

## **CHAPTER FIVE**

### **CONCLUSIONS, DISCUSSIONS, AND RECOMMENDATIONS**

This chapter is divided into 5 parts: (1) a summary of the study, (2) a summary of the findings, (3) discussions of the findings, (4) conclusions, and (5) recommendations for further research.

#### **5.1 SUMMARY OF THE STUDY**

As we know there are differences in many aspects between men and women in their driving behavior such as physical differences, ability differences, etc. Consequently, it is no wonder that they also have differences in terms of their knowledge about traffic regulations and their characteristics when driving. This study, differences between men and women in complying with driving traffic regulations in Bangkok, has been a stepping stone for the government sector and driving schools to take these differences into consideration for providing better driving courses concerning.

##### **5.1.1 Objectives of the Study**

The study of differences between men and women in complying with traffic regulations in Bangkok aimed to illustrate differences between men and women in Bangkok in terms of traffic regulation compliance and knowledge about traffic regulations. In addition, it aimed to describe the characteristics of men and women who drive vehicles on the road.

##### **5.1.2 Subjects, Materials and Procedures**

###### **5.1.2.1 Subjects**

The subjects of this study included 209 single male and female drivers in Bangkok, aged between 25-45 years old, who drove to work daily. The samples were selected from companies located on 8 roads, namely Rama I Road, Wireless Road, Silom Road, Sathorn Road, Rama III Road, Rama IV Road, Phaholyothin Road, and Bangna Road by using quota sampling design.

#### 5.1.2.2 Materials

The research instrument in this study was a questionnaire with 37 questions. The format of the questionnaire composed of closed-ended questions, Likert Scale, and an open-ended question. The questions were divided into 3 main parts containing general information of the respondents, general knowledge of some traffic regulations and traffic signs, and driving behavior of the respondents.

#### 5.1.2.3 Procedures

The data collection took place from November 26, 2007 to December 28, 2007. Questionnaires were distributed to those samples via the researcher's networks. The response rate was 87%. The data was analyzed by using the Statistical Package for Social Sciences (SPSS) version 12.0 to find out the descriptive statistic included percentile, frequency, and cross-tabulation.

## 5.2 SUMMARY OF THE FINDINGS

The results of the study can be summarized as follows:

### 5.2.1 General Information of the Respondents

From the study, it was found that the proportion of male and female respondents was nearly at the same rate, 45% and 55% for males and females, respectively. More than half of them, 64.9% of male respondents and 66.9% of female respondents were aged between 25-34 years old. Moreover, male respondents whose age was more than 40 years were also nearly at the same rate as their female counterparts, 13.8% and 14.8%, respectively.

For education, over half of the respondents in this study held a Bachelor's Degree followed by a Master's Degree. Finally, nearly half of the female respondents had 1-5 year(s) driving experience while the majority of male respondents had driven for 6-10 years. It was also found that only 7.8% of female drivers had been driving more than 16 years while 19.2% of their male counterparts had done so.

### 5.2.2 General Knowledge of Traffic Regulations and Traffic Signs

After finding the difference between male and female drivers in terms of their

knowledge of traffic regulations and traffic signs, it was revealed that there was no statistically significant difference between male and female drivers in this part. However, when closely examining the results, it was found that those female respondents who could answer all 8 items about traffic regulations correctly accounted for 29.6%, whereas 22.3% of male respondents did so. In addition, when dealing with knowledge of traffic signs, over a quarter of male drivers, 25.5%, could respond correctly to 7 items, whereas only 7.8% of their female counterparts did so.

### **5.2.3 Driving Behavior of the Respondents**

Overall, the findings revealed that there was no statistically significant difference between male and female drivers in terms of their driving behavior. However, when closely examining the results, it was revealed that there were 7 interesting driving behaviors out of 16 between in which men and women differed as follows:

#### *5.2.3.1 Taking Over Other Cars*

It was found that most male drivers in the study reported that they often took over other cars while most of their female counterparts said that they sometimes did so. In addition, only 2.1% of male respondents reported that they had never done this while 3.5% of female respondents did so.

#### *5.2.3.2 Speeding Up to Get Through Yellow Lights at Cross-roads*

Female drivers reported that they often did this more than male drivers, 33.0% and 24.5% respectively. Most male respondents (45.7%) said that they sometimes did so, which was a bit more often than their counterparts (39.1%).

#### *5.2.3.3 Violating the Speed Limit*

There was a statistically significant difference between male and female drivers in this topic. It was found out that male drivers violated the speed limit more often than female drivers, 38.3% and 21.7% respectively. 11.3 % of female drivers reported that they had never violated the speed limit while only 4.3% of male drivers said so.

#### *5.2.3.4 Wearing Safety Belts*

It was found that male and female drivers did not differ much in terms of wearing safety belts while driving, 88.3% and 92.2% respectively.

#### *5.2.3.5 Overtaking Other Cars in Prohibited Areas without Getting a Ticket*

There was a statistically significant difference between men and women with this kind of driving behavior. It was found that 87.8% of male drivers reported that they often overtook other cars in prohibited areas while 84.0% of female said so. Moreover, there were 4.3% of male respondents said they had rarely or never done this whereas no female respondents said they had.

