



**IMPLEMENTATION OF LAWS CONCERNING THE
COMPULSORY USE OF CHILD CAR SEAT ON
PERSONAL MOTOR VEHICLES AND SAFETY
STANDARD OF CHILD CAR SEAT
AND ISOFIX SYSTEMS**

BY

MR. SUPANTACHART JANTACHOTE

**A THESIS SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF MASTER
OF LAWS IN BUSINESS LAWS (ENGLISH PROGRAM)**

**FACULTY OF LAW
THAMMASAT UNIVERSITY**

ACADEMIC YEAR 2016

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THESIS

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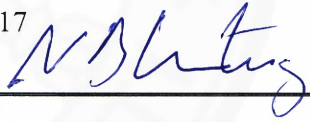
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STANDARD OF CHILD CAR SEAT AND ISOFIX SYSTEMS

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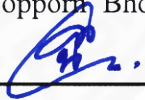
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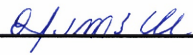
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ABSTRACT

Road traffic injuries and fatality in Thailand are a critical public health problem. The road traffic fatalities occurred in Thailand as estimated by WHO was amounting to 24,237 deaths each year or according to the rate estimated by WHO of 36.2 deaths per 100,000 population. In every year, there are 100 -140 children who are under fourteen years of age perished on a motor vehicle from a traffic accident. Unfortunately, currently, there is no specific safety measure provided under Traffic Law with the purpose of preventing injury and death of children on a motor vehicle. Even though, the provision of the compulsory use of safety belt on motor vehicle was amended in traffic law recently requiring the driver and all passengers on motor vehicle to restrain his or her body with safety belt while travelling, however, the safety belts are invented and designed for mature persons whose bodies are appropriate to wear safety belt. Meanwhile, it may cause severe damage to the abdomen and internal organs of children whose bodies are restrained with safety belts.

Currently, many countries have implemented the compulsory use of child car seat as a specific legal measure preventing the injury and death of children on a motor vehicle. Furthermore, these countries always specify the safety standards and product requirements of child car seat simultaneously in order to control product quality and increase effectiveness and efficiency for utmost children protection.

In Thailand, the Traffic Law does not require a child to be restrained with child car seat but it requires all passengers to wear safety belts. In this case, the Traffic Law requiring a child on a motor vehicle to wear a safety belt is impractical and unenforceable. Additionally, the use of child car seat is a voluntary safety measure which depends on the parents' discretion.

Moreover, there is no national product standard for child car seats. Therefore, most of the low-price child car seat distributed in Thailand are manufactured and imported without standard certification. In some case, a standard child car seat cannot be used and installed on the particular model of motor vehicle. Thus it is necessary to amend the related Motor Vehicle Law by requiring newly manufactured motor vehicle to install a new connecting automotive part.

This thesis mainly focuses on the Car Seat Law and car seat safety standard in developed countries where the fatality rates on traffic accident are low particularly EU Law, UK Law and US Law. According to the research, the proposed appropriate solution to overcome child injury and fatality on a motor vehicle is the compulsory measure through legal implementation and enforcement. Road Traffic Act should be amended and the compulsory use of child car seat on a motor vehicle should be implemented. At the same time, the industrial product standard for child car seat should be determined as a compulsory standard which adopting UN Regulation No.44 as equivalence to a national standard. Moreover, the ISOFIX anchorage and ISOFIX top tether should be a compulsory automotive part that is required by the law to be installed on motor vehicles.

Keywords: Child Car Seat, Child Restraint System, Car Seat Law, ISOFIX Car Seat, ISOFIX Anchorage Systems, Motor Vehicle and Automotive Product Safety Standards

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Mr. Supantachart Jantachote

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LIST OF ABBREVIATIONS

Symbols/Abbreviations	Terms
ABS	Antilock Braking Systems
ACCSQ	ASEAN Consultative Committee on Standards and Quality
APWG	ASEAN Product Working Group on Automotive
ASEAN	The Association of Southeast Asian Nations
CFR	Code of Federal Regulations
CRS	Child Restraint Systems
CPIS	Child Safety Promotion and Injury Prevention Research Center
EEC Treaty	Treaty Establishing the European Economic Community
ESC	Electronic Stability Control
FMVSS	Federal Motor Vehicle Safety Standards
GDP	Gross Domestic Product
GRSP	Global Road Safety Partnership
LATCH	Lower Anchors and Tethers for Children
MRA	Mutual Recognition Arrangement
MV(WSB)(A)(2)R 2015	Motor Vehicle (Wearing of Seat Belts)(Amendment)(No.2) Regulation 2015
MV(WSB)(A)R 2006	Motor Vehicle (Wearing of Seat Belts) (Amendment) Regulations 2006
MV(WSB)R 1993	Motor Vehicle (Wearing of Seat Belts) Regulations 1993

