

Road Rage: Causes, Impacts, Legal Measures, and Road Traffic Accidents

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Schedule/timeframe of the Project /Budget



Statement of the Problem

- Road traffic accident has become a major problem in many countries as it causes many deaths and injuries.
- There were about 1.35 million deaths each year and most of them were children and young adults (WHO, 2018).
- In Thailand, during 2015-2019, the number of road traffic accidents had increased from 69,394 to 99,087 accounting for 42.79%. The number of traffic deaths had increased from 6,273 to 8,648 or approximately 37.86% increase. In addition, the number of injuries increased by 237.20% from 18,120 in 2015 to 61,101 in 2019 (Ministry of Land Transport, 2020).

Statement of the Problem

- Some main causes are associated with road rage, usually defined as aggressive or angry driving behaviors, such as rude gestures, verbal insults, physical altercation, deliberately driving in an unsafe or threatening manner, or making threats (Xu et al., 2017).
- Road rage constitutes a broad range of aggressive driving behaviors, ranging from milder behaviors, such as verbally expressing anger through closed windows or using the lights of the vehicle to express frustration, to using hostile hand and facial gestures, screaming, honking, firing gun shots, hitting vehicles and chasing vehicles, which can result in criminal acts, intentional violence and even murder (Dula & Geller, 2003; Wells-Parker et al., 2002).



Statement of the Problem

- In Thailand, there are many road rage cases appearing in newspaper, television, and social medias.
- Earlier this year, a passenger van driver was wounded in a road-rage incident on Saturday 9, 2021, after shots were fired by a man who later claimed the van had cut in front of his car (Bangkok Post, 9 January 2021).
- Another case is reported by Taylor (2021) “angry passenger attacks motorbike driver following collision in Pattaya.” This case was occurred on the 12th of January 2021.
- However, research on this issue is quite rare.



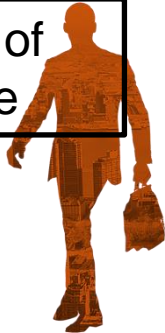
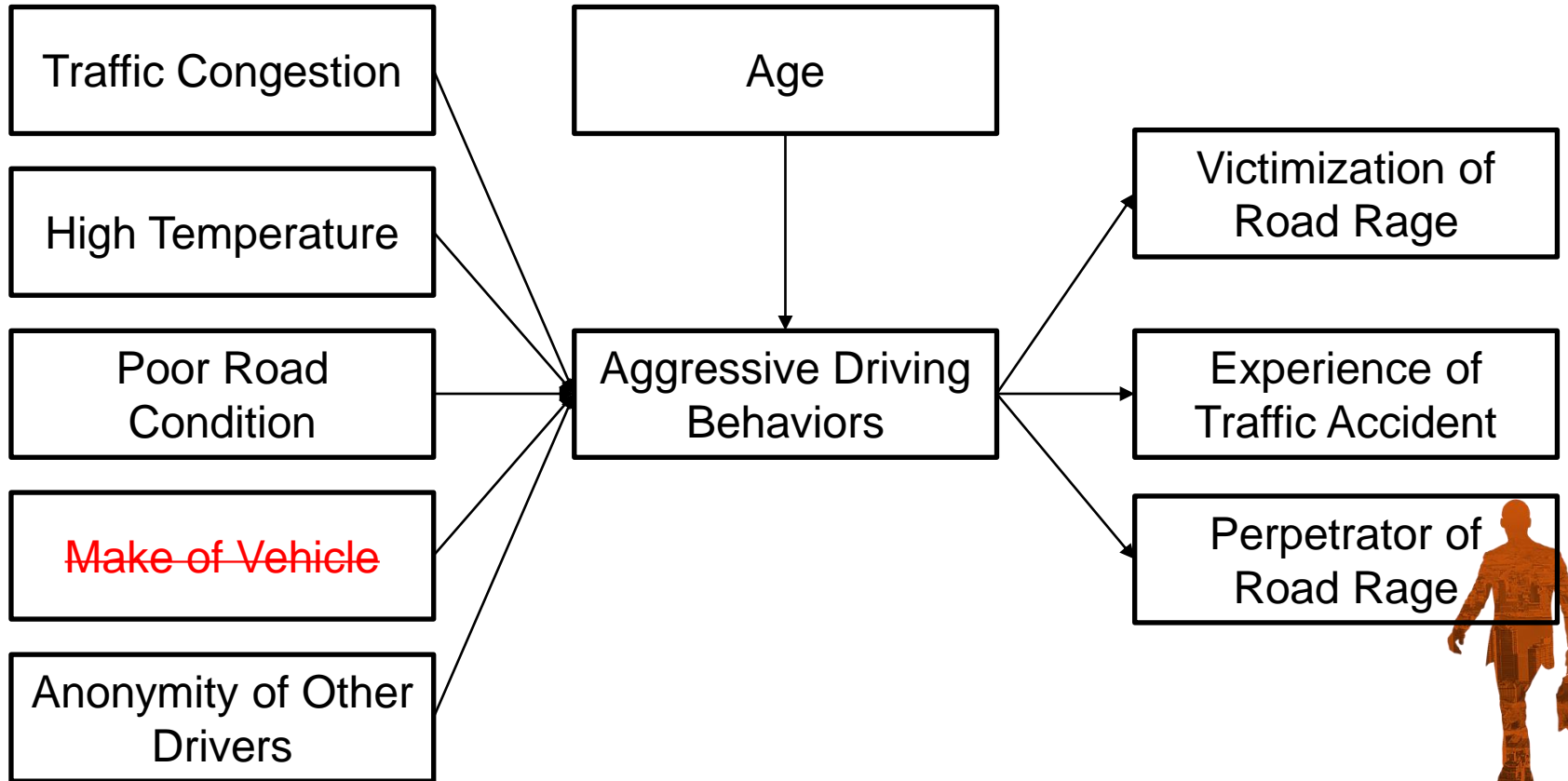
Statement of the Problem

