Testing a Conceptual Model of Financial Well-Being

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The purpose of this study was to conceptualize and test a measurement of financial well-being as a function of personal characteristics, objective attributes, perceived attributes, and evaluated attributes of the financial domain. The dependent variable, financial well-being, was measured using an adaptation of Cantril's self-anchoring scale. In the empirical test of the model, a multiple regression analysis of all the independent variables produced an R^2 of .71, which was a much higher explanatory power than obtained by previous researchers.

KEY WORDS: *financial well-being, economic well-being, financial satisfaction, quality of life*

Introduction

Financial well-being has long been a concept of interest to economists, researchers, educators, financial counselors, and financial planners. Originally, financial well-being was understated as simply happiness or general satisfaction with the financial situation. Strumpel (1976) elaborated that financial well-being goes beyond transitory satisfactions to encompass individuals' satisfaction with income and savings, as well as perceptions of opportunities, ability to "make ends meet," sense of material security, and sense of fairness of the reward distribution system.

Even though writing on the topic has expanded greatly since Strumpel's work, researchers continue to experience difficulty in measuring this elusive concept. A critical need exists for a conceptual model to guide research in measuring financial well-being. A review of the literature suggests that relationships exist among objective, subjective, and reference-point measures within the financial domain of quality of life, but a conceptual model that incorporates all of these components into a

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single measure of financial well-being has not yet been accepted by researchers in the field. An empirical test of a conceptual framework and model of financial well-being is presented here to fulfill this need.

Purpose of the Research

Research in the area of financial well-being has historically been conducted piecemeal. Chronologically, objective measures of financial well-being, such as demographic characteristics, socioeconomic status, and consumption of durable goods, were investigated first (Foster & Metzen, 1981; Hefferan, 1982; Williams, 1985). Second, subjective measures such as satisfaction with consumption, family financial management, and household situations, were investigated to evaluate the role of individual perceptions of the financial situation on well-being (Godwin & Carroll, 1985; Hafstrom & Dunsing, 1973; Hira, 1986; Jeries & Allen, 1986; Wilhelm, Iams, & Ridley, 1987). More recently, reference-point variables have been considered in research to determine additional variance in levels of financial well-being (Davis & Helmick, 1985).

This research utilizes an adaptation of Cantril's (1965) scale as a single variable measure of financial well-being. Note that a substantial number of studies have used one- or two-variable measures of satisfaction (Berry & Williams, 1987; Garman, Lytton, & Dail, 1987; Garman, Lytton, & Dail, 1988; Glenn & Weaver, 1979; Jackson, Chatters, & Neighbors, 1986; London, Crandall, & Seals, 1977; Lytton & Garman, 1988; Lytton & Garman, 1990; Mitchell & Helson, 1990; Umberson & Gove, 1989; White, 1979; Zollar & Williams, 1987). Furthermore, single-item indicators of overall "quality of life" are commonly used in surveys and often are considered valid and reliable (Mitchell & Helson, 1990).

Based on an extensive review of the literature (Porter, 1990; Porter & Garman, 1990) it is logical to assert that a sense of financial well-being depends not only upon objective and subjective measures of the financial situation, but also on how a person perceives objective attributes of the financial situation after comparing those attributes against certain standards of comparison. Standards of comparison include individual time horizons which correspond to the reference-point variables that have been utilized in previous financial well-being research.

Objective attributes are defined as quantitative indicators of the financial situation, such as income and family size. Perceived attributes, such as satisfaction with standard of living or satisfaction with savings and investments, are value-related indicators of the objective attributes. Evaluated attributes are an individual's assessment of financial attributes when judged against standards of comparison such as aspirations, expectations, reference group levels, and past financial experiences. For example, an individual's assessment of the amount of money currently being saved and invested as compared to the amount saved and invested two years ago is an evaluated attribute. A sense of financial well-being should be measured not only with an objective attribute, income, but also by the perception of the adequacy of that income for achieving financial goals, such as saving for retirement. An individual's perception of income adequacy is based in part on the income and savings level experienced in the past and expected in the future.

Personal characteristics, the sum total of an individual's values, goals, and personal disposition, reflect a global sense of well-being. It is logical that this influences an individual's perception of well-being in any of the domains of life at any given point in time. Measuring this psychological outlook on life at the same time that a measurement of financial well-being is taken provides yet another possible factor for explaining a proportion of the variance in financial well-being.

Statement of the Problem

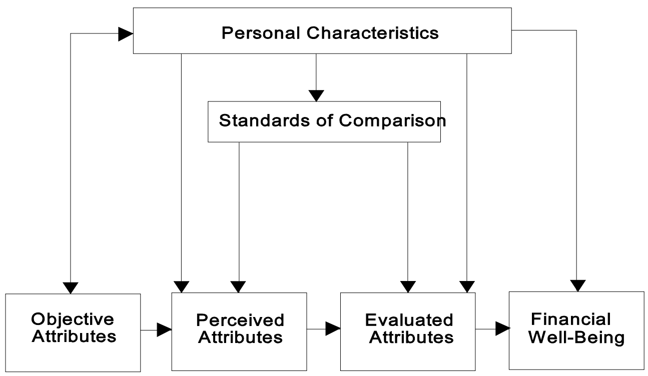
The problem of this study was to conceptualize and test a measurement of financial well-being as a function of personal characteristics, objective attributes, perceived attributes, and evaluated attributes of the financial domain. There were two sub-problems of this study:

1. Which of the following groups of attributes significantly explain variance in perceived financial well-being: personal characteristics, objective attributes, perceived attributes, or evaluated attributes?
2. Which individual attributes significantly explain variance in perceived financial well-being?

Research Design

As illustrated in Figure 1, the Porter Conceptual Model of Financial Well-Being (Porter & Garman, 1992) was adapted from the Campbell, Converse, and Rodgers (1976) "Model of Life Satisfaction" and was operationalized on the basis of theoretical and empirical considerations.