NHTSA	National Highway Traffic Safety Administration
RTA 1998	Road Traffic Act 1998
RV(A)R 2009	Road Vehicle (Approval) Regulations 2009
TFTU	Treaty on the Functioning of the European Union
TIS	Thai Industrial Standard
TPMS	Tire Pressure Monitoring Systems
UK	United Kingdom
UN-ECE	United Nation Economic Commission for Europe
USA	The United State of America
USD	United States dollar
WP.29	World Forum for Harmonization of Vehicle Regulation

CHAPTER 1

INTRODUCTION

1.1 Background and Problem

According to the Global Status Report on Road Safety 2015, Thailand is on the verge of becoming the country with the highest fatality rate on road accidents in the world. Fatality rate on road accidents in Thailand is estimated by World Health Organization to be approximately 36.2 per 100,000 population,¹ comparing to the global fatality rate on road accidents which is approximately 17.4 per 100,000 population.² Additionally, according to the research of University of Michigan Transport Institute, Thailand is amongst the leading countries of high fatality rates on road accidents, the second rank of 193 selective countries with estimated fatality rate on road accidents of 44 per 100,000 population, comparing to the estimated global fatality rate of 18 per 100,000 population.³ Meanwhile, Thailand's fatality rate on road accidents in 2014 was collected by Bureau of Policy and Strategy, the sectorial government agency in Ministry of Public Health was approximately 23.16 persons per 100,000 population.⁴

Regardless of the resource of fatality rate on road accidents, Thailand is approximately two times beyond the global fatality rate on road accidents. It costs three percentages of estimated GDP to be lost due to road accidents.⁵

According to this information and statistics of fatality rate on road accidents, these severe situations in Thailand are the evidence of poor enforcement of Traffic

¹ World Health Organization, 'Global Status Report on Road Safety 2015' (WHO Press, 2015) 235
<http://www.who.int/violence_injury_prevention/road_safety_status/2015/en/> accessed 1 December 2016

² Ibid 5

³ Michael Sivak, Schoettle, Mortality from Road Crashes in 193 Countries: A Comparison with Other Leading Causes of Death (University of Michigan Transportation Research Institute, 2014) 7
<<https://deepblue.lib.umich.edu/handle/2027.42/102731>> accessed 1 December 2016

⁴ Bureau of Non Communicable Diseases, 'Statistic of Fatality Rate on Road Accidents per 100,000 Population in 2012-2014' <<http://thaincd.com/document/file/info/injured/>> accessed 1 December 2016

⁵ World Health Organization (n 1) 235

Law and the lack of legal measures to encounter fatality's risk factors on road accidents.

Passive safety systems on motor vehicles are determined to be one solution to encounter the risk of fatality on road accidents. Most of the countries implement passive safety systems on motor vehicles program in the form of legal measures in order to enforce a compulsory use of adult safety belt. However, the benefit of this program is intended to protect only mature persons but not including children whose body are unfit to use or utilize a protection from adult safety belt.⁶ Consequently, passive safety equipment, especially for children, is implemented in the form of legal measure enforcing a compulsory use of child car seats on motor vehicles in order to reduce or prevent bodily injury or death from road accidents.

In Thailand, Children Protection has been overlooked for a long time. It has been noted that in traffic legislation there is no legal provision enforcing the compulsory use of child car seat for children who travel on motor vehicles as opposed to a protection provided for mature persons by the use of adult safety belt. Furthermore, public policy relating to the compulsory use of child car seat on motor vehicles program has never been initiated or introduced by the Council of Minister or state agencies which have the direct responsibility to encounter the problems of high fatality rates on road accidents and encourage parents understanding on the importance of using child car seat for their children when travelling on motor vehicle. It has been noted that the Council of Minister recognized the UN's "Decade of Action for Road Safety" which is aimed at reducing the rate of fatality on road accidents to 10 per 100,000 population before 2020 through the implementation of Strategic Map of Decade of Action for Road Safety conducted by Road Safety Directing Center. However, according to this Strategic Map, the use of child car seat is neglected and not specified as a guideline to achieve the set goal.⁷ In this situation of the lack of the government public policy on young passenger safety on motor vehicles, parents in

⁶ Tami Toroyan and Margie Peden, 'Youth and Road Safety' (Geneva, WHO Press, 2007) 31
<http://apps.who.int/iris/bitstream/10665/43607/1/9241595116_eng.pdf> accessed 1 December 2016

⁷ Department of Disaster Prevention and Mitigation, 'Strategic Map of Decade of Action for Road Safety 2011-2020 (July 2011) 2 <http://www.thairsc.com/th/Document/strategic_map_roadsafety.pdf> accessed 1 December 2016

Thailand rarely recognize the significant safety benefit from using child car seat, therefore, the number of voluntary use of child car seat in Thailand is relatively low.

