

# Institute of Business and Administration School of Economics & Social Sciences (SESS)

# Behavioral Factors Influencing Financial Decision-Making Under Pressure: An Experimental Study Using a Trading Simulation

# **Supervisor:**

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### **Questionnaire Variables**

#### Variables Format:

P	R/O	M (no.)	Part	<b></b>	No.	Part
Survey	Pre/Post	Module	Sub -	-	Question	Sub -
			Module		Number	Question
(1)	(2)	(3)	(4)	(5)	(6)	(7)

- (1) 'P' indicates the variable is from a questionnaire.
- (2) 'R/O' indicates the variable is from which questionnaire, Pre Survey or Post Survey.
- **(3)** 'M (no.)' indicates the variable belongs to which module.
- (4) 'Part' indicates the further classification of the modules.
- (5) '-' used as delimiter to separate module number and question number.
- **(6) 'Part'** indicates that if a respondent answers Yes or No to a particular question, an additional follow-up question will be asked based on their initial response.

### Data Type:

- Numerical (N): Continuous/ Discrete
- String (S): Text/ Comments
- Dummy (D): Yes /No
- Nominal(NS): Categorical Single Choice
- Nominal (NM): Categorical Multiple Choices
- Ordinal (0): Likert Scale 1-5 / 1-10 / Categories
- Ordinal Rank (OR): Ranking Priorities

### **PRE-SURVEY**

No.	Variable	Data Type	Question			
	Module 1 Demographic Information					
1.	PRM1-1	String (s)	Full Name			
2.	PRM1-2	String (S)	Phone No.			
3.	PRM1-3	String (S)	Email			
4.	PRM1-4	String (S)	Participant ID			
5.	PRM1-5	Nominal (NS)	Gender			
6.	PRM1-6	Numerical (N)	Age			
7.	PRM1-7	Ordinal (0)	What is your highest level of education attained			
			or currently enrolled in? (Categorical)			
8.	PRM1-8	Dummy (D)	Have you ever studied or worked in the field of			
			Finance or Economics?			
9.	PRM1-9	String (S)	What is your native language?			
10.	PRM1-10	Ordinal (0)	How fluent are you in English?			
			(1 – Not Fluent, 5 – Very Fluent)			
11.	PRM1-11	Nominal (NM)	Do you have any other source of income than			
			full/part-time employment?			
12.	PRM1-12	Nominal (NS)	Are you currently employed?			
13.	PRM1-12a	String (S)	What is your Occupation/Designation?			

	Module 2a: Trading Experience and Knowledge					
14.	PRM2a-1	Ordinal (0)	How would you consider yourself at			
			understanding graphs and numerical data?			
			(1 – Extremely Worst, 10 – Extremely Best)			
15.	PRM2a-2	Ordinal (0)	How would you rate your knowledge of trading			
			stocks at any Stock Exchange in the world?			
			(1 - No Knowledge, 10 - Expert Level			
			Knowledge)			
16.	PRM2a-3	Ordinal (0)	How would you rate your knowledge of NYSE			
			Stock Market Trading?			
			(1 - No Knowledge, 10 - Expert Level			
			Knowledge)			
17.	PRM2a-4	Dummy (D)	Have you traded stocks or other Financial			
			Instruments before?			

No.	Variable	Data Type	Question			
	Module 2b: Trading Patterns					
18.	PRM2b-1	Nominal (NM)	What types of assets have you traded?			
19.	PRM2b-2	String (S)	List at least 2 Stocks/ Cryptocurrencies/			
			Options/ Forex/ Commodities that you may			
			usually trade.			
20.	PRM2b-3	String (S)	How long have you been trading?			
21.	PRM2b-4	String (S)	What platform do you use for trading?			
22.	PRM2b-5	Nominal (NM)	Reason for Trading/ Investing?			
23.	PRM2b-6	Numerical (N)	How many trades do you execute per day on			
			average?			
24.	PRM2b-7	Nominal (NS)	In which currency do you trade?			
25.	PRM2b-8	Numerical (N)	How much do you invest per trade on average?			
			(US\$ 1 = PKR 280)			
26.	PRM2b-9	Nominal (NS)	For how long you typically hold positions?			
27.	PRM2b-10	Nominal (NM)	How do you assess risk per trade?			
28.	PRM2b-11	Nominal (NM)	What do you prioritize when choosing a stock to			
			trade?			
29.	PRM2b-12	Nominal (NM)	When you face a significant loss on your trade,			
			what's your typical reaction?			
30.	PRM2b-13	Dummy (D)	Do you use any particular strategy (For e.g. Swing			
			Trading, Arbitrage, Momentum etc.) when			
			trading?			
31.	PRM2b-13a	String (S)	List at least 1-3 strategies that you may use to			
			make a trading decision.			
32.	PRM2b-14	Dummy (D)	Do you use any particular indicators (For e.g.			
			VWAP, Bollinger bands, Volume, MACD etc) when			
			trading?			
33.	PRM2b-14a	String (S)	List at least 1-3 indicators that you may use to			
			make a trading decision.			

