

Global Forum for Financial Consumers
Financial Stress
& Consumer Wellbeing

Wookjae Heo, Ph.D. Assistant Professor of Consumer Affairs, SDSU

Video is here on presentation day



System 1

System 2

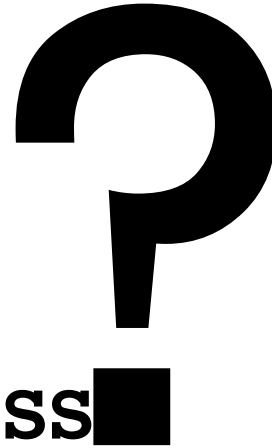
management ps

**Know about something \neq 100% Do the thing in real life
What blocks us to execute the rational financial decision making?**

Amongst a lot of factors: easy to ignore Emotional/Psychological Factors

**Financial Stress
Very few empirical researches (*Sinclair & Cheung, 2016*).**

What is
Financial Stress



Video is here on presentation day

How do people feel?



Happy



Safe



Relax



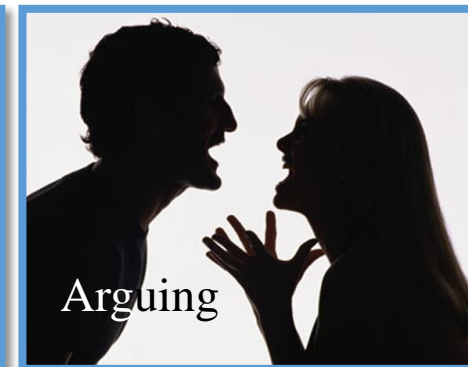
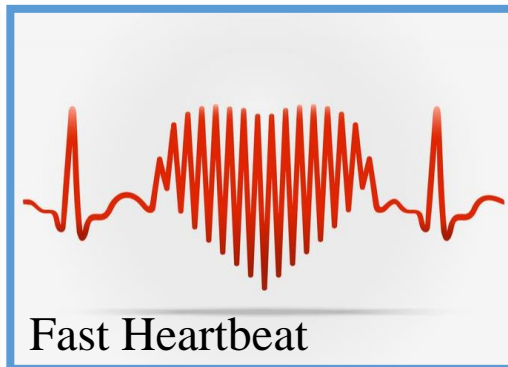
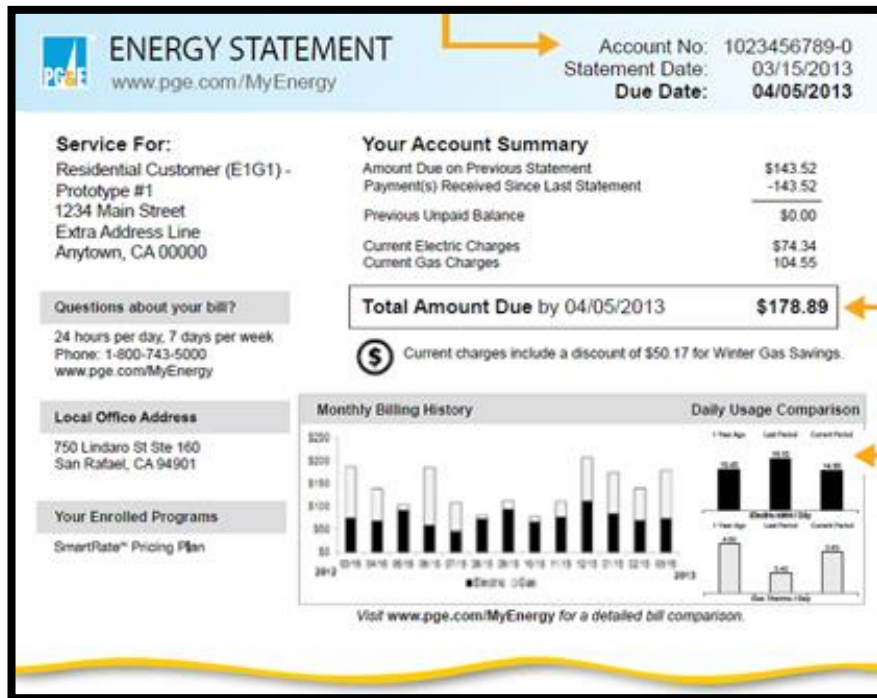
Convenience

Comfortable

Please see your doctor first...

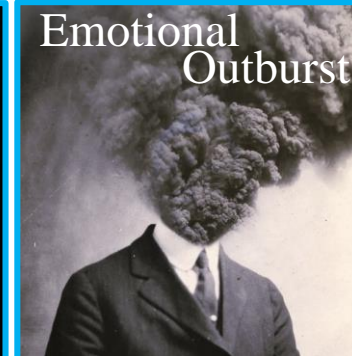
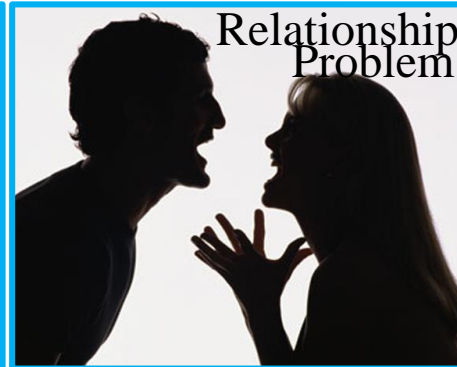


For me...



Body reacts with Hormone changes

Because of the financial stress, a person may experience



Normally...



Worry

Cold

High Heartbeat

Tense

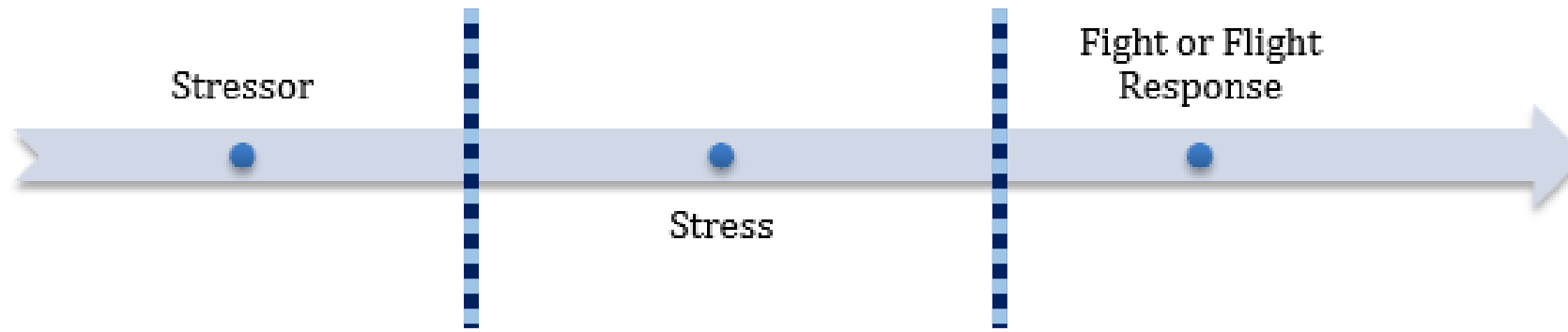
Anxiety

Short Breathe

Stressful situation associates to body-reaction.

Stress is...

Intangible Stage between Stressors and Body Response



It is not easy to divide these stages perfectly: combinations
Combination of stressor, strain, & physiological response: **STRESS**
(Bulter, 1993; Lazarus & Folkman, 1984; Selye, 1936; 1956)



Financial Stress is...caused by...

Economic Hardship
Financial Strain
Economic Pressure

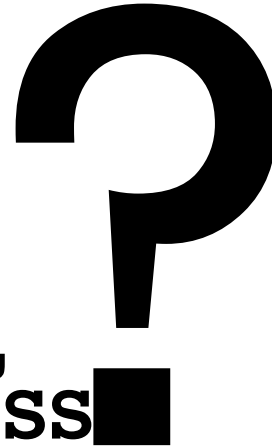
Unemployment
Long term Debts (i.e. Mortgage)
Credit Debts (i.e., Credit Card)



Stress

- Stress outcomes **include symptoms of physical or psychological distress** such as fatigue, headaches, anxiety, depression and so on. (Clark-Lempers, Lempers & Netusil, 1990).

Why is it important,
Financial Stress



General Reaction against Stressful situation

Video is here on presentation day

General Reaction against Stressful situation

Stressor: Stimuli



First Reaction: FIGHT



Second Reaction: FLIGHT

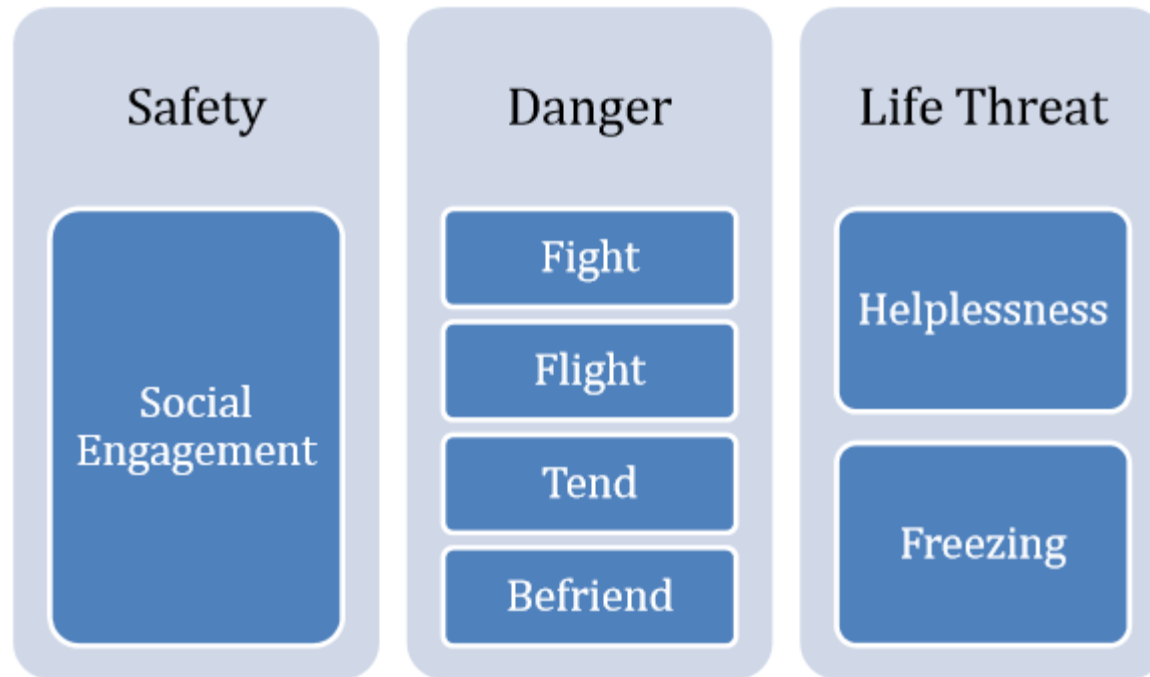


Evander Holyfield
Legendary Boxer
44 Wins; 10 Losses

Stressor: Overwhelming

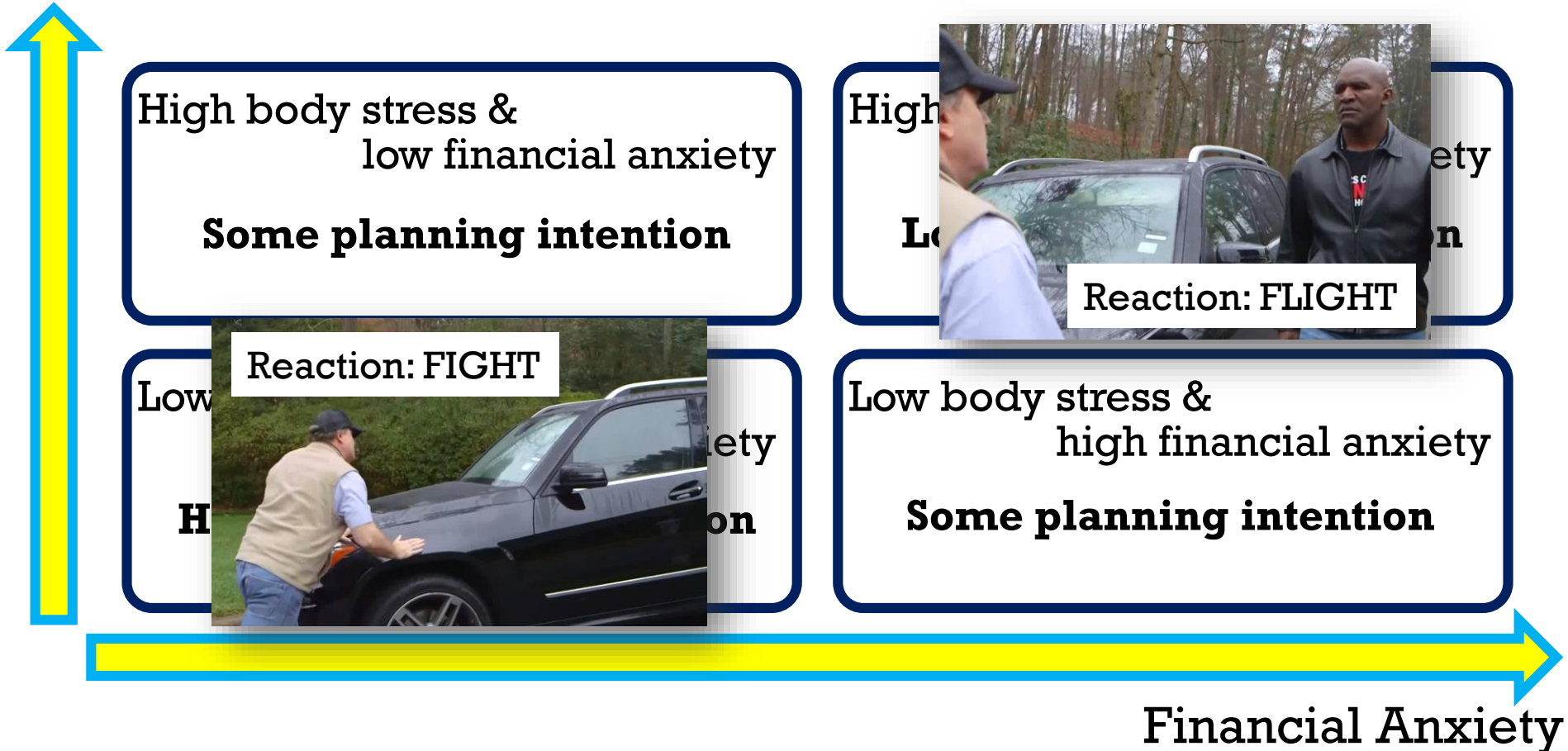
General Reaction against Stressful situation
Diverse theories about this...

Overwhelming Financial Stress = Flight Away from the Situation
Controllable Financial Stress = Fight Against the Situation



How does financial stress affect consumers' well-being?

