



MINISTRY OF ECONOMY  
DEPARTMENT OF STATISTICS MALAYSIA

# Identifying the Profile of Scam Victim: Unveiling Vulnerabilities Behind Personality

*Full paper: Psychological Profiling of Scam Victim: A Discriminant Analysis*

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## 10<sup>TH</sup> MALAYSIA STATISTICS CONFERENCE

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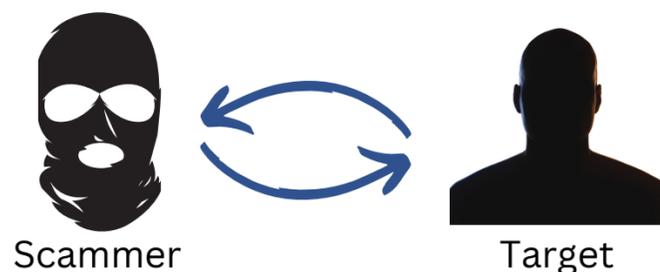


# INTRODUCTION

## DEFINITION

A fraudulent/ deceptive scheme designed to deceive individuals to gain valuable assets (money, personal information) through despicable means.

Tricking the victim into believing they are participating in a legitimate transaction



In 2022, more than 4,000 cases of online fraud have been reported  
(MyCERT, 2023)

- Online Purchase Scam
- Investment Scam
- Love Scam
- Loan Scam
- Employment Scam
- Parcel Scam
- Macau Scam
- Phone & SMS Scam
- Rental Scam

(Chapree, 2023)

## OBJECTIVE

To discriminate the personality between the victim and the non victim

## Personality

### The Big-5 Trait

**O**penness  
**C**onscientiousness  
**E**xtraversion  
**A**greeableness  
**N**euroticism

### The Gullibility

- A characteristic of individuals who tend to **trust others easily without questioning** them
  - It refers to a person's inclination to accept false information; especially when there are **untrustworthy cues** present

### The Susceptible to Persuasion

- The tendency of someone to **believe and comply with information they perceive as true**
- **Attracted, summoned, or felt responsible** for the narrative from the fraudster

## RESEARCH QUESTIONS

- RQ1: Will the scam victim most likely be introverted, highly agreeable, low conscientiousness, highly neurotic and highly open to experience?
- RQ2: Will the scam victim most likely be gullible?
- RQ3: Will the scam victim most likely be susceptible to persuasion?

## HYPOTHESES

- H1: People who are introverted, highly agreeable, low conscientiousness, highly neurotic, and highly open to experience are not likely to be a scam victim
- H2: Victims of a scam are unlikely to be gullible
- H3: Victims of a scam are unlikely to be susceptible to persuasion

# METHODOLOGY

1

Research Design

Online Survey

2

Participants

82 respondents

3

Sampling

Purposive

4

Procedure

Distribution

5

Instruments

The B5-2-S

(Soto & John, 2017)

The Gullibility Scale

(Teunise et al., 2019)