No.	Variable	Data Type	Question				
	Module 3: Financial Decision-Making Patterns						
34.	PRM3-1	Nominal (NS)	What motivates your trading decisions most?				
35.	PRM3-2	Ordinal (0)	How confident are you in your ability to make				
			profitable trades?				
			(1 – Not Confident, 5 – Highly Confident)				
36.	PRM3-3	Ordinal (0)	When faced with financial decisions, do you				
			usually rely on Logic or Intuition?				
			(1 – Mostly Logic, 5 – Mostly Intuition)				
37.	PRM3-4	Ordinal (0)	How comfortable are you with taking risks?				
			(1 – Not Comfortable, 5 – Highly comfortable)				
38.	PRM3-5	Ordinal (0)	How often do you second-guess your trading				
			decisions after making them? (Categorical)				
39.	PRM3-6	Ordinal (0)	Do you tend to rely on data analysis, or do you go				
			with your gut feeling when trading?				
			(1 – Mostly Gut Feeling, 5 – Mostly Data Analysis)				
40.	PRM3-7	Ordinal (0)	How strongly do other people's opinions				
			influence your trading decisions?				
			(1 – Not at All, 5 – Very Strongly)				
41.	PRM3-8	Nominal (NS)	What emotion do you associate most with your				
			past trading experiences?				
42.	PRM3-9	Ordinal (0)	How optimistic do you feel that you may recover				
			losses while trading?				
4.0	DD110 10	0.11.1(0)	(1 – Not Confident, 5 – Highly Confident)				
43.	PRM3-10	Ordinal (0)	How comfortable are you with uncertainty in				
			Financial Markets?				
4.4	DDM2 44	0 1: 1(0)	(1 – Not Comfortable, 5 – Highly comfortable)				
44.	PRM3-11	Ordinal (0)	Do you consider yourself patient or impulsive				
			when making decisions?				
4 ==	DDM2 42	0.11 1.60	(1 – Very Patient, 5 – Very Impulsive)				
45.	PRM3-12	Ordinal (0)	Do you find decision-making under time				
			constraints stressful? Yes / Neutral / No				

	Module 4a: Physiological and Medical Status					
46.	PRM4a-1	Dummy (D)	Do you wear glasses?			
47.	PRM4a-1a	String (S)	Specify whether you are Short (Hard to see			
			far) or Long (Hard to see near) sighted.			
48.	PRM4a-2	Dummy (D)	Do you have any vision impairments that might			
			affect reading graphs or screens?			
49.	PRM4a-2a	String (S)	Specify vision impairment or condition(s) (e.g.,			
			color blindness).			
50.	PRM4a-3	Nominal (NS)	Do you have any physical medical issue(s) like			
			Diabetes, High Blood Pressure, etc?			
51.	PRM4a-3a	String (S)	Specify medical issue(s).			
<b>52.</b>	PRM4a-3b	Nominal (NS)	Do you take medicine(s) in general for the			
			medical issue(s) you mentioned?			
53.	PRM4a-4	Nominal (NS)	Have you ever been diagnosed with a mental			
			health condition(s) by a healthcare professional			
			like ADHD, Autism, Anxiety, Depression, etc?			
54.	PRM4a-4a	String (S)	Specify condition(s).			
55.	PRM4a-4b	Nominal (NS)	Have you sought professional support for mental			
			health concerns?			
56.	PRM4a-4c	Nominal (NS)	Do you take medicine for the mental health			
			condition(s) you mentioned above?			