Physiological Arousal (Stress)





Helplessness/Worry about Financial Behavior (Investing)
Financial Stress makes Worries/Helplessness

Financial Worries in Consumer Well-beings

Age	< 25 Years	< 25 Years	20 to 30 Years	> 40 Years
Marital Status	Never Married or Separated	Never Married	Single or Married	Married
Education	Low Education	Lowest Education	College Education	Highest Education
Gender	Female	Male	Male	Male
Income	Low Income	High Income	Medium Income	Highest Income
Decision Style	Rely on Others for Investment Advice	Rely on Others for Investment Advice	Make Own Investment Decisions	Make Own Investment Decisions
Season	Most Likely to Consider Investing in the Fall; Least Likely in Summer	Most Likely to Consider Investing in the Spring; Least Likely in Summer	Most Likely to Consider Investing in the Winter; Least Likely in Summer	Most Likely to Consider Investing in the Winter; Least Likely in Summer

↓
Low Edu./Inc.
Single
Female/Young

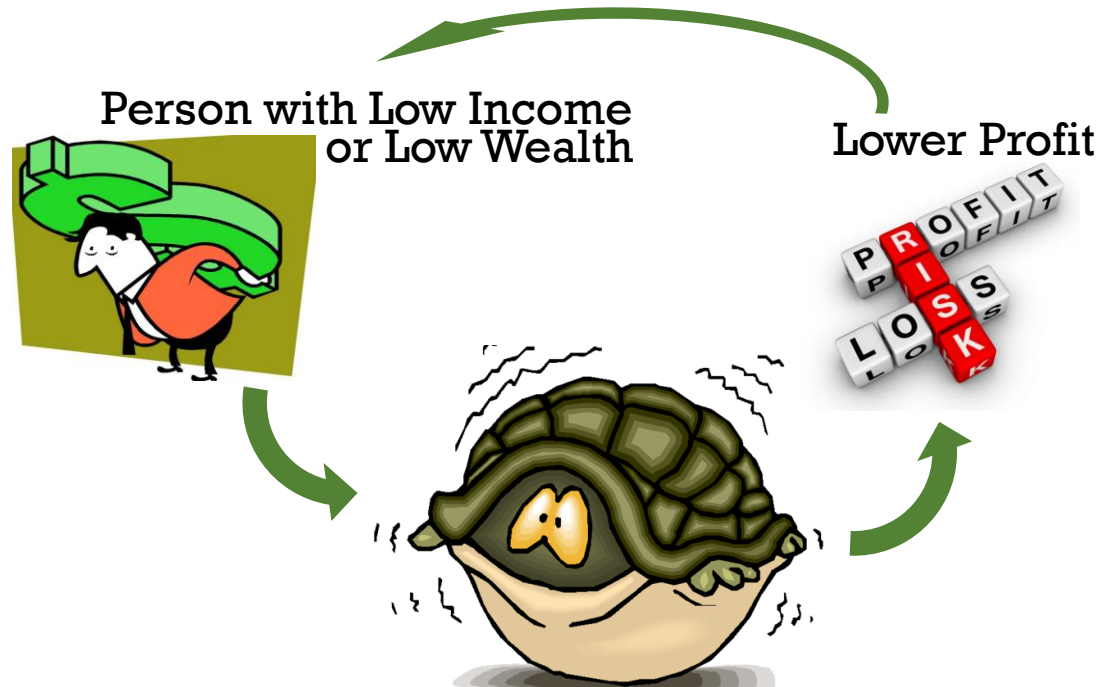
↓
Single
Male/Young
Dependent

↓
General
Middle Class
Breadwinner

↓
Wealthy
& Elite

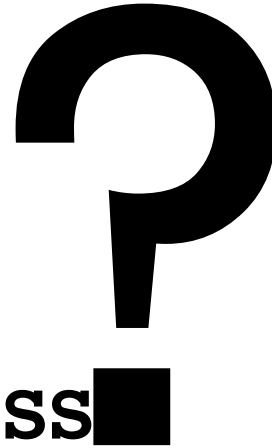
Heo, W., Grable, J. E., & O'Neil, B. (2017). Wealth accumulation inequality: Do investment risk tolerance and equity ownership make a difference? *Social Indicators Research*, 133(1)

Financial Worries in Consumer Well-beings Vicious Circle



Financial Stress makes Worries/Helplessness

How to measure
Financial Stress



Normally...



Worry

Cold

High Heartbeat

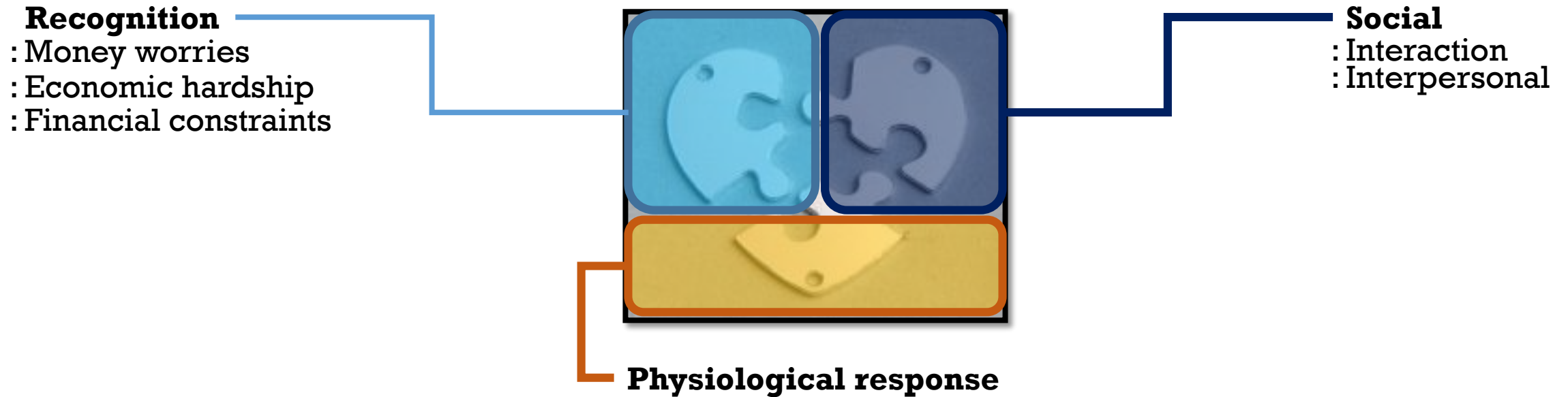
Tense

Anxiety

Short Breathe

Stressful situation associates to body-reaction.

Previous Researches Related to Consumer Finances



Barlow, Sauer-Savala, Carl, Bullis, & Ellard, 2014; Everly & Sobelman, 1987; Grable, Heo, & Rabbani, 2014; Kim & Garman 2003; Park, Heo, Jorge, & Grable, 2017; Prawitz, Garman, Sorhaino, O'Neill, Kim, & Drentea, 2006; Smith & Ascough, 2016; Starrin, Åslund, & Nilsson 2009

Comprehensive understanding of financial stress needed

Personal Recognition

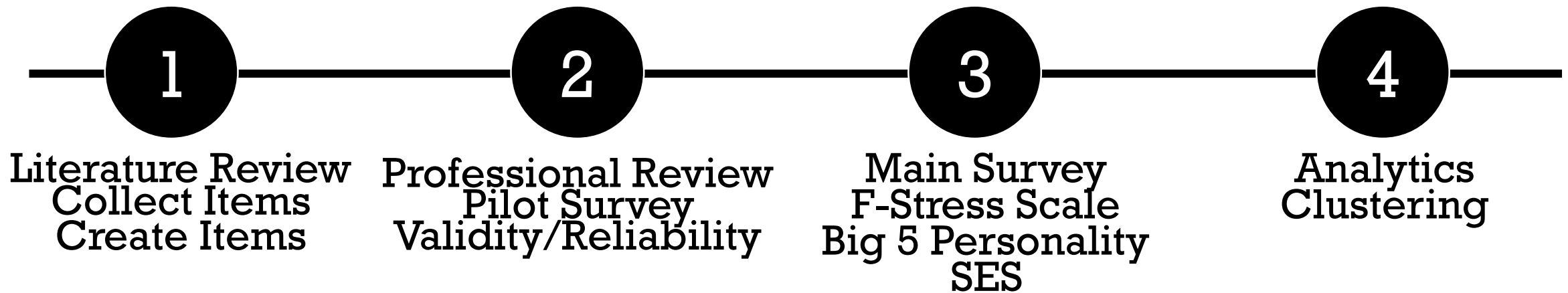


Social

Physiological response

Currently, develop a comprehensive survey with 24 items for measuring financial stress

Development of a Comprehensive Financial Stress Scale



Development of a Comprehensive

1

2

Literature Review
Collect Items
Create Items

Professional Review
Pilot Survey
Validity/Reliability

Affective Reaction: 8 items with a 5-point response scale

1. I feel depressed because of my financial situation.
2. I feel sad because of my financial situation.
3. I am fearful because of my financial situation.
4. I feel anxious because of my financial situation.
5. I worry a lot because of my financial situation.
6. I am easily irritated because of my financial situation.
7. I feel emotionally drained because of my financial situation.
8. I feel frustrated because of my financial situation.

Interpersonal Behavior: 8 items with a 5-point response scale

1. My financial situation interferes with my daily job performance.
2. I frequently pass on social events at work due to my financial situation.
3. I often get into trouble at work because of my financial situation.
4. My financial situation frequently interferes with my relationship with co-workers/colleagues.
5. I often argue with my spouse/significant other because of financial matters.
6. I find it difficult to talk about money with my spouse/significant other.
7. I frequently avoid attending family events because of my financial situation.
8. My financial situation frequently interferes with my family relationship.

Physiological Response: 8 items with a 5-point response scale

1. I have stomach aches frequently because of my financial situation.
2. My heartbeat increases because of my financial situation.
3. I feel cold because of my financial situation.
4. I have more sweat because of my financial situation.
5. I have more frequent muscle pain because of my financial situation.
6. I have fatigue frequently because of my financial situation.
7. I am sensitive to noise because of my financial situation.
8. I find flaws/cracks/chips of general objects more frequently than before because of my financial situation.

	Cluster A n= 362 Mean (SD)	Cluster B n= 178 Mean (SD)	Cluster C n= 466 Mean (SD)	Cluster D n= 156 Mean (SD)	Total N= 1,162 Mean (SD)
Financial Stress	48.67 (7.72)	26.38 (3.32)	73.43 (9.09)	101.92 (9.43)	62.34 (24.11)
Extra vs. Introversion*	24.64 (5.66)	25.56 (5.75)	23.78 (5.35)	24.77 (5.20)	24.45 (5.52)
Agree vs. Antagonism*	34.20 (5.01)	35.79 (6.42)	32.28 (5.22)	30.05 (4.74)	33.11 (5.57)
Conscientious vs. Lack*	34.61 (5.49)	37.32 (5.84)	31.87 (5.17)	30.12 (4.70)	33.33 (5.78)
Neuroticism vs. Stable*	21.67 (5.62)	16.70 (6.08)	25.77 (5.24)	27.07 (4.23)	23.27 (6.38)
Openness vs. Closed*	32.06 (4.83)	32.84 (5.39)	31.71 (4.33)	33.42 (3.98)	32.22 (4.66)

	Cluster A Freq. (%)	Cluster B Freq. (%)	Cluster C Freq. (%)	Cluster D Freq. (%)	Total Freq. (%)
Income					
<15,000	23 (6.35)	18 (10.11)	55 (11.80)	16 (10.26)	112 (9.64)
15,001-25,000	31 (8.56)	9 (5.06)	51 (10.94)	14 (8.97)	105 (9.04)
25,001-35,000	50 (13.81)	10 (5.62)	60 (12.88)	19 (12.18)	139 (11.96)
35,001-50,000	64 (17.68)	18 (10.11)	95 (20.39)	30 (19.23)	207 (17.81)
50,001-75,000	73 (20.17)	41 (23.03)	103 (22.10)	29 (18.59)	246 (21.17)
75,001-100,000	60 (16.57)	27 (15.17)	46 (9.87)	27 (17.31)	160 (13.77)
100,001-150,000	45 (12.43)	35 (19.66)	43 (9.23)	14 (8.97)	137 (11.79)
>150,001	16 (4.42)	20 (11.24)	13 (2.79)	7 (4.49)	56 (4.82)
Gender					
Male	110 (30.39)	18 (39.33)	35 (25.32)	70 (43.59)	366 (31.50)
Female	252 (69.61)	88 (60.67)	53 (74.68)	115 (56.41)	796 (68.50)
Marital Status					
Married	219 (60.50)	123 (69.10)	242 (51.93)	90 (57.69)	674 (58.00)
Single	143 (39.50)	55 (30.90)	224 (48.07)	66 (42.31)	488 (42.00)
Education					
<High School	4 (1.10)	4 (2.25)	18 (3.86)	5 (3.21)	31 (2.67)
High School	67 (18.51)	29 (16.29)	105 (22.53)	31 (19.87)	232 (19.97)
Some College	100 (27.62)	45 (25.28)	147 (31.55)	42 (26.92)	334 (28.74)
College Grad.	143 (39.50)	71 (39.89)	146 (31.33)	61 (39.10)	421 (36.23)
Post Graduate.	48 (13.26)	29 (16.29)	50 (10.73)	17 (10.90)	144 (12.39)

ensive Financial Stress Scale

3

Main Survey
F-Stress Scale
Big 5 Personality
SES

4

Analytics
Clustering



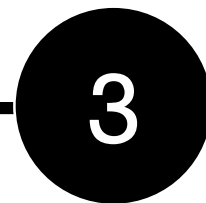
Hierarchical Clustering Model (Ward's linkage)

	Cluster A n= 362 Mean (SD)	Cluster B n= 178 Mean (SD)	Cluster C n= 466 Mean (SD)	Cluster D n= 156 Mean (SD)	Total N= 1,162 Mean (SD)
Financial Stress	48.67 (7.72)	26.38 (3.32)	73.43 (9.09)	101.92 (9.43)	62.34 (24.11)
Extra vs. Introversion*	24.64 (5.66)	25.56 (5.75)	23.78 (5.35)	24.77 (5.20)	24.45 (5.52)
Agree vs. Antagonism*	34.20 (5.01)	35.79 (6.42)	32.28 (5.22)	30.05 (4.74)	33.11 (5.57)
Conscientious vs. Lack*	34.61 (5.49)	37.32 (5.84)	31.87 (5.17)	30.12 (4.70)	33.33 (5.78)
Neuroticism vs. Stable*	21.67 (5.62)	16.70 (6.08)	25.77 (5.24)	27.07 (4.23)	23.27 (6.38)
Openness vs. Closed*	32.06 (4.83)	32.84 (5.39)	31.71 (4.33)	33.42 (3.98)	32.22 (4.66)

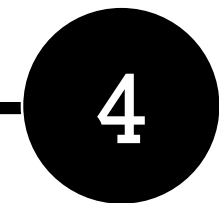
	Cluster A Freq. (%)	Cluster B Freq. (%)	Cluster C Freq. (%)	Cluster D Freq. (%)	Total Freq. (%)
Income					
<15,000	23 (6.35)	18 (10.11)	55 (11.80)	16 (10.26)	112 (9.64)
15,001-25,000	31 (8.56)	9 (5.06)	51 (10.94)	14 (8.97)	105 (9.04)
25,001-35,000	50 (13.81)	10 (5.62)	60 (12.88)	19 (12.18)	139 (11.96)
35,001-50,000	64 (17.68)	18 (10.11)	95 (20.39)	30 (19.23)	207 (17.81)
50,001-75,000	73 (20.17)	41 (23.03)	103 (22.10)	29 (18.59)	246 (21.17)
75,001-100,000	60 (16.57)	27 (15.17)	46 (9.87)	27 (17.31)	160 (13.77)
100,001-150,000	45 (12.43)	35 (19.66)	43 (9.23)	14 (8.97)	137 (11.79)
>150,001	16 (4.42)	20 (11.24)	13 (2.79)	7 (4.49)	56 (4.82)
Gender					
Male	110 (30.39)	18 (39.33)	35 (25.32)	70 (43.59)	366 (31.50)
Female	252 (69.61)	88 (60.67)	53 (74.68)	115 (56.41)	796 (68.50)
Marital Status					
Married	219 (60.50)	123 (69.10)	242 (51.93)	90 (57.69)	674 (58.00)
Single	143 (39.50)	55 (30.90)	224 (48.07)	66 (42.31)	488 (42.00)
Education					
<High School	4 (1.10)	4 (2.25)	18 (3.86)	5 (3.21)	31 (2.67)
High School	67 (18.51)	29 (16.29)	105 (22.53)	31 (19.87)	232 (19.97)
Some College	100 (27.62)	45 (25.28)	147 (31.55)	42 (26.92)	334 (28.74)
College Grad.	143 (39.50)	71 (39.89)	146 (31.33)	61 (39.10)	421 (36.23)
Post Graduate	48 (13.26)	29 (16.29)	50 (10.73)	17 (10.90)	144 (12.39)

No stereotypes in clients

Comprehensive Financial Stress Scale



Main Survey



Analytics

Hierarchical Clustering Model (Ward's linkage)

Findings

	Cluster A n= 362	Cluster B n= 178	Cluster C n= 466	Cluster D n= 156	Total N= 1,162	
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
Financial Stress	48.67 (7.72)	26.38 (3.32)	73.43 (9.09)	101.92 (9.43)	62.34 (24.11)	
Extra vs. Introversion	24.64 (5.66)	25.56 (5.75)	23.78 (5.35)	24.77 (5.20)	24.45 (5.52)	Intermediate extraversion
Agree vs. Antagonism	34.20 (5.01)	35.79 (6.42)	32.28 (5.22)	30.05 (4.74)	33.11 (5.57)	Lowest agreeable
Conscientious vs. Lack	34.61 (5.49)	37.32 (5.84)	31.87 (5.17)	30.12 (4.70)	33.33 (5.78)	Lowest conscientiousness
Neuroticism vs. Stable	21.67 (5.62)	16.70 (6.08)	25.77 (5.24)	27.07 (4.23)	23.27 (6.38)	Highest neuroticism
Openness vs. Closed	32.06 (4.83)	32.84 (5.39)	31.71 (4.33)	33.42 (3.98)	32.22 (4.66)	Highest openness

F-Stress: Highest

Higher numbers mean greater tendency of Extraversion, Agreeable, Conscientiousness, Neuroticism, and Openness than Introversion, Antagonism, Lack of Direction, Emotional Stability, and Closedness to experience, respectively.