Figure 1.
The Porter Conceptual Model of Financial Well-Being

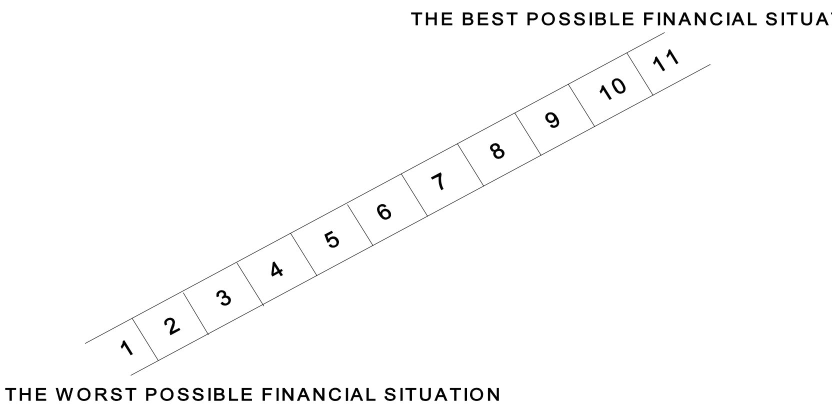


To empirically test this model and the relationships suggested, an instrument was developed and data were randomly collected from Virginia citizens (N = 1500) with a mail survey conducted from October, 1989 through January, 1990 and applied to the model. From a random sample of 1450 Virginia citizens (50 were undeliverable), 529 questionnaires were returned. Of those returned, 15 were returned blank by respondents unwilling or unable to participate and 8 questionnaires were unusable due to incomplete answers, yielding a useable return rate of 34.9% (506/1,450). Although 506 usable questionnaires were returned, the total number of responses for most of the questionnaire items did not equal 506 due to the fact that certain items were occasionally omitted by some respondents.

Research Results

The dependent variable, financial well-being, was measured using an adaptation of Cantril's (1965) self-anchoring striving scale to establish the respondents' perception of their financial situation (Porter & Garman, 1991). This variation of Cantril's scale (Figure 2) uses an 11-step ladder on which a respondent is asked to imagine the "best possible financial situation" as forming the upper end and "the worst possible financial situation" as forming the lower end.

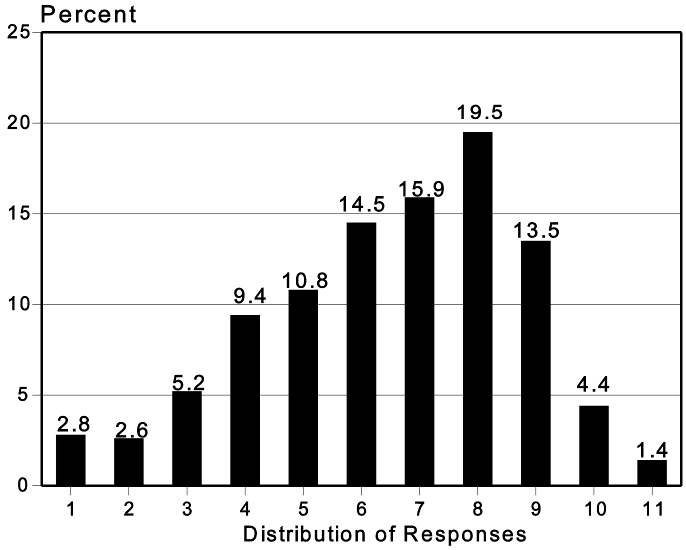
Figure 2.
Scale Used as Single-Item Measure of Perceived Financial Well-Being



After the ladder becomes self-anchored in this manner, the respondent is asked to locate an estimate of his/her current financial situation along the ladder between these two extremes. Thus, a self-perception of financial well-being is revealed by each person responding to the single question concerning financial satisfaction.

This adaptation of Cantril's scale produced a frequency distribution (Figure 3) of the respondents' sense of financial well-being that was varied, but slightly skewed to the right indicating more positive levels of satisfaction were reported. This distribution is very similar to earlier satisfaction research results (Festinger, 1957; Winter & Morris, 1983), which suggest that respondents tend to report high levels of satisfaction.

Figure 3.
Perceived Levels of Financial Well-Being



Objective Attributes of the Financial Domain

Selected demographic characteristics were combined with specific financial management behaviors to comprise the objective attribute group of the model (Table 1). The majority of the respondents were married (66.7%), without children living in the household (52.5%), and without being substantially responsible for the financial support of any other adults or children (88.1%). Only 21.6% of the respondents and 21.3% of their spouses had been previously married. Few households were paying (5.4%) or receiving (4.9%) alimony or child support.

Total gross annual income reported for the households represented in the sample ranged from less than \$10,000 (5.2%) to \$70,000 and above (14.1%). Combining categories revealed that one-third (34.6%) indicated a total income of \$10,000 to \$29,999, slightly fewer (29.4%) reported an income of $30,000 to $49,999, and fewer still (16.4%) had an income of $50,000 to $69,999.

Almost half (45.7%) of the married respondents (N = 296) reported sharing the managing and handling of financial tasks with their spouse or another person. Over three-fourths of those married (77.0%) reported sharing the major financial decision making with a spouse or another.

The majority of respondents (58.7%) indicated that they would place themselves in the formation stage of the financial life cycle. Most of the respondents owned their homes (72.6%), while few (22%) reported that they rented.

Financial Management Behaviors
In addition to demographic characteristics, six conceptual areas of personal finance were investigated as additional objective attributes of the financial domain. As noted below, the behaviors reported by respondents (Table 2) in the areas of cash management, credit management, capital accumulation, risk management, retirement/estate planning, and general financial management were sufficiently varied to provide insight into the impact of certain management strategies on perceived financial well-being.

Decreased financial well-being may result from the limited use of certain financial management behaviors that are believed by experts (Garman & Forgue, 1991) to increase financial success. Respondents who typically did not budget (21.4%) outnumbered those who did (19.6%). The majority of respondents (50.6%) reported not taking advantage of interest-bearing checking accounts. Combining categories, 27.3% of the respondents indicated some history of writing checks with insufficient funds.

Another 18.0% reported that they were likely to have received overdue notices because of late or missed payments. Consistent with this pattern, combining responses indicated that 8.2% likely "spend more money" than they have, 19.1% have increased their use of credit cards compared to a year ago, 24.1% have incurred more debt than this time last year, and 37.7% are increasing debt levels by not paying the total balance due on their credit cards. However, few respondents (6.0%) appear to be using cash advances to pay other credit obligations.