No.	Variable	Data Type	Question				
	Module 4b: Current Physiological State						
57.	PRM4b-1	Numerical (N)	How many hours of sleep did you get last night?				
58.	PRM4b-2	Ordinal (0)	When did you last eat a meal? (Categorical)				
59.	PRM4b-3	Ordinal (0)	How hydrated are you currently?				
			(1 – Feeling Dehydrated, 10 – Very Hydrated)				
60.	PRM4b-4	Dummy (D)	Have you consumed any caffeine or energy				
			drinks today?				
61.	PRM4b-4a	String (S)	Specify how long ago you consumed the drink in				
			hours.				
62.	PRM4b-5	Dummy (D)	Have you exercised today?				
63.	PRM4b-5a	String (S)	Specify what type of exercise you did? (For e.g				
			Aerobic / Yoga/ Power Lifting etc)				
64.	PRM4b-5b	String (S)	Specify duration of the exercise in hours.				
65.	PRM4b-5c	String (S)	Specify how long ago you exercised in hours.				
66.	PRM4b-6	Ordinal (0)	How much physically tired do you feel right now?				
			(1 - None, 10 - Extreme)				
67.	PRM4b-7	Dummy (D)	Are you experiencing any physical discomfort				
			(e.g., headache, fatigue)?				
68.	PRM4b-7a	String (S)	Specify what physical discomfort /condition are				
			you feeling currently.				
69.	PRM4b-8	Dummy (D)	Did you take any medicine 24 hours prior to this				
			experiment?				

No.	Variable	Data Type	Question			
	Module 4c: Current Psychological and Emotional State					
70.	PRM4c-1	Nominal (NM)	What motivates you to participate in this			
			experiment?			
71.	PRM4c-2	Ordinal (0)	How would you rate your focus and			
			concentration right now?			
			(1 - Poor, 10 - Excellent)			
72.	PRM4c-3	Ordinal (0)	How much excitement do you feel about this			
			experiment? (1 - None, 10 - Extreme)			
73.	PRM4c-4	Ordinal (0)	How much nervousness do you feel about this			
			experiment? (1 - None, 10 - Extreme)			
74.	PRM4c-5	Ordinal (0)	How much stress are you experiencing today?			
			(1 - None, 10 - Extreme)			
75.	PRM4c-6	Ordinal (0)	How much pressure do you feel to perform well			
			in this experiment? (1 - None, 10 - Extreme)			
76.	PRM4c-7	Ordinal (0)	How much mentally tired do you feel right now?			
			(1 - None, 10 - Extreme)			
77.	PRM4c-8	Dummy (D)	Have you been exposed to any significant			
			stressors today (e.g., work deadlines, personal			
			issues)?			
78.	PRM4c-8a	Ordinal (0)	How stressed/ worried are you about it?			
			(1 - Not Stressed, 10 - Highly Stressed)			
79.	PRM4c-9	Ordinal (0)	Do you feel confident about participating in this			
			experiment? Yes / Neutral / No			

## **POST-SURVEY**

No.	Variable	Data Type	Question				
	Module 1: Participant Details						
1.	POM1-1	String (S)	Full Name				
2.	POM1-2	String (S)	Phone No.				
3.	POM1-3	String (S)	Email				
4.	POM1-4	String (S)	Participant ID				

	Module 2: Experimental and Environmental Feedback					
5.	POM2-1	Dummy (D)	Was the tutorial provided before the			
			experiment sufficient in helping you			
			understand the objectives and how the			
			simulation would work?			
6.	POM2-2	Dummy (D)	Did you face any issue(s) during the			
			experiment?			
7.	POM2-2a	String (S)	State briefly the issues faced during the			
			experiment.			
8.	POM2-3	Dummy (D)	Did you feel any discomfort during the			
			experiment that you think may have affected			
			your performance in the experiment (Noise,			
		0 (0)	Lighting, Temperature, Chair etc).			
9.	POM2-3a	String (S)	State briefly what factors may have caused			
40	DOMO 4	N 1 (V)	you discomfort during the experiment.			
10.	POM2-4	Numerical (N)	State the number of people in the room of			
			experiment (Excluding Researchers &			
11	DOM2 4	0 -1' - 1 (0)	Yourself)			
11.	POM2-4a	Ordinal (0)	To what extent did the presence of other			
			participants or volunteers or others in the room affect your performance?			
			(1 - None, 10 - Extreme)			
12.	POM2-5	Dummy (D)	Prior to participating in this experiment, did			
12.	1 01/12 3	Dunning (D)	you have any conversation with any previous			
			participant about the experiment's			
			procedures or expectations?			
13.	POM2-5a	String (S)	Kindly list all the names who you contacted			
			before the experiment.			
14.	POM2-6	Nominal (NS)	What do you consider the starting cash of			
			\$10,000 to trade was adequate for the			
			experiment?			
15.	POM2-7	Nominal (NS)	Do you think the time 1 minute per round to			
			trade was adequate for the experiment?			
16.	POM2-8	Dummy (D)	Did the movement of prices in each turn for			
			the stocks you were trading went high or low			
			as you expected?			
17.	POM2-9	Nominal (NS)	Do you think the news given for each stock			
			was misleading? (Categories)			
			Always/ Sometimes / Never			

