

REPORT OF RESEARCH RESULTS

(a) Title: The Study of Awareness of Child Car Restraint Compliance and the Prediction of Parents' Intention to Use in Thailand

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(c) Summary:

This research aimed to investigate the awareness of parents in compliance with child car restraint regulations in Thailand. This work considered various factors, i.e., the Theory of Planned Behavior, Government Influence, Price Fairness, and Safety Awareness. The Theory of Planned Behavior consists of Attitude, Subjective Norm, and Perceived Behavioral Control. A survey questionnaire was completed by randomly selected parents in Thailand and only qualified subjects were included in the study. The data was collected from 409 participants and results showed that certain variables have a significant impact on parents' intention to use car seats. An analysis of variance was conducted to test the null hypothesis that all variables are not have a significant effect. Hence, A multiple linear regression model was performed to explain the intention to use car seats based on Attitude, Perceived Behavioral Control, Price Fairness, and Safety Awareness scores. The model met all necessary assumptions and was successful in explaining the intention to use score with the correlation coefficient (R-square) of 0.873.

(d) Aim of Research:

This research aimed to study the awareness and obstacles of CCR compliance to use infant restraint in Bangkok, Thailand. The interesting model composes of Theory Planned Behaviors, Government Influence, Price Fairness, and Safety Awareness. The research method is to develop a survey questionnaire and to analyze relationship of variables in the intention to use. There are three objectives of this research. The first objective is to survey for the awareness of child car restraint compliance of parents or pregnancy women in Bangkok. The second objective is to evaluate the suitable model used to predict the parents' intention in using or buying car seat. The third objective is to propose the successive methods to enhance using child car restraints.

(e) Method of Research & Progression:

According to Figure 1, The survey research questionnaire was conducted according to the Theory Plan Behavior (TPB), Government Influence, Price Fairness and Safety Awareness to evaluate the parents' intention of buying car seat for their children. The TPB composes of Attitude, Subjective Norms, and Perceived Behavioral Control, was applied to develop the survey questionnaire. Therefore, the survey questionnaire composes of 7 parts : 1) General Information, 2) Attitude, 3) Subjective Norms, 4) Perceived Behavior Control, 5) Government Influence, 6) Safety Awareness and 7) Price Fairness. The first part is about general information of the respondents. The 2), 3) and 4) part is theory plan behavior. The 5) part is the government influence issues to evaluate the perception of government policy about the CCR law enforcement, car seat's price and consumer tax benefit, and the car seat supply by the government. The 6) part is about safety concern. The 7) part is about the car seat's price perception of parents. The last part is to evaluate parents' intention to use. The questionnaire used a 5-point Likert scale.

The survey questionnaire is based on the null hypothesis, which is that all six independent variables do not significantly affect the intention to use the car seat of a parent. The alternative hypothesis is at least one independent variable significantly affecting the intention to use. To analyze the relationship between the factors in the problem model, the multiple regression analysis is applied. The data was processed using the Statistical Package for Social Sciences version 23 (IBM Corp, Armonk, NY, USA).

