reported medium levels of financial stress, about one-quarter (25.9%) reported low levels of financial stress, and 42.0% of the respondents indicated that their financial stress level was above average.

Respondents' risk tolerance was measure with six 4-point Likert-type questions. An index, based on these items, was found to be reliable (Cronbach alpha = .77). Possible risk tolerance scores ranged from 6 to 24 (with higher scores representing higher levels of financial risk tolerance). The average risk tolerance score was 12.9.

Respondents' financial behavior was examined using ten 4-point Likert-type questions used by Joo (1998). The index, based on these items, was reliable (Cronbach alpha = .83). The average financial behavior score for

respondents was 27.3. A question was adopted from previous research (Joo, 1998; Porter & Garman, 1993) to measure financial solvency. Financial solvency levels were measured by asking "Suppose you were to sell all of your major possessions, turn all of your investments and other assets into cash, and pay all of your debts. Would you be in debt, break even, or have something left over?" Respondents who would be in serious debt marked 1 and respondents who would have money left over marked 5. More than one-tenths (16.8%) of the respondents reported that they would be in debt and about two-tenths (23.1%) reported they would break even. The majority of the respondents (60.1%) reported that they would have money left over.

## Demographic Characteristics of the Respondents

The majority of the respondents were female (89.5%), while 10.5% of the respondents were male. The mean age was 43 years old. The majority of the respondents (83.9%) had a beyond high school education (e.g., trade, vocational training, associates', some college, bachelors, and graduate). The majority of the respondents (83.0%) had household income of less than \$50,000. The average income was \$35,000. About two-thirds (66.4%) were married. About three-quarters (77.6%) were white, while Hispanic, and African American made up most of the remainder (22.4%). The average number of financial dependents was 2.63. And finally, over two-thirds (69.2%) were home owners. The sample was representative of U.S. white-collar clerical workers (U.S. Department of Commerce, 1992)

#### Results and Discussion

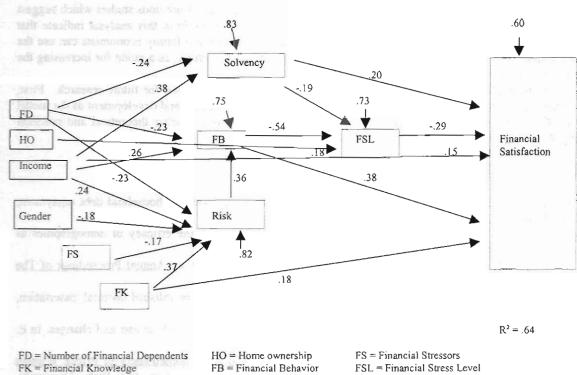
Correlations were examined to check for possible multicollinearity problems among the independent variables. No such problems were identified. Results of the path analysis are shown in Figure 2. Income, financial knowledge, financial solvency, financial behavior, and financial stress levels were shown to have direct effects on financial satisfaction. Higher levels of income, financial knowledge, solvency, and financial behaviors lead to higher levels of financial satisfaction. Financial stress levels and financial satisfaction had a direct negative relationship. Financial stress levels were influenced by home ownership, the financial solvency, and financial behaviors. Financial behaviors were influenced by the number of financial dependents, income, and risk tolerance. The solvency ratio was influenced by the number of financial dependents and home ownership. Finally, risk tolerance was influenced by the number of financial dependents, home ownership, income, gender, and financial knowledge. The path analysis indicated indirect effects from home ownership, the number of financial dependents, gender, and risk tolerance on financial satisfaction. No effect was found from age, education, marital status, or ethnicity.

The summary of direct, indirect, and total effects is presented in Table 1. As shown in Table 1, the single most powerful determinant of financial satisfaction was an individual's financial behavior. Financial practices exhibited by individuals (e.g., cash management, credit management, budgeting, financial planning, and general money management) had the largest impact when determining an individual's financial satisfaction level. This finding suggests that those who exhibit desirable financial behaviors tend to be more satisfied with their personal financial situation. This indicates that if educators, researchers, and practitioners can help to improve a person's financial behaviors, this may lead to higher levels of financial satisfaction.

The second most powerful determinant of financial satisfaction was household income. However, note that the indirect effect was higher than the direct effect. This result supports the general consensus among financial counselors that "money cannot buy well-being." In other words, income, by itself, is not as powerful of a determinant as a person's financial behaviors, stress, knowledge, financial solvency, or other attitudes. Income only becomes a powerful determinant of financial satisfaction when the indirect effects are accounted for through other significant variables.

Financial stress level was the third most powerful determinant. The direct impact of financial stress level outweighed the direct effect of income. The strong relationship between financial stress level and satisfaction is an anticipated outcome of this research. For example, those who experienced higher levels of financial stress tended to be less satisfied with their personal financial situation than others.