In this case, it is necessary to implement the compulsory use of child car seat on motor vehicles program in Thailand through legal measures in order to increase the use of child car seat, protect children from injury and reduce the risk of fatality on road accidents, even though there is currently no specific academic research or statistic relating to the fatality rate of children on motor vehicles in road accidents in Thailand. However, road accidents are the second leading causes of death in children in Thailand. In 2013, there are 670 children under fourteen years old who perished on the road accidents.⁸ Additionally, the right to be safe on motor vehicles is undeniable based on the best interest of the child and the right of survival of children which is the absolute right and shall be recognized by the law.⁹

According to the effectiveness of child car seat research, children who are provided with an appropriate child car seat when travel on motor vehicles are less likely to be injured or killed on road accidents than the children who are unrestrained with any safety devices and the children who are using an adult safety belt. Moreover, the effectiveness of reducing injury and fatality rate on road accidents is various and depends upon the type of child car seats. For example, an infant who occupies a rearward-facing child car seat will be less likely to face with the risk of injury and fatality on road accidents by 90% comparing to an infant who does not occupy a child car seat. Furthermore, a toddler who occupies a forward-facing child car seat will be less likely to face with the risk of serious injury on road accidents by 80% comparing to a toddler who occupies an adult safety belt, or an older child who occupies a

⁸ Pavinee Thepkhamram, 'Causes of Death on Children in Thailand' (February, 2014)

< <http://www.thaihealth.or.th/Content/19458->

<http://www.thaihealth.or.th/Content/19458-%E0%B8%AA%E0%B8%96%E0%B8%B4%E0%B8%95%E0%B8%B4%E0%B9%80%E0%B8%AB%E0%B8%95%E0%B8%B8%E0%B8%A1%E0%B8%A3%E0%B8%93%E0%B8%B0...%E0%B8%9E%E0%B8%A3%E0%B8%B2%E0%B8%81%E0%B8%8A%E0%B8%B5%E0%B8%A7%E0%B8%B4%E0%B8%95%E0%B9%80%E0%B8%94%E0%B9%87%E0%B8%81%E0%B9%84%E0%B8%97%E0%B8%A2%20.html>> accessed 1 December 2016

⁹ Unicef, 'Fact Sheet: A summary of the rights under the Convention on the Rights of the Child'

<https://www.unicef.org/crc/files/Rights_overview.pdf> accessed 1 December 2016

booster seat will be less likely to face with the risk of injury on road accidents by 77% comparing to an older child who does not occupy any safety devices.¹⁰

Reflecting on the effectiveness of reducing injury and fatality rate on road accidents, child car seats shall be designed and manufactured in conformity with a national standard¹¹ or in line with an international standard.¹² In this aspect, Thailand is also lacking of a national standard controlling product safety, quality and efficiency of child car seats. Consequently, there are child car seats in Thai markets which are not qualified as safe and adequate products that are able to protect children from injury and death on road accidents.

In the world-leading countries where the laws on the compulsory use of child car seat are enforced, the inappropriate installation or misuse of child car seat is a primary cause which reduces the effectiveness of the protection.¹³ Parents have to study and pay strong attention to the manual or instruction materials on how to install a child car seat with an adult safety belt on motor vehicles. Additionally, the installation of child car seats on motor vehicles by means of securing with an adult safety belt usually requires an amount of time to achieve the proper fit. For this reason, a child car seat with new technology systems for simple installation has been designed and introduced to parents as alternative safer products known as the “ISOFIX child car seat”. However, this type of child car seat requires motor vehicles to be compulsorily fitted with additional compatible new technology systems which are called the “ISOFIX anchorage systems and ISOFIX top tether anchorage” in order to support the installation systems of the ISOFIX child car seat. Consequently, motor vehicles in countries where the parents recognized the benefit of new technology to cope with problems of inappropriate installation or misuse of child car seats (securing child car seat with an adult safety belt), the law requires motor vehicles for carriage of

¹⁰ Lotta Jakobsson, Isaksson-Hellman, Lundell, ‘Safety For The Growing Child- Experiences From Swedish Accident Data’ (Paper Number 05-0330) 1 <<http://www-nrd.nhtsa.dot.gov/pdf/esv/esv19/05-0330-O.pdf>> accessed 1 December 2016

