

# Self-directed Financial Learning and Financial Satisfaction

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*This study analyzes the effect of self-directed financial learning using employer-provided financial newsletters, financial publications, financial planning software, and the Internet on financial management practices, financial satisfaction, and career satisfaction. The sample consists of lower-level, white-collar workers of a national insurance agency. The results demonstrate the effectiveness of self-directed financial learning and the role good financial management practices play in the relationship of financial learning with financial satisfaction and workers' satisfaction with their career progression.*

**Keywords:** Workplace financial education, self-directed financial learning, financial management practices, financial satisfaction, career satisfaction

## Introduction

Rapid and continuous change in financial conditions and new means of access to financial information make it necessary for individuals to constantly acquire new information and skills in order to effectively handle personal finances. Although instruction is available in formal classroom settings, much of this learning takes place at the individual's initiative. A common label given to such activity is self-directed learning (Hiemstra, 1994). Self-directed learning is any form of study in which individuals have primary responsibility for planning, implementing, and evaluating their learning effort (Knowles, 1975). This learning method is one of four types associated with lifelong learning (Mocker and Spear, 1982). According to Tough (1979), it is the method most often used by adults and is, therefore, an important goal of adult education (Bolhuis and Voeten, 2001; Bolhuis, 2003).

In regard to personal finances, numerous programs, practices, and resources for facilitating self-directed learning have been created. These resources include magazines, columns and regular features in daily newspapers, self-help books (Consumer Reports, 2003), electronic networking (Ciccotello and Wood, 2001), and computer-assisted learning. In addition, family and friends also serve as valuable resources for financial information and advice.

Research has shown that financial knowledge and money-management skills are indispensable to making good financial decisions (Titus, Fanslow, and Hira, 1989a; Titus, Fanslow, and Hira, 1989b; Hira, Fitzsimmons, and Bauer, 1993; DeVaney, 1995;

DeVaney, Gorham, Bechman, and Haldeman, 1995; DeVaney, Gorham, Bechman, and Haldeman, 1996). This is especially true of long-term financial decisions, such as retirement planning (Salisbury and Jones, 1994; Bernheim and Garrett, 2003). For instance, to help employees better choose their investments in defined contribution plans, Congress encouraged employers to provide understandable information and education about each investment plan (see Section 404(c) of the Employee Retirement Income Security Act (ERISA) of 1974). In 2004, about one-third (34%) of employees reported receiving financial education to assist employees with the 401(k) retirement investment decisions (EBRI, 2004). In addition to helping employees making informed decisions, workplace financial education often serves a second purpose. There is evidence that financial education enhances work outcomes, such as higher productivity, reduced absenteeism, and reduced turn-over (Garman, 1998).

In the present study we assess the connection between financial learning, financial behavior, and career satisfaction. Of special interest are the self-directed financial learning efforts of employees in lower-level, white-collar positions in a national insurance company. These employees are the lowest-paid and least-educated workers in the company. As a group, they have traditionally been considered less financially literate, less involved in self-directed financial learning (Brockett and Hiemstra, 1991) and "hard to reach" for formal financial education (Brockett, 1985; Mastin, 1998). In addition, they generally have not had the same access to financial advisors and investment professionals as upper-level employees, who often

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receive this service as an employer-provided benefit (Teitelbaum, 1998; EBRI, 2004). To understand the financial behavior and the effectiveness of financial education for these groups, it may be important to study them in isolation (Lusardi, 2004). The contribution of this study is the focus on the impact of self-directed financial learning for this little-researched group.

The objective of this study is to contribute to the literature on workplace financial education from two different perspectives. First, we analyze the impact of four educational offerings on good financial management behavior. Second, we assess the effect of financial management on financial and career satisfaction.