#### *5.2.3.6 Driving at High Speeds in Wet Conditions*

The findings showed that male drivers said they drove at high speeds in wet conditions more often than females, 20.2% and 13.0% respectively. Moreover, more than half of both sexes reported having rarely or never done this.

#### *5.2.3.7 Having Accidents while Trying to Overtake Other Cars*

The findings revealed that 3.2% of men and 7.0% of women reported that they sometimes had an accident while trying to take over the other cars.

### **5.2.4 Respondents' Suggestions**

Of the 209 respondents, 33 of them gave suggestions about the traffic regulations compliance. The most common suggestion was about the behavior of traffic police. They complained about the taking of bribes from commuters and the double standards while treating them. Moreover, the discipline of the drivers was another issue they were concerned with. Finally, the effective penalties regarding the violations of traffic regulations are needed by the respondents in order to threaten the violators and to provide more safety for road users.

### **5.3 DISCUSSIONS**

This section concerns how the findings of the study match the theories and the existing research. Therefore, the discussions are divided into 4 parts as follows:

#### **5.3.1 General Information of the Respondents**

The findings showed that the proportion of male and female drivers in the study was nearly at the same number. It can be implied that more and more women prefer to drive than in the past. Moreover, more than half of male and female respondents were aged between 25-34 years old and many of them held a Bachelor's degree. The findings also revealed that nearly half of the female respondents had 1-5 year(s) of driving experience while the majority of male respondents had 6-10 years of such experience. The findings can be implied that even though the number of female drivers in the study was nearly at the same number as that of the male drivers, they still had less driving experience when compared with their male counterparts. It can also be implied that female drivers in the study seem to have less skill in driving than male drivers. This is consistent with the study of Veevers (1982) that although the proportion of female drivers seem to increase markedly, men tend to have more experience in driving as they tend to start to drive earlier in life and subsequently drive more miles per year. He said that an increase in driving experience is associated with an increase in driving skill as well.

#### **5.3.2 Knowledge of Traffic Regulations and Traffic Signs of the Respondents**

Regarding the issue of basic knowledge of traffic regulations and traffic signs, 16 questions were used to survey knowledge and understanding of those basic traffic regulations and traffic signs among male and female respondents. Discussions in this section are divided into 2 parts as follows:

##### *5.3.2.1 Knowledge of Traffic Regulations*

Although the findings showed that the correct answers gained by male and female were not so different, this can be implied that male and female drivers in the study had the same level of knowledge of traffic regulations. However, it was found that when dividing the set of the correct answer from 3-5 items and 6-8 items,

out of 8, it is quite different between male and female in terms of their knowledge of traffic regulations inferred from the way they correctly responded to those questions. That is, males choosing the correct answers from 3-5 items accounted for 40.4% while it accounted for 28.7% of female respondents. Moreover, males who could correctly respond to 6-8 items accounted for 59.6% while their female counterparts accounted for 71.3%.

It can be implied that female drivers seem to have more knowledge of traffic regulations than male drivers. It may be inferred from the study of Veevers (1982) that men tend to have more driving experience than women which is associated with better driving skills. Because of lacking driving skills, women then have to pay more attention to the traffic regulations to ascertain that they will not break the law or be arrested by the police officers. Moreover, the result of this study is in line with Thorndike's law of effect. The law reveals that the strength (frequency, durability, etc.) of a behavior depends on the consequences the behavior has had in the past or behavior is a function of its consequences (Chance, 2003). It can be said that the more female drivers lack in driving skills, the more they pay attention or even remember the traffic regulations better than male.

Finally, the result of the findings is also in line with the study of Yagil (as cited in The Social Issues Research Center, 2004, p. 11). He found that women had more concern about obeying and they also evaluated the traffic laws positively. They tended to view the content of traffic law as important, clear and reasonable which results in "a stronger sense of obligation to obey the traffic laws". Unlike women, men tended to "overestimate their driving ability and feel more confident in complying selectively with traffic laws" (p. 12). It can also be implied that women are more concerned with and positively evaluate the traffic laws. Hence, the scores they gained from correctly responding to the questions in this part were higher than those of men as well.

#### *5.3.2.2 Knowledge of Traffic Signs*

Regarding the result, over a quarter of male drivers, 25.5%, could respond correctly to 7 items, whereas only 7.8% of their female counterparts did so. When comparing men and women, men who could correctly respond to 6-8 items, out

of 8, accounted for 56.4% while there were only 48.6% of females who did so. The result of the study was in line with the cognitive ability in the concept of sex differences. According to Maccoby and Jackin (as cited in Lips, Myers, & Colwill, 1978, p. 154), it had evidence that boys and girls respond differently when materials are presented visually and verbally. May and Hut (as cited in Lips, Myers, & Colwill, 1978, p. 155), confirmed this with a study, which found that boys learned the list of noun better when it was presented visually while girls did better with oral presentation. It can be implied that men seem to be better at recognizing traffic signs placing along the road than their female counterparts.