Findings

	Cluster A n= 362	Cluster B n= 178	Cluster C n= 466	Cluster D n= 156	Total N= 1,162	
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
Financial Stress	48.67 (7.72)	26.38 (3.32)	73.43 (9.09)	101.92 (9.43)	62.34 (24.11)	
Extra vs. Introversion	24.64 (5.66)	25.56 (5.75)	23.78 (5.35)	24.77 (5.20)	24.45 (5.52)	Highest extraversion
Agree vs. Antagonism	34.20 (5.01)	35.79 (6.42)	32.28 (5.22)	30.05 (4.74)	33.11 (5.57)	Highest agreeable
Conscientious vs. Lack	34.61 (5.49)	37.32 (5.84)	31.87 (5.17)	30.12 (4.70)	33.33 (5.78)	Highest conscientiousness
Neuroticism vs. Stable	21.67 (5.62)	16.70 (6.08)	25.77 (5.24)	27.07 (4.23)	23.27 (6.38)	Lowest neuroticism
Openness vs. Closed	32.06 (4.83)	32.84 (5.39)	31.71 (4.33)	33.42 (3.98)	32.22 (4.66)	Intermediate openness

F-Stress: Lowest

Higher numbers mean greater tendency of Extraversion, Agreeable, Conscientiousness, Neuroticism, and Openness than Introversion, Antagonism, Lack of Direction, Emotional Stability, and Closedness to experience, respectively.

Findings



Use of Financial Stress Scale at the meeting



Intermediate extraversion
Lowest agreeable
Lowest conscientiousness
Highest neuroticism
Highest openness

Highest extraversion
Highest agreeable
Highest conscientiousness
Lowest neuroticism
Intermediate openness

Seems to be similar behavior in office (extraverted; openness)
Difference inside clients (agreeable; conscientiousness; neuroticism)

Researches are still going on
Stress Reaction & Consumer Financial Wellbeing

Current Researches about Consumer Financial Stress

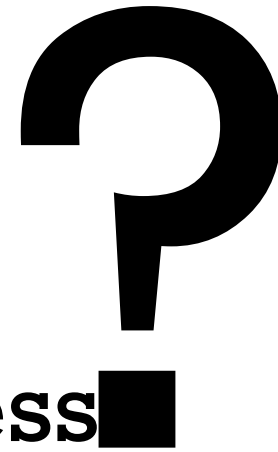


Current Researches about Consumer Financial Stress



Video is here on presentation day

Why do we investigate
Financial Stress



How to overcome?

Meditation to relieve the stressful situation (exclude helplessness)

Self-Control

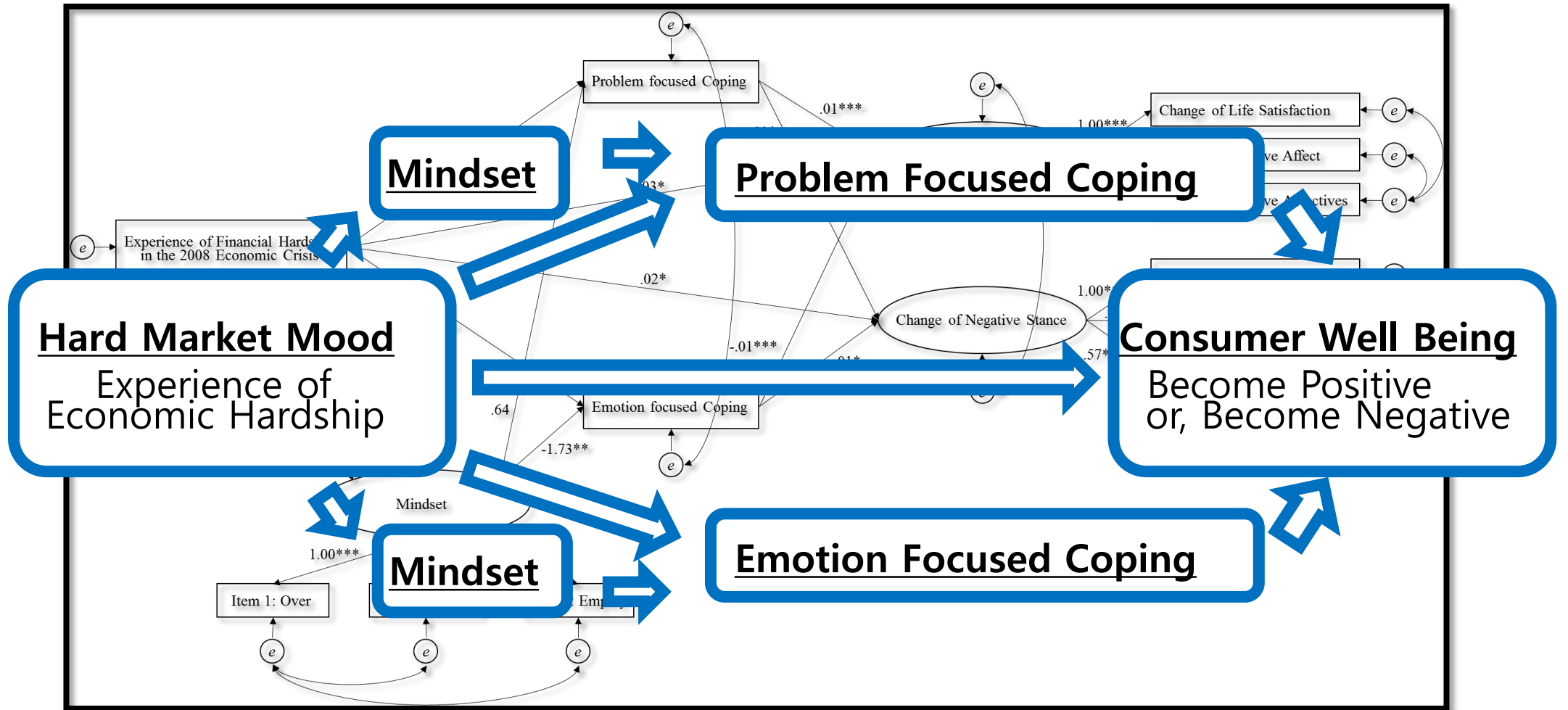
Self-Confidence

Resource Management (Financial Planning)



Self-Control

Self-Confidence



Heo, W., & Saboe-Wounded Head, L. (2017). Mediation effect of mindset on coping strategies used by consumers experiencing financial hardship during the economic recession in 2008. American Council on Consumer Interests, Vol. 6 3.

How to overcome?

Meditation

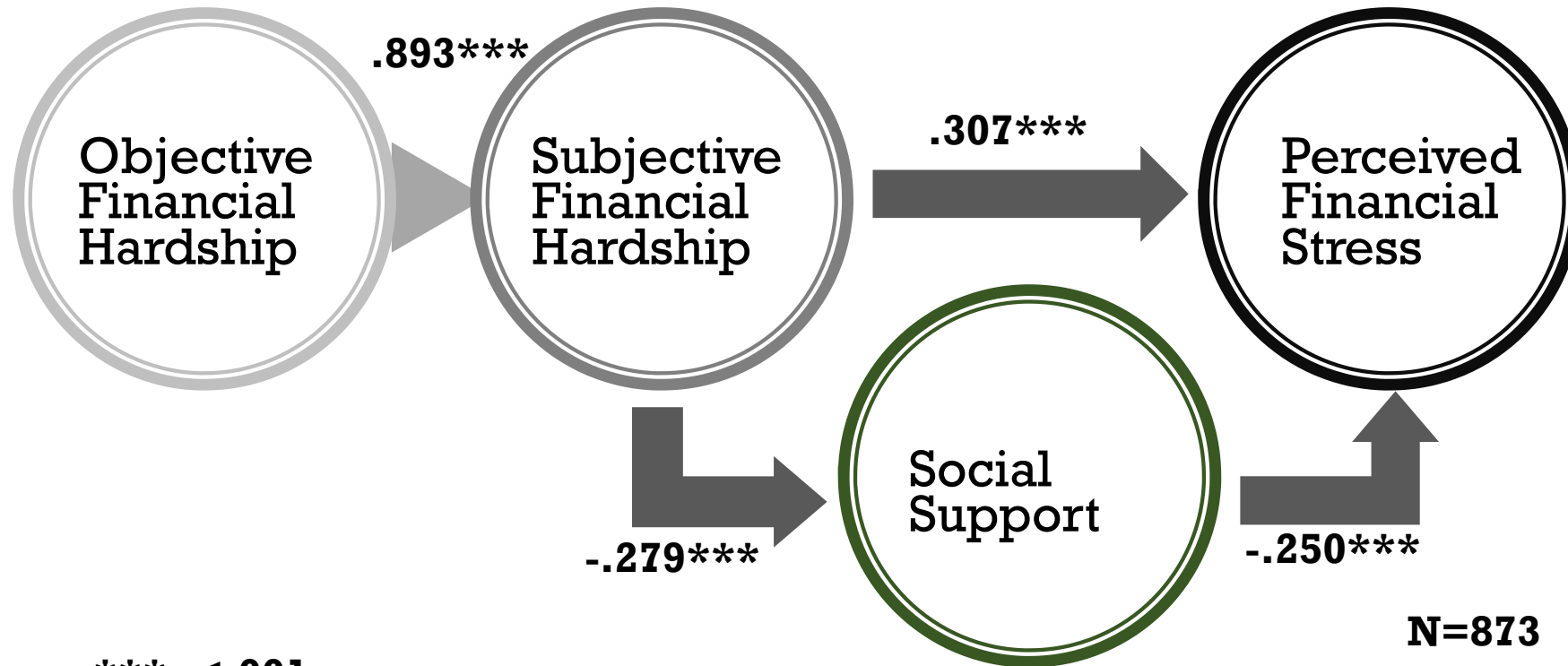
Self-Control

Self-Confidence

Resource Management (Financial Planning)

Social Solutions?

How to overcome?



***** $p < .001$**
 $\chi^2 [53] = 151.039^{*}$, **RMSEA = .046**, **CFI = .961**, **TLI = .943**, **SRMR = .035****

Park, N., Heo, W., Jorge, R., & Grable, J. E. (2017). Financial hardship, social support, and stress: The consumer perspective. *Journal of Financial Counseling and Planning*, 28, 1-11.

Thank you! Questions?



Private Information Satisfaction in Health Insurance

Patricia Born, Florida State University
E. Tice Sirmans, Illinois State University

*Presentation for 2018 LAFICO Annual Conference: Global Forum
for Financial Consumers*



Motivation and Context

- Among various types of insurance policies, health insurance ranks the lowest in consumer satisfaction (ACSI, 2016)
- What drives consumer satisfaction in health insurance?
 - Plan characteristics? Provider choice? Cost? Ease of understanding?
- The Patient Protection and Affordable Care Act (ACA) severely limits the degree to which insurers can classify risks
 - This necessarily endows high risk types with private information
 - Adverse selection likely to increase
- Asymmetric information can lead to market inefficiency (Rothschild and Stiglitz, '76)



Research Hypothesis

- Limitations on risk classification create sub-populations of individuals that get a “better deal” – i.e., high risks that can only be classified as average – who, consequently, may report higher overall satisfaction with their health plan.
 - These individuals may also be more likely to renew with the same plan
 - These individuals may be less likely to recommend
- Satisfaction with the health plan also depends on whether the individual chooses the low-deductible plan and if they meet their deductible

Data: JD Power and Associates

Health Plan Satisfaction Study



- Respondents surveyed on:
 - provider choice
 - coverage and benefits
 - customer service
 - out of pocket costs
 - demographics
 - self-assessed health status
 - physician-diagnosed illnesses



Member Health Plan
Satisfaction StudySM

CLIENT SURVEY
Healthcare

Data: JD Power and Associates

Health Plan Satisfaction Study



- Survey conducted for five years: 2013-2017

Raw responses:

Group and Individual plans
HMOs and PPOs
44 states plus D.C.
62 health insurers

Filters:

Drop respondents 65 and older
Drop respondents that pay less than \$100 annual deductible
Drop respondents with family coverage
All necessary demographics must not be missing

- Survey data does not include individuals in Medicare or Medicaid, or plans on the ACA health insurance exchanges



Define Coverage and Risk

- Deductible Choice (Puelz and Snow, 1994 JPE; Chiappori and Salani, 2000 JPE; Cohen, 2005 RES; Cohen and Einav, 2007, AER)
- *DeductibleLow* – respondent has a low-deductible health plan

Category	Deductible Amount
1	< \$1500
2	\$1500 - \$2500
3	\$2501 - \$5499
4	>\$5499



Risk Variables

- Risk – We use an ex-ante vs. ex-post measure
 - It is difficult to separate adverse selection from moral hazard when an ex-post measure is used

Reported Health Condition	Average Cost of Treatment (\$)
Diabetes	6,320
Cancer	11,140
Heart Condition	8,582
Arthritis	2,690
Allergies	360
Epilepsy	9,744
Chronic Back Pain	6,096
Chronic Pain	4,475

Risk Category	Expected Cost of Treatment (\$)
1	\$0
2	\$1 - \$2000
3	\$2001 - \$4000
4	\$4001 - \$6000
5	\$6001 - \$8000
6	\$8001 - \$10,000
7	> \$10,000

Methodology: Deductible Choice

We first estimate two specifications:

$$1. \text{Prob}(\text{DeductibleLow} = 1) = \Phi(X\beta_1)$$

Where the vector X contains only information that insurance companies may use to classify risk – *Age, PPO*

$$2. \text{Prob}(\text{DeductibleLow} = 1) = \Phi(X\beta_1 + \beta_2 B)$$

Where the vector X contains information that insurance companies may use to classify risk (*Age, PPO*), the individual's risk level, B , and additional individual characteristics unknown to the insurance company (*Income, Female, CollegeEducated, Employed*)

Relationship Between Individual Risk Information and Insurance Deductible Choice (N=4952)

	Controls for Insurance Company Prediction	All Controls
Individual Prediction: Risk Measure		0.070*** (0.010)
Insurance Company Prediction: Age	-0.021*** (0.001)	-0.020*** (0.002)
Insurance Company Prediction: PPO	-0.323*** (0.042)	-0.269*** (0.043)
Income		-0.032*** (0.006)
Female		-0.216*** (0.041)
CollegeEd		-0.257*** (0.042)
Employed		0.108* (0.050)
Pseudo-R ²	0.106	0.133

Methodology: Private Information

Then, we calculate:

$$PrivateInformation = \hat{y}_2 - \hat{y}_1$$

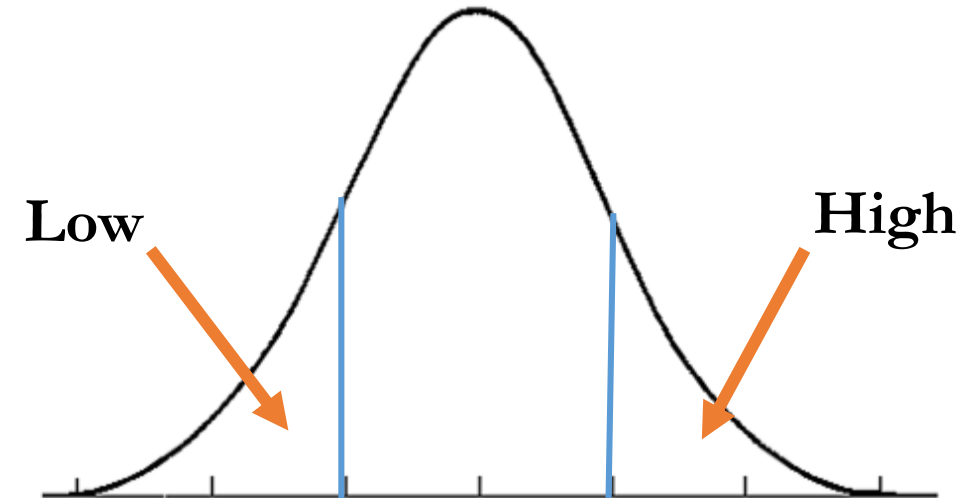
This measure is increasing in the degree of disagreement between the insurance company's estimate of the probability that the individual would select a low deductible plan and the estimated probability that the individual would select a low deductible plan using all possible information available.

→ *PrivateInformation* proxies the amount of residual private information.