Combining responses, 26.6% of the respondents did not have a regular savings plan. Fully 58.7% of the respondents reported that it was "not typical" of themselves to have invested in stocks, bonds, or mutual funds during the past year. Another 18.3% do not typically have a "homeowner's or renter's insurance policy" and 7.6% are likely to have difficulty meeting health care expenses. However, the majority of respondents (88.9%) reported that their

Table 1.
Demographic Characteristics and Description of Household Financial Situation of Respondents (N = 506)

Characteristic	n	%[a]
Marital Status	(N^b = 503)	
Married	284	56.5
Divorced and Remarried	39	7.8
Divorced and Presently Unmarried	40	8.0
Never Married	99	19.7
Separated	12	2.4
Widowed	29	5.8
Housing Tenure	(N^b = 500)	
Own	363	72.6
Rent	110	22.0
Other	27	5.4
Financial Life Cycle Stages	(N^b = 477)	
Formation Stage	280	58.7
Accumulation Stage	140	29.4
Preservation/Distribution Stage	57	11.9
Who is responsible for managing and handling financial management tasks?	(N^b = 487)	
I am responsible	303	62.2
Done by my spouse (or another)	19	3.9
Divided with spouse (or another)	31	6.4
Shared with spouse (or another)	134	27.5
Who is responsible for making major financial decisions?	(N^b = 487)	
I am responsible	224	45.2
Done by my spouse	8	1.6
Divided with spouse (or another)	36	7.3
Shared with spouse (or another)	228	46.0

[a] Percentages may not add to 100 due to rounding.
[b] Number of respondents may not add to 506 due to non-response.

Table 1 (Continued)

Characteristic	n	%[a]
Number of Children Living in Household	(N^b = 493)	
0	259	52.5
1	112	22.7
2	86	17.4
3	28	5.7
4	6	1.2
5	1	0.2
6	1	0.2
Number of Other Adults or Children Responsible for Financially	(N^b = 506)	
0	446	88.1
1	50	9.9
2	9	1.8
3	1	0.2
Spouse Married Before	(N^b = 427)	
No	336	78.7
Yes	91	21.3
Pay Alimony or Child Support	(N^b = 465)	
No	440	94.6
Yes	25	5.4
Receive Alimony or Child Support	(N^b = 467)	
No	444	95.1
Yes	23	4.9
Total Annual Gross Income	(N^b = 497)	
Less than $10,000	26	5.2
$10,000 to $19,999	80	16.1
$20,000 to $29,999	92	18.5
$30,000 to $39,999	78	15.6
$40,000 to $49,999	69	13.8
$50,000 to $59,999	50	10.0
$60,000 to $69,999	32	6.4
$70,000 to $79,999	28	5.6
$80,000 and Above	42	8.5

[a] Percentages may not add to 100 due to rounding.
[b] Number of respondents may not add to 506 due to non-response or non-applicability of the question.

Table 2.
Percentage Responses of Financial Management Behaviors

#	Behaviors	Not Typical 1 %	2 %	3 %	4 %	Very Typical 5 %	**n**	M	**SD**
Cash Management									
18.	I have a weekly or monthly budget that I follow.	21.4	15.2	23.8	20.0	19.6	505	3.0	1.4
20.	My checking account pays me interest.	50.6	4.2	3.6	8.2	33.3	498	2.7	1.8
22.	I never write bad checks or ones with insufficient funds.	22.5	4.8	2.8	7.2	62.6	497	3.8	1.7
23.	In the recent past, I have received overdue notices because of late or missed payments.	65.0	8.5	8.3	8.9	9.1	503	1.9	1.4
Credit Management									
21.	I usually do not pay the total balance due on my credit card, but instead just make a partial payment.	44.6	7.1	10.6	11.9	25.8	480	2.7	1.7
25.	I often spend more money than I have.	57.0	14.1	14.3	6.4	8.2	502	1.9	1.3
27.	Overall, I am more in debt than this time last year.	50.1	12.9	12.9	6.2	17.9	503	2.3	1.6
31.	In the recent past, I have obtained cash advances to pay money toward other credit balances.	81.5	6.0	3.8	2.8	6.0	503	1.5	1.1
40.	Compared to a year ago, my use of credit cards has increased.	52.7	13.4	14.8	8.4	10.7	486	2.1	1.4
Capital Accumulation									
24.	I regularly set money aside for savings.	18.6	8.0	17.6	11.6	44.3	501	3.6	1.6
34.	This year, I invested some money in stocks, bonds, or mutual funds.	58.8	3.8	3.0	8.6	25.9	502	2.4	1.8
Risk Management									
30.	I have trouble meeting monthly health care expenses, including premiums for health insurance.	76.4	6.2	5.4	4.4	7.6	499	1.6	1.2
37.	My auto is adequately insured.	2.8	0.4	1.4	6.4	88.9	497	4.8	0.7
39.	I have a homeowner's **or** renter's insurance policy.	18.3	1.0	1.0	2.6	77.1	497	4.2	1.6
Retirement/Estate Planning									
28.	In the past year I made a financial contribution to a private retirement program, such as an IRA or 401-k.	55.9	2.8	4.4	4.2	32.7	501	2.6	1.8
36.	I have a legal, written will.	58.3	4.4	3.8	1.2	32.4	503	2.5	1.8
General Management									
19.	I have an overall plan that will enable me to reach my financial goals.	17.4	18.2	25.1	22.0	17.4	501	3.0	1.3
32.	I often make financial decisions without much analysis.	45.5	16.5	20.3	7.8	9.9	503	2.2	1.4
33.	I have some **specific** financial goals for the future (for example, to buy a new car in two years).	18.9	8.2	17.5	20.3	35.2	503	3.4	1.5
35.	I rarely discuss my personal financial matters with family or friends.	23.1	10.7	23.1	16.1	27.0	503	3.1	1.5

expenses. However, the majority of respondents (88.9%) reported that their automobile is fully insured. More people are likely not investing in a private retirement program than those who are (58.7% and 36.9%, respectively). Over half (58.3%) reported that it is "not typical" of them to "have a legal, written will."

Few respondents (17.4%) reported that it was "very typical" of them to have an overall plan for reaching financial goals, while 18.9% noted that "specific financial goals for the future" were "not typical." Combining categories produced 17.7% of the respondents who reported that it was fairly typical for them to make financial decisions without much analysis and over one-fourth (27.0%) reported that they rarely discussed personal financial matters with family or friends.