### Literature Review and Hypotheses

Self-study materials are among the most widely used educational materials provided at the workplace with regard to retirement planning (EBRI, 2004). Although literature on the effects of financial education in the workplace on financial behavior is growing and the research is being conducted from a number of perspectives (Fletcher, Beebout, and Mendenhall, 1997; Clark and Schieber, 1998; Garman, Kim, Kratzer, Brunson, and Joo, 1999; Bernheim and Garrett, 2000; Bernheim and Garrett, 2003; Lusardi, 2004), few studies have looked at the effects of self-study material on financial behavior (Bayer, Bernheim, and Scholz, 1996; Clark and Schieber, 1998; Bernheim and Garrett, 2003; EBRI, 2004).

The findings of these research efforts, however, are mixed and indicate that the type of material, both its content and the media in which it is offered, are significant determinants of results. For example, Bernheim and Garrett (2003) found that rates of participation in retirement plans and retirement accumulation are significantly higher when the respondent's employer offers financial education particularly among low and moderate savers. This study did not specify the effects of different types of educational offerings, such as seminars, professional assistance, or written materials. Bayer et al. (1996) found that programs that rely on print media, either through newsletter or summary plan descriptions, have generally no influence on participation rates or contributions to retirement savings plans. This analysis found that seminars were the most effective type of communication.

On the other hand, Clark and Schieber (1998) showed that company-provided written communications describing the need to save for retirement increased significantly the probability of participating in a 401(k) plan and the contribution rate to the plan. In addition, one recent survey (EBRI, 2004) indicated that of those

workers whose employers offer some form of financial education, 80% read retirement benefit statements, 63% read brochures, and 53% read newsletter and magazines. About 24% used online investment advice, 21% browsed the Internet for other online services, and 13% used software programs (EBRI, 2004).

A study by Blinder and Krueger (2004) of the main sources for economic knowledge found that most respondents expressed a strong desire to be well informed and that television is their dominant source of information (47%). The second most common source was newspapers (19%). The Internet was next (10%). Other publications, such as magazines and books, ranked very low (2%, 0.5%). Those who consulted more sources, and consulted them more often, were only slightly better informed. In answering a quiz of economic facts, those who relied on television as their prime source for economic information performed less well than those who relied on written material or the Internet.

The general conclusion of this limited literature is that educational offerings that are based on self-study, particularly written information, are widely available, but the influence on financial behavior varies. Overall, besides the empirical evidence, there is little explanation of the determinants of financial learning in adulthood. In particular, the specific concept of self-directed financial learning has not yet been addressed in the literature on workplace financial education. This is surprising considering the significance placed on this mode of learning in adult education literature (Brockett and Hiemstra, 1991; Merriam and Caffarella, 1999).

A key reason for promoting self-directed financial learning is that it is the most popular and most efficient way for adults to learn. By being able to select the objectives, set schedules according to personal preferences, identify preferred strategies, and evaluate when objectives have been met, adults feel more in control of their learning situation. In addition, with respect to personal finance, it is a readily available way for adults to learn to make good financial choices. To enable individuals to become lifelong, self-directed learners is especially important when formal classroom instruction is not available or practical (Barlett and Kotrlík, 1999). Both self-directed learning and financial literacy vary according to each individual's level of formal education, the level of existing financial literacy, and analytic ability (Bernheim, 1994). These variables are closely linked to an individual's occupation, which may explain why lower-level employees show less interest in self-directed financial learning, and, in turn, have less financial literacy.

Self-study materials from four media—a financial newsletter, other financial publications, financial

planning software, and the Internet—were made available by the employer to all employees. This study assesses the effect on financial management practices of the use of these materials. To measure financial management practices, three basic practices are considered: making spending plans, saving for goals, and evaluating spending.

*Hypothesis 1.* Controlling for demographic attributes, self-directed financial learning makes a significant contribution to the explained variance in financial management practices.

Beyond analyzing the influence of workplace financial education on financial behavior, few studies have attempted to estimate the effectiveness of improved financial behavior on financial and career satisfaction. A limited amount of research analyzes the effects of financial stress upon work outcomes. Williams et al. (1996) stated that employees burdened with financial problems are not likely to perform at their full potential. Garman et al. (1996) summarized the characteristics of financial behaviors that affect employee productivity. They concluded that financial mistakes, careless behaviors, and stressful situations are interrelated and cumulative and associated with reduced employee productivity.