### **5.3.3 Driving Behavior of the Respondents**

The findings of driving behavior of the respondents in this study were not so much different between males and females. According to the results, male drivers were more often to overtake other cars than their female counterparts with 43.6% and 33.1% respectively. They also more often overtook other cars in the prohibited areas than their female counterparts. These behaviors are in line with the concept of sex differences in terms of aggressiveness. Referring to Johnson (as cited in Josephson and Colwill, 1978, p. 198), males are considered more aggressive than females in all kinds of animals, with no exception for humans. Maccoby and Jacklin (as cited in Tavis & Wade, 1984, p. 71) illustrated that boys are much more aggressive than girls in many aspects such as more physical aggression, fantasy aggression, verbal aggression, and play aggression. Because of bad traffic conditions in Bangkok and the aggressiveness of males, there is no wonder why male drivers reported that they overtook other cars more often than females. This seems to have resulted in a higher rate of accidents caused by men than those by women. This is in accordance with the conclusion of Storie (as cited in The Social Issues Research Center, 2004, p. 4) that men were more likely than women to be involved in accidents resulting from excessive speed.

In addition, the results of the study revealed that there was a statistically significant difference between men and women in terms of violating the speed limit. Men reported violating the speed limit much more often than women at 38.3% and 21.7% respectively. The result of the findings is in line with studies conducted by

Bergdahl (2005) that males were more likely to have an accident than female drivers. Females seem to be more compliant with traffic regulations, such as using turning signals and obeying the speed limit, than males. This is in accordance with the conclusion of Storie (as cited in The Social Issues Research Center, 2004, p. 4) that men were more likely than women to be involved in accidents resulting from excessive speed.

Finally, it is quite interesting when considering one of the findings. From the driving behavior concerning speeding up to get through yellow lights at cross-roads, female drivers reported doing this more often than the male drivers with 33.0% for females and 24.5% for males respectively. This is quite in line with the study of Storie (as cited in Veevers, 1982, p. 177) that the accident patterns of men and women might be somewhat different, with women having more difficulty perceiving hazards and with right turns, and men having more difficulty with excessive speed. Furthermore, Veevers (1982) concluded in his study that as more women were driving, and as women were driving more, their mortality from traffic accidents has increased obviously. The increased mortality risk is especially apparent among young persons. Regarding Royal Thai Police's record, the number of accidents caused by men are still greater in number than those of women; however, as now much more women have been involved in driving, it could be said that there will be a rise in the road accidents caused by women in the near future.

#### **5.3.4 Respondent's Suggestions**

When it comes to aspects concerning the suggestions of compliance with traffic regulations, 14 out of 33 respondents complained about bribery taking and double standards of traffic police. This could imply that, from the commuters' point of view, most traffic police officers always cheat the commuters and cannot be relied upon at all. Bribery taking is always perceived as a common issue in Thai society. Most commuters learn that when they did something wrong and did not want to lose their time, just give some money to the traffic police. That may be a reason why traffic violation among those road users especially for car drivers still cannot be solved at the moment. Moreover, drivers' discipline and effective penalties should be educated and launched by the government. According to O.W. Wilson and R.C.



McLaren, two components of the three E's approaches are education and enforcement. They said people should be provided with traffic education regularly at all ages. In addition, efficient law enforcement is needed to lessen the traffic violators and increase safety not only for other drivers but also pedestrians (อ้างอิงใน เกษียร วรศิริ และคณะ, 2544, น. 9-10). To keep drivers in Thailand to have more discipline, effective law enforcement is not enough. Traffic police officers should be closely monitored and instructed to be honest in their duties and have good will to help people and be trustworthy as well.

#### **5.4 CONCLUSIONS**

The following conclusions can be drawn from the discussion above:

5.4.1 Based on the driving behaviors of respondents, women should be encouraged to be more confident when driving while men should be more seriously educated to drive more safely.

5.4.2 The Department of Land Transport, which is the only government sector providing driving licenses for new drivers, should be more concerned about differences between men and women when providing relevant driving courses.

5.4.3 It is suitable to set up a written and practical examination for drivers already getting driving licenses every 2 or 3 years in order to revise their knowledge of traffic regulations.

5.4.4 Traffic police should be good rulers by avoiding taking bribes and being honest in their duties.

#### **5.5 RECOMMENDATIONS FOR FURTHER RESEARCH**

Based on the findings and conclusions of this study, the following recommendations are made for further research.

5.5.1 To avoid the Hawthorne effect happening to affect the study, besides surveying driving traffic compliance among men and women in terms of theory, the participants' road safety behavior should be observed.

5.5.2 The sample size should be made at a larger scale in order to make further research more valid and reliable.

5.5.3 Differences between single and married participants should be taken into consideration to compare the differences among them.

5.5.4 Differences between age of each gender of the participants should be taken into consideration to evaluate the differences among them.

5.5.5 Areas of the study should be much greater to make the findings of the study more valid and reliable.

5.5.6 Areas of the study should be expanded to other provinces to make further research.