

Gender differences in consumer financial capability: Decomposition analyses

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A Presentation to:

2020 Joint International Virtual Conference of ACFEA and ACES



Motivation of this study

- Consumer capability is important for consumers to make optimal financial decisions.
- Financial capability has important economic significance for individual consumers as well as the macro economy (Lusardi & Mitchell, 2014).
- Research shows that consumer financial capability may contribute to consumer subjective financial wellbeing (Xiao, Chen, & Chen, 2014; Xiao & Porto, 2017).
- Consumer financial capability is defined as consumer ability to apply financial knowledge and perform desirable financial behavior to achieve financial wellbeing (Xiao & Porto, 2017).

Motivation of this study

- As an emerging field of research, scholars have examined many factors associated with financial knowledge, financial behavior and financial capability.
- One line of research is to study gender differences in financial capability. Previous research examined gender differences in financial knowledge (literacy) (Cupák et al., 2018; Fonseca, 2012) and financial behavior (Fisher & Yao, 2017; Sapienza et al., 2009; Walczak & Pieńkowska-Kamieniecka, 2018).
- However, no previous research examined gender differences in consumer financial capability comprehensively with multiple measures.

Purpose of this study

- Examine gender differences in financial capability controlling for various household characteristics.
- Identify factors widening or narrowing the gender difference in financial capability with a decomposition technique (Blinder, 1973; Oaxaca, 1973).
- We conducted our empirical analyses using a subsample of non-couple respondents to eliminate possible spousal effect as well as to isolate the gender effect.

Contribution of this study

- First, extended from the existing literature, the current study investigated gender difference in financial capability comprehensively using five different measures.
- Secondly, this study identified contributing factors to explain the gender difference, which is understudied.
- Results from the 2018 US NFCS provided the most recent trends of gender differences in financial capability.

Methods: Dataset

- 2018 National Financial Capability Studies (NFCS) dataset released by the FINRA Investor Education Foundation.
- The 2018 state-by-state survey collected roughly 500 respondents per state and District of Columbia with oversamples for Oregon and Washington and conducted between June and October 2018.
- In order to isolate the gender effect (i.e., to eliminate spousal effect among married couple) following the approach of Fisher and Yao (2017), we conducted additional analyses using the subsample of non-couple respondents (N=9,373).
- Non-couple respondents include non-married, separated, divorced and widow/widower respondents.



Dependent Variables: Financial Capability

- The dependent variables were four indicators of financial capability and one index variable following previous studies on financial capabilities (e.g., Xiao & O'Neill, 2016; Xiao & Porto, 2017).
- The five indicators include
 - (a) objective financial literacy (0-6)
 - (b) perceived financial literacy (1-7)
 - (c) perceived financial capability (1-7)
 - (d) financial behavior (0-6) (short-term 0-3 & long-term 0-3)
 - (e) composite index of financial capability

Independent Variables

- Age, Marital status
- Having a dependent child
- Race/ethnicity, Education
- Employment status
- Household income
- Negative income shock
- Banking status
- Financial education
- Financial anxiety
- State of residence