There are some situational factors that have been linked with incidents of road rage include;

- Increasing congestion on roads (Sharkin, 2004)
- High temperature (Shinar, 1998)
- Poor road conditions (Galovski & Blanchard, 2004)
- Make of vehicle (Smart, Stoduto, Mann, & Adlaf, 2004)
- Anonymity of other drivers (Ellison, Govern, Petri, & Figler, 1995).
- Age (Wickens et al., 2011; Mina, 2014).



Conceptual Framework





Objectives

- To examine causes of road rage.
- To examine impacts of road rage.
- To examine legal measures against road rage.
- To find out relationship between road rage and road traffic accident.
- To provide suggestions and recommendations to policy makers.



Research Benefits

- The findings of this research will catch attention from public to place importance on road rage issues.
- The findings of the study can be used as an evident in policy making process to deal with road rage issue in Thailand.
- Police can apply the findings to improve or amend the related laws against road rage violators.
- Researchers and scholars can apply the findings in their research in the future.



Research Methods/Techniques

Research Design

This research is a mixed-method research consisting of quantitative and qualitative technique.

Quantitative Research

- Population: The population of this study is road users in Bangkok who experience road rage at least once.
- Sample: At least **987 samples** derived from G*Power
- Research Tool: Questionnaire

Validity and reliability will be tested prior to collecting the data.

Data Analysis

- Confirmatory factor analysis (CFA)
- Structural equation modeling (SEM)



Research Methods/Techniques

Qualitative Research

- Key Informants: 20 key informants who used to experience road rage incidents. All of them must violated the traffic law and the criminal code and their cases were filed in the police record. Most important, they will participate in this research voluntarily.
- Research Tool: In-depth interview using semi-structured interview.
- Data Collection: During July-September 2021

Data Analysis: Narrative analysis will be employed in this study. This method is used to analyze content from various sources, such as interviews of respondents, observations from the field, or surveys. It focuses on using the stories and experiences shared by people to answer the research questions.



Measures

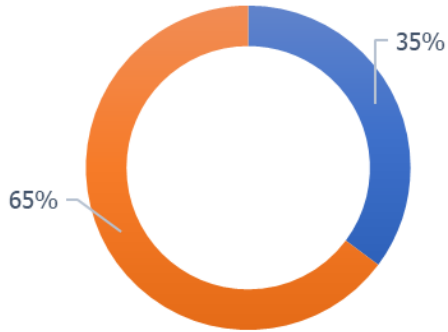
Measures	Items	Cronbach's Alpha
1. Traffic congestion	5	.971
2. Hot climate	4	.941
3. Road condition	5	.923
4. Anonymity	5	.950
5. Aggressive driving behaviors	8	.984
6. Victimization		
- Intimidating behaviors	5	.935
- Experience of road rage	5	.979
7. Perpetrator		
- Intimidating behaviors	5	.975
- Experience of road rage	5	.992



DATA ANALYSIS

RESPONDENTS (n=230)

