CHAPTER I

INTRODUCTION

1.1 BACKGROUND OF STUDY

Road has become among one of the most important infrastructure equipment worldwide. History of the road construction was already commenced from China and Roman civilization since the birth of figures like Robert Philips, John Metacalf, Thomas Telford and John Macadam (Mimi Das Saikia et al., 2010). Ever since the era, the development of the highway system in Malaysia continues to evolve over time as the roads is one of the important aspects of human relationships primarily involves commercial activities. The need for efficient road networks and safety is very important and for that reasons, today’s efforts in improving the ease and safety of road users is growing rapidly.

In Malaysia, roads network and highways are important as it plays the role to connect a destination to another destination. As rapidity of development in Malaysia has contributes to the economic growth, it has indirectly increases vehicle occupancy over the last ten years. Based on Malaysia’s transportation statistic, the number of vehicles on the roads increased by about 5 percent per year. Reported in year 2012, a total of 905 931 vehicles registered in the state of Pahang. The number increased from a total of 856 279 in 2011 and 807 808 in 2010 (Ministry of Transport, 2012).
Over the years, industrialization and urbanization with high growth rate has caused several traffic conflicts all over the world. Nowadays, traffic inventory performance is among the important problems worldwide. Like most of the developing country, Malaysia is facing an increase of vehicle occupancy and of accompanying problems with the loading of this traffic volume. Unceasingly, road facilities experience failures more rapidly than expected due to the increases of traffic volume and insufficient degree of maintenance. Therefore, it will be desirable to minimize the conflicts and increases the competence of traffic management in handling road facilities.

In transportation engineering, a traffic conflict is an event involving two or more moving vehicles approaching each other in a traffic flow in such a way that a traffic collision would ensue unless at least one of the vehicles performs an emergency maneuver. According to Dinesh Mohan (2002), road traffic accidents is the leading cause of death by injury and the tenth-leading cause of all deaths globally which now make up a surprisingly significant portion of the worldwide burden of ill-health. Exposure to potential road traffic injury has increased largely because of rapid motorization, coupled with poor road conditions, rapid population growth, lack of safety features in cars, crowded roads, poor road maintenance, and lack of police enforcement (Population Reference Bureau, 2006).

In order to reduce traffic conflicts, effective traffic inventory management should be applied to ensure the traffic flow smoothly, efficiently and functioning accordingly at all acceptable safety level. Traffic inventory is an important transportation consideration because it relates to geometry design, road furniture, network location and environment (Paterson and Scullion, 1990). It is often suggested that old roads are designed without adequate investigation of driver risk perception. Therefore, association of driver’s risk perception towards traffic inventory should be taken into account when conducting a relevant study. Although the attitude of road users is hard to be emphasized, however according to many researchers, it is imperative that human factor can be considered during the design of the road infrastructure. The main goal is to have a better traffic flow in any intervention through the assessment of traffic inventory management analysis through risk perception.
Therefore, a relevant study must be conducted for a better understanding in the exploration of traffic inventory performance. The need to investigate the driver’s perception towards traffic inventory management system has become necessary in order to foresee traffic needs as to propose traffic management strategy.

1.2 PROBLEM STATEMENT

Accidents are relatively unpredictable. The widely known contributing factor deduce to road accidents involved human factor, vehicle factor, road and environment factor (Road Safety Department Malaysia, 2010). It can happen by a combination of tired drivers and poor road geometry or poor vehicle condition. Accidents due to human occur in many ways including human perception and driving behavior varies with age, emotion, belief and attitude. In addition, the fact that accident can happen due to poor road environment management should not be neglected. Unidentified road environment factors that can activate an accident together with the manageable roadside areas are a hidden factor that seldom been discussed among road safety research. Road environment covers many aspects such as road conditions, roadside conditions, traffic volumes, operational speed and the conditions driving ambience itself. Prior to this issue, this study was conducted to explore on driver’s perception towards traffic inventory performance that maybe a potential factor affecting road safety.

1.3 OBJECTIVES

This study is of interest to explore traffic inventory management through the assessment of risk perception before planning effective countermeasures. To achieve the aim of this study, the following objectives have been set:

i. To explore drivers perception towards traffic inventory performance.

ii. To suggest basic approach for improving road performance.