Kim (2000) reported direct evidence of the causal relationship between personal finances and work outcome. She found more than nine out of ten respondents reported they spent some work time on dealing with financial matters. In addition, one-quarter of the employees admitted that they spent work time worrying about their personal finances. She showed a link between workplace financial education and worker's retention. More than a quarter of the employees in her study perceived that workplace financial education was important in their decision to continue working for the current employer. Joo's (1998) findings point in the same direction, showing that those employees who have high levels of personal financial satisfaction reported better performance ratings, less absenteeism, and less work time used for personal financial matters. To summarize this limited literature, financial education provided by employers can improve financial behaviors and, in turn, affect employees' ability to perform well at the workplace.

The studies assessing workplace outcomes of financial education address only one educational format, that is, interactive workshops or seminars. The effect of independent learning about personal finance on workers financial and career satisfaction has not yet been addressed. This study intends to advance the literature in identifying the causal relationship between self-directed financial learning, financial management practices, financial satisfaction, and career satisfaction.

*Hypothesis 2.* Controlling for demographic attributes and self-directed financial learning, financial management practices will make a significant contribution to the explained variance of financial satisfaction.

*Hypothesis 3.* Controlling for demographic attributes and financial management practices, financial satisfaction will make a significant contribution to the explained variance of career satisfaction.

An alternative perspective on the relationships among the variables of interest is that financial management practices and financial satisfaction can be viewed as mediators. Financial management practices should be improved by active self-directed financial learning; in turn, financial practices may have an effect on an individual's satisfaction with his/her ability to handle different aspects of personal finances, such as investments, unexpected expenses, and credit.

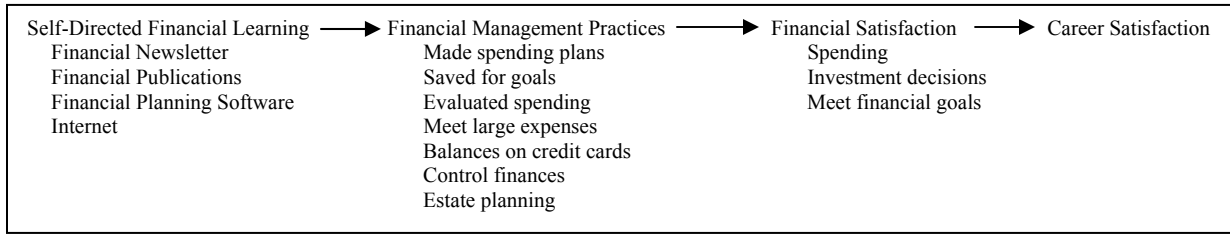
Good financial practices are considered indispensable for financial satisfaction and financial satisfaction is expected to impact career satisfaction. Evidence has been provided that employees' financial problems affect workplace performance, increase absenteeism, and contribute to turn over (Garman, Leech, and Grable, 1996; Joo, 1998; Kim, Bagwell, and Garman, 1998; Garman, Kim, Kratzer, Brunson, and Joo, 1999; Kim, 2000). We hypothesize that financially literate and satisfied employees will exhibit a higher satisfaction with their career progression. This approach is in line with literature on work attitudes (Lease, 1998) in that it assesses career satisfaction as the result of the degree to which the work environment fulfills the individual's needs, including job facets such as the availability of financial education.

*Hypothesis 4.* Financial management practices will mediate the relationship between self-directed financial learning and financial satisfaction.

*Hypothesis 5.* Financial satisfaction will mediate the relationship between financial management practices and career satisfaction.

The model outlined in Figure 1 portrays the hypothesized causal relationships.