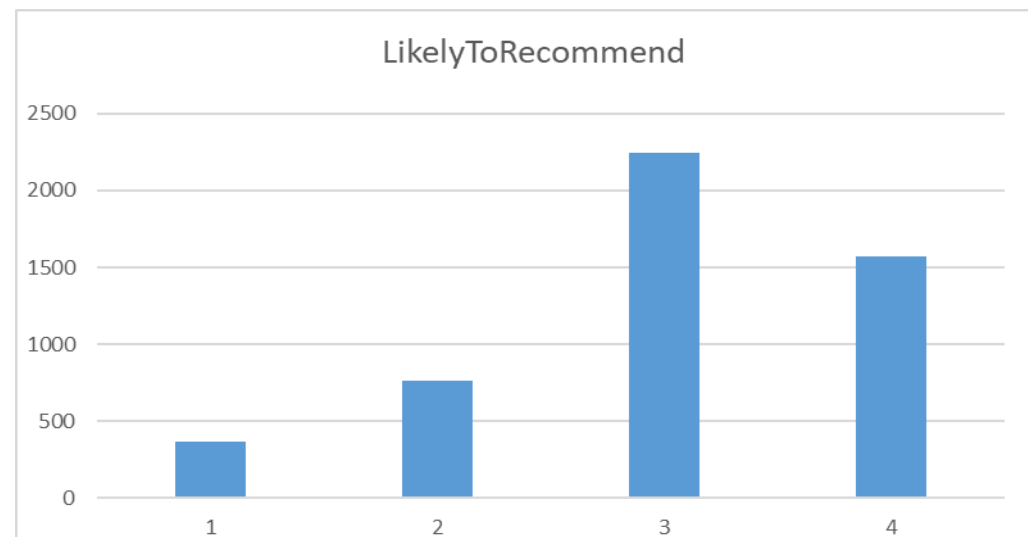
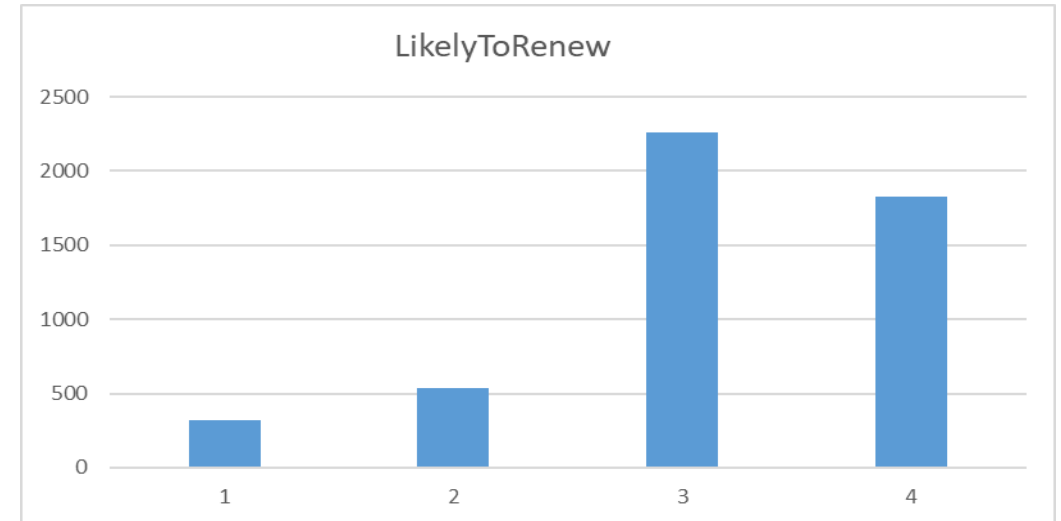
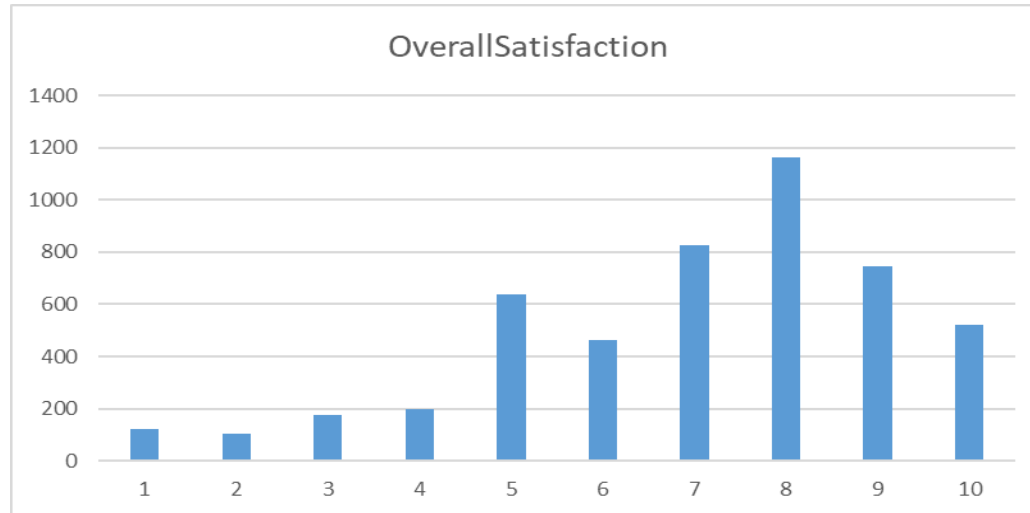
Methodology: Private Information

Finally, we segregate individuals with *PrivateInformation* into two types, denoted by *High* and *Low*:

- *High* is a binary variable equal to one if the individual's measure of *PrivateInformation* is in the upper quantile ($>75^{\text{th}}$ percentile) of the distribution of *PrivateInformation*, 0 otherwise
- *Low* is a binary variable equal to one if the individual's measure of *PrivateInformation* is in the lowest quantile ($<25^{\text{th}}$ percentile) of the distribution of *PrivateInformation*, 0 otherwise



Consumer Satisfaction Variables



Influence of Private Information on Satisfaction Measures (N=4952)

	(1) <i>OverallSatis</i>	(2) <i>LikelyToRenew</i>	(3) <i>LikelyToRecommend</i>
<i>High</i>	-0.2341*** [0.0598]	-0.1972*** [0.0640]	-0.2387*** [0.0623]
<i>High_DedLow</i>	0.3636*** [0.0687]	0.3008*** [0.0758]	0.3239*** [0.0731]
<i>Low</i>	-0.0030 [0.0452]	-0.0039 [0.0505]	0.0086 [0.0498]
<i>Specialist</i>	-0.0852 [0.0554]	-0.0820 [0.0592]	-0.0615 [0.0589]
<i>DeductibleMet</i>	0.5750*** [0.0424]	0.6098*** [0.0490]	0.6185*** [0.0475]
<i>DedHigh_DedMet</i>	-0.1995*** [0.0557]	-0.3083*** [0.0631]	-0.3190*** [0.0616]
<i>Age</i>	-0.0052*** [0.0012]	-0.0044*** [0.0014]	-0.0076*** [0.0014]
<i>PPO</i>	-0.0249 [0.0335]	0.0190 [0.0372]	-0.0188 [0.0367]
<i>Income</i>	-0.0003 [0.0053]	0.0058 [0.0058]	0.0029 [0.0057]
<i>Female</i>	-0.0342 [0.0369]	-0.0686* [0.0408]	-0.0542 [0.0401]
<i>CollegeEducated</i>	-0.1884*** [0.0416]	-0.1265*** [0.0452]	-0.2166*** [0.0444]
<i>Employed</i>	-0.0675* [0.0380]	-0.0852** [0.0412]	-0.0226 [0.0403]
Pseudo R-Sq.	0.032	0.050	0.054

Conclusions

- The ACA restrictions on risk classification endow high risk health care consumers with private information
- Respondents in our “High” risk group are generally less satisfied than the other respondents, unless they selected the low deductible plan – suggesting that satisfaction is related to “getting a deal”
- Satisfaction is greater for those respondents who met their deductible, but this effect is reduced if they were enrolled in a high deductible plan

Thank you!



**BRA JOES' CHAIN STORES
PAYSLIP**

Employee: Brezhnev Nkosi **Pay Period:** May 2005
ID number: 750928614080 **Pay Cycle:** Monthly
Bank Details: Old Mutual Bank
Acc No 1234567
Tax Number: 123456789

Earnings	Amount	Deductions	Amount
Basic Salary	3,000.00	Taxation	15.18
		UIF	3.00
		Christmas Fund	10.00
Gross Earnings	3,000.00	Total Deductions	28.18
NET SALARY TRANSFERRED			2971.82

THE NECESSITY OF SUBMITTING PAYSLIPS AND BANK STATEMENTS DURING AFFORDABILITY ASSESSMENTS

Prof Michelle Kelly-Louw
kellym@unisa.ac.za

INTRODUCTION

- In South Africa (“SA”) credit supplied to consumers are strictly regulated by the National Credit Act 34 of 2005 (“NCA”) – fully operational since 1 June 2007.
- The Act applies, with only a few exclusions, to all consumer credit agreements concluded between parties dealing at arm’s length & made, or having an effect within, SA.
- The NCA aims to encourage responsible borrowing & avoid over-indebtedness and reckless lending.
- The global financial crisis of 2007/2008 clearly illustrates that a wrong appreciation of the lending risks and a wrong assessment of a borrower’s ability to pay back a loan can start a chain reaction and endanger economic growth in a large part of the world.
- Provisions in the NCA preventing reckless lending & over-indebtedness are controversial.
- It is these rigorous provisions that have had the unintended consequence of closing access to credit for many & have “strangled a burgeoning property market”; but these are also the provisions that cushioned SA from the 2007/2008 world-wide credit crunch/financial crisis which shook most of the developed world to its core.

SOUTH AFRICA PRIOR TO THE NCA COMING INTO OPERATION

- The SA financial sector was complicated and consisted of two different sectors.
 - A highly developed, **formal financial system** (serving primarily middle and high-income and predominantly White consumers and large enterprises), served by banks and other financial institutions, and
 - A large, **informal financial market** (serving low-income and largely historically disadvantaged consumers and small and medium enterprises), serviced by micro-lenders, loan sharks, and pawnbrokers.
- Levels of over-indebtedness increased dramatically (because of transformation of the civil service, affirmative action, access to credit and aspirational borrowing).
- Lead to reckless lending and many consumers found themselves over-indebted or with no income.
- **LENDERS TOTALLY DISREGARDED A CONSUMER'S (BORROWER'S) ABILITY TO REPAY, CAUSING HIGH LEVELS OF INDEBTEDNESS.**
- High level of over-indebtedness (eg, a large portion of the historically disadvantaged group were still excluded from the formal financial market and accessed via micro-lenders and loan sharks where credit was expensive and unregulated).
- Limited and ineffective debt relief mechanisms.
- Credit bureaux were not regulated and they often held and provided faulty and incorrect credit info (black-listed incorrectly without receiving notice of such listing & no access to check whether credit info was correct).

STRICT REGULATION OF CREDIT BUREAUX AND CONSUMER CREDIT INFORMATION BY THE NCA

- Consumer has right to confidential treatment of his credit info.
- Credit bureaux:
 - Registration requirements and entry criteria.
 - Regulated (monitored by National Credit Regulator, could be prosecuted if not compliant).
 - Deals with the credit bureau info.
 - Defines “consumer credit information”.
 - Sets out duties of a credit bureau.
 - Free records & data correction requirement; data acceptance, verification, retention of info; uses of credit bureaux.
- Consumer has right to access and challenge credit records.
- Act regulates the info held by credit bureaux.

RECKLESS CREDIT IN TERMS OF THE NCA

- Creditor wanting to conclude an agreement with a prospective consumer must first do a compulsory pre-assessment of the consumer's situation (eg, assessing his affordability, debt re-payment history, & general understanding of the risks and obligations of the agreement).
- Provisions of over-indebtedness & reckless credit do not apply where consumer is a company, close corporation, partnership or certain trusts - apply only to natural persons, stokvels & certain types of trusts.
- Provisions of reckless credit do not apply to certain loans:
 - school, student, emergency loans;
 - public interest credit agreement;
 - incidental credit agreement;
 - temporary increase in credit limit under a credit facility; or
 - a pawn transaction.
- Consumer must fully and truthfully answer ANY REQUEST FOR INFORMATION MADE BY CREDIT PROVIDER when application for a credit agreement is made (express duty of consumer).

RECKLESS CREDIT (CONT...)

Agreement was reckless if, at the time the agreement was made:

- **Creditor provider failed to take reasonable steps to assess:**
 - the proposed consumer's:
 - general understanding/appreciation of risks & costs of credit & his rights and obligations;
 - debt re-payment history under credit agreements;
 - existing financial means, prospects & obligations; and
 - whether there is a reasonable basis to conclude that any commercial purpose may be successful, if the consumer has such a purpose for applying for credit.
- **Or creditor provider made such assessment and entered into agreement, despite the fact that:**
 - consumer did not understand/appreciate risks, costs or obligations; or
 - entering into it would make consumer over-indebted.

RECKLESS CREDIT (CONT...)

- Person making the determination must apply above criteria as they existed **at the time agreement was made.**
- Complete defence for creditor to an allegation of reckless credit if:
 - creditor establishes that consumer failed to fully & truthfully answer any request for info made by creditor as part of the compulsory assessment; and
 - a court or National Consumer Tribunal determines consumer's failure materially affected creditor provider to make proper assessment.
- (Thus onus on creditor to prove it has a valid defence and not every failure by consumer to fully & truthfully answer any request for info will necessarily entitle the creditor to this defence.)

Reckless Credit (cont...)

- Court or National Consumer Tribunal may suspend reckless credit agreement in any proceedings in which a credit agreement is being considered.
 - If declared reckless:
 - setting aside all/part of obligations; or
 - suspend the force and effect of agreement.
 - When court declares reckless, it must also consider whether consumer is over-indebted. If over-indebted:
 - suspend force & effect of agreement; and
 - restructure consumer's obligations into NCA.
- Before court makes order of over-indebtedness it must consider certain aspects:
 - current means and ability at time agreement was made; and
 - expected date when obligations under agreement will be fully satisfied, assuming consumer makes all required payments in accordance with any proposed order.

CONSEQUENCES OF RECKLESS LENDING

❑ What is the effect of suspension of a credit agreement?

- **During:**

- not required to make any payment;
- no interest, fee or other charge may be charged; and
- creditor's rights in terms of agreement or any law unenforceable.

- **After:**

- all rights and obligations revived, except if court provided otherwise;
- no fees, charges or interest may be charged that were unable to be paid during suspension.

❑ Administrative fines on credit provider lending recklessly and possibly losing its registration as credit provider.

BACKGROUND TO THE AFFORDABILITY REGULATIONS

- NCA implies a duty on creditor to ask the correct info/questions and consumer not obliged to volunteer specific info.
- In terms of the NCA a consumer under no duty to supply any info not specifically asked.
- In the past there were no standardised guidelines as to how affordability assessments were to be done & what the correct questions/info were.
- Creditor could determine his own assessment procedure/models – just had to be fair.
- The NCR could publish non-binding guidelines proposing evaluative mechanisms, models and procedures to be used to determine whether credit is being granted recklessly in relation to credit agreements.
- There was initially no standardised guidelines as to how the assessment was to be done & what the correct questions/info were.

AFFORDABILITY REGULATIONS

- Later the **Affordability Assessment Regulations** were introduced providing that credit providers had to adhere to certain **minimum requirements when conducting affordability assessments**.
- Compulsory Affordability Assessment Regulations came into operation on 13 March 2015.
- Principles the affordability regulations are based on:
 - Credit should be extended to consumers on the basis of income that has been verified/validated;
 - Credit providers should make reference to consumer's credit records held by credit bureaux to determine debt obligations;
 - Minimum living expenses should be introduced according to consumer's gross income categories; and
 - Consistency of consumers income should be established.

AFFORDABILITY REGULATIONS

- Regulation 23A(4) provides that a credit providers is obliged to take practicable steps to **verify the gross and discretionary income** of a consumer or joint consumer by considering the **last 3 payslips and/or bank statements, and/or documented proof of income**, depending on the circumstances.
- Discretionary income defined as gross income less statutory deductions, eg, income tax, unemployment insurance fund contributions, maintenance payments, necessary expenses and less all other committed payment obligations disclosed by the consumer, including such as may appear from the consumer's credit records held by credit bureaux, which income is the amount available to fund the proposed credit instalment.
- Thus, discretionary income – income (financial means & prospects) that consumer has to repay instalments under a credit agreement after making appropriate deductions from the consumer's gross income.
- Proving discretionary income & necessary expenses.
- Definitions included of income and expenses.

AFFORDABILITY REGULATIONS

- Duties on credit provider and consumers (to disclose all financial & other obligations).
- Acknowledging maintenance payments to determine discretionary income.
- Table of income, necessary expense norms, fixed factors (low-income group vulnerable and might cause them to be marginalised).
- Table works with minimum expense amount to be taken into consideration, and if expenses less, then consumer must complete a questionnaire to prove expenses is less (eg, earning less than ZAR 800 per month (+/- JPY 6 745) would exclude consumer obtaining credit.
- Developmental credit agreements excluded from regulations, but NOT from reckless lending provisions in the NCA.

AFFORDABILITY REGULATIONS

- Compulsory for credit provider to take into consideration debt repayment history – in other words obtain credit bureaux reports.
- Prescribed periods in which to do checks:
 - 7 business days for general credit: and
 - 14 business days for mortgages.
- Regulations stipulate adverse info may only reported to credit bureaux after three months.
- Vital role of credit bureaux. Factors having an impact:
 - Correctness and reliability of credit info.
 - Some delay in info being placed on credit reports.
 - Periods that adverse info is kept on credit reports/removal of certain info kept in past.
 - Credit bureaux hold positive and negative info of consumers.
 - Credit bureaux don't make credit granting decisions – predict the possibility of default.
 - Some indication of repayment history of consumer.



