THE ASSOCIATION BETWEEN SELF-RATED FINANCIAL KNOWLEDGE AND POSITIVE FINANCIAL BEHAVIOR AMONG DIFFERENT SOCIO-ECONOMIC GROUPS

Abdiasis Daauud
Applied Data Analysis, Wesleyan University

Introduction

- Financial knowledge impacts savings, investments, and spending habits, shaping long-term financial security.
- Studies show financial education programs improve knowledge but have limited long-term effects on behavior (Kaiser & Menkhoff, 2017; Fernandes et al., 2014).
- The Canadian Financial Capability Survey (2019) found that only 56% of young adults engaged in financial learning, with minimal improvement in debt and budgeting skills.
- Existing research focuses on objective financial knowledge, leaving a gap in understanding self-rated financial knowledge and its influence on behavior.
- This study examines whether higher self-rated financial knowledge correlates with positive financial behaviors.

Methods

Sample

- The sample from the National Financial Well-Being Survey represents non-institutionalized adults (18+) across the 50 U.S. states and Washington, D.C.
- Recruitment used random digit dialing (RDD) and address-based sampling (ABS), including Hispanic representation through KnowledgePanel LatinoSM, with participation facilitated for both English and Spanish speakers, including those without prior internet access.

Measures

- Positive financial behaviors, the response variable, were assessed using 7 categorical statements on responsible financial practices (e.g., budgeting, saving), with responses scored from 1 (strongly disagree) to 5 (strongly agree) and summed into a total score.
- The explanatory variable, self-rated financial knowledge, was measured by asking participants to rate their financial knowledge on a 10-point scale.

Research Questions

Do individuals with higher self-rated financial knowledge practice more positive financial behaviors?
Does this relationship vary across different socio-economic groups?

Results

Univariate

- The self-rated financial knowledge variable has a mean of 4.72 (SD = 1.18) on a scale of 1 to 7, with most participants clustering around a median of 5.
- The positive behavior metric variable (cumulative positive behavior score) has a mean of 24.71 (SD = 5.02) on a scale of 0 to 35, with a median value of 25..

Bivariate

- The Boxplot showed a clear positive correlation between self-rated knowledge and positive behavior(**Figure 3**)
- The Anova test showed that the higher self-rated financial knowledge, the more a respondent practiced positive financial behaviors. (**Figure 1**)
- A p-value < 0.05 confirms that the differences in the means of positive behavior metric across the levels of self-rated financial knowledge are statistically significant . (**Figure 1**)
- The post hoc analysis confirmed that each number in the range had a mean significantly different from every other number in the range. (**Figure 4**)

Multivariate

- Each one-unit increase in self-rated fin-knowledge is associated with a ~2.88 unit rise in positive behavior metric ($p < 0.001$).
- Higher self-rated fin-knowledge categories show increasing scores, with respondents with 7 on scale scoring ~16.24 units higher than those in 1 ($p < 0.001$).
- Retired and self-employed individuals score significantly higher, while unemployed individuals score ~0.93 units lower on positive behavior metric ($p < 0.001$)(**Figure 2**).
- Older age groups generally score lower on positive behavior metric, with the 45–54 age group showing the largest negative effect (-1.24 units, $p < 0.05$)(**Figure 2**).
- Being married increases positive_behavior_metric by ~0.56 units, with other marital statuses showing limited effects. (**Figure 2**)

ANOVA Table:

	sum_sq	df	F	PR(>F)
C(SUBKNOWL1)	77711.863032	7.0	823.379867	0.0
Residual	86102.934121	6386.0	NaN	NaN

Figure 1: The ANOVA table highlights a significant correlation of self-rated financial knowledge (SUBKNOWL1) with positive financial behavior