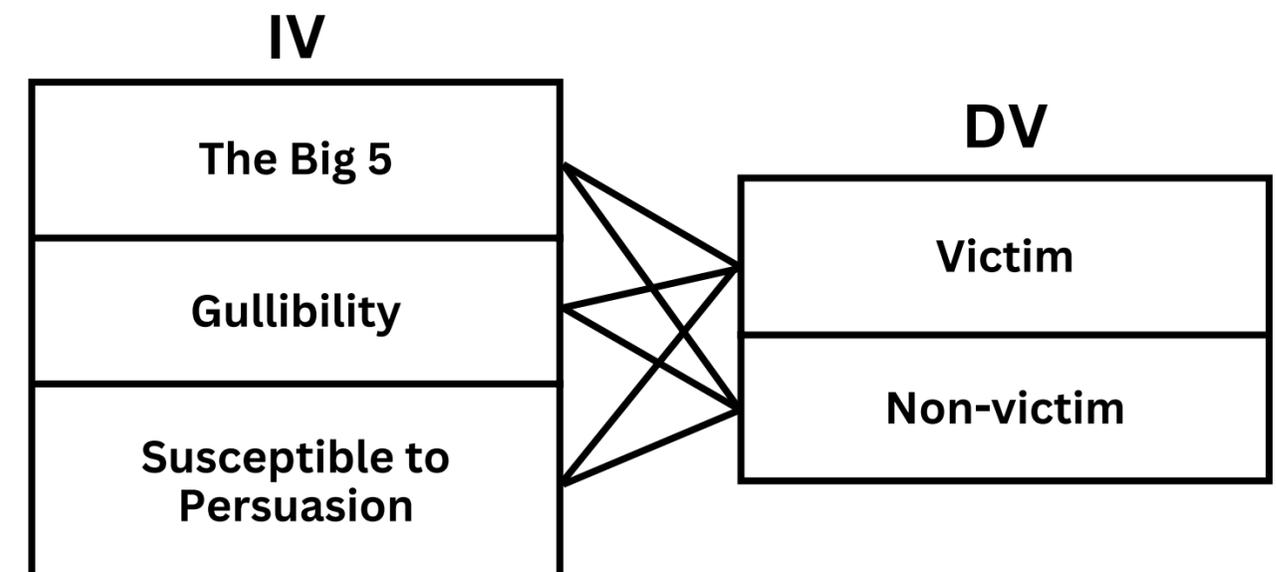
The StP II

(Modic et al., 2018)

# DISCRIMINANT ANALYSIS

To determine which variables **discriminate** between **two naturally occurring groups** or more

Finding a **combination** of variables that