TRUWORTHS LIMITED V THE MINISTER OF TRADE AND INDUSTRY **(UNREPORTED, CASE NO 4375/2016, WCC, 16 MARCH 2018)**

- On 16 March 2018 a SA High Court made a ruling that consumers no longer had to provide payslips or bank statements when applying for credit.
- The court case was brought by a group of clothing retailers challenging the validity of regulation 23A(4) of the Affordability Regulations.
- Retailers argued inter alia that “proof of income” should not be a prerequisite for credit applications.
- In South Africa a high number of consumers do not have bank accounts and are not necessarily formally employed and therefore it was felt that, for example, informal traders and consumers who could not supply documentary proof of income by way of bank statements or pay slips were discriminated against when it came to applying for credit.
- The court agreed with the arguments put forward by the clothing retailers and set aside regulation 23A(4).

DEVELOPMENTS SINCE THE *TRUWORTHS* JUDGMENT

- The judgment has caused mixed reactions.
- Appealing the judgment an option?
- Guidelines published in April 2018 for public comment to ascertain consumers' gross income and discretionary incomes for purposes of regulation 23A of the Affordability Regulations (deadline 31 May 2018).
- National Credit Regulator of the view that regulations still in force & not set aside by *Truworths* case and credit providers must still verify consumers' gross & discretionary incomes during affordability assessments. Suggest the following:
 - For formally employed consumers – 3 months payslips and/or bank statements.
 - Consumers' employed for less than 3 months – latest payslips or letter of employment indicating salary and frequency of payment or bank statement showing latest salary.
 - Self-employed, informally employed or receive income other than from formal employment and which is not evidenced by payslips or bank statements as validation – credit provider **must use such other verification of consumer's income**, BUT provider must submit its affordability assessment models, procedures and mechanisms in respect of this category to the National Credit Regulator.

Are payslips and bank statements necessary?



A FEW COMMENTS

- Are payslips & bank statements necessary to verify gross & discretionary income?
- Workability of proposed SA guidelines to verify gross & discretionary incomes.
 - Finding alternative methods to determine income shifted to credit providers with no guidance as to how and what should be used.
- Difference between banked vs unbanked consumers – in SA high level of consumers do not have bank accounts.
- A number of consumers in SA not formally employed – payment often in cash & unverifiable.
- SA official unemployment rate around 26-27% and high poverty rate – increased risk for fraudulent payslips and bank statements as seen in video.
- What **practical** steps are expected of a credit provider to verify income (eg, phone employer or banks, investigate or accept info on submitted documents)?
- Possible alternative methods to verify gross & discretionary income:
 - Big data;
 - Credit bureaux reports;
 - Social media;
 - Reliance on repayment history of existing client (difference between existing & new clients/consumers) held by a credit provider.
 - Use of a National Register of Credit Agreements (provided for in the NCA, but operation delayed & no immediate prospect of this coming into operation soon).

CLOSING COMMENTS

Biggest challenges with use of alternative methods to verify income:

- Compliance with local and international legislation protecting personal info (eg, in case of big data and consumer credit reports held by credit bureaux);
- Use of social media info;
- Reliability of info (info obtained might create distorted perception (eg social media));
- Credit provider proving exactly what info was used and if obtained legally (eg, with permission and complies with legislation).

FINANCIAL REGULATORY ARCHITECTURE FOR CONSUMER PROTECTION: DEFINING CONFLICTS

July 28, 2018
Youkyung Huh

University of Virginia S.J.D Candidate

OUTLINE

- I. Debate on “Optimal” Structure of Financial Regulatory Agencies
- II. Categorizing Conflicts: Prudential Regulation and Consumer Protection as Financial Regulatory Goals

I. Debate on “Optimal” Financial Regulatory Structure

Regulatory Architecture: Basic Approaches

The term regulatory architecture describes the organization of the agencies that regulate a particular policy sphere.

- Fragmented/Institutional approach: legal entity driven
 - banking, broker dealers, insurance companies  
- Consolidated or integrated approach    
- The Regulation By Objectives (or Twin Peaks) approach :    
 - prudential regulation vs. business conduct/consumer protection
- Hybrids: The “exception” 
 - after the 2008 crisis: CFPB, FSOC



Source: Adapted from [Carmichael et al. \(2004\)](#).

Twin peaks model after the 2008 global financial crisis

Country	As of 2008	After Reform
United States	Institutional and functional	Variation of Twin Peaks: CFPB (2010)
United Kingdom	Integrated model (FSA)	Twin Peaks (PRA, FCA) (2012)
New Zealand	Institutional and functional	Twin Peaks (RBNZ, FMA) (2011)
South Africa	Institutional	Twin Peaks (2013)
Belgium	Integrated	Twin Peaks (NBB, FSMA) (2011)
South Korea	Integrated	Twin Peaks (pre-legislative phase discussions)
Australia	Twin Peaks (1997)	Twin Peaks
Netherlands	Twin Peaks (2002)	Twin Peaks

Regulatory Architecture: Consumer Protection

- Are Consumer Protection functions separate or integrated?

- 1. **Integrated Approach:** Financial conduct regulator resides in the same agency as the prudential regulator
 - Sometimes consumer protection is not an explicit goal (i.e., Bafin of Germany, Fed of the U.S.)
- 2. **Twin Peaks model:** There is a consolidated regulator of markets/consumer protection separate from the prudential regulator
 - i.e., OSFI/FCAC of Canada
- 3. Consumer protection regulator is **dispersed**
 - i.e., CFPB, SEC, FTC in the US
- **More “wrinkles”:** Ombudsman, redress schemes operate separately
 - i.e., OBSI of Canada, FOS of the UK

Logic of the Twin Peaks Model

- Each agency has a focus on a **single clear objective**
- **But what is it about consumer protection that makes it difficult for the primary (prudential) regulator to perform.**
- **Conflicts:** strong consumers protection may deplete assets and threaten the solvency and stability of financial firms
- **Different skills** are required:
 - consumer protection: qualitative, legalistic skills, focus on enforcement
 - prudential regulation: quantitative, economists, focus on examination

II. Categorizing Conflicts: Prudential Regulation and Consumer Protection as Financial Regulatory Goals



Theoretical Framework: Categorizing Conflicts

- ***Type 1 Conflict : Goal Conflict***
 - Mission/Goal/Incentive
 - Primary mission of regulators
 - Consumer protection potentially harms bank profitability
 - Strong enforcement deplete assets
- ***Type 2 Conflict: Task Conflict***
 - Procedural, Technical, Methodological
 - Conflicts arising from different strategies
- ***Type 3 Conflict: Resource Conflict***
 - Resource allocation
 - Smaller, budget-strained agencies show sharper conflict

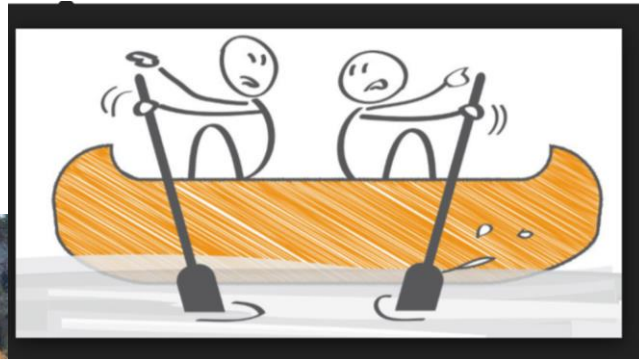
Where do Conflicts Arise From?

Differences between Prudential Regulation and Consumer Protection

	Prudential Regulation	Consumer Protection
Rationale (Goal Conflict)	Single-minded: Economic rationale of Keeping banks safe and sound	Diverse: Economic rationale Social Goals Behavioral (recent)
Methodology (Task Conflict)	Bank examination	Enforcement, Education, Complaint Handling, Public affairs, onsite inspections, mystery shopping
Styles	Cooperative, amicable Confidential (i.e. CAMEL ratings)	“Tough Cop” Made public (i.e., enforcement actions)

“Type 1 Conflict” Goal Conflict

- Conceptual or theoretical conflicts that are related to goals, mission, or incentives of the regulator
- Conflicting goals are perceived to be **inversely related**: pursuing one goal leads to deterioration of another
- U.S. Forest Service: timber production vs. protect wildlife



Northern Spotted Owl (*Strix occidentalis caurina*) at the Oregon Zoo, 2006

Rationale: Prudential Regulation

- Economic rationale: Safety and soundness of banks
- DIAMOND-DYBVIIG MODEL (1993)
 - *Fragile Banks as Liquidity Creators.*



Police called to break-up Northern Rock panic queues as customers withdraw millions

By SEAN POULTER and PAUL SIMS
Last updated at 22:36 15 September 2007

Police officers have been called to break-up panicked crowds gathering to withdraw their savings from Northern Rock.

While the Government and the City said there was no need to panic, savers ignored the reassurances, withdrawing close to £1billion yesterday.

Staff at Glasgow city centre branch called police to deal with 'boisterous customers'. Two plain clothes officers arrived just before the bank's official Saturday closing time of midday.

<http://www.dailymail.co.uk/news/article-481778/Police-called-break-Northern-Rock-panic-queues-customers-withdraw-millions.html>



Rationale: Prudential Regulation

Post Crisis

- Macro Prudential Regulation: systemic risk, concerns whole financial market
- Micro prudential regulation: concerns safety and soundness of individual financial institutions
- Expansion to financial institutions other than banks (i.e., insurance companies like AIG can also create systemic risk)

Rationale: Consumer Protection

- **Economic or Efficiency Rationales**
 - Asymmetric information problems
 - Disclosure philosophy

CONSUMER PROTECTION DISCLOSURE

BORROWERS BILL OF RIGHTS

1. You have the RIGHT to shop for the best loan for you and compare the charges of different mortgage brokers and lenders.
2. You have the RIGHT to be informed about the total cost of your loan including the interest rate, points, and other fees.
3. You have the RIGHT to obtain a "Good Faith Estimate" of all loan and settlement charges before you agree to the loan or pay any fees.
4. You have the RIGHT to know what fees are nonrefundable if you decide to withdraw your loan application.
5. You have the RIGHT to ask your mortgage broker to explain exactly what the mortgage broker will do for you.
6. You have the RIGHT to know how much the mortgage broker is getting paid by you and the lender for your loan.
7. You have the RIGHT to ask questions about charges and loan terms that you do not understand.
8. You have the RIGHT to a credit decision that is not based on your race, color, religion, national origin, sex, marital status, age, or whether any income is derived from public assistance.
9. You have the RIGHT to know the reason if your loan application is turned down.
10. You have the RIGHT to receive the HUD settlement costs booklet "Buying Your Home".

CONSUMER CAUTION AND HOME OWNERSHIP COUNSELING NOTICE

If you obtain this loan, the lender will have a mortgage on your home. You could lose your home, and all money you have invested in it, if you do not meet your obligations under the loan, including making all your payments.

Mortgage loans rates and closing costs and fees vary based on many factors, including your particular credit and financial circumstances, your earnings history, the loan-to-value requested, and the type of property that will secure your loan. Higher rates and fees may be applicable depending on the individual circumstances of a particular consumer's application.

You should shop around and compare loan rates and fees. This particular loan may have a higher rate and total points and fees than other mortgage loans. You should consider consulting a qualified independent credit counselor or other experienced financial adviser regarding the rate, fees, and provisions of this mortgage loan before you proceed. For information on contacting a qualified credit counselor, ask your lender or call the United States Department of Housing and Urban Development's counseling hotline at 1-800-569-4287 for a list of counselors.

You are not required to complete any loan agreement merely because you have received these disclosures or have signed a loan application. If you proceed with this mortgage loan, you should also remember that you may face serious financial risks if you use this loan to pay off credit card debts and other debts in connection with this transaction and then subsequently incur significant new credit card charges or other debts.

Rationale: Consumer Protection

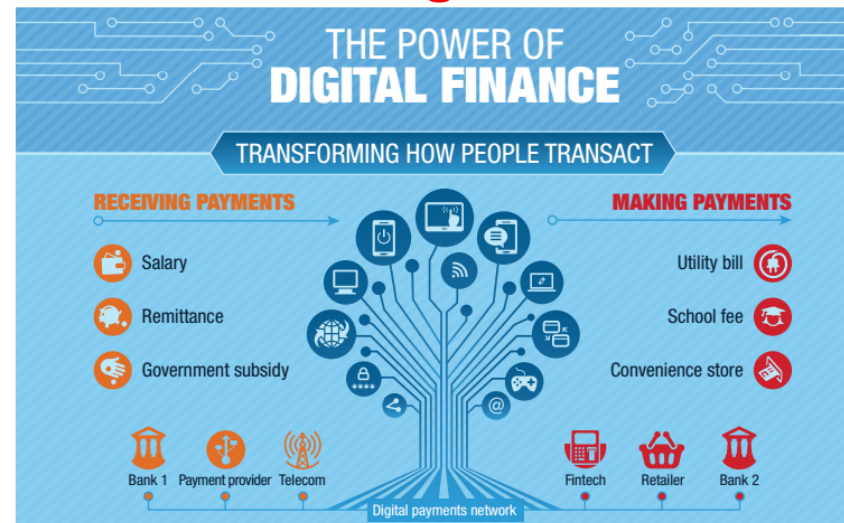
Non-Market Rationale (or Social Rationale)

Distributive justice, promote homeownership, gender equality, student loans, protecting members of the military, economic growth and development

Redlining



Financial inclusion, increasing access



<http://fintechnews.sg/5955/fintech/digital-technologies-fintechs-drive-financial-inclusion-in-asia/>

Rationale: Consumer Protection

- **Cognitive Limit Rationale**
- Strong Influence of Behavioral Economics



Type 1 conflicts are Non-Observable: Claims that the Prudential Regulators Neglected Consumer Protection Goals

- “The Fed had 15 years in which it did not write rules about HOEPA.”
- “The OCC spent most of its time and energy pre-empting the States for 15 years instead of enforcing the laws.”
- “Before the Supreme Court now is the case where the OCC has sued New York because it tried to enforce fair lending laws.”
- Quote from : HEARING BEFORE THE COMMITTEE ON FINANCIAL SERVICES U.S. HOUSE OF REPRESENTATIVES ONE HUNDRED ELEVENTH CONGRESS FIRST SESSION JUNE 24, 2009 Printed for the use of the Committee on Financial Services Serial No. 111-49 at 18.

“Type 2 Conflict” Task Conflict

Procedural, Technical, or Methodological Conflicts

Core Regulatory Strategies: U.S.

Prudential Regulation	Consumer Protection	FTC
Rulemaking/ Policymaking	Rulemaking/ Policymaking	Rulemaking/ Policymaking
Supervision (Bank Examination) (Main tool)	Supervision (Compliance Examination)	-
Enforcement	Enforcement	Enforcement (Main tool)
-	Public Engagement Education	Education
-	Complaint Handling Consumer Redress	Complaint Handling Consumer Redress

The image shows a screenshot of the Federal Trade Commission (FTC) website. At the top left is the FTC logo, a circular seal with a scale of justice and the text 'FEDERAL TRADE COMMISSION • UNITED STATES OF AMERICA'. To its right, the text 'FEDERAL TRADE COMMISSION' and 'PROTECTING AMERICA'S CONSUMERS' is displayed. A search bar is located on the right side of the header. Below the header is a dark blue navigation bar with the following menu items: 'ABOUT THE FTC', 'NEWS & EVENTS', 'ENFORCEMENT', 'POLICY', 'TIPS & ADVICE', and 'I WOULD LIKE TO...'. The 'ENFORCEMENT' menu item is circled in red. Below the navigation bar is a large banner image of an open white door leading to a bright, sunny outdoor scene. The text 'ECONOMIC LIBERTY' and 'Opening doors to opportunity' is overlaid on the bottom left of the banner. To the right of the banner is a 'TAKE ACTION' section with a list of six items, each with a circular icon: 'File a Consumer Complaint' (circled in red), 'Report Identity Theft', 'Get Your Free Credit Report', 'Register for Do Not Call', and 'Get Scam Alerts'.

Contact | Stay Connected | Privacy Policy | FTC en español


Search

ABOUT THE FTC | NEWS & EVENTS | **ENFORCEMENT** | POLICY | TIPS & ADVICE | I WOULD LIKE TO...