**Figure 1: Hypothesized Causal Relationships**



**Methodology**

*Procedure*

The present study utilizes a data sample of employees working for an insurance company with offices nationwide. The survey was mailed to a total of 2,361 employees, presenting a random sample of employees in eight geographic regions of the U.S., such as the west-central U.S., Alabama, south-central U.S., Michigan, northern Texas, northeastern U.S., Arizona/Nevada/New Mexico, and Oklahoma/Kansas, in 1999. A total of 1,519 employees returned completed questionnaires producing an overall response rate of 64.3 percent; 1,420 questionnaires were usable for statistical analysis. Incomplete responses were coded as missing values.

*Respondents*

The present study focuses only on a sub sample of the total sample consisting of lower-level field and management employees (N=1,089; 77% of the total sample). These two job classifications were identified through the questionnaire. A profile of the sample of lower-level field and management employees is presented in Table 1. The typical respondent was female (65%), 39 years old, white (82%), married or living with a partner (74%), and sharing a residence with other household members (87%). Table 1 also shows the demographic characteristics of those who were engaged in self-directed learning compared to those who were not. The self-directed learners were more likely to be male (38%), younger than the average (38.7 yrs.), white (83%), married or living with a partner (76%), living in larger households (87% with 1 or more household members) and were more often employed as field staff (71%) compared to the whole sample of lower-level field claim and management employees.

*Measures*

The measures of the present study were developed specifically for this purpose. Due to the limited amount of literature on workplace financial education, to date there is no standardized survey instrument available to assess the effects of self-directed financial learning in this environment.

*Demographics.* Respondents provided their gender, age, ethnicity, marital status, household size, and job classification. These factors served as control variables in the analysis. Gender was coded males = 0; females = 1. Age was measured in years. Ethnicity was represented on the questionnaire in five categories, but because of the small number of minority respondents, whites were coded “1” and all others “0”. Marital status was coded as a divorced, widowed, separated, never married = 0; and married or living together = 1). Job classification was represented as lower-level field claim workers = 0 and lower-level headquarter management = 1.

*Self-directed Financial Learning.* Self-directed learning was assessed by proxy variables. The Self-Directed Learning Readiness Scale (Guglielmino, 1977) is commonly used as a quantitative measure, this scale was not included in the questionnaire used for this study. The present analysis uses the degree to which respondents used each of the four media as an information source for financial planning. Respondents indicated whether or not they used each medium in response to the question: “Which of the following source of information have you used for financial planning over the past six months? Circle all that apply. 1) [company name] newsletter ‘Understanding Personal Finances’, 2) Other financial planning publications, 3) Financial planning software, and 4) the Internet.” For the statistical analysis, the four items were summed, resulting in the variable “self-directed financial learning” with values ranging from 0=used no media to 4=used all media.

**Table 1.**  
**Demographic Description of Respondents by Use of Self-directed Materials**

Control Variables	No self-directed financial learning N=393 %	Use at least one medium N=659 %
Gender		
Male (=0)	28.8	38.2
Female (=1)	71.2	61.8
Age		
29 and younger	19.1	15.3
30 to 39	29.3	44.3
40 to 49	26.0	22.3
50 to 59	20.1	14.3
60 and over	2.5	1.5
Ethnicity		
Non-Whites (=0)	17.6	16.6
Whites (=1)	80.7	83.4
Marital Status		
Not married or living as married (=0)	27.2	23.8
Married or living as married (=1)	70.5	75.0
Household Size		
1	12.7	13.5
2	32.8	32.3
3	21.6	21.7
4	22.4	22.5
Job Classification		
Lower-Level Field Claim Workers (=0)	46.1	71.0
Lower-Level Headquarter Management (=1)	53.9	29.0

As presented in Table 2, of those respondents that used the media, most utilized one or two (76.8%). Overall about a third of the respondents did not use any of the employer-provided financial educational media (37%). The most widely used educational offering was the newsletter (42%). The second most used source was the Internet (29%) and financial planning publications (26%). The financial planning software was utilized by about a fifth of the respondents (22%).