Empirical specification

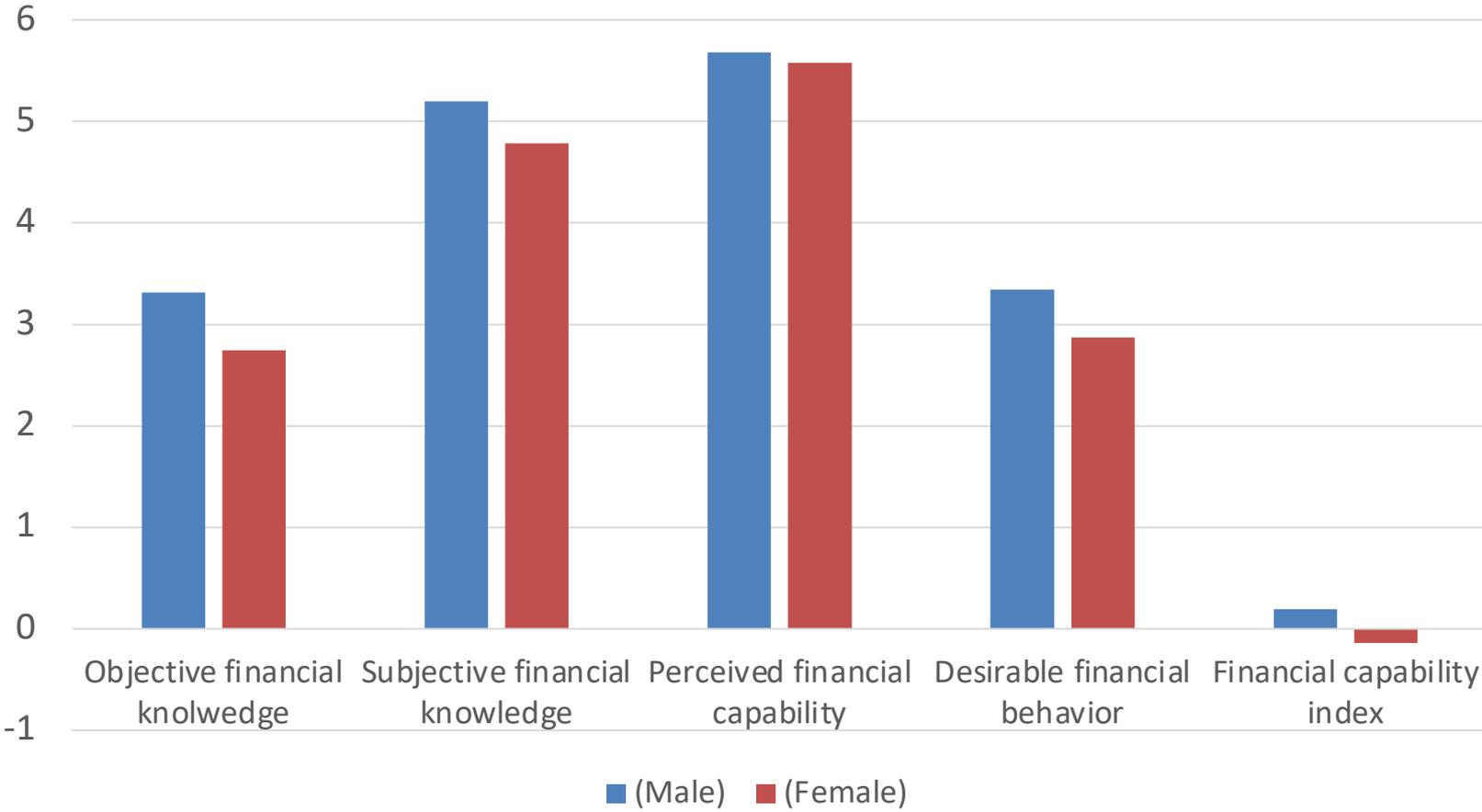
- Ordinary Least Squares (OLS) regression analyses on five financial capability variables.

$$\text{Financial Capability}_i = \beta_0 + \beta_1 \text{Gender}_i + \gamma X_i \dots \dots (1)$$

- In order to examine what factors explain the difference in financial capability variables between gender groups, we conducted decomposition analyses (Blinder, 1973; Oaxaca, 1973).

$$\bar{Y}^M - \bar{Y}^F = [(\bar{X}^M - \bar{X}^F)\hat{B}^M] + [\bar{X}^F(\hat{B}^M - \hat{B}^F)] \dots \dots (2)$$

Descriptive results



Multivariate results

Variables	(1) Objective financial knowledge		(2) Subjective financial knowledge		(3) Perceived financial capability		(4) Desirable financial behaviors		(5) Financial capability index	
	Coeff.	S.D.	Coeff.	S.D.	Coeff.	S.D.	Coeff.	S.D.	Coeff.	S.D.
Male (ref: female)	0.3899***	0.0308	0.3166***	0.0293	-0.0179	0.0326	0.1793***	0.0276	0.1868***	0.0170
Control variables	Included		Included		Included		Included		Included	
Regional fixed effect	Included		Included		Included		Included		Included	
Adjusted R-squared	0.2384		0.1620		0.1413		0.4351		0.3968	
F-value	92.69	<.0001	57.61	<.0001	49.19	<.0001	226.61	<.0001	193.6	<.0001

Weighted results. Significance level: * $p < .05$, ** $p < .01$, *** $p < .001$.