ECONOMIC LIBERTY
Opening doors to opportunity

TAKE ACTION

- File a Consumer Complaint**
- Report Identity Theft
- Get Your Free Credit Report
- Register for Do Not Call
- Get Scam Alerts

 An official website of the United States Government

[Español](#) [中文](#) [Tiếng Việt](#) [한국어](#) [Tagalog](#) [Русский](#) [العربية](#) [Kreyòl Ayisyen](#) (855) 411-2372



Q Search

[Submit a Complaint](#)

[Consumer Tools](#)

[Educational Resources](#)

[Data & Research](#)

[Policy & Compliance](#)

[About Us](#)

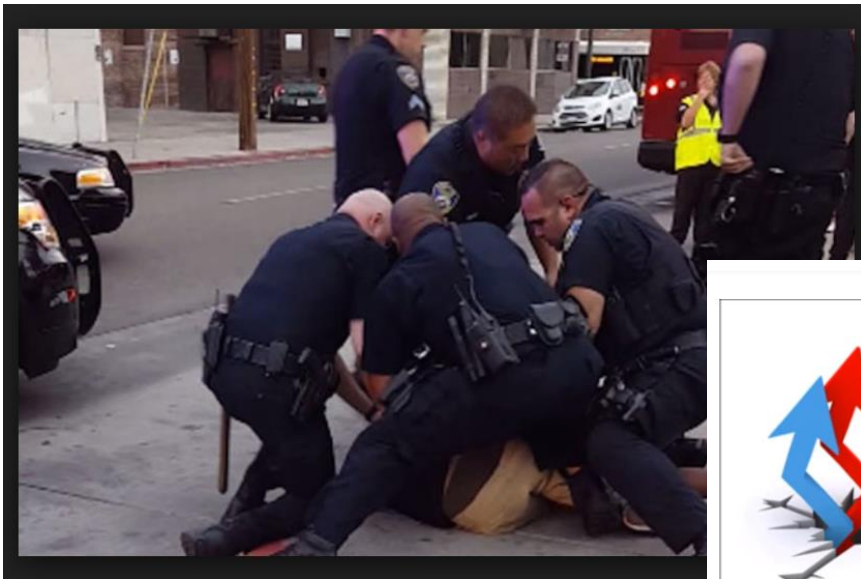
We're on your side


We are the Consumer Financial Protection Bureau, a U.S. government agency that makes sure banks, lenders, and other financial companies treat you fairly.



“Type 2 Conflict” Task Conflict

Procedural, Technical, or Methodological Conflicts






18. Bank Examiner

Median pay: \$103,000
 Top pay: \$152,000
 10-year job growth: 27%
 Total jobs*: 29,300

What they do all day? The first line of defense in preventing banking disasters, these professionals work on site at banks, acting as the eyes and ears for financial regulatory agencies. They conduct audits, inspecting banks' assets, loans and liquidity, to make sure institutions are in compliance with regulations and aren't engaging in risky behavior.

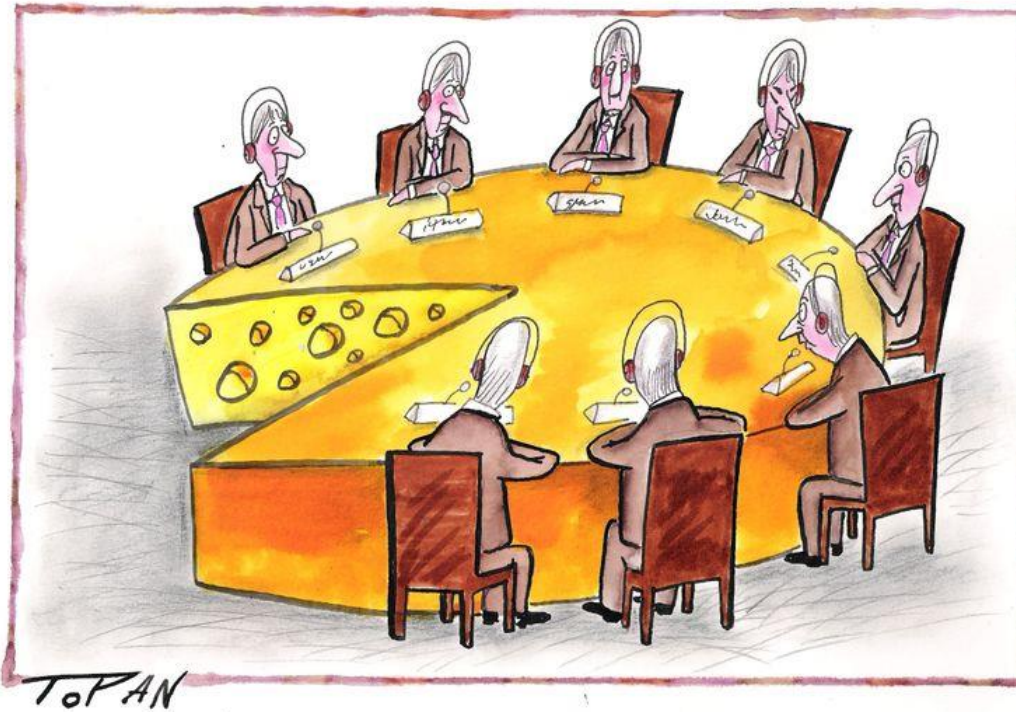
← BACK
NEXT →



COURTESY: BRANDI FLOWERS

"You're never doing the same job and you're never in the same place," says Brandi Flowers, a national bank examiner at the OCC in Washington, D.C. "I'm always learning new things."

“Type 3 Conflict” Resource Conflict



- Resource allocation
- smaller, budget-strained agencies show sharper conflict

Type 2 and 3 Conflicts are Observable: Organizational Structure and Resources Different Types of Tasks

- Existence, location, hierarchy of separate division/office for consumer protection functions
- Existence and maintenance of separate and specialized examinations for consumer protections (“compliance examinations), and special cadre of compliance examiners.
- Priorities or focus of organization as manifested in allocating resource and/or examinations

When consumer protection and prudential regulation are placed in same agency (Pre-Separation Phase)

- **Type 1 conflicts are the most difficult to observe, measure and resolve**
- **Type 2 and 3 conflicts are potentially easier to observe and resolve** compared to Type 1 conflicts.

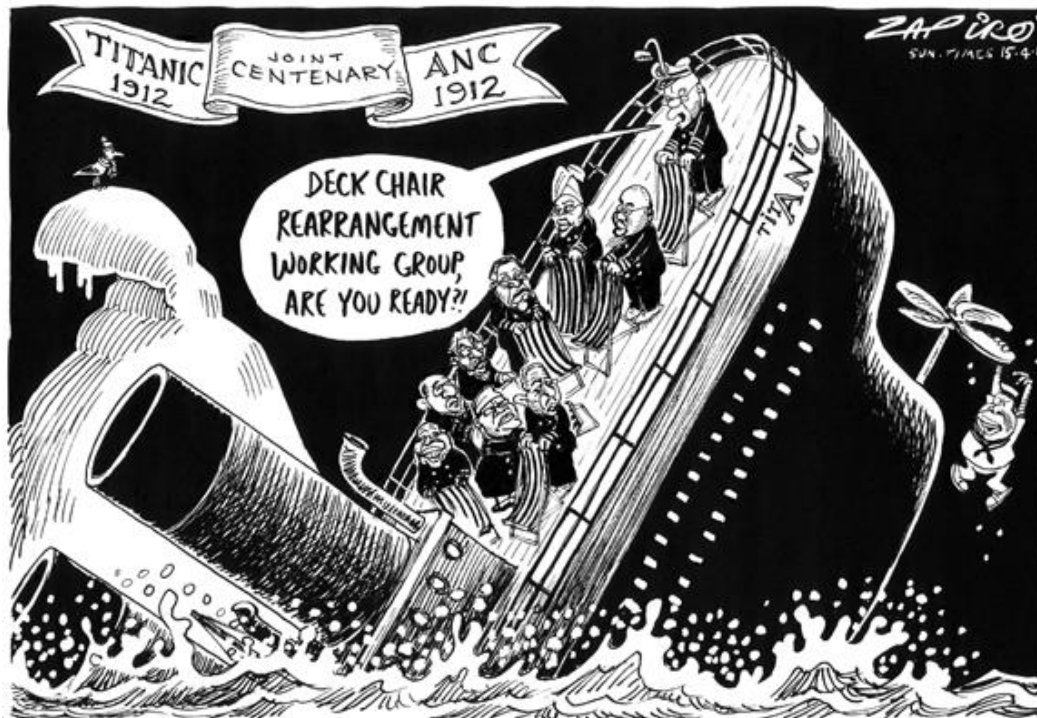
When consumer protection and prudential regulation are separated into different agencies (Post-Separation Phase)

- Now Type 1 conflicts are more **observable** i.e. external conflict resolution creates public debate
- Better quality information
- **Resolved** by political principals

- **Type 2 and 3 conflicts are potentially easier to observe and resolve** compared to Type 1 conflicts.
- **Caveats: conflicts do not disappear altogether but just changes locus.**

“Rearranging the deck chairs on the Titanic,” which is often used to describe a futile action in the face of impending catastrophe.

(Washington Post, first used in print in 1969, in Time Magazine)



Thank you.



Indonesia's Financial Customer Protection and Customer Satisfaction

Wardatul Adawiyah

Department of Management Faculty of Economics and Business, Universitas Indonesia, Departemen Manajemen Fakultas Ekonomi dan Bisnis Universitas Indonesia, 16424, Depok, Indonesia
(adawiyah@ui.ac.id)

Abstract

Based on McKinsey report in 2015, compound annual growth rate (CAGR) of consumers market of Indonesia's financial services (saving and investment) is expected to reach 10.5% in 2030. Financial services (saving and investment) have the highest CAGR compare to other Indonesian consumer markets. At the same time, the rapid growth should be a point to have strong financial regulation especially related to consumer protection. The consumer protection in financial services may increase the trust of the consumers, which can lead consumer satisfaction in using services offered by its financial institutions. This research aims to analyze the financial consumer protection, to examine the customer satisfaction and later identify the factors of financial consumer protection lead customer satisfaction in Indonesia's commercial banks. The research will use purposive sampling method to identify the sample respondents and use statistical tools such as factor analysis and discriminant analysis to analyze the data. This research will be based on research from Selvakumar & Sathyalakshmi (2015), to analyze the factors influencing financial consumer protection through identification of 38 statements in 5-point likert type structured questionnaire. The analysis relied on a sample of 140 respondents aged 19-50 that lives in Jakarta and the region near Jakarta. The findings show that factors of financial consumer protection have significant influence on customer satisfaction. There are seven factors influencing of financial customer protection in Indonesia's bank industry, namely work ethics, customer privacy, conflict of interest, competition and marketing ethics, customer care, information disclosure and responsibility

Keywords: bank, financial consumer protection, customer satisfaction

1. Introduction

The financial services especially banking sector has significant importance in economy of Indonesia. Based on McKinsey report in 2015, compound annual growth rate (CAGR) of consumers market of Indonesia's financial services (saving and investment) is expected to reach 10.5% in 2030. Financial services (saving and investment) have the highest CAGR compare to other Indonesian consumer markets. Moreover, banks compete in a highly competitive environment to offer quality-oriented services according to the customers' expectation. However, the rapid growth should be a point to have strong financial regulation especially related to consumer protection.

The consumer protection in financial services may increase the trust of the consumers, which can lead consumer satisfaction in using services offered by its financial institutions. Nowadays, consumer satisfaction has become a crucial point of differentiation in bank. The consumer satisfaction may be achieved when the value of customer service provided is either meeting or exceeding consumer expectations. Consumers will be dissatisfied if their expectations are not met. Moreover, the other consequence can be that the company might be susceptible to attacks by the competitors. Managers in financial services companies have emphasized customer satisfaction to increase customer loyalty for long-term profitability and success (Reichheld & Teal, 1996; Fornell, Ryan and Westbrook, 1990).

Factors determining customer satisfaction have been brought by several prior researches, but only a few research explained about financial consumer protection and customer protection. Chavan & Faizan (2013) found that tangibility, empathy and responsiveness were the most important variables for predicting customer satisfaction.

In line with the issues identified above, the objectives of this research are to analyze the financial consumer protection in banks, to examine the customer satisfaction of commercial banks and to identify the factors of financial consumer protection lead customer satisfaction. Scope of this study will be limited to the banks' customers in Indonesia.

The rest of this research is organized as follows. In section two, the research discuss about the relevant literature review and previous study. The methodology is discussed in section three. The analysis of result is in the subsequent section. Section five concludes the research.

2. Literature Review and Previous Study

A. Financial Customer Protection

Financial Service Authority (FSA) is also called as Otoritas Jasa Keuangan (OJK) is the supervisor and regulator in financial services sector define the financial consumer as a party that put funds and/or utilize the services that available. FSA issued regulation no.1/POJK.07/2013 concerning consumer protection in the financial services sector. It is an implementing regulation for article 31 of law no. 21/2011 concerning protecting of the public and consumer (Chen, 2016). The regulation applies to all financial services business players.

The development of consumer protection in Indonesia is generally conducted based Act no.8 in the year of 1999 concerning Consumer Protection. Related to consumer protection in banking industry, Bank Indonesia through Indonesia Banking Architecture established program to improve the customer protection. Table below explained the phase of implementation of the program:

Table 1 Implementation Phase of Customer Protection of Banking Services

No	Activity (Pillar VI)	Implementation Schedule
1.	Formulation of standards for customer complaints mechanism	2004-2005
	1. Establish minimum criteria for customer complaints mechanism	2006-2010
	2. Monitor and evaluate the compliance to regulations governing customer complaints mechanism	
2.	Establishment of independent mediation agency – Facilitate the establishment of independent mediation agency	2004-2008
3.	Drafting of regulations on transparency of product information	
	1. Facilitate the drafting of minimum standards for transparency of banking product information	2004-2005
	2. Monitor and evaluate the implementation of regulations governing transparency of product information	2006-2010
4.	Promoting public education for customers	
	1. Encourage banks to educate customers regarding financial products	Beginning 2004
	2. Upgrade the effectiveness of public education programs regarding sharia banking through the Sharia Economics Communications Center (PKES)	Beginning 2004

Source: Bank Indonesia, 2018

There are several studies about financial consumer protection. Rutledge (2010) found that financial institutions should be required to apply fair, non-coercive and reasonable practices when they are selling and advertising their financial products and services to the consumers. Bank of Uganda (2011) states financial consumer protection are intended to be cost effective and to make a real difference between welfare of consumers and potential consumers of financial products/services.

B. Consumer Satisfaction

Customer satisfaction is the customers' overall judgment of the service encounter (Nordin & Sundin, 2013). Satisfaction is not attributed in the product or services itself but satisfaction consists in the consumer's perceptions of the product/services as it relates to that individual (Chung, et.al, 2015).

Satisfaction can be measured by comparing of what was expected with the products/services' performance. Singh & Kaur (2011) define customer satisfaction as how the customer feels after the product/service has been consumed.

Banking customer is the person who executes transaction and efficiency of the bank relies on the delivered-quality of services. Satisfied customers are the most important element if the bank wants to sustain in the competitive environment.

Krishnan, Ramaswamy, Meyer, & Damien (1999) aims to study the drivers of customer satisfaction for financial services. The research uses a full Bayesian analysis. It found that satisfaction with product offerings is a primary driver of overall customer satisfaction. Mukhtar (2014) aims to determine satisfaction level of customers towards financial services of Banks. The sample size of the research is 152 respondents who were customers of different banks in Bahawalpur. The research found that there is association between dimensions of service quality of banks and satisfaction of customers. Kotler & Keller (2016) found that the customer feels happy if the bank's performance exceeds their expectations. However, the different consumers will have varying levels of satisfaction for experiences the same services.

3. Methodology

The research uses primary and secondary data. The primary data has been collected from the questionnaires, while the secondary data has been collected from books, journals, magazines, websites and so on. The primary data were collected through questionnaires with bank's customer in the regions of JABODETABEK (Jakarta, Bogor, Depok, Tangerang and Bekasi). The research will use purposive sampling method to identify the sample respondents and use statistical tools such as factor analysis and discriminant analysis to analyze the data. This research will be based on research from Selvakumar & Sathyalakshmi (2015), to analyze the factors influencing financial consumer protection through identification of 38 statements in 5-point likert type structured questionnaire. The analysis relied on a sample of 140 respondents aged 19-50 that lives in Jakarta and the region near Jakarta.

4. Analysis of Results

A. Respondents' Profile

The researcher gathered socio-economic profile of the respondents (Bank customer). The details are presented in the table below:

Table 2 Socio-Economic Profile of the Respondents

No	Particulars	No. of Respondents	Percentage
Gender			
1	Male	45	32.14
2	Female	95	67.86
Total		140	100
Age wise Classification			
1	18 - 25 years	43	30.71
2	26 - 35 years	77	55.00
3	36 - 45 years	14	10.00

No	Particulars	No. of Respondents	Percentage
4	46 - 55 years	5	3.57
5	Above 55 years	1	0.71
Total		140	100
Occupation			
1	Student	32	22.86
2	Private Employees	48	34.29
3	Government Employees	17	12.14
4	Professionals	14	10.00
5	Housewife	20	14.29
6	Others	9	6.43
Total		140	100
Educational Classification			
1	Primary Level	0	0.00
2	Secondary Level	0	0.00
3	Higher Secondary Level	0	0.00
4	Diploma/Certificate Course	12	8.57
5	Undergraduate Level	72	51.43
6	Graduate Level	11	7.86
7	Doctoral Level	1	0.71
8	Others	44	31.43
Total		140	100
Monthly Income of Respondents			
1	Less than Rp1.000.000	26	18.57
2	Rp1.000.000 - Rp2.000.000	27	19.29
3	Rp2.000.001 - Rp5.000.000	53	37.86
4	Rp5.000.001 - Rp10.000.000	34	24.29
5	More than Rp10.000.001	0	0.00
Total		140	100
Marital Status			
1	Married	66	47.14
2	Never Married	71	50.71
3	Has been Married	3	2.14
Total		140	100
Nature of Residence			
1	Depok	25	17.86
2	Bekasi	3	2.14
3	Bogor	34	24.29
4	Tangerang	15	10.71
5	South Tangerang	10	7.14

No	Particulars	No. of Respondents	Percentage
6	North Jakarta	2	1.43
7	South Jakarta	14	10.00
8	East Jakarta	12	8.57
9	West Jakarta	1	0.71
10	Central Jakarta	4	2.86
11	Others	20	14.29
Total		140	100

Source: computed from primary data, 2018

Table 1 shows that out of 140 respondents, majority of the respondents are female, under the age group 26-35 years old, private employees, have completed undergraduate degree, have monthly income between Rp2.000.001 and Rp5.000.000, never married and live in Bogor.