*Financial Management Practices.* Financial management practices consisted of three items that measured specific financial behavior. The questionnaire included the statements, “*There are many different ways to manage personal finances. Please circle how frequently you have done each of the following during the past six months. (1) Made plans on how to use your money; (2) Saved for goals; (3) Evaluated spending.*”

Respondents indicated how often they perform each activity on a scale from never = 1 to always = 5. For the statistical analyses, the three items were summed to represent the variable “financial management practices,” ranging from 5=never done any of the practices to 15=always to all three practices. As shown in Table 2, there was a significant difference between the financial practices of self-directed financial learners and non-learners; 84 percent of the active learners reported that they perform the three management practices often or always compared to only 67 percent of the non-learners.

*Financial and career satisfaction.* Employee financial satisfaction was measured with a five-item Likert scale ranging from *very dissatisfied* = 1 to *very satisfied* = 5. Respondents used the scale to answer the following question: “*During the past six months, how satisfied have you been with each of the following aspects of your life?*”. The items used to measure financial satisfaction included, (1) the way you’ve used your money; (2) your ability to make investment decisions with the money you have saved; (3) your preparation to meet long-term financial goals; (4) your ability to meet large unexpected expenses; (5) the amount of your unpaid balances on your credit card(s); (6) the extent to which you have been able to control your financial situation; (7) the estate planning you have done. For the statistical analyses, the seven statements were summed to represent the measure “financial satisfaction” ranging from 5=very dissatisfied with all aspects to 35=very satisfied with all aspects. Table 2 indicates that 61 percent of the self-directed financial learners were satisfied or very satisfied with their finances, whereas only 52 percent of the non-learners reported this level of satisfaction.

An employee’s satisfaction with his/her ability to achieve success and get ahead was ascertained with the question: “*During the past six months, how satisfied have you been with your ability to achieve success and to get ahead?*”. A five-item Likert scale ranging from very dissatisfied = 1 to very satisfied = 5 assessed this single measure. The number of those who were satisfied or very satisfied with their career progression was ten percent higher among the active self-directed financial learners than among the non-learners (see Table 2).

**Table 2.**  
**Descriptive Statistics for Dependent Variables by Use of Self-Directed Materials**

Dependent Variables	Do not use self-directed financial learning N=391 (37.4%) %	Use self-directed financial learning N=650 (62.6%) %
Number of Media Used		
1		42.8
2		34.0
3		14.0
4 media		9.3
Use Financial Mgt. Practices		
never	1.3	.3
seldom	5.1	.7
sometimes	27.1	15.4
often	45.9	52.4
always	20.7	31.3
ANOVA F statistic		17.03***
Cronbach's alpha		.76
Financial Satisfaction		
very dissatisfied	1.0	.3
dissatisfied	12.3	6.8
neither dissatisfied nor satisfied	35.3	32.5
satisfied	42.3	52.3
very satisfied	9.3	8.3
ANOVA F statistic		6.20***
Cronbach's alpha		.86
Career Satisfaction		
very dissatisfied	6.9	5.0
dissatisfied	22.9	17.6
neither dissatisfied nor satisfied	29.3	25.6
satisfied	36.9	44.0
very satisfied	3.3	5.6
ANOVA F statistic		5.57***

*Limitations*

The present study is limited to a homogenous sample of mostly white, lower-level, white-collar workers. According to the Bureau of Labor Statistics (2002), office and administrative personnel represents the largest job category of the work force. However, caution should be exercised when generalizing these results beyond the type of population studied here. Like any other mail survey, there may also be limitations regarding the recollection of financial behavior that has taken place several months prior to the questionnaire or an unwillingness of respondents to reveal certain kinds of information. Self-selection bias, the error that occurs when respondents who choose to respond to the survey are systematically different than the intended sample, is present.