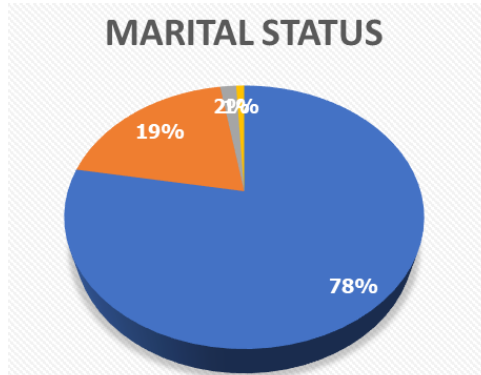
GENDER



■ MALE ■ FEMALE

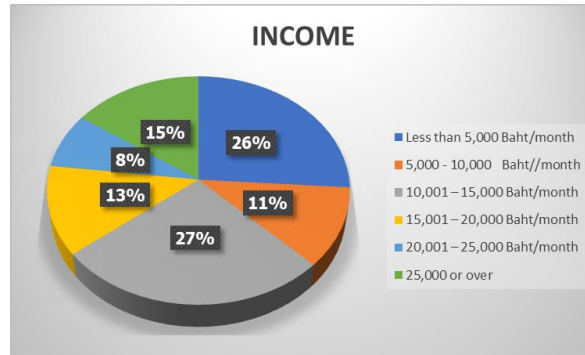
AVG. AGE: 39

MARITAL STATUS



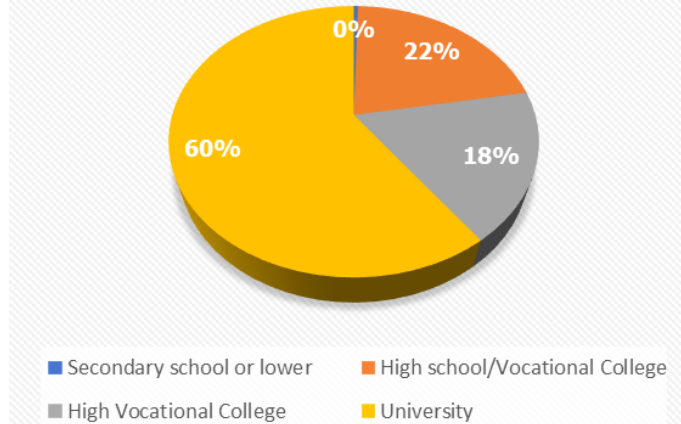
■ SINGLE ■ MARRIED ■ DIVORCED ■ SEPARATED

INCOME



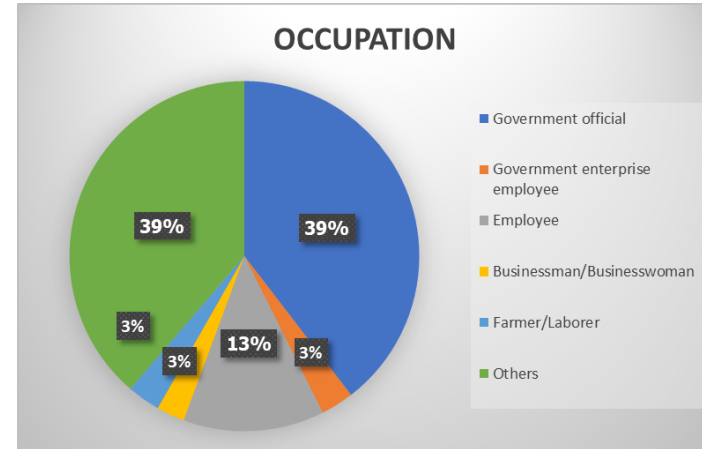
■ Less than 5,000 Baht/month
■ 5,000 - 10,000 Baht/month
■ 10,001 - 15,000 Baht/month
■ 15,001 - 20,000 Baht/month
■ 20,001 - 25,000 Baht/month
■ 25,000 or over

EDUCATION BACKGROUND



■ Secondary school or lower ■ High school/Vocational College
■ High Vocational College ■ University