Perceived Attributes of the Financial Domain

Perceived net worth and perception of income adequacy were investigated as perceived attributes of the financial domain (Table 3). The majority of the respondents in the sample (84.8%) perceived themselves as having a positive net worth, while 8.8% believed they would just break even if all of their possessions were sold and debts repaid. A full 6.4% of the respondents perceived that they had a negative net worth.

Few respondents (6.4%) perceived their family income as "not at all adequate" while another 9.4% reported that they could "afford everything I want and still save money;" these responses represented the range of extremes of financial surplus and inadequacy evident in the scale. The majority of the respondents (52.8%) reportedly "can afford some of the things I want."

In addition to the above, fifteen value-related indicators of the financial domain were investigated (Table 4) to correspond with the objective attributes in the areas of cash management, credit management, capital accumulation, risk management, retirement/estate planning, and general management. Factor analysis of these variables determined that only 12 of the variables were measuring similar concepts. Three variables, two in the risk management conceptual area and one in the retirement/estate planning conceptual area, appeared significantly unrelated to the other 12 and were eliminated from the analysis.

Four out of ten respondents (43.3%) reported satisfaction with their present standard of living (Standard of living, a more accepted term by the general population, was used on the survey instrument to measure level of living).

Negative perceptions about individual aspects of the financial situation provide insight into the variability of perceptions of financial well-being. Almost four out of ten respondents (38.4%) did not believe they had enough savings and reserve funds to maintain present lifestyles if income was lost for a period of three to six months. Almost two out of ten (18.6%) did not perceive they had the ability to handle a financial emergency that would cost $500 to $1,000. A similar number (19.7%) admitted that they worry about being able to meet normal monthly living expenses.

Table 3.
Perceived Attributes of the Financial Domain

Attribute	n	%[a]
Perceived Net Worth	(N[b] = 499)	
Have something left over	423	84.8
Break even	44	8.8
Be in debt	32	6.4
Perceived Adequacy Of Family Income	(N[b] = 498)	
Not at all adequate	32	6.4
Can meet necessities only	63	12.7
Can afford some of the things I want	263	52.8
Can afford about everything I want	93	18.7
Can afford everything I want and still save	47	9.4

[a] Percentages may not add to 100 due to rounding.
[b] Number of respondents may not add to 506 due to non-response.

One-fourth of the respondents (26.2%) agreed that they were concerned about the total amount that had to be repaid on debts each month. One in ten respondents (11.1%) reported that they would have trouble borrowing $2,000 if needed. A full 35.0% of the sample reported dissatisfaction with the amount of money they were able to save and invest each year. Over half of the respondents (55.5%) agreed that they could not save as much as they would like to save. Only 35.2% perceived that they would probably have a financially secure retirement.

Table 4.
Percentage Responses of Perceived Attributes

#	Attribute	D %	TD %	TA %	A %	NA[a] %	n[c]	M	**SD**
Cash Management									
78.	I have enough savings and reserve funds to maintain my present lifestyle if I lost my income for a period of 3 to 6 months.	38.4	13.5	12.5	32.8	2.8	503	2.4	1.3
80.	I would be able to handle a financial emergency that would cost $500 to $1000.	18.6	5.9	13.9	60.6	1.0	505	3.2	1.2
88.	I don't worry about being able to meet my normal monthly living expenses.	19.7	17.3	23.5	39.2	0.4	503	2.8	1.2
Credit Management									
79.	I am concerned about the total amount I have to repay on my debts each month, such as on credit cards, car payments, and other loans.	29.8	13.7	23.0	26.2	7.3	504	2.5	1.2
89.	I would have trouble borrowing $2,000 cash if I needed it.	66.7	14.7	5.4	11.1	2.2	504	1.6	1.0
Capital Accumulation									
83.	I am satisfied with the amount of money that I am able to save and invest each year.	35.0	25.3	18.8	18.8	2.0	505	2.2	1.1
86.	I can't save as much as I would like to save.	7.6	7.8	27.8	55.5	1.4	503	3.3	0.9
Retirement/Estate Planning									
85.	I probably will have a financially secure retirement.	10.9	14.3	36.0	35.2	3.6	503	3.0	1.0
General Management									
75.	I am satisfied with my present standard of living, that is, the goods and services that I can purchase like my housing, food, transportation, and recreation.	12.1	12.5	31.0	43.3	1.2	504	3.1	1.0
76.	My total income is enough for me to meet my monthly living expenses.	9.5	10.9	19.1	59.6	0.8	503	3.3	1.0
77.	I have developed a sound plan that should enable me to achieve my financial goals.	18.7	20.1	30.6	26.2	4.4	503	2.7	1.1
87.	No matter how fast my income goes up, I never seem to get ahead.	20.8	23.8	21.8	30.8	2.8	500	2.6	1.1

[a]D (Disagree) = 1, TD (Tend to Disagree) = 2, TA (Tend to Agree) = 3, A (Agree) = 4, NA (Not Applicable)
[c]Number of responses may not add to 506 due to non-response.

Four out of ten respondents (43.3%) reported satisfaction with their present standard of living (Standard of living, a more accepted term by the general population, was used on the survey instrument to measure level of living). Combining categories, 20.4% tended to disagree that their total income was enough to meet normal monthly living expenses. Only one-fourth (26.2%) of the respondents perceived that they had a sound plan that should enable them to achieve their financial goals and 30.8% agreed that no matter how fast their income goes up, they never seem to get ahead.

The Perceived Attribute Index (SUBJINDX)
Perceived attributes, of course, are subjective measures. These 14 subjective aspects of the respondents' financial situation were combined into a single measure, the Perceived Attribute Index (SUBJINDX) for each respondent, with each individual perceived attribute equally weighted. This single measure of all the perceived attributes was utilized in the empirical test of the model. The index was computed for the respondents (N = 403) who had completed responses to all the individual perceived attributes. The index ranged from a low of 1.0 to a high of 4.0. Using raw data, the mean was determined to be 2.7 with a standard deviation of 0.7, indicating that the majority of scores on this index fell between 2.0 and 3.4.

Evaluated Attributes of the Financial Domain

Specific aspects of the financial situation were assessed using the following three major standards of comparison: past financial experiences, peer financial reference groups, and financial expectations five years in the future. These evaluated attributes of cash management, credit management, capital accumulation, risk management, retirement/estate planning, and general management corresponded to the six conceptual areas of personal finance utilized in the objective attribute group of the conceptual model.