Other important determinants of financial satisfaction included: (a) financial knowledge, (b) financial solvency, (c) the number of financial dependents, (d) risk tolerance, (e) home ownership, (f) gender, and (g) financial stressors. As theory would suggest, financial knowledge, financial solvency, risk tolerance, and home ownership had positive effects on financial satisfaction. The number of financial dependents and financial stressors had negative effects on financial satisfaction.



FK = Financial Knowledge FB = Financial Behavior FSL = Financial Stress Lev
Figure 2

Table 1

<u>Direct. Indirect, and Total Effects of the Independent Variables on Financial Satisfaction.</u>

Variables	Direct Effects	Indirect Effects	Total Effects
Age	0	0	0
Education	0	0	0
Gender	0	04	04
Home Ownership	0	.05	.05
Income	.15	.19	.34
Marital Status	0	0	0
Financial Dependents	0	23	23
Ethnicity	0	0	0
Financial Stressors	0	03	03
Financial Stress Level	29	0	29
Financial Knowledge	.18	.07	.25
Solvency Measure	.20	.05	.25
Risk Tolerance	0	.20	.20
Financial Behavior	.39	.16	.55

## Implications and Recommendations

Path Analysis Results of the Determinants of Financial Satisfaction

This research revealed an exploratory path model of the determinants of financial satisfaction. Using the proposed path model, researchers can identify factors that impact on personal financial satisfaction. Research results led to the identification of indirect effects as well as direct effects on personal financial satisfaction. Determining factors that impact on personal financial satisfaction included financial behaviors, income, financial stress level, financial knowledge, financial solvency, the number of financial dependents, risk tolerance, home ownership, gender, and financial stressors. Variables that were not significant determinants included: age, education, marital

status, and ethnicity. This finding is significantly different from results presented in previous studies which suggest that demographics have a direct effect on financial satisfaction, whereas results from this analysis indicate that demographics most likely influence financial satisfaction indirectly. Consumer and family economists can use the findings of this exploratory study, especially the empirically tested model in Figure 2, as a guide for increasing the financial satisfaction of their constituencies.

Based on the exploratory nature of this study, the following is recommended for future research. First, replications of the study using different samples are needed. Second, further critique and development of the model is encouraged. Only in this way, can consumer and family economists obtain a better theoretical and practical understanding of the determinants of financial satisfaction.

#### References

DeVaney, S. A., & Lytton, R. T. (1995). Household insolvency: A review of household debt repayment, delinquency and bankruptcy. <u>Financial Services Review</u>, 4, 137-156.

Grable, J. E., & Lytton, R. H. (1998). Investor risk tolerance: Testing the efficacy of demographics as differentiating and classifying factors. Financial Counseling and Planning, 9, 61-73.

Hayhoe, C. R. (1990). Theoretical model of perceived economic well-being. <u>Annual Proceedings of The Association for Financial Counseling and Planning Education</u>, 116-141.

Joo, S. (1998). <u>Personal financial wellness and worker job productivity</u>. Unpublished doctoral dissertation, Virginia Polytechnic Institute and State University, Blacksburg.

McCubbin, H. I., & Patterson, J. M. (1983). Stress: The family inventory of life events and changes. In E. E. Filsinger (Ed.), Marriage and family assessment, Beverly Hills, CA: Sage.

O'Neill, B. (1995). <u>Characteristics and practices of financially-stressed homeowners in Prince William County</u>, <u>Virginia</u>. Unpublished doctoral dissertation, Virginia Polytechnic Institute and State University, Blacksburg.

Porter, N. M., & Garman, E. T. (1993). Testing a conceptual model of financial well-being. <u>Financial</u> Counseling and Planning, 4, 135-164.

Strumpel, B. (Ed.). (1976). Economic means for human needs. Ann Arbor: MI: Institute for Social Research.

Sung, J., & Hanna, S. (1996). Factors related to risk-tolerance. Financial Counseling and Planning, 7, 11-20.

U.S. Department of Commerce. (1992). 1990 Census of Population: Social & Economic Characteristics. Washington, DC: U.S. Government Printing Office.

Wilhelm, M. S., & Varcoe, K. (1991). Assessment of financial well-being: Impact of objective economic indicators and money attitudes on financial satisfaction and financial progress. <u>Annual Proceedings of The Association for Financial Counseling and Planning Education</u>, 184-202.

Williams, F. L. (1983). Money income, nonmoney income, and satisfaction as determinants of perceived adequacy of income. In M. Dunsing (Ed.), <u>Proceedings of the Symposium on Perceived Economic Well-Being</u> (pp. 106-125). Urbana, IL: University of Illinois at Urbana.

Williams, F. L. (1993). Financial counseling: Low-income or limited-income families. In V. S. Fitzsimmons (Ed.), Economic changes: Challenges for financial counseling and planning professionals. (pp. 121-145). Proceedings of the Association for Financial Counseling and Planning Education. San Antonio, TX.

### **Endnotes**

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