maximizes the separation between the groups

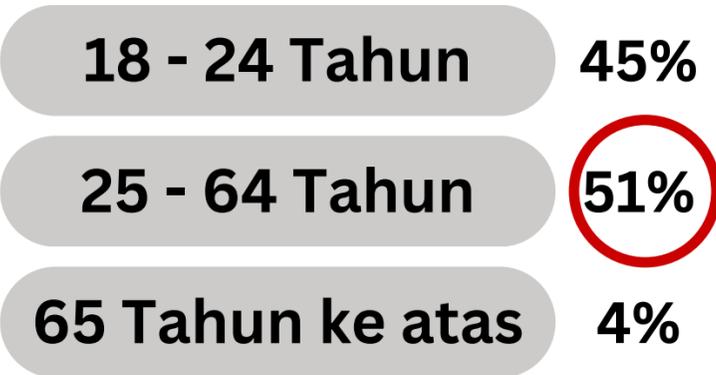


# DEMOGRAPHIC

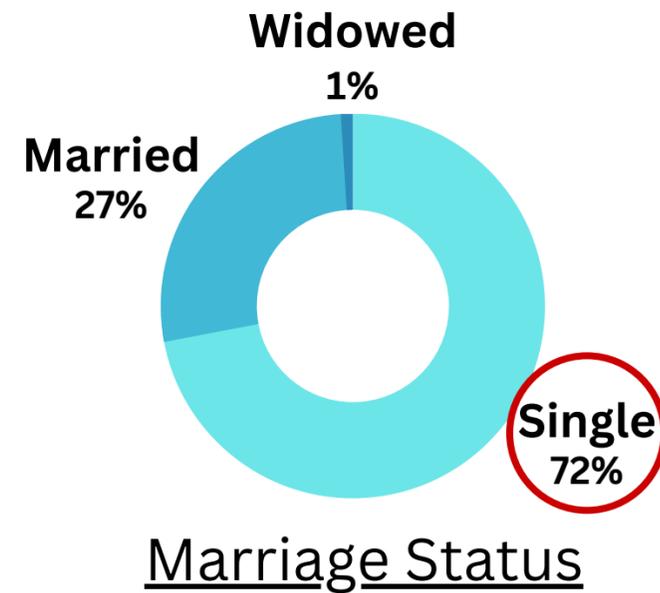
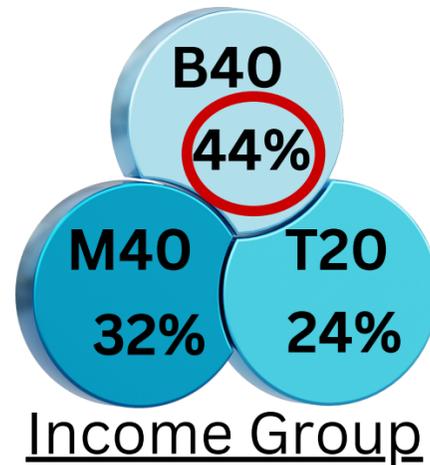
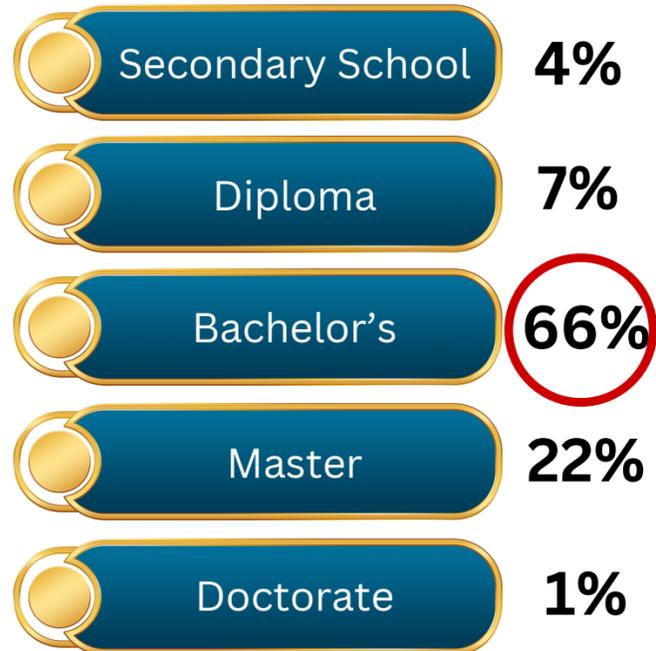
## Gender