**Results**

The bi-variate correlation results in Table 3 indicate that active self-directed learners showed better financial management practices ( $r=.24, p<.01$ ) and higher financial and career satisfaction (financial,  $r=.15$ ; career,  $r=.14, p<.01$ ). In addition, financial management practices were positively correlated with financial and career satisfaction (financial,  $r=.28$ ; career,  $r=.20, p<.01$ ) and financial and career satisfaction were inter-correlated as well ( $r=.46, p<.01$ ).

Hypotheses 1, 2 and 3 were tested using hierarchical multiple regression analysis following a statistical procedure described in Cohen and Cohen (1982) and Butler et al. (2004). With respect to the use of multiple regressions on an ordinal variable, it is arguable but generally accepted that regression is rather robust when an ordinal dependent variable with a Likert-like scaling ranging from 1 to 5, is used (Butler, Grasser, Smart, 2004). Specifically, in the first step, the six demographic variables were entered into the regression equation as independent variables to predict financial management practices. Self-directed financial learning was entered into the equation at the second step. The regression results indicated that self-directed financial learning accounted for a significant amount of unique variance associated with financial management practices [ $\Delta R^2 = .039, \Delta F = 4.54, p<.001; R^2 \text{ Total} = .100, F(7; 980) = 15.382, p<.001$ ] above and beyond the variance contributed by the demographic variables. Thus, Hypothesis 1 was fully supported.

**Table 3.**  
**Correlation coefficients**

	Self-Directed Learning	Financial Mgt. Practices	Financial Satisfaction	Career Satisfaction
Gender	-.14**	-.01	-.16**	.03
Age	-.09**	-.13**	.11**	-.03
Ethnicity	.02	.01	.12**	-.02
Marital Status	.07*	.06	.04	.01
Household Size	.00	-.08**	-.19**	-.11**
Job Classification	-.23**	-.16**	-.22**	-.10**
Self-Directed Learning Management Practices	---	.24**	.15**	.14**
Financial Satisfaction	---	---	.28**	.20**
Career Satisfaction	---	---	---	.46**

\* $p<.05, **p<.01$

With regard to Hypotheses 2, in the first step, the six demographic variables and self-directed financial learning were entered into the regression equation as independent variables to predict financial satisfaction. Financial management practices were entered into the equation at the second step. The regression results indicated that financial management practices accounted for a significant amount of unique variance associated with financial satisfaction [ $\Delta R^2 = .052$ ,  $\Delta F = 6.32$ ,  $p < .001$ ;  $R^2$  Total = .178,  $F(8; 980) = 26.323$ ,  $p < .001$ ] above and beyond the variance contributed by the demographic variables and self-directed financial learning. Thus, Hypothesis 2 was fully supported.

With regard to Hypothesis 3, in the first step, the demographic variables and financial management practices were entered into the regression equation to predict career satisfaction. Financial satisfaction was entered into the equation at the second step. The regression results indicated that financial satisfaction accounted for a significant amount of unique variance associated with career satisfaction [ $\Delta R^2 = .175$ ,  $\Delta F = 29.31$ ,  $p < .001$ ;  $R^2$  Total = .230,  $F(8; 1008) = 38.717$ ,  $p < .001$ ] above and beyond the variance contributed by the control variables and financial management practices. Thus, Hypothesis 3 was fully supported as well.

Hypotheses 4 and 5 were tested using criteria established by James and Brett (1984), which determine whether mediation effects exist. For condition 1 to be met, the independent variable must be significantly correlated with the mediator variable. For condition 2, the mediator variable must be significantly related to the dependent variable. For condition 3, the influence of the mediator variable is held constant, and the effect of the independent variable on the dependent variable should be non-significant (Allen, 2001).

Partial correlations controlling for the effects of the four control variables were computed and results indicated that conditions 1 and 2 were met for each hypothesis suggesting mediation. Results of these analyses are available upon request. Condition three was tested using three regression steps: (1) entering the demographic variables into the regression equation; (2) adding the independent variables self-directed financial learning (H4) or financial management practices (H5) to the equation; and, (3) adding the proposed mediator variable financial management practices (H4) or financial satisfaction (H5) to the equation. The significance of the regression coefficient associated with the step-two independent variable was used to determine if mediation exists. The results of the procedures are shown in Table 4.