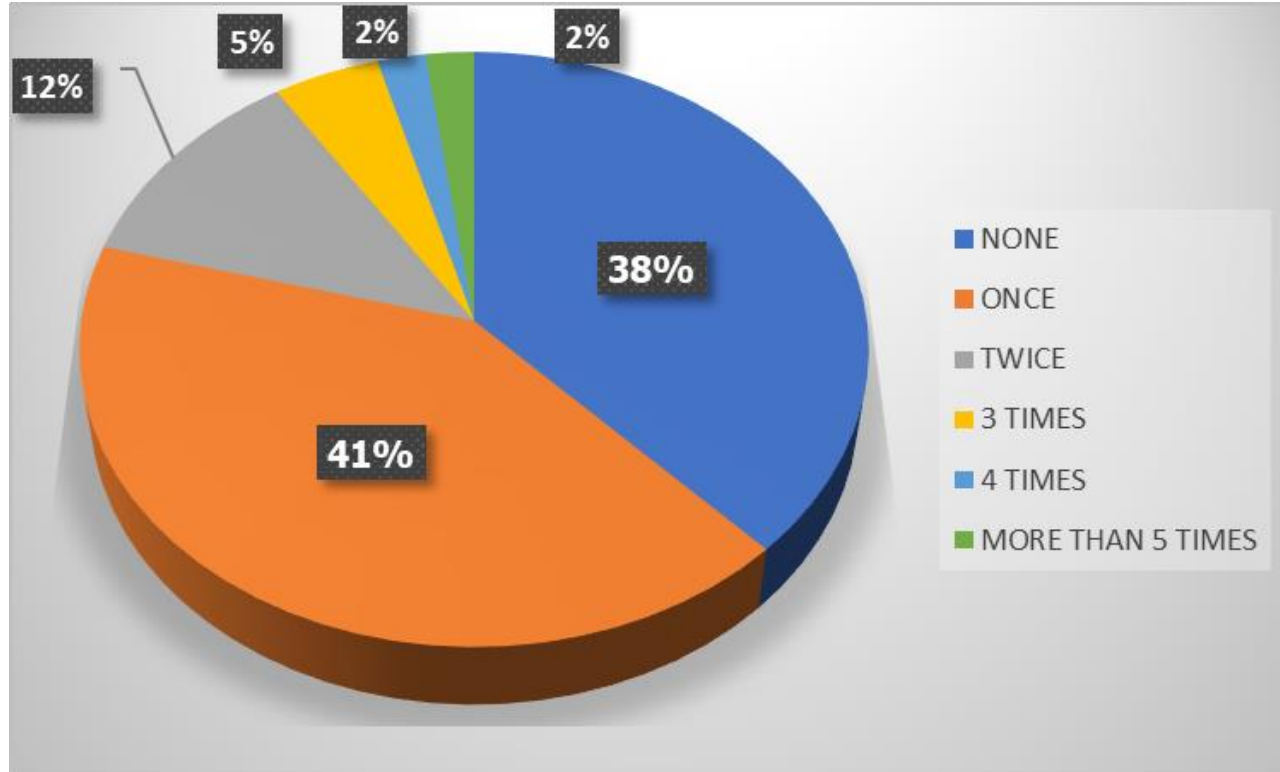
OCCUPATION



■ Government official
■ Government enterprise employee
■ Employee
■ Businessman/Businesswoman
■ Farmer/Laborer
■ Others

EXPERIENCE OF TRAFFIC ACCIDENT

LAST 3 YEARS



Preliminary Results

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.		
	B	Std. Error	Beta				
1	(Constant)	1.476	.387			3.811	.000
	AGE	-.013	.007	-.121		-1.888	.060
	ACC	.058	.062	.060		.928	.354
	→ TC	-.292	.122	-.256		-2.401	.017
	HW	.165	.119	.144		1.392	.165
	RC	.153	.099	.135		1.542	.124
	→ ANNO	.259	.097	.232		2.669	.008

a. Dependent Variable: AD

Traffic congestion and anonymity have positive impact on aggressive driving behaviors.



Aggressive driving behavior has a positive impact on victimization of road rage.

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.610	.079	7.696	.000	
	AD	.698	.034	.805	20.508	.000

a. Dependent Variable: VICTIM

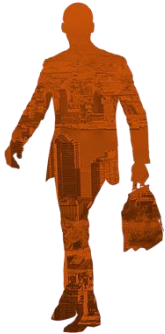


Aggressive driving behavior has a positive impact on perpetrator of road rage.

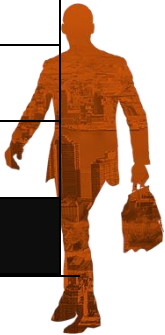
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.391	.092		4.226	.000
	AD	.611	.040	.714	15.405	.000

a. Dependent Variable: PERPET



Activities	Month											
	1 APR	2 MAY	3 JUN	4 JUL	5 AUG	6 SEP	7	8	9	10	11	12
Review of literature	■											
Inception report submission	■											
Questionnaire Validation		■										
Progress report			■									
Data collection				■	■	■	↓					
Data analysis						■						
Interim report presentation & submission							■					
Roundtable discussion & workshop								■				
Final report presentation & comments									■			
Final report preparation & submission										■	■	■





Q & A