No.	Variable	Data Type	Question
18.	POM2-9a	Dummy (D)	Did you switch your strategy (giving less
			value to news) in the next turns?
	Mod	dule 3: Self Perfo	rmance Perception
19.	POM3-1	Ordinal (0)	How much pressure did you feel during the
			simulation to perform well?
			(1 - None, 10 - Extreme)
20.	POM3-2	Ordinal (0)	How well do you think you may have
			performed in the simulation?
			(1 - Worst, 10 - Best)
21.	POM3-3	Ordinal (0)	How well do you think you may have
			performed in the simulation as compared to
			other participants? (1 - Worst, 10 - Best)

	Module 4a: Experiment Data Familiarity Evaluation					
22.	POM4a-1	Nominal (NS)	What Year do you think was used in the experiment?			
23.	POM4a-2	Nominal (NS)	What months do you think were used in the experiment?			
24.	POM4a-3	Nominal (NM)	Which stocks used in the experiment were ones you had knowledge of but had not traded before?			
25.	POM4a-4	Nominal (NM)	Which stock used in the experiment have you traded before? (you can select multiple options)			
26.	POM4a-5	Ordinal (0)	How would you rate your knowledge of Tesla (TSLA) stock prior to the experiment? (1 - Lowest, 10 - Highest)			
27.	POM4a-6	Ordinal (0)	How would you rate your knowledge of Exxon Mobil Corp (XOM) stock prior to the experiment? (1 - Lowest, 10 - Highest)			
28.	POM4a-7	Ordinal (0)	How would you rate your knowledge of Netflix (NFLX) stock prior to the experiment? (1 - Lowest, 10 - Highest)			
29.	POM4a-8	Ordinal (0)	How would you rate your knowledge of Procter & Gamble (PG) stock prior to the experiment? (1 - Lowest, 10 - Highest)			

No.	Variable	Data Type	Question
			ion, and Trading Strategy
30.	POM4b-1-T	Ordinal Rank	Rank the stocks in order, you were most
30.	(TSLA Rank)  POM4b-1-X (XOM Rank)	(OR)	interested during the experiment (1 - Most Interested, 4 - Least Interested)  • Tesla (TSLA)  • Exxon Mobil Corp (XOM)
	POM4b-1-N (NFLX Rank)		• Netflix (NFLX) • Procter & Gamble (PG)
	POM4b-1-P		
	(PG Rank)		
31.	POM4b-2-T (TSLA Rank)	Ordinal Rank (OR)	Rank the stocks in order, you think were most risky and volatile during the experiment (1 - Most Risky, 4 - Least Risky)
	POM4b-2-X (XOM Rank)		Tesla (TSLA)  Exxon Mobil Corp (XOM)  Netflix (NFLX)
	POM4b-2-N		Procter & Gamble (PG)
	(NFLX Rank)		(* 4)
	POM4b-2-P (PG Rank)		
32.	POM4b-3-G (Graph Rank) POM4b-3-DT (Data Table Rank)	Ordinal Rank (OR)	Rank in order what you considered the most during the experiment before taking a decision to either buy, sell or hold. (1 - Considered Most, 3 - Considered Least)  • Graph  • Data Table
	POM4b-3-NH (News Headline Rank)		• News Headline
33.	POM4b-4-OC (Open/Close Rank) POM4b-4-HL (High/Low Rank)	Ordinal Rank (OR)	Rank in order which indicator you valued the most to least during the experiment before taking a decision to either buy, sell or hold. (1 -Valued Most, 5 -Valued Least)  • Open/Close  • High/Low
	POM4b-4-V (Volume Rank) POM4b-4-BB		<ul><li> High/Low</li><li> Volume</li><li> Bollinger Bands</li><li> MACD</li></ul>
	(Bollinger Bands Rank)		
	POM4b-4- MACD (MACD Rank)		

Module 5: Post-Experiment Cognitive and Physiological State				
34.	POM5-1	Ordinal (0)	How much physically tired do you feel right	
			now? (1 - None, 10 - Extreme)	
35.	POM5-2	Ordinal (0)	How much mentally tired do you feel right	
			now? (1 - None, 10 - Extreme)	
36.	POM5-3	String (S)	Do you have any comments regarding the	
			whole experience? Write NA if not.	
37.	POM5-4	Dummy (D)	Were you eligible for the reward?	