Past Financial Experiences Five Years Ago
Without exception, the respondents reported that compared to five years ago every aspect of their financial situation had improved (Table 5). The majority reported that compared to five years ago, total income had increased (80.6%), financial assets had increased (71.3%), total financial situation had increased (63.8%), retirement "nest egg" had increased (51.6%), and standard of living had increased (53.3%).

Past Financial Experiences Two Years Ago
The responses for the past financial experiences attribute based on the standard of comparison "compared to two years ago" produced a varied distribution (Table 5). However, the largest group of respondents was still located in the "increased" category for the following: total amount of income had increased (73.7%), total financial situation had increased (54.3%), and standard of living had increased (47.6%). In addition, the largest group of respondents also reported that compared to two years ago ability to meet usual monthly living expenses had increased (45.8%) and property insurance coverage had increased (49.8%). The largest

group of respondents also reported that compared to two years ago, total consumer debt owed had increased (36.5%).

In contrast, the largest group of respondents evaluated the following attributes as having remained the same compared to two years ago: amount they were able to save and invest (41.1%), ability to meet unexpected expenses (46.5%), how often they worry about monthly debt repayment (46.6%), and use of credit cards (43.8%).

The Past Financial Experiences Index (PASTINDX)
The 15 evaluated attributes of the respondents' financial situation compared to five years ago and compared to two years ago were combined into a single measure for each respondent, the Past Financial Experiences Index (Table 5). The responses to these items were included in the single variable with each past financial experience reference point equally weighted. The Past Financial Experiences Index was computed for respondents (N = 466) with complete responses to the individual evaluated attributes based on the standard of comparison, past financial experiences. The index ranged from a low of 1.1 to a high of 3.0. Using raw data, the mean was determined to be 2.4 with a standard deviation of 0.4, indicating the majority of the scores on this index fell between 2.0 and 2.8.

In general, it can be said that the majority of the respondents felt that their financial situation had improved over the situations they experienced both five and two years earlier. Exceptions to this finding were indicated in the areas of amount saved and invested, ability to meet unexpected expenses, amount of worry about debt repayment, and use of credit cards (which had generally remained the same since two years ago).

Peer Financial Reference Groups
Based on the standard of comparison, peer financial reference groups, the majority of respondents evaluated various aspects of their financial situation as "about the same" as their peers (Table 6). Ability to meet a financial emergency of $500 to $1,000 compared to people worked with was reported about the same by 51.9%, likelihood of having a financially secure retirement compared to friends was reported about the same by 56.0%, amount of debt compared to other people with similar incomes was reported about the same by 45.7%, disability coverage compared to other people the same age was reported about the same by 59.9%, and standard of living compared to friends was reported about the same by 60.5%. Only one exception appeared, the majority of respondents

(58.4%) evaluated their financial situation as "more desirable" than their parents' financial situation at the same age.

Table 5.
Percentage Responses of Evaluated Attribute Items in Past Financial Experiences Index (PASTINDX)

#	Attribute	1 %	2 %	3[a] %	n	M	SD
Compared to *five* years ago...							
95.	my total income has...	11.7	7.7	80.6	504	2.7	0.7
96.	my financial assets have...	8.1	20.6	71.3	505	2.6	0.6
97.	my total financial situation has...	12.6	23.5	63.8	506	2.5	0.7
98.	my retirement "nest egg" has...	14.9	33.5	51.6	498	2.4	0.7
99.	my standard of living, the things that I purchase, such as housing, food, transportation, and recreation has...	8.9	37.8	53.3	505	2.4	0.7
Compared to *two* years ago.....							
100.	my ability to meet my usual monthly living expenses has...	11.7	42.5	45.8	506	2.3	0.7
101.	the amount that I am able to save and invest has...	24.5	41.1	34.4	506	2.1	0.8
102.	my ability to meet unexpected expenses has...	16.2	46.5	37.2	505	2.2	0.7
103.	the total consumer debt that I owe has...	29.9	33.7	36.5	502	2.1	0.8
104.	the total amount of income I have has...	11.0	15.4	73.7	501	2.6	0.7
105.	how often I worry about the amount of money I am required to pay on my monthly debts has...	22.7	46.6	30.7	502	2.1	0.7
106.	the property insurance coverage I have has...	4.2	46.0	49.8	498	2.5	0.6
107.	my standard of living, the things that I purchase, such as housing, food, transportation, and recreation has...	7.5	44.9	47.6	506	2.4	0.6
108.	my total financial situation has...	11.5	34.3	54.3	505	2.4	0.7
109.	my use of credit cards has...	19.2	43.8	37.0	489	2.2	0.7

[a]1 = Decreased, 2 = Remained the Same, 3 = Increased

The Peer Reference Group Index (PEERINDX)

The six evaluated attributes of the respondents' financial situation compared to peer financial reference groups were combined into a single measure for each respondent, the Peer Reference Group Index (Table 6). The responses to the items discussed above were included in the single variable with each peer financial reference group variable equally weighted.

The index was computed for respondents (N = 475) with complete responses to the individual evaluated attributes based on the standard of comparison, peer financial reference groups. The index ranged from a low of 1.0 to a high of 3.0. Using raw data, the mean was determined to be 2.1 with a standard deviation of 0.5, indicating that the majority of the scores on this index fell between 1.6 and 2.6. In general, it can be said that the respondents evaluated various aspects of their financial situation as comparable to those in their peer reference groups. The only exception appeared when the respondents were asked to compare their financial situation to the situation their parents' experienced at the same age. The majority evaluated their situation as more desirable than the one experienced by their parents.