	coef	std err	t	P>|t|	[0.025	0.975]
Intercept	12.2856	0.391	31.390	0.000	11.518	13.053
agecat[T.25-34]	-0.5446	0.237	-2.298	0.022	-1.009	-0.080
agecat[T.35-44]	-0.9143	0.257	-3.551	0.000	-1.419	-0.410
agecat[T.45-54]	-1.2443	0.253	-4.914	0.000	-1.741	-0.748
agecat[T.55-61]	-1.0372	0.269	-3.860	0.000	-1.564	-0.510
agecat[T.62-69]	-0.8428	0.277	-3.041	0.002	-1.386	-0.300
agecat[T.70-74]	-0.9868	0.318	-3.104	0.002	-1.610	-0.364
agecat[T.75+]	-0.8381	0.314	-2.666	0.008	-1.454	-0.222
PPEDUC[T.Graduate/professional degree]	-0.0237	0.149	-0.159	0.873	-0.316	0.268
PPEDUC[T.High school degree/GED]	-0.4475	0.146	-3.067	0.002	-0.734	-0.162
PPEDUC[T.Less than high school]	-0.5161	0.225	-2.290	0.022	-0.958	-0.074
PPEDUC[T.Some college/Associate]	-0.3767	0.134	-2.813	0.005	-0.639	-0.114
PPINCIMP[T.$150,000 or more]	0.4032	0.165	2.444	0.015	0.080	0.727
PPINCIMP[T.$20,000 to $29,999]	-0.5804	0.208	-2.785	0.005	-0.989	-0.172
PPINCIMP[T.$30,000 to $39,999]	-0.6287	0.193	-3.266	0.001	-1.006	-0.251
PPINCIMP[T.$40,000 to $49,999]	-0.6416	0.206	-3.115	0.002	-1.045	-0.238
PPINCIMP[T.$50,000 to $59,999]	-0.5036	0.198	-2.548	0.011	-0.891	-0.116
PPINCIMP[T.$60,000 to $74,999]	-0.0633	0.180	-0.351	0.726	-0.417	0.290
PPINCIMP[T.$75,000 to $99,999]	-0.1203	0.160	-0.751	0.452	-0.434	0.194
PPINCIMP[T.Less than $20,000]	-0.4925	0.203	-2.425	0.015	-0.891	-0.094
PPETHM[T.Hispanic]	0.0546	0.189	0.289	0.773	-0.316	0.425
PPETHM[T.Other, Non-Hispanic]	-0.1737	0.242	-0.718	0.473	-0.648	0.301
PPETHM[T.White, Non-Hispanic]	0.1046	0.153	0.684	0.494	-0.195	0.405
PPMARIT[T.Living with partner]	0.3865	0.244	1.586	0.113	-0.091	0.864
PPMARIT[T.Married]	0.5600	0.156	3.601	0.000	0.255	0.865
PPMARIT[T.Never Married]	0.0309	0.190	0.162	0.871	-0.342	0.404
PPMARIT[T.Widowed]	0.3758	0.246	1.528	0.127	-0.106	0.858
EMPLOY[T.Full Time Student]	0.1302	0.289	0.451	0.652	-0.436	0.696
EMPLOY[T.Homemaker]	0.1501	0.210	0.714	0.476	-0.262	0.562
EMPLOY[T.Part Time]	-0.2371	0.194	-1.224	0.221	-0.617	0.143
EMPLOY[T.Refused]	-0.5187	0.350	-1.481	0.139	-1.205	0.168
EMPLOY[T.Retired]	0.5140	0.178	2.880	0.004	0.164	0.864
EMPLOY[T.Self Employed]	0.5652	0.195	2.900	0.004	0.183	0.947
EMPLOY[T.Unemployed]	-0.6795	0.250	-2.713	0.007	-1.170	-0.189
EMPLOY[T.sick,disabled or unable to work]	-0.0431	0.247	-0.175	0.861	-0.527	0.441
SUBKNOWL1	2.7862	0.040	68.952	0.000	2.707	2.865

Figure 2: Regression coefficients table summarizing the relationship between various predictors, including SUBKNOWL1, socio-economic factors, and the Positive Behavior Metric.

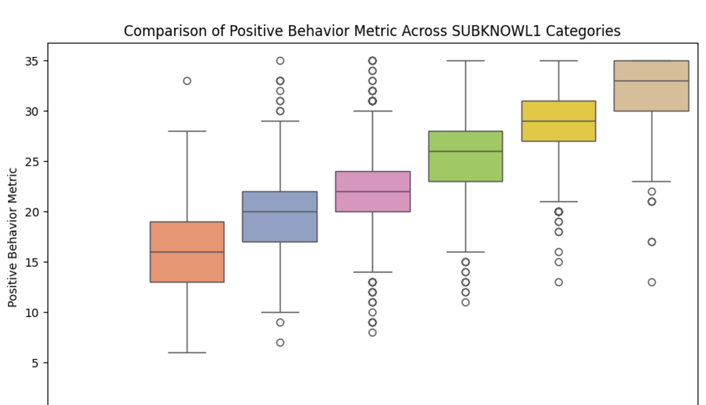

Figure 3: Boxplot comparing the distribution of the Positive Behavior Metric across different categories of self-rated financial knowledge (SUBKNOWL1).

Discussion

- The findings confirm that individuals who perceive themselves as more financially knowledgeable are more likely to engage in behaviors that promote financial well-being.
- Higher education and stable employment significantly enhance the impact of financial knowledge on behavior.
- Financial education programs should address structural barriers like education access and job stability to maximize effectiveness.
- Future research should examine the role of income inequality and cultural attitudes in shaping financial behavior.

group1	group2	meandiff	p-adj	lower	upper	reject
1	2	2.0504	0.0001	0.7585	3.3423	True
1	3	4.1925	0.0	3.1256	5.2595	True
1	4	6.8688	0.0	5.8695	7.8681	True
1	5	10.1678	0.0	9.1854	11.1502	True
1	6	13.3662	0.0	12.3521	14.3804	True
1	7	16.2366	0.0	15.1095	17.3637	True
2	3	2.1421	0.0	1.1605	3.1238	True
2	4	4.8184	0.0	3.9107	5.7261	True
2	5	8.1174	0.0	7.2284	9.0064	True
2	6	11.3159	0.0	10.3918	12.2399	True
2	7	14.1862	0.0	13.1395	15.233	True
3	4	2.6763	0.0	2.1347	3.2178	True
3	5	5.9753	0.0	5.4657	6.4849	True
3	6	9.1737	0.0	8.6053	9.7422	True
3	7	12.0441	0.0	11.2924	12.7958	True
4	5	3.299	0.0	2.9527	3.6453	True
4	6	6.4974	0.0	6.0692	6.9257	True
4	7	9.3678	0.0	8.7157	10.02	True
5	6	3.1984	0.0	2.8114	3.5855	True
5	7	6.0688	0.0	5.443	6.6947	True
6	7	2.8704	0.0	2.1957	3.545	True

Figure 4: This figure presents the results of a post hoc analysis conducted after a significant ANOVA test. The analysis compares group means to identify statistically significant differences between pairs

References

- Fernandes, D., Lynch, J., & Netemeyer, R. (2014). Financial literacy, financial education and downstream financial behaviors. Management Science, 60(8), 1861–1883.
- Financial Consumer Agency of Canada (FCAC). (2019). Canadians and their money: Key findings from the 2019 Canadian Financial Capability Survey. https://www.canada.ca/en/financial-consumer-agency/programs/research/canadian-financial-capability-survey-2019.html
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