**Table 4.**  
**Standardized regression coefficients for the mediating effects of “financial management practices” and “financial satisfaction”**

Independent Variables	Financial Satisfaction			Career Satisfaction		
	Step 1 <sup>a</sup>	Step 2 <sup>b</sup>	Step 3 <sup>c</sup>	Step 1 <sup>a</sup>	Step 2 <sup>b</sup>	Step 3 <sup>c</sup>
Gender	-.06	-.05	-.08*	.10**	.08*	.12***
Age	.09**	.10**	.13***	-.02	-.00	-.06*
Ethnicity	.09**	.08*	.08**	-.03	-.03	-.07*
Marital Status	.12**	.12**	.09**	.07	.05	.01
Household Size	-.22***	-.23***	-.19***	-.14***	-.12**	-.03
Job Classification	-.18***	-.15***	-.12**	-.14***	-.11**	-.05
Self-Directed Financial Learning		.11***	.06*	--	--	--
Financial Practice			.24***		.17***	.05
Financial Satisfaction						.46***
R <sup>2</sup>	.11	.13	.18	.03	.06	.24
$\Delta R^2$		.02	.05		.03	.18

<sup>a</sup> demographic variables entered

<sup>b</sup> self-directed financial learning (H4) or financial management practices (H5) entered

<sup>c</sup> mediator variable financial management practices (H4) or financial satisfaction (H5) entered

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ ; F statistics were significant at the .000 level

Hypothesis 4 suggested that financial management practices would mediate the relationship between self-directed financial learning and financial satisfaction. The results indicate that the regression coefficient associated with self-directed financial learning was significant in the equation when first entered for the dependent variable financial satisfaction ( $\beta = .11$ ,  $p < .001$ ). After financial management practices were entered into the equation ( $\beta = .24$ ,  $p < .001$ ) the regression coefficient associated with self-directed financial

learning became smaller, but remained significant ( $\beta = .06$ ,  $p < .05$ ), lending partial support to Hypothesis 4.

Hypothesis 5 suggested that financial satisfaction would mediate the relationship between financial management practices and career satisfaction. The results indicated that the regression coefficient associated with financial management practices was significant in the equation when first entered for the dependent variable career satisfaction ( $\beta = .17$ ,  $p < .001$ ).

After financial satisfaction was entered into the equation ( $\beta=.46$ ,  $p<.001$ ), the regression coefficient associated with financial management practice became non-significant ( $\beta=.05$ ,  $p=.066$ ). Thus, Hypothesis 5 was fully supported.

### Discussion

Self-directed financial learning was found to be significantly associated with better financial management practices as well as financial satisfaction and career satisfaction. Financial management practices, higher financial and higher career satisfaction were positively intercorrelated. The findings demonstrate that the ability to apply newly acquired knowledge is the final phase of self-directed learning (Danis, 1992).

Better financial management practices were found to be related to higher financial satisfaction; the addition of financial management practices to the model containing demographic variables and self-directed financial learning media increased the variance explained in financial satisfaction by 1.4 times. Financial satisfaction was found to be positively related to higher career satisfaction; the addition of financial satisfaction to the model containing demographic variables and financial management practices increased by 3.8 times the variance explained in career satisfaction.

These findings provide evidence of the validity of the framework for understanding the educational effects of employer-provided financial media. These results add to the findings of Lusardi (2004) that workplace financial education appears to affect those at the bottom of the wealth distribution the most. The findings indicate the potential for self-directedness to determine how employees manage their finances and their resulting satisfaction with their decisions. Financial management practices were found to mediate the relationship between self-directed financial learning and financial satisfaction. Although self-directed financial learning was directly related to financial satisfaction, the addition of financial management practices to the model increased the variance explained in financial satisfaction by a third. These findings are in line with previous studies that have underscored the impact of good financial management practices on enhanced financial satisfaction (Titus, Fanslow, and Hira, 1989a; Bernheim, 1994; DeVaney, 1995; DeVaney, Gorham, Bechman, and Haldeman, 1995; DeVaney, Gorham, Bechman, and Haldeman, 1996).