Table 6.
Percentage Responses of Evaluated Attribute Items of Peer Reference Group Index (PEERINDX)

#	Attribute	1 %	2 %	3[a] %	n	M	SD
	Compared to...						
110.	people I work with, my ability to meet a financial emergency of $500 to $1000 is...	22.0	51.9	26.1	491	2.0	0.7
111.	my friends, the likelihood that I will be able to have a financially secure retirement is...	18.9	56.0	25.1	491	2.0	0.7
112.	my parents' financial situation when they were my age, my financial situation is....	23.2	18.4	58.4	495	2.4	0.8
113.	other people I know with similar incomes, the amount of debt that I owe is...	18.9	45.7	35.4	492	2.2	0.7
114.	other people my age, my life, health, disability insurance coverage is...	14.6	59.9	25.5	494	2.1	0.6
115.	most of my friends, my standard of living, the things I purchase such as housing, food, transportation, and recreation is...	15.9	60.5	23.6	496	2.1	0.6

[a]1 = Less Desirable, 2 = About the Same, 3 = More Desirable

Financial Expectations Five Years in the Future

For seven of the eight variables, the respondents reported that they expect their financial situation to probably be better five years in the future (Table 7). The largest group of respondents reported that in five years they expect the following aspects will probably be better: total income (77.2%), ability to save and invest (62.2%), ability to meet large emergency expenses (57.9%), retirement "nest egg" (66.1%), amount of debt (53.7%), total financial situation (70.7%), and standard of living

(49.5%). The only exception was that the largest group of respondents (61.4%) expected that their insurance coverage will probably not be better, but will be the same in five years.

The Financial Expectations In Five Years Index (IN5INDX)

The eight evaluated attributes of the respondents' financial situation expected five years in the future were combined into a single measure for each respondent, the In Five Years Index (Table 7). The responses to the items discussed above were included in the single variable with each financial expectation for the future equally weighted.

Table 7.
Percentage Responses of Evaluated Attribute Items of Financial Expectation Five Years In the Future (IN5INDX)

#	Attribute	1 %	2 %	3[a] %	n	M	SD
	In *five* years I expect...						
116.	my total amount of income will...	8.8	14.0	77.2	501	2.7	0.6
117.	my ability to save and invest will...	12.2	25.6	62.2	500	2.5	0.7
118.	my ability to meet large emergency expenses will.	13.8	28.3	57.9	501	2.4	0.7
119.	my retirement "nest egg" will...	11.0	23.0	66.1	501	2.6	0.7
120.	the amount of debt I have will...	10.2	36.1	53.7	499	2.4	0.7
121.	my total financial situation will...	8.8	20.6	70.7	501	2.6	0.6
122.	my insurance coverage will...	5.2	61.4	33.4	500	2.3	0.6
123.	my standard of living, the things I purchase such as housing, food, transportation, and recreation will...	10.2	40.3	49.5	501	2.4	0.7

[a]1 = Probably be Worse, 2 = Be the Same, 3 = Probably be Better

The index was computed for respondents (N = 491) with complete responses to the individual evaluated attributes based on the standard of comparison, financial expectation five years in the future. The index ranged from a low of 1.0 to a high of 3.0. Using raw data, the mean was determined to be 2.5 with a standard deviation of 0.5, indicating that the majority of the scores on this index fell between 2.0 and 3.0.

In general, it can be said that the majority of respondents expect their financial situation to improve during the next five years. The only exception to this finding was in the expectation for insurance coverage to be the same five years in the future, rather than better. This single measure of the financial situation expected in five years was utilized with the Past Financial Experiences Index and the Peer Reference Group Index to make up the evaluated attribute group in the empirical test of the model.

Personal Characteristics

The respondents were fairly equally divided between male (49.7%) and female (50.3%), but were predominately white (85.1%). See Table 8. The majority (91.7%) had at least a high school degree, with 74.5% of those respondents having had additional education or training. Nearly three-fourths of the respondents (73.8%) were employed full-time.

The Index of Well-Being (WELLINDX)

The "Index of Well-Being" (Campbell et al., 1976) was utilized in this study to provide a single measure of a respondent's perception of general well-being and life satisfaction. The index was computed for respondents (N = 483) with complete responses for eight semantic-differential items and the life satisfaction item on the survey instrument (Table 9). The responses to the eight semantic-differential items were summed and the sum divided by 8. The response to the single item asking, "How satisfied are you with your life as a whole these days?" was multiplied by 1.1 (to parallel the weighting used by Campbell et al.) and added to the average of the semantic differential items to create a single variable, the Index of Well-Being, for each respondent.

The index ranged from a low of 2.1 to a high of 14.7. Using raw data, the mean was determined to be 11.6 with a standard deviation of 2.3, indicating that the majority of the scores on this index fell between 9.3 and 13.9.

Results of Empirical Test of Conceptual Model

Two sub-problems of this study were to determine which of the attribute groups (objective, perceived, evaluated, and personal characteristics) and which individual variables from among 46 factors significantly explained variance in perceived financial well-being. The discussion that follows

Table 8.

Personal Characteristics of Respondents (N = 506)

Characteristic	n	%[a]
Gender	(N = 505)	
Male	251	49.7
Female	254	50.3
Ethnicity	(N = 505)	
White (Caucasian)	430	85.1
Black (African-American)	59	11.7
Hispanic (Spanish-American)	6	1.2
Native American (American Indian)	1	0.2
Oriental	9	1.8
Other	0	0.0
Educational Attainment	(N = 496)	
Less Than High School	41	8.3
High School Degree	116	23.4
Trade/Vocational Training	21	4.2
Some College (No Degree)	124	25.0
Bachelors Degree	114	23.0
Graduate or Professional Degree	80	16.1
Employment Status	(N = 493)	
Full-Time Employment	364	73.8
Part-Time Employment	44	8.9
Unemployed	9	1.8
Full-Time Homemaker	20	4.1
Student	9	1.8
Retired	47	9.5

[a] Percentages may not add to 100 due to rounding.

presents the results for each attribute group as well as the individual variables within each group that significantly explained variance in the dependent variable.

Table 9.
Percentage Responses of Individual Items Combined Into Index of Well-Being (WELLINDX)

#	Item	1 %	2 %	3 %	4 %	5 %	6 %	7[a] %	n	M	SD
I think my life is...											
1.	Boring/Interesting	3.4	1.0	3.6	11.8	21.6	25.5	33.1	499	5.6	1.5
2.	Enjoyable/Miserable	39.0	26.2	15.8	11.6	3.6	1.8	2.0	500	2.3	1.4
3.	Useless/Worthwhile	2.0	0.2	0.8	8.1	16.4	23.8	48.7	495	6.0	1.3
4.	Friendly/Lonely	45.4	21.4	13.4	10.8	4.0	2.0	3.0	500	2.2	1.5
5.	Full/Empty	42.5	22.0	15.6	13.0	3.8	1.0	2.0	499	2.2	1.4
6.	Discouraging/Hopeful	2.4	1.4	1.8	9.9	13.5	24.3	46.7	497	5.9	1.4
7.	Disappointing/Rewarding	2.8	1.8	2.8	10.4	18.3	24.9	39.0	498	5.7	1.5
8.	Brings out the best in me/Doesn't give me much chance	30.7	29.5	16.8	14.5	4.0	2.6	1.8	495	2.5	1.4
How satisfied are you about your life as a whole these days?											
9.	Completely dissatisfied(1)/ Completely satisfied(7)	1.8	2.2	3.2	11.9	31.3	35.7	13.9	496	5.3	1.2

[a]Numerical value given to each response on semantic-differential continuum.