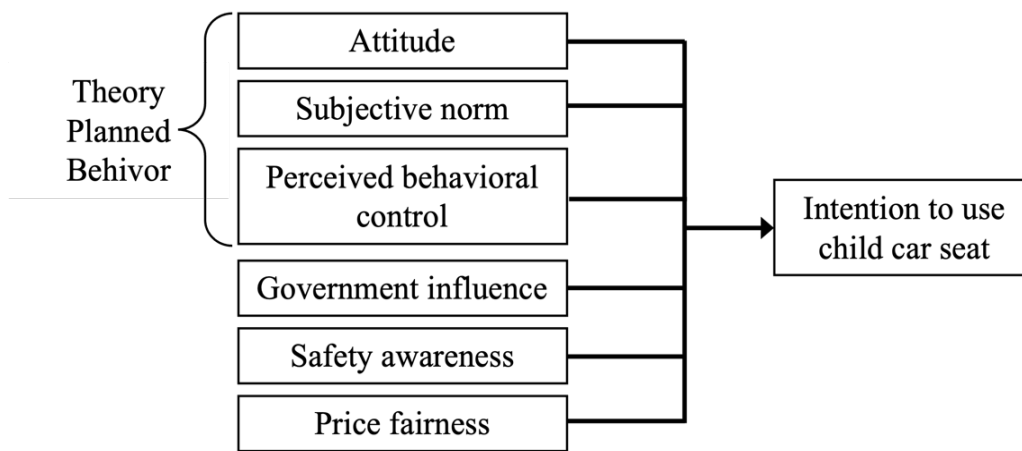


Figure 1 The Research Framework

(f) Results of Research

The research was conducted by using the filtering questions for only parents whose children's age is under seven years old. The useable collected data are from 409 subjects which are classified as 93 males and 316 females. The proportion is 77.3 percentage of female and 22.7 percentage of male. The most respondents' age are 25 to 44 years old (87.5%). The respondents' education mostly are bachelor's and master's degree (82.9%). Most respondents have salary between 15,000 to 65,000 baths and live in Bangkok, the capital of Thailand (77.3%). Most respondents about 75.2 percentage of parents have one kid and about 21 percentage of parents has two kids. The multiple regression analysis is applied according to the six independent variables which are as following:

- X₁ is Attitude Variable of TBP
- X₂ is Subjective Norm Variable of TBP
- X₃ is Perceived Behavioral Control of TPB
- X₄ is Government Influence Variable
- X₅ is Safety Awareness Variable
- X₆ is Price Fairness Variable
- Y is the intention to use, dependent variable

The research null hypothesis is all six independent variables do not affect the intention of use (Y) and the alternative hypothesis is at least one independent variable affect the intention of use (Y). The multiple linear regression analysis is applied. According to the analysis of variance for the regression model in Table 1, the fitting model well represents the data since the p-value is less than 0.05. The correlation coefficient value of 0.873 mentioned in Table 2 also present high degree of correlation in data with the fitting model.

$$Y = -0.426 + 0.195X_1 + 0.264X_3 + 0.565X_5 + 0.110X_6$$

For the analysis of variance according to Table 3, the independent variables those significantly affects the intention of use are Attitude (X₁), Perceived Behavioral Control (X₃), Safety Awareness (X₅), and Price Fairness (X₆) since the significant values are less than 0.05.

Table 1 Analysis of Variance of Multiple Linear Regression Model

Model	Sum of Squares	df	Mean Square	F	significance
Regression	166.592	6	27.765	214.835	0.000 ^b
Residual	51.955	402	0.129		
Total	218.547	408			

^aDependent Variable: Intention to use (Y)

^bPredictors: (Constant), PF26_30, Attitude1_5, GI16_20, SN 6_10, PBC 11_15, SA 21_25

Table 2 The regression model summary

Model	R	R-square	Adjusted R-Square	Std. Error of the Estimate
1	0.873 ^a	0.762	0.759	0.35950

The results based on Theory Planned Behavior (TPB) show that respondents have highest score for the attitude (4.59) of using car seat and greater than perceived behavioral control (4.31) and subjective norm (4.29). Most parents aware of their children's safety since the score is 4.49. Finally, most of the parents intend to use car seat since the score is 4.48.

Table 3 Analysis of variance of the Multiple Linear Regression Model

Model	Mean Score (base on 5-point scale)	Unstandardized Coefficients		Standardized Coefficients	t	Significance
		Beta	Std. Error	Beta		
Constant	-	0.426	0.159		-2.684	0.008
X ₁ : Attitude	4.59	0.195	0.047	0.154	4.123	0.000
X ₂ : Subjective Norm	4.29	0.047	0.032	0.047	-1.481	0.139
X ₃ : Perceived Behavioral Control	4.31	0.264	0.040	0.254	6.625	0.000
X ₄ : Government Influence	4.11	0.026	0.029	0.025	0.896	0.371
X ₅ : Safety Awareness	4.49	0.565	0.043	0.504	13.111	0.000
X ₆ : Price Fairness	3.96	0.110	0.029	0.116	3.773	0.000

(g) Future Areas to Take Note of, and Going Forward

The facilitate system of suppling Child Car Restraint by the government should be studied in details and the feasibility. Moreover, the analysis by the Multiple Linear Regression could be more studied in various method.

(h) Means of Official Announcement of Research Results

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