Blinder-Oaxaca Decomposition Analysis

	(1) Objective financial knowledge		(2) Subjective financial knowledge		(3) Perceived financial capability		(4) Desirable financial behaviors		(5) Financial capability index	
Component	Contribution to difference	% of explained difference	Contribution to difference	% of explained difference	Contribution to difference	% of explained difference	Contribution to difference	% of explained difference	Contribution to difference	% of explained difference
Age	-0.0340***	-28.80%	-0.0327***	-25.89%	-0.0430***	-40.67%	-0.0371***	-11.94%	-0.0323***	-22.27%
Marital status	-0.0191***	-16.24%	0.0051	3.98%	0.0080	7.59%	0.0177***	5.70%	-0.0034	-2.37%
Having a dependent child	0.0175***	14.86%	-0.0095**	-7.51%	0.0005	0.45%	0.0117***	3.77%	0.0034*	2.37%
Race/ethnicity	-0.0005	-0.39%	-0.0002	-0.16%	-0.0004	-0.36%	-0.0003	-0.09%	-0.0003	-0.19%
Education	0.0130	11.04%	0.0014	1.10%	0.0023	2.16%	0.0064	2.07%	0.0046	3.20%
Employment status	0.0047	4.02%	0.0048	3.83%	0.0063*	5.99%	0.0118***	3.80%	0.0061***	4.20%
Income	0.0648***	54.95%	0.0661***	52.31%	0.0456***	43.05%	0.1704***	54.81%	0.0759***	52.34%
Income drop	0.0010	0.87%	-0.0001	-0.11%	0.0006	0.53%	0.0004	0.11%	0.0004	0.24%
Banking status	0.0008	0.71%	0.0014	1.09%	0.0021	2.00%	0.0031	1.01%	0.0017	1.15%
Financial education	0.0277***	23.48%	0.0307***	24.31%	0.0191***	18.04%	0.0190***	6.11%	0.0213***	14.70%
Financial anxiety	0.0415***	35.20%	0.0605***	47.90%	0.0643***	60.81%	0.1071***	34.45%	0.0608***	41.89%
Total difference	0.5670***		0.4148***		0.1018***		0.4706***		0.3344***	
Explained difference	0.1179		0.1264		0.1058		0.3108		0.1451	
Unexplained difference	0.4491		0.2884		-0.0041		0.1598		0.1893	
% of explained difference to total difference		20.80%		30.47%		104.0%		66.04%		43.38%



Major findings

- The estimated total gender differences in the level of financial capability ranged from 0.1018 to 0.5670 and the explained differences between male and female respondents ranged from 20.8% (objective knowledge) to 104.0% (perceived financial capability).
- We found four major factors to explain the gender difference in financial capability; Income, financial anxiety, age and financial education contributed to the gender difference in financial capability across five different measures.
- Age was the only factor to narrow the gender differences in financial capability while income, financial anxiety and financial education widen the gender difference in financial capability.

Discussion and Implication

- When consumer educators working with women, they should be aware of these findings and provide specially designed education contents to meet women's special needs.
- The findings also show that age may narrow the gender difference, implying there will be more gender differences among younger people.
- The results suggest that financial anxiety might increase gender differences, implying that gender differences may be large among consumers with limited resources.

Discussion and Implication (cont.)

- This study had limitations to be noted for future research.
- Future studies using a different dataset may extend the current study by capturing possible bargaining power and spousal effects of couple respondents.
- This study confirmed that there are significant gender differences in financial capability, but there are still substantial unexplained differences.

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