Entering all of the individual variables into the regression model produced an R^2 of .71, meaning that 71% of the variance in financial well-being could be explained by the linear combination of all of the predictor variables (Table 10). With an F ratio of 15.76, this R^2 was considered statistically significant at the .01 level (df 51,454). The relative importance of the attribute groups (objective, perceived, evaluated, and personal characteristics) in explaining variance in the dependent variable was determined using F statistics and ratios. Each of the blocks of variables was removed individually from the full regression equation leaving the other groups intact. The regression was run again and an F ratio was applied to the change in the R^2s of the equations. A significant F ratio indicated that the group of variables removed from the equation provided unique information about the dependent variable that was not available from the other independent variables in the equation.

Objective Attributes

Removing the objective attribute group variables from the regression equation while leaving all other variables intact produced an R^2 of .64. The resulting F ratio was computed to be 2.69, which was significant at the $p < .01$ (df 40,454).

No individual variables in the objective attribute group emerged as significant predictors of financial well-being at the .05 level. However, the group of objective measures which included income, stage of the financial life cycle, marital status, home ownership, paying or receiving alimony or child support, number of children in the household, number of others for whom the household is substantially responsible for financial support, responsibility for managing and handling financial management tasks, and financial decision making, as well as the practice of selected financial management behaviors, significantly explained variance in perceived financial well-being.

Perceived Attributes

The relative importance of the perceived attribute group was determined by removing the Perceived Attribute Index, SUBJINDX, from the regression equation leaving all other variables intact. The resulting R^2 of .62 produced an F ratio of 143.19, which was significant at the .01 level (df 1, 454).

The Perceived Attribute Index (SUBJINDX), created by combining 14 perceived attributes into a single variable, produced a significant t of .0000. This variable was the most significant single predictor of financial well-being.

Evaluated Attributes

The evaluated attribute group included the Past Financial Experiences Index (PASTINDX), the Peer Reference Group Index (PEERINDX), and the In Five Years Index (IN5INDX). Removing these three variables from the regression equation while leaving all other variables intact produced an R^2 of .68, which produced an F ratio of 15.90. This ratio was significant at the .01 level (df 3,454). It was observed that none of the three individual variables in this group were significant at the .05 level; but the PEERINDX, created by combining all of the evaluated attributes based on the standard of comparison peer financial reference groups into a single variable, was significant at the level of .058.

Since the majority of respondents believed that their financial situation had improved during the past five years and expected it to continue to improve during the next five years, these standards of comparison were not significant

Table 10.
Regression of All Individual Variables on Financial Well-Being

Variable		b	B	t	Sig t
SUBJINDX		1.8596	.5933	8.000	.0000
WELLINDX		.1024	.1066	2.777	.0058
EMP1	(employed full-time)	-.6123	-.1226	-2.275	.0235
PEERINDX		.3831	.0781	1.899	.0584
MB1	(spouse not married before)	-.3287	-.0692	-1.851	.0651
V24	(set money aside for savings)	.1006	.0696	1.801	.0727
V34	(invested in stocks, bonds)	-.0754	-.0596	-1.618	.1065
MH2	(financial management done by spouse or another)	-.6365	-.0539	-1.602	.1102
V39	(have homeowner's insurance)	.0965	.0671	1.555	.1209
V21	(do not pay total balance due on credit card)	-.0685	-.0520	-1.465	.1438
DEC3	(financial decisions divided with spouse or another)	*The regression coefficients for the variables below are not listed because they are not significant at the 0.15 level.*		.1550	
R1	(White) .1625				
V32	(make decisions without analysis)				.2263
FC1	(formation stage of cycle)				.2808
DUM2	(divorced and remarried)				.2833
V136	(income)				.2850
V36	(have legal, written will)				.2886
V138	(number of children in household)				.3039
IN5INDX					.3393
RA1	(not receiving alimony or child support)				.3627
DUM3	(married)				.3654
DEC2	(financial decisions done by spouse or another)				.3798
DUM5	(divorced and presently unmarried)				.3838
V30	(have trouble meeting health care expenses)				.4173
V23	(have received overdue notices)				.4256
V31	(obtained cash advances to pay toward other credit balances)				.4360
MH3	(financial management divided with spouse or another)				.4402
PASTINDX					.4479
FC2	(accumulation stage of cycle)				.4697
S1	(male)				.5184
EMP3	(retired)				.5430

Table 10 (Continued)
Regression of All Individual Variables on Financial Well-Being

Variable		b	B	t	Sig t
V40	(use of credit cards compared to one year ago has increased)				.5739
H1	(own home)				.6048
V19	(have overall financial plan)				.6364
EMP2	(employed part-time)				.6585
V37	(auto is adequately insured)				.6635
V22	(never write bad checks)				.6722
DUM1	(never married)				.6870
V28	(contributed to private retirement in past year)				.6988
V35	(rarely discuss personal financial matters with others)				.7438
PA1	(paying alimony or child support)				.7626
V130	(educational attainment)				.7824
MH1	(I am responsible for financial management)				.8334
V140	(financially responsible for other adults or children)				.8593
V20	(have interest-bearing checking)				.8637
V33	(have specific financial goals)				.8709
DEC1	(I am responsible for making financial decisions)				.9034
DUM4	(separated from spouse)				.9335
V27	(more in debt than last year)				.9538
V25	(often spend more than I have)				.9548
V18	(have weekly or monthly budget)				.9680
	Intercept	-2.4739		-2.811	.0052

R^2 = .71015
F = 15.76 (51,454) $p < .01$

individual variables in explaining variance in financial well-being. However, the group of evaluated attributes as a whole was a significant component in the measurement of financial well-being.