## Age

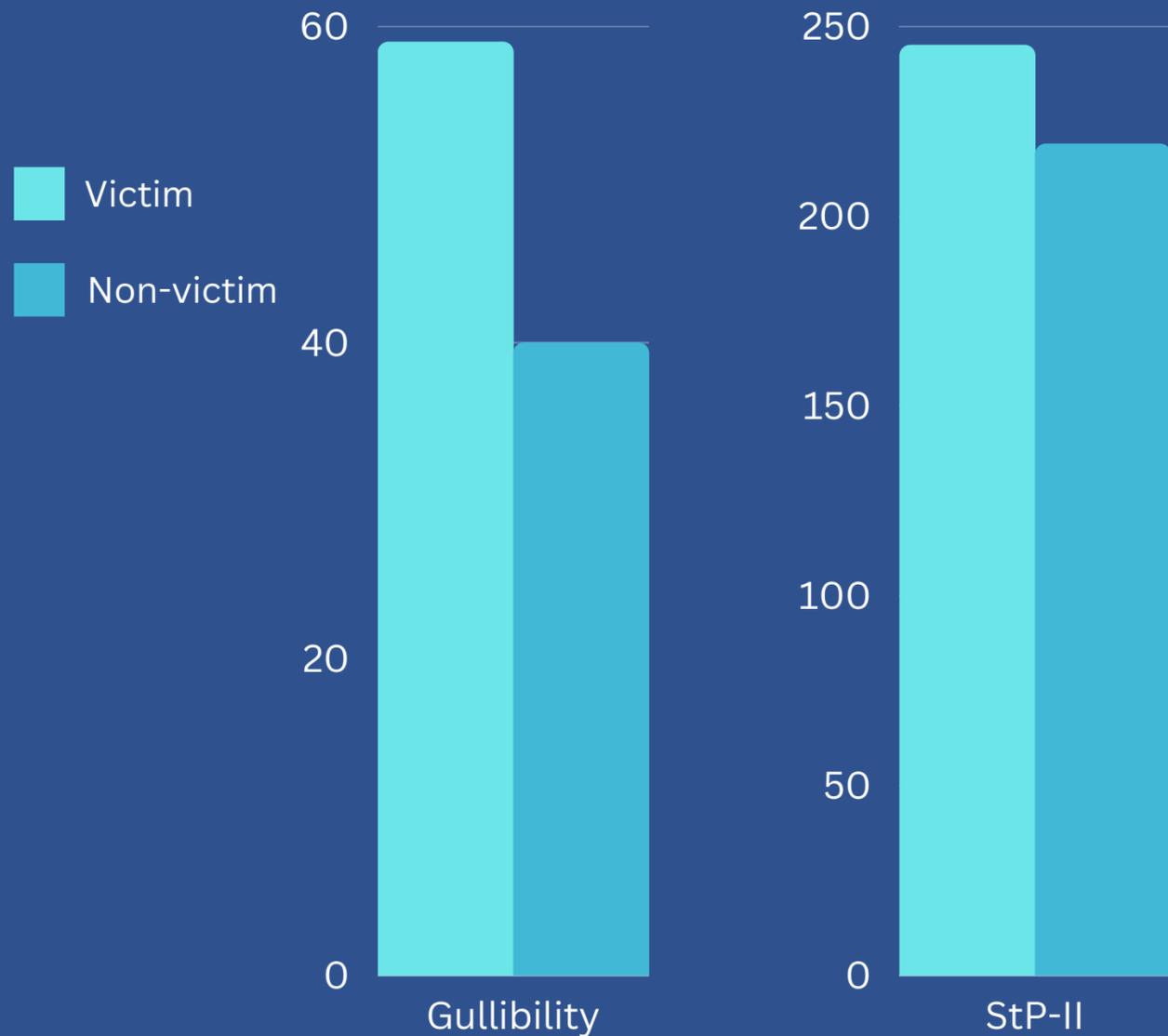


## Education Level



# RESULT

## The Profile



**Table 2.** Mean Comparison of Victim and Non-victims on Personality

Variables	Non-victim	Victim	Mean differences	F ratio	Sig.
Personality					
Extraversion	18.27	17.85	-0.42	.119	.731
Agreeableness	21.02	21.80	0.78	.646	.424
Conscientiousness	20.37	19.71	-0.66	.532	.468
Neuroticism	16.83	18.07	1.24	1.667	.200
Openness	20.41	19.78	-0.63	.885	.350
Gullibility	39.39	59.10	19.71	<b>42.721**</b>	<b>&lt;.001</b>
Susceptible to persuasion	219.22	245.22	26.00	<b>10.035*</b>	<b>.002</b>

\* $p < .05$ , \*\* $p < .001$

**Significance Differences between the Victim and the Non-victim**

**Gullibility;**  
 $F(1,80) = 42.721, p < .001$   
**Susceptible to persuasion;**  
 $F(1,80) = 10.035, p < .05$

# RESULT

**Table 6. Ratio for Cases Selected from Personality**

Actual group	No. of cases	Predicted membership			
		Correctly classified grouped		Cross validation	
		Non-victim	Victim	Non-victim	Victim
Non-victim	41	26 (63.4)	9 (22.0)	24 (58.5)	17 (41.5)
Victim	41	5 (12.2)	36 (87.8)	9 (22.0)	32 (78.0)

Percentage of 'grouped' cases correctly classified; 75.6% and 68.3% for cross validation. Numbers in italics indicate the row percentage

## Predicted Membership

**75.6% correctly classified participants**

**Table 7. Wilk's Lambda Table (Personality)**

Step	Number of Variables	Lambda	df1	df2	df3	Statistic	Exact F		Sig.
							df 1	df2	
1	1	.652	1	1	80	42.721	1	80	<.001
2	2	.595	2	1	80	33.773	2	79	<.001

## Stepwise Estimation Method

**2 significant variables in the combination**

# DISCUSSION

Why The Big-5 was not significant?

The Big-5 is not specifically linked to falling victim to a cyber scam since they are more descriptive than explanatory

The sample size was too small/too random

## What's next?

- Replicate and extend the demographics and personality traits. Demographics: study on IT literacy and cognitive affluent Personality; MBTI, or MMPI-2
- Policymakers can apprehend the result and start developing a targeted preventive strategies.

# CONCLUSION

**The combination found in this study is gullibility and susceptibility to persuasion.**

**The personality profile of the scam victim found:**

- **Highly gullible**
- **Highly susceptible to persuasion**

By acknowledging and understanding the role of personality traits, society can take proactive steps to **address vulnerabilities** and **enhance awareness**.

Integrating education, emotional intelligence, and open communication within a comprehensive framework facilitates the **cultivation of resilience** and **vigilance**, contributing to a more informed and empowered populace in the face of ever-evolving fraudulent tactics.

This study enriches the discourse surrounding scam victimization by unraveling the intricate psychological threads that underlie this pervasive issue.

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*Vigilance - Resilience - Awareness*

# THANK YOU

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