Table 3 Banking Profiles of the Customers

No	Particulars	No. of Respondents	Percentage
Number of Account			
1	1 account	49	35.00
2	2 accounts	42	30.00
3	3 accounts	27	19.29
4	More than 3 accounts	22	15.71
Total		140	100
Number of Years Deal with Bank			
1	Less than 1 year	0	0.00
2	1 - 5 years	55	39.29
3	6 - 10 years	58	41.43
4	More than 10 years	27	19.29
Total		140	100
Frequency of Visiting the Bank per Month			
1	Less than 5 times	131	93.57
2	5 - 10 times	4	2.86
3	More than 5 times	0	0.00
4	Others	5	3.57
Total		140	100
Kind of Account			
1	Savings Bank Account	135	96.43
2	Current Account	1	0.71
3	Others	4	2.86
Total		140	100

No	Particulars	No. of Respondents	Percentage
Main Reason of Opening Bank Account			
1	To save money	100	71.43
2	To access credit	0	0.00
3	Safety	21	15.00
4	Convenience	7	5.00
5	Others	12	8.57
Total		140	100
Factors Considered for Selecting Bank			
1	Safety/security	59	42.14
2	Location factor	23	16.43
3	Reasonable rate of Interest	7	5.00
4	Better Customer Service	25	17.86
5	Convenient Facility	24	17.14
6	Others	2	1.43
Total		140	100

Source: computed from primary data, 2018

Table 2 shows that out of 140 respondents, the most of respondents have only one account, have opened the account between 6 and 10 years, are visiting less than 5 times, have savings bank account, open the bank account to save money and select the bank by safety/security.

B. Factors Influencing the Financial Consumer Protection in Commercial Banks

This research aims to analyze the factors influencing of financial consumer protection in banks and explain the relationship between the financial consumer protection and consumer satisfaction.

In order to analyze the factors influencing financial consumer protection, this research used 38 statements based on research from Selvakumar & Sathyalakshmi (2015). The statements are designed likert five point scale technique. The five points are given for “*Strongly Agree*”, four points are “*Agree*”, three points for “*Neutral*”, two points for “*Disagree*” and one point for “*Strongly Disagree*” responses.

Table 4 Factors Affecting The Financial Consumer Protection

Statement	Particulars	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Q01	Bank care and give special attention to the needs of customers	3	13	43	64	17
Q02	Bank provides up to date information about products and services	0	5	23	92	20
Q03	Bank provides accessible, clear, understandable and accurate information	0	6	16	96	22
Q04	Bank discloses the details of fees, pricing and any potential penalties that the consumer may incur	0	19	23	80	18
Q05	Bank take all decisions based on procedure	0	2	26	95	17
Q06	Bank provides all information whenever customer asked	0	4	23	89	24
Q07	Bank take decision with open minded and transparent to all	1	12	43	67	17
Q08	Bank develops programs and appropriate mechanisms to help existing and future customers	0	3	30	92	15
Q09	Bank communicates with customer in a clear manner	0	6	25	88	21
Q10	Bank employees communicate using customer language	0	2	16	98	24
Q11	Bank shares useful information that is specific to customer needs when customer need it	0	2	13	103	22
Q12	Bank demonstrating on how to use services of banks to customers	0	2	22	98	18
Q13	Bank works in a professional manner	0	3	20	93	24

Statement	Particulars	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Q14	Bank is responsible for the protection of the financial interests of the customers	0	2	22	78	38
Q15	Bank provides courteous customer service	0	0	15	80	45
Q16	Bank treat their customers friendly and respect manner	0	0	12	83	45
Q17	Bank gives flexible, understand and respond to customers need	0	4	19	93	24
Q18	Bank ensure that the transactions are as per the procedure	0	0	22	96	22
Q19	Bank keep the information confidentially	2	11	21	64	42
Q20	Bank has a proper control on customer records	2	12	23	75	28
Q21	Bank ensures that the policy about protection of privacy is as per the law	1	5	21	84	29
Q22	Bank has policy and procedure for quick redressal	0	16	39	63	22
Q23	Bank apply ethical marketing practices	0	8	32	86	14
Q24	Bank provides full information to the public to take purchase decision	0	5	33	86	16
Q25	Bank allow the customers act independently	3	12	34	71	20
Q26	Bank create the situation for healthy competition	1	5	36	84	14
Q27	Bank treats the competition as the factor to develop themselves	0	3	43	80	14
Q28	Bank should responsible and accountable for the actions of their authorized agents	0	0	15	71	54
Q29	Authorized agents work in the	1	5	40	74	20

Statement	Particulars	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	best interest of their customers					
Q30	Authorized agents responsible for upholding financial consumer protection	0	1	28	79	32
Q31	Bank gives proper training to their authorized agents for betterment of service	0	2	35	76	27
Q32	Bank have sufficient monitoring procedure to control their authorized agents	0	2	34	85	19
Q33	Bank writes all policies and procedures in the form	0	6	24	94	16
Q34	Every transaction of bank supported by documents	0	0	19	100	21
Q35	The transactions carried out according to the written policies of the bank	0	0	19	101	20
Q36	There is no oral policies or instructions	1	23	43	60	13
Q37	All procedures and instructions are given to customers	0	3	31	91	15
Q38	The conflicts are clarified with the support of written documents	1	1	30	94	14

Source: computed from primary data, 2018

Same as the prior research, this research also does reliability test. Reliability means consistency. It is the degree to which an instrument will give similar results for the same individuals at different times. Reliability test can be checked using cronbach's alpha. This method was develop by Lee Cronbach in 1951 provide a measure of the internal consistency of a test or scale. The test will be indicated by the reliability coefficient, which the coefficient is expressed as a number ranging between 0 and 1. The decision related to the reliability test is the larger the reliability coefficient, the more repeatable or reliable the test scores.

Table 5 Reliability Test

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.956	.959	38

Source: computed from primary data, 2018

Table above shows the cronbach’s alpha value of 0.956, which means that the likert’s scale used to identify the factors influencing the financial consumer protection is considered as reliable.

C. Factor Analysis – Analytical Framework

There are several factors to determine the customers’ opinion about financial consumer protection in bank. Those factors are not independent but interrelated. Therefore the factor analysis has been applied to group the related variables.

The factor analysis is a technique in statistic to reduce a large number of variables into fewer numbers of factors. There are several methods in factor analysis are available, but the principle component analysis with orthogonal varimax rotation is mostly used and widely available in factor analytic computer program.

The relationship of variable to the underlying factor is expressed by factor loading. The sum square of the factor loading is called as communalities (h^2). The factors are considered as a significant factor if factor loading is greater or equal to 0.5. Rotated factor matrix is a table coefficient, which expresses the relationship between variables and factors.

Cornish (2007) explained the factor analysis model in algebraic. If there are p variables X_1, X_2, \dots, X_p measured on a sample of n subjects, then variable i can be written as a linear combination of m factors F_1, F_2, \dots, F_m where $m < p$. Thus, the factor analysis model can be written as follows:

$$X_i = a_{i1}F_1 + a_{i2}F_2 + \dots + a_{im}F_m + e_i \dots\dots\dots (1)$$

where,

X_i = i^{th} standardized variable

a_{im} = standardized multiple regression coefficient of variable i on common factor m

F = common factor

e_i = the part of variable X_i that cannot be “explained” by the factors

m = number of common factors

The common factors can be expressed by a linear combination of the observed variables as the follows (Selvakumar & Sathyalakshmi, 2015):

$$F_i = W_{i1}X_1 + W_{i2}X_2 + W_{i3}X_3 + \dots + W_{ik}X_k \dots\dots\dots (2)$$

Where,

F_i = estimate of i^{th} factor

W_i = weight or factor score coefficient

K = number of variables

D. Customers Opinion Towards Financial Consumer Protection

The rotated factor matrix for the variables related to the opinion of customers toward financial consumer protection can be shown as follows:

Table 6 Rotated Factor Matrix for the Opinion of Customers Towards Financial Consumer Protection in Bank

Statement	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	h^2
Q05	0.639	0.105	0.136	0.393	0.063	-0.041	0.004	0.598
Q09	0.658	0.197	0.223	0.181	0.092	0.187	-0.225	0.648
Q10	0.817	0.196	0.157	0.019	0.037	0.083	0.029	0.740
Q11	0.676	0.201	0.200	0.013	0.066	0.369	-0.120	0.692
Q12	0.738	0.179	0.222	0.114	0.146	0.135	-0.005	0.679
Q13	0.562	0.203	0.051	0.364	0.284	0.286	0.106	0.666
Q15	0.676	0.233	0.174	0.174	0.113	0.106	0.295	0.683
Q16	0.643	0.358	0.123	-0.003	0.040	0.122	0.350	0.696
Q17	0.628	0.162	0.035	0.285	0.285	0.233	0.057	0.642
Q18	0.619	0.152	0.155	0.404	0.108	0.085	0.085	0.620
Q19	0.275	0.777	0.155	0.163	0.103	0.020	-0.073	0.746
Q20	0.315	0.805	0.160	0.211	0.118	0.014	0.025	0.832
Q21	0.354	0.576	0.245	0.278	0.013	0.094	-0.004	0.603
Q22	0.312	0.626	0.072	0.256	0.322	0.126	-0.047	0.682
Q31	0.164	0.596	0.495	-0.049	0.128	0.109	0.243	0.717
Q32	0.144	0.584	0.538	0.008	0.130	0.143	0.121	0.703
Q29	0.042	0.429	0.532	0.233	-0.100	0.126	0.281	0.628
Q33	0.201	0.263	0.733	0.174	0.114	-0.037	0.008	0.692
Q34	0.266	0.211	0.786	0.079	0.226	0.017	0.067	0.795
Q35	0.338	0.209	0.719	0.059	0.209	-0.029	0.151	0.746
Q37	0.090	0.126	0.679	0.191	0.290	0.187	-0.187	0.676
Q38	0.050	-0.085	0.592	0.306	-0.008	0.158	0.033	0.480
Q07	0.508	0.340	0.120	0.520	0.056	0.090	-0.073	0.675
Q08	0.478	0.081	0.157	0.619	0.077	0.039	0.025	0.651
Q23	0.341	0.463	0.269	0.509	0.186	-0.078	-0.022	0.703
Q26	0.193	0.263	0.237	0.681	0.177	0.087	-0.115	0.678
Q27	0.138	0.201	0.348	0.654	0.002	0.172	0.186	0.672

Statement	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	h ²
Q01	0.290	0.153	0.146	0.096	0.537	-0.088	-0.228	0.486
Q25	0.080	0.493	-0.034	0.411	0.505	0.061	0.138	0.697
Q36	0.007	0.056	0.255	-0.009	0.683	0.107	0.130	0.563
Q02	0.290	-0.001	0.086	0.063	-0.003	0.801	0.072	0.742
Q03	0.391	0.183	0.214	0.149	0.240	0.620	-0.199	0.736
Q28	0.284	-0.084	0.395	0.151	0.339	-0.053	0.539	0.675
Q30	0.102	0.301	0.486	0.055	-0.010	0.042	0.540	0.634

Source: computed from primary data, 2018

Table above represents rotated factor matrix for the opinion of customers towards financial customer protection in bank. The number of factors extracted was seven. The ratio that has the highest loadings (more than 0.50) will be grouped into the same group for each factor. The last column is communality (h²) which is the variance explained by the factor.

E. Results and interpretation for Customers Opinion Towards Financial Consumer Protection

Each factor with the new names that influence the opinion of customers towards financial consumer protection in bank are presented in tables below:

Table 7 Factor 1: Work Ethics

Statement	Variables	Factor Loading	Communality (h ²)
Q10	Bank employees communicate using customer language	0.817	0.740
Q12	Bank demonstrating on how to use services of banks to customers	0.738	0.679
Q11	Bank shares useful information that is specific to customer needs when customer need it	0.676	0.692
Q15	Bank provides courteous customer service	0.676	0.683
Q09	Bank communicates with customer in a clear manner	0.658	0.648
Q16	Bank treat their customers friendly and respect manner	0.643	0.696
Q17	Bank gives flexible, understand and respond to customers need	0.628	0.642
Q18	Bank ensure that the transactions are as per the procedure	0.619	0.620

Source: computed from primary data, 2018

The highest factor loading for factor 1 is communicating using customer language (0.817). Bank demonstrates on how to use services of banks to customers (0.738), Information is shared specifically to the customer needs (0.676), bank provides courteous customer service (0.676), bank communicates with the customer with a clear manner (0.658), bank treat the customers friendly and respect (0.643), bank gives flexible, understand and respond to the customers need (0.628) and ensure the transaction are as per the procedure (0.619). The factor 1 (F_1) is characterized as “**Work Ethics**”.

Table 8 Factor 2: Customer Privacy

Statement	Variables	Factor Loading	Communality (h^2)
Q20	Bank has a proper control on customer records	0.805	0.832
Q19	Bank keep the information confidentially	0.777	0.746
Q22	Bank has policy and procedure for quick redressal	0.626	0.682
Q31	Bank gives proper training to their authorized agents for betterment of service	0.596	0.717
Q32	Bank have sufficient monitoring procedure to control their authorized agents	0.584	0.703
Q21	Bank ensures that the policy about protection of privacy is as per the law	0.576	0.603

Source: computed from primary data, 2018

The second factor consists of proper control on customer records (0.805), keep the information confidentially (0.777), redressed within a stipulate time (0.626), proper training to the authorized agents (0.596), sufficient monitoring procedure to control the authorized agents (0.584), ensure the policy about privacy’s protection is as per law (0.576). The second factor is named as “**Customer Privacy**”.

Table 9 Factor 3: Conflict of Interest

Statement	Variables	Factor Loading	Communality (h^2)
Q34	Every transaction of bank supported by documents	0.786	0.795
Q33	Bank writes all policies and procedures in the form	0.733	0.692
Q35	The transactions carried out according to the written policies of the bank	0.719	0.746
Q37	All procedures and instructions are given to customers	0.679	0.676
Q38	The conflicts are clarified with the support of written documents	0.592	0.480
Q29	Authorized agents work in the best interest of their customers	0.532	0.628

Source: computed from primary data, 2018

The third factor consists of every transaction of the bank is supported by documents (0.786), all policies and procedures is written in the form (0.733), transactions carried out according to the written policies (0.719), all procedures and instructions are given to the customers (0.679), the conflict are clarified with the support of written documents (0.592) and authorized agents work in the best interest of their customers (0.532). The third factor is named as “**conflict of interest**”.

Table 10 Factor 4: Competition and Marketing Ethics

Statement	Variables	Factor Loading	Communality (h ²)
Q26	Bank create the situation for healthy competition	0.681	0.678
Q27	Bank treats the competition as the factor to develop themselves	0.654	0.672
Q08	Bank develops programs and appropriate mechanisms to help existing and future customers	0.619	0.651
Q07	Bank take decision with open minded and transparent to all	0.520	0.675
Q23	Bank apply ethical marketing practices	0.509	0.703

Source: computed from primary data, 2018

The fourth factor consists of bank create the situation for healthy competition (0.681), treat the competition as the factor to develop themselves (0.654), develops program and appropriate mechanism to help customers (0.619), take decision with open minded and transparent (0.520) and apply ethical marketing practices (0.509). The fourth factor is named as “**Competition and Marketing Ethics**”.

Table 11 Factor 5: Customer Care

Statement	Variables	Factor Loading	Communality (h ²)
Q36	There is no oral policies or instructions	0.683	0.563
Q01	Bank care and give special attention to the needs of customers	0.537	0.486
Q25	Bank allow the customers act independently	0.505	0.697

Source: computed from primary data, 2018

The fifth factor consists of there is no oral policies or instruction (0.683), bank care and give special attention to the needs of customers (0.537) and bank allow the customers act independently (0.505). The fifth factor is named as “**Customer Care**”.

Table 12 Factor 6: Information Disclosure

Statement	Variables	Factor Loading	Communality (h2)
Q02	Bank provides up to date information about products and services	0.801	0.742
Q03	Bank provides accessible, clear, understandable and accurate information	0.620	0.736

Source: computed from primary data, 2018

The sixth factor consists of two statements, provides up to date information (0.801) and provides accessible, clear, understandable and accurate information (0.620). The sixth factor is named as **“Information Disclosure”**.