Personal Characteristics
The relative importance of the personal characteristics group which included the following variables: gender, ethnicity, educational attainment, employment status, and the Index of Well-Being (WELLINDX), was determined by removing all of these variables from the regression equation leaving all other variables intact. The resulting R^2 of .67 produced an F ratio of 8.13 which was significant at the .01 level (df 7,454).

Two variables in the personal characteristics group emerged as significant predictors of financial well-being. The Index of Well-Being (WELLINDX), which was utilized to evaluate perceptions of life in general, was significant at the .006 level. EMP1 (a dummy-coded categorical variable representing respondents who reported a full-time employment status) also emerged as a significant predictor of financial well-being.

Conclusions

The empirical test of The Porter Conceptual Model of Financial Well-Being explains a greater proportion of the variance (71%) in financial well-being than any of the research studies cited in previous literature. Davis and Helmick (1985) were only able to explain between 33% and 46% of the variance in financial satisfaction in their research which utilized a total of 8 objective, subjective, and reference-point variables. Godwin and Carroll (1985) were only able to explain 36% of the variance in husbands' satisfaction and 32% of wives' satisfaction with family financial management utilizing 9 variables. Hafstrom and Dunsing (1973) were only able to explain 40% of homemakers' satisfaction with family level of living for "typical families" and 39% of the variance for "disadvantaged families" with 129 independent variables.

The empirical test of the model established that all four of the attribute groups investigated, objective attributes, perceived attributes, evaluated attributes, and personal characteristics, were significant at the $p < .01$ level in the explanation of the variance in the dependent variable, financial well-being. Thus, this study validates the importance of including all of the groups studied into the conceptual model and measurement of financial well-being.

The objective attributes of the financial situation as measured in this study support previous research findings (Godwin & Carroll, 1985; Hafstrom & Dunsing, 1973; Hira, 1986; Jeries & Allen, 1986; Wilhelm, Iams, & Ridley, 1987; Williams, 1985) which established the importance of objective measures of the financial domain in the measurement of financial well-being. Improved financial management skills, cash management strategies, and futuristic planning styles may help people avert financial difficulties and increase perceived financial well-being.

As measured in this study, the perceived attributes of the financial situation support previous research findings (Godwin & Carroll, 1985; Hafstrom & Dunsing, 1973; Hira, 1986; Jeries & Allen, 1986; Wilhelm, Iams, & Ridley, 1987; Williams, 1985) which established the importance of subjective measures of the financial domain in the measurement of financial well-being.

It can be concluded that subjective, value-related perceptions of the financial situation provide insights into the variability of self-reported levels of financial well-being. Both positive and negative perceptions of individual aspects of the financial situation influence overall perceived financial well-being. Dissatisfaction with the amount of income, standard of living, savings/investments, and retirement "nest egg," contribute to lower perceived levels of financial well-being. In addition, worrying about repaying debts and being able to meet financial emergencies contribute to the variance in financial well-being.

The evaluated attributes of the financial situation as measured in this study support previous research findings (Davis & Helmick, 1985) that reference-point variables need to be included with objective and subjective measures to explain greater variance in reported financial well-being.

The evaluated attributes in this model expand the reference-point variables utilized previously beyond just "perceived change in financial condition over time" and "desire for financial improvement." It is obvious that including peer financial reference groups is essential to the measurement.

Measuring a respondent's satisfaction with life overall has not been utilized as a factor to help explain perceived level of financial well-being in previous research studies. However, this study has shown that how one feels about his/her life in general significantly helps to explain variance in perceived financial well-being.

Implications

The empirical test of this model suggests that perceived financial well-being can now be conceptualized and measured more accurately. This measurement, a function of personal characteristics, objective, perceived, and evaluated attributes of the financial domain, is an improvement over previous measures. The practical benefits of this measurement lie in its holistic nature. The sum total of an individual's values, goals, and global sense of well-being enter the measurement in addition to observable indicators of the financial situation. The measurement is further strengthened by value-related qualitative indicators and assessments of the financial situation based upon selected standards of comparison. A sense of financial well-being depends not only upon objective and subjective measures of the financial situation, but on an individual's (a) perception of life in general, (b) perception of objective attributes of the financial situation after comparing those attributes against selected standards of comparison, and (c) perhaps other factors.

The Porter Conceptual Model of Financial Well-Being should be adopted as the conceptual framework of financial well-being for use in the education of professionals in financial management. The Campbell, Converse, and Rodgers (1976) "Model of Life Satisfaction" has been well accepted by researchers and experts in the study of quality of life. This empirical test verifies that an adaptation of their model which expands the financial domain is significant in explaining financial well-being. The Porter Conceptual Model of Financial Well-Being should now serve as the basis for presenting financial management information to professionals as the use of this model provides a holistic approach to financial management.

Educational programs should focus on perceptions and evaluations of the financial domain as well as financial management behaviors. This study has shown that perceived financial well-being is a function of personal characteristics, objective attributes, perceived attributes, and evaluated attributes of the financial domain. Focusing educational information and programs solely on financial management behaviors will not affect perceived financial well-being as greatly as information and programs developed to include all of the significant attribute groups.

Implications also exist for both financial counseling and financial planning education. The significance of personal characteristics, perceived attributes, and evaluated attributes of the financial situation can no longer be ignored when preparing professionals to work with clients in the financial area. Simply evaluating a client's financial situation based on objective attributes such as credit use or lack of emergency funds does not provide information on the client's perceptions of their situation. If a client does not perceive a problem with their situation, it will be difficult to facilitate a change in behavior. Thus, evaluating a client's subjective perceptions and assessments of his/her situation compared to his/her financial peers will provide a holistic approach to financial management.

Professionals who strive to help people increase their sense of financial well-being need to be cognizant of the pattern of relationships among personal characteristics, objective, perceived, and evaluated attributes of financial well-being. Educational information that includes all the significant attributes of financial well-being should be provided by the Cooperative Extension Service, educators, financial service companies, and financial planners and counselors.

This empirically tested model of financial well-being provides a base for future research and theory development. Since much research in family financial management has been atheoretical to date, this study provides both a conceptual framework and model to guide future research, education, and counseling.

Further research in the area of financial well-being will help identify the most critical areas of financial management that concern individuals and families. Through research, better educational opportunities can be made available at the most appropriate periods of the family life cycle to minimize concerns and maximize financial well-being for individuals and families.

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