In our study, smaller household size, older age, employment in the field, being male, white, and married also contributed to financial satisfaction. This suggests that financial satisfaction may depend on everyday money management to a significant extent, but also on the socio-demographic situation of an individual. A smaller household size means fewer dependents to care for and an older age may go along with higher income and reduced financial obligations, such as a mortgage or college tuition.

We also found that financial satisfaction moderated the relationship between financial management practices and career satisfaction. Although financial management practices were significantly related to career satisfaction, the model fit improved greatly by adding financial satisfaction. In addition, career satisfaction seemed particularly high among female employees. This suggests that financial satisfaction is a major determinant of career satisfaction. In line with the findings of Garman et al. (1996), Joo (1998), Kim et al. (1998), Garman et al. (1999), and Kim (2000), the present results tentatively indicate that those employees who know how to gather financial information and who are satisfied with their handling of personal finances are more likely to be confident in their ability to achieve success and to get ahead. One of Garman's et al. (1996) findings was that employers can increase job productivity and "make employees happy" by giving their employees tools to achieve financial satisfaction. The present study provides support for this statement.

In conclusion, the results of this study favor the hypothesis that self-directed financial learning stimulates good financial management practices, financial satisfaction, and career satisfaction. In so doing, the present study suggests an explanatory mechanism for how and why environments that further self-directed learning benefit the individual and the workplace. These findings have potentially important implications concerning the efficacy of strategies to build financially stronger and more satisfied employees.

Assessment of self-directed financial learning can serve several practical purposes. These results suggest that self-directed learning efforts can meet the challenge of keeping current on constantly changing financial knowledge. Adult financial learning is not restricted to traditional classroom settings, nor does it require the continuous involvement of an accredited teacher. Perhaps the most important implication of all



is that self-directed financial learning works. In all respects, future learners will need to become self-directed throughout their lives just to cope with the enormous amount and variety of information available to them (Hiemstra, 1994).

Similarly, these results provide evidence that financially savvy employees know how to achieve success and get ahead in a work environment. These findings are consistent with social exchange theory suggesting that employees who perceive benefits from an employer provided financial session are more likely to form beliefs that the employer cares for them (Eisenberger, Huntington, Hutchison, and Sowa, 1986; Rhoades, Eisenberger, and Armeli, 2001). For instance, the educational session as well as the self-directed learning experience helped employees to better understand employee benefits and to make appropriate financial choices. This emotional bond is considered crucial to heightened performance, reduced absenteeism, and a lessened likelihood of employees quitting their jobs (Blau and Boal, 1987; Williams, Haldeman, and Cramer, 1996; Rhoades and Eisenberger, 2002). In addition, as the work-family literature suggests, a person's satisfaction with personal finances and career progression is closely related to a balanced, less-distressed family life (Parasuraman and Greenhaus, 2002).

Assessing self-directed financial learning in the workplace be of use to financial educators in the workplace and other adult educational settings. As Hiemstra (1994) suggests, more research is needed to discover which learning situations and personalities are best for self-directed financial learning. Researchers must also determine where and when self-directed financial learning takes place, which activities and resources are most effective, and the degree to which self-directed learning transfers from one situation to another. In addition, research should examine how instructors can be more effectively used in the workplace setting to enhance self-directed financial learning such as dialogue with learner, securing resources, evaluating outcomes, and promoting critical thinking.

More research is also needed to find ways for workplace settings to support self-directed financial study through open-learning programs, individualized study options, non-traditional course offerings, and other innovative programs that meet the needs, desires, and capabilities of the adult learners. Research should also assess the problems that can arise when employers are faced with the delicate balance between encouraging individual autonomy and learner options while assuring that employees make good financial decisions.

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