Table 13 Factor 7: Responsibility

Statement	Variables	Factor Loading	Communality (h2)
Q30	Authorized agents responsible for upholding financial consumer protection	0.540	0.634
Q28	Bank should responsible and accountable for the actions of their authorized agents	0.539	0.675

Source: computed from primary data, 2018

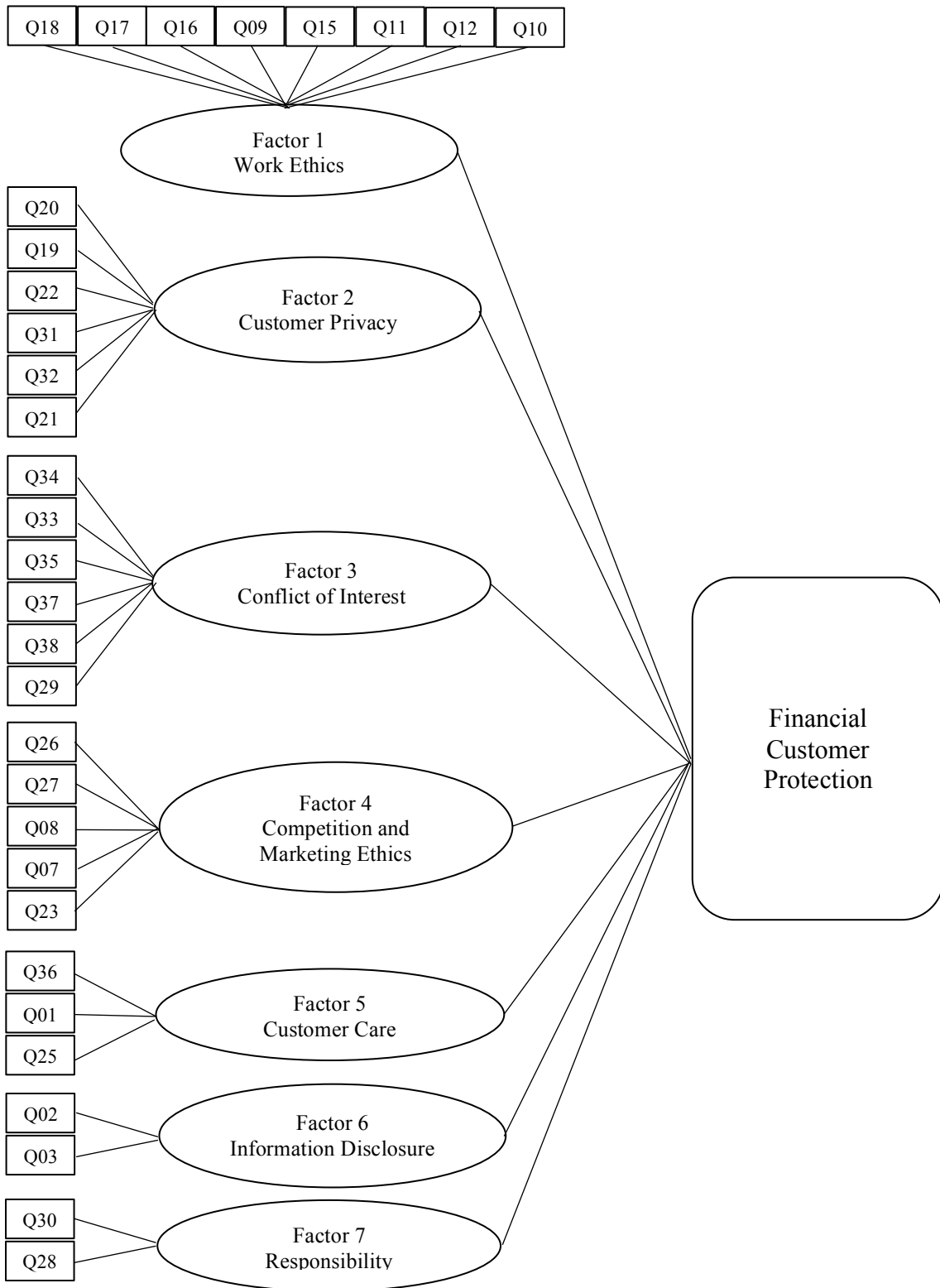
The seventh factor also consists of two statements, authorized agents responsible for upholding financial consumer protection (0.540) and bank should responsible and accountable for the actions of their authorized agents (0.539). the seventh factor is named as **“Responsibility”**.

Table 14 Variables with the highest factor loading for the factors influencing the customers towards financial consumer protection

Factor	The newly Extracted Factors	Selected Statement	Factor Loading
Factor 1	Work ethics	Bank employees communicate using customer language	0.817
Factor 2	Customer privacy	Bank has a proper control on customer records	0.805
Factor 3	Conflict of interest	Every transaction of bank supported by documents	0.786
Factor 4	Competition and marketing ethics	Bank create the situation for healthy competition	0.681
Factor 5	Customer care	There is no oral policies or instructions	0.683
Factor 6	Information disclosure	Bank provides up to date information about products and services	0.801
Factor 7	Responsibility	Authorized agents responsible for upholding financial consumer protection	0.540

Source: computed from primary data, 2018

Figure 1 Financial Consumer Protection Model for Banks



Source: author, 2018

F. The Customer Satisfaction

The level of customer satisfaction measured by six statements. Each statements will use likert's five scaling technique to determine the level of customer satisfaction. The five points are given for "**Very Good**", four points are "**Good**", three points for "**Somewhat Good**", two points for "**Poor**" and one point for "**Very Poor**" responses.

The satisfaction level of respondents related to their experiences with the banks are presented in the table below:

Table 15 Customer Satisfaction

No.	Particulars	Very Poor	Poor	SW Good	Good	Very Good	Total
1.	Services/Products	0 (0.0)	0 (0.0)	7 (5.0)	133 (95.0)	0 (0.0)	140 (100.0)
2.	Formalities and Procedures	0 (0.0)	0 (0.0)	1 (0.7)	132 (94.3)	7 (5.0)	140 (100.0)
3.	Infrastructures	0 (0.0)	0 (0.0)	8 (5.7)	107 (76.4)	25 (17.9)	140 (100.0)
4.	Attitude of Employees	0 (0.0)	0 (0.0)	7 (5.0)	133 (95.0)	0 (0.0)	140 (100.0)
5.	Safety/Security	0 (0.0)	0 (0.0)	7 (5.0)	73 (52.1)	60 (42.9)	140 (100.0)
6.	E-banking Services	0 (0.0)	0 (0.0)	55 (39.3)	61 (43.6)	24 (17.1)	140 (100.0)

Source: computed from primary data, 2018

Table above shows that 133 respondents (95.0%) think that bank's services/products are good, 132 respondents (94.3%) think that bank's formalities and procedures are good, 107 respondents (76.4%) think that bank's infrastructure are good, 133 respondents (95.0%) think that the attitude of bank's employees are good, 73 respondents (52.1%) think that bank's safety/security is good and 61 respondents have good experiences with the e-banking services. Based on those results, it means that the most of respondents have good experience with the bank or they say good for all the statements regard to customer satisfaction.

The level of customer satisfaction derived from the average values of the 140 respondents. Its average value (\bar{x}) is 4.08. It has been taken as "Satisfied" if the score values are greater than \bar{x} , and "Dissatisfied" if the score values are less than \bar{x} . Thus, the level of customer satisfaction is divided into two levels, Satisfied and Dissatisfied.

Table 16 Level of Customer Satisfaction

No.	Particulars	No. of Respondents	Percentage
1.	Dissatisfied	54	38.6%
2.	Satisfied	86	61.4%
Total		140	100%

Source: computed from primary data, 2018

Table above shows that 54 respondents (38.6%) are dissatisfied and the remaining 86 respondents (61.4%) are satisfied with the commercial bank.

G. Discriminant Analysis

Same as research by Selvakumar & Sathyalakshmi (2015), this research has also applied the discriminant analysis in order to find which factor absolutely predicts customer satisfaction. The use of discriminant analysis is to identify statements or variable that discriminating and on which people will respond differently. The purposes of discriminant analysis are to maximally separate group, determine the most parsimonious way to separate group and discard variables that are small related to group distinctions (Bian, 2018).

A discriminant score can be calculated based on the weighted combination of the independent variables reflected as the formula as below:

$$D_i = a + b_1x_1 + b_2x_2 + \dots + b_nx_n \dots\dots\dots (3)$$

Where,

D_i = predicted score (discriminant score)

x = predictor

b = discriminant coefficient

H. Wilks’s Lambda Test

Wilks’ lambda test is a test statistic to measure the validity of the model in discriminant analysis. This test identifies whether the variables contribute significantly to the discriminant function. The value of lambda varies from 0 to 1, with 0 meaning group means differ (thus the more the variable differentiates the groups), and 1 meaning all group means are the same (Poulsen & French, 1996). Wilks’ lambda test also explains the group membership through chi-square test. If the p-value is less than 5%, it means that the corresponding function explains the group membership well (Selvakumar & Sathyalakshmi, 2015). The chi-square and Wilks’ lambda values are shown on the table below:

Table 17 Wilks' Lambda Test

Test of Function (s)	Wilks' Lambda	Chi-square	df	Sig.
1	0.029	480.192	5	0.000

Source: computed from primary data, 2018

Table above shows the significance of the discriminant model. Wilks' lambda value is 0.029. It means that 2.9% of the variables are not explained by the group differences. The statistical test significance of Wilks' lambda is shown with the chi-square transformed statistic. The value of chi-square is 480.192 with 5 degrees of freedom and p-value is 0.000 that is less than the cutoff point 0.05. Considering the value of Wilks' lambda, chi-square and p-value, this research concludes that there is a relationship between dependent and independent variables.

Table 18 Eigenvalues

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	33.600 ^a	100.0	100.0	.985

a. First 1 canonical discriminant functions were used in the analysis.

Source: computed from primary data, 2018

The eigenvalues shows the relationship between dependent and independent variables. The eigenvalue is 33.6. The canonical correlation is 0.985 and the square of it is $(0.985)^2 = 0.970$, which means 97.0% of the variance in the discriminating model between a prospective group dissatisfied is due to the changes in the seven predictor variables, namely work ethics, customer privacy, conflict of interest, competition and marketing ethics, customer care, information disclosure and responsibility.

Table 19 Variables Failing Tolerance Test

	Within-Groups Variance	Tolerance	Minimum Tolerance
Attitude of employees	.044	.000	.000

All variables passing the tolerance criteria are entered simultaneously.

a. Minimum tolerance level is .001.

Source: computed from primary data, 2018

Table above shows the result of variables failing tolerance test. The tolerance test is conducted to evaluate the independence of predictors (Thongmak & Muenchaisri, 2003).

If two independent variables overly correlated with each other, then one of them should be eliminated. The result indicated that independent variable “attitude of employees” is failed after tolerance test. Therefore, 5 out of 6 metrics had a significant association with fault detection. Table below shows the result of variable validation by using standardized canonical discriminant function coefficients.

Table 20 Standardized Canonical Discriminant Function Coefficients

	Function 1
Service	-2.453
Infrastructure	1.735
Safety	3.308
E-banking service	1.458
Formalities and Procedures	.000

Source: computed from primary data, 2018

I. Formulating The Discriminant Function

The discriminant function constructed by using the unstandardized canonical coefficient because the predictive equation is being constructed.

Table 21 Canonical Discriminant Function Coefficients

	Function 1
Service	-11.672
Infrastructure	4.114
Safety	7.894
E-banking service	3.945
Formalities and Procedures	.000
(Constant)	-20.321

Unstandardized coefficients

Source: computed from primary data, 2018

Based on table above, the discriminant function can be written as follows:

$$D_i = -20.321 - 11.672 (\text{Service}) + 4.114 (\text{Infrastructure}) + 7.894 (\text{Safety}) + 3.945 (\text{ebanking service}) \dots \dots \dots (1)$$

Table 22 Classification Results

	Satisfaction	Predicted Group Membership		Total	
		Dissatisfied	Satisfied		
Original	Count	Dissatisfied	54	0	54
		Satisfied	2	84	86
	%	Dissatisfied	100.0	.0	100.0
		Satisfied	2.3	97.7	100.0
Cross-validated ^b	Count	Dissatisfied	54	0	54
		Satisfied	2	84	86
	%	Dissatisfied	100.0	.0	100.0
		Satisfied	2.3	97.7	100.0

- a. 98.6% of original grouped cases correctly classified.
- b. Cross validation is done only for those cases in the analysis. In cross validation, each case is classified by the functions derived from all cases other than that case.
- c. 98.6% of cross-validated grouped cases correctly classified.

Source: computed from primary data, 2018

Table above is used to assess how well the discriminant function works and whether it will works equally well for each group of the dependent variable. Based on table above, it has been observed that 98.6% of data was correctly classified as Dissatisfied and Satisfied of respondents by the discriminant function. It has also been noticed that out of 140 respondents, 54 respondents have been correctly classified as dissatisfied. Out of the 86 satisfied respondents, 84 respondents have been correctly classified as satisfied respondents whereas 2 respondents have been wrongly classified as dissatisfied. The result indicates a very good predictive capacity of the discriminant function.

5. Conclusion

In the following section, the research attempts to know the relationship between financial consumer protection and consumer satisfaction in Indonesia's bank industry and also analyzed the factors affecting the financial consumer protection. This research applied factor analysis and the result found that the factor analysis is considered an appropriate method to analyze data. The factor analysis was run with 38 statements by orthogonal varimax rotation for financial consumer protection in bank industry. The seven factors have been extracted from only 34 statements and the remaining statements are removed from this analysis. The seven factors are named as (i) Work Ethics, (ii) Customer Privacy, (iii) Conflict of Interest, (iv) Competition and Marketing Ethics, (v) Customer Care, (vi) Information Disclosure and (vii) Responsibility. All the factors are important but they all have been rated differently.

This research also applied the discriminant analysis to find which factors absolutely predict customer satisfaction. Based on analysis above, it can be said that 97% of the

variable predict the customer satisfaction. Hence factors of financial consumer protection have significant influence on customer satisfaction.

6. References

- Bank of Uganda. (2011). Towards an Effective Framework for Financial Literacy and Financial Consumer Protection in Uganda. 1-75.
- Chavan, M. J., & Faizan, A. (2013). Factors Affecting On Customer Satisfaction in Retail Banking: An Empirical Study. *International Journal of Business and Management Invention ISSN (Online)*, 2(1), 2319–8028.
- Chung, K. H., Yu, J. E., Choi, M. G., & Shin, J. I. (2015). The effects of CSR on customer satisfaction and loyalty in China: the moderating role of corporate image. *Journal of Economics, Business and Management*, 3(5), 542-547.
- Cornish, R. (2007). Statistics: 3.1 Cluster Analysis. *Mathematics Learning Support Centre*. <https://doi.org/10.4135/9781412983648>
- Fornell, C., M.J. Ryan and R. A. Westbrook, Customer Satisfaction: The Key to Customer Retention, *MOBIUS*, 9 (1990), 3, 14-18.
- Kotler, P. dan Keller, K. L., 2016, *Marketing Management*, 15th ed., Harlow, England: Pearson Education Limited.
- Krishnan, M. S., Ramaswamy, V., Meyer, M. C., & Damien, P. (1999). Customer Satisfaction for Financial Services: The Role of Products, Services, and Information Technology. *Management Science*, 45(9), 1194–1209. <https://doi.org/10.1287/mnsc.45.9.1194>
- Krishnan, M., Ramaswamy, V., Meyer, M., & Damien, P. (1998). *Customer Satisfaction for Financial Services: The Role of Products, Services, and Information Technology. Management Science* (Vol. 45). <https://doi.org/10.2139/ssrn.160168>
- Mukhtar, A., Iman, H., Ashiq, H., Amjad, R., & Nasar, H. (2014). Customer satisfaction towards financial services of banks: An empirical case study from Bahawalpur, Pakistan. *International SAMANM Journal of Marketing and Management*, 2(1), 94-111.
- Poulsen, J., & French, A. (1996). Discriminant Function Analysis (DA). *Journal of Forensic Sciences*, 56(2), 297–301. <https://doi.org/10.1111/j.1556-4029.2010.01663.x>
- Reichheld, F. F. and T. Teal, *The Loyalty Effect: The Hidden Force behind Growth, Profits and Lasting Value*, HBS ress, Cambrigde, MA, 1996.
- Rokhim. Et.al (2016). *An International Comparison of Financial Consumer Protection*. Springer. 201-224
- Rutledge, S. L. (2010). Consumer Protection and Financial Literacy Lessons from Nine Country Studies. *The world bank*, 1- 50.
- Selvakumar, M., & Sathyalakshmi, V. (2015). Financial Consumer Protection and Customer Satisfaction: A Relationship Study by Using Factor Analysis and Discriminant Analysis. *EuroEconimica*, 34(2), 1–31.
- Sundin, K., & Nordin, F. (2013). Customer satisfaction in the Swedish financial sector.
- Thongmak, M., & Muenchaisri, P. (2003). Predicting faulty classes using design metrics with discriminant analysis. *Computer Engineering*, (August 2015), 621–627.