¹¹ Tami Toroyan and Margie Peden, (n 6) 31

¹² World Health Organization, ‘World Report On Road Traffic Injury Prevention’(WHO Press, 2004)

¹³⁴ < http://www.who.int/violence_injury_prevention/publications/road_traffic/world_report/en/> accessed 1 December 2016

¹³ Tami Toroyan and Margie Peden, (n 6) 30

passenger and motor vehicles for carriage of goods to be compulsorily fitted with the ISOFIX anchorage systems and the ISOFIX top tether anchorage.

Meanwhile, subject to the Motor Vehicle Laws in Thailand, the ISOFIX anchorage systems and ISOFIX top tether anchorage are not the compulsory equipment that the law requires to be fitted on motor vehicles. For this reason, it depends on the manufacturer to design and construct each model of motor vehicles to be able to assemble with the ISOFIX anchorage systems and the ISOFIX top tether anchorage. Therefore, the ISOFIX child car seat cannot be installed on the motor vehicles which are not fitted with the compatible ISOFIX technology systems.

Therefore, this thesis will focus on the compulsory use of child car seat on motor vehicles through legal measures in order to prevent and reduce the rate of bodily injury and fatality of children on road accidents. Additionally, the legal measure will generate a higher rate of the usage of child car seats in Thailand. Furthermore, the safety standard of child car seats and motor vehicles will be studied in order to increase the effectiveness of child car seat in order to protect children on crash events and the recognition of the new technology systems for better protection.

1.2 Hypothesis

Thailand's road safety standard has not met the best practice of the road safety legislation, particularly the law concerning the safety of children on motor vehicles. The current Traffic Laws do not provide sufficient safety measure for children who travel on motor vehicles. Moreover, there is no national standard of child car seat, thus, many child car seats in marketplaces are unable to be applied on motor vehicles in order to protect and reduce the risk of body injury and fatality of children.

Therefore, it is necessary to conduct further research on Traffic Law concerning the compulsory use of child car seat and safety standard of child car seat in developed countries, where the reduction of the rate of fatality on road accident was achieved, for example, the European Union, UK and The US. Additionally, appropriate legal measures derived from this research should be utilized as a model law to adopted and implemented into Thai legal system in order to reduce post-crash injury and fatality of children on personal motor vehicles.

1.3 Objective of Study

1.3.1 To study and analyze essential legal elements of the laws concerning the compulsory use of child car seat or known as “Child Car Seat Law” in leading foreign countries where the goal of reducing the rate of injury and fatality of children on road accidents is accomplished, especially the EU, the United Kingdom, and the United States of America (State of California).

1.3.2 To study and analyze the approval of motor vehicles and child car seat in countries where the type-approval systems (EU and UK systems) are applied, and country where the self-certification systems (US) are applied.

1.3.3 To study and analyze the technical requirements and safety standards of child car seat and ISOFIX anchorage systems and ISOFIX top tether anchorage in leading foreign countries where the possession of the passive safety technology know-how is required as a national standard (US: Federal Motor Vehicle Safety Standards) and international standards (EU and UK: Regulations annexed to 1958 Agreement known as UN-ECE Regulations or UN-Regulations)

1.3.4 To identify problems of child safety on motor vehicles, an effectiveness of child car seat through the approval systems and national industrial standards, and the compulsory equipment to be fitted on motor vehicles for supporting the use of child car seat.

1.3.5 To propose the essential legal elements of young passenger safety on Motor Vehicles Law, and suggest the appropriate solutions for adopting foreign legal framework regarding the approval systems of motor vehicles and child car seat, including the technical requirements and safety standards of motor vehicles and child car seat.

1.4 Scope of Study

This thesis emphasizes on the compulsory use of child car seat in EU Directive, UK and US laws concerning the compulsory use of child car seat on motor vehicles. Furthermore, the approval of motor vehicles and child car seat between two distinctive systems will be studied; (1) type-approval systems in the EU and the UK

and; (2) self-certification systems in the U.S. Additionally, technical requirements and safety standards of child car seat and ISOFIX anchorage systems and ISOFIX top tether will be studied by comparing between national standard of the U.S. (Federal Motor Vehicle Safety Standards known as FMVSS) and international standard which is applied by the European Community and the UK (Regulations annexed to the 1958 Agreement known as UN-ECE Regulations or UN-Regulations).

With regard to Thai law, passenger safety law on motor vehicles under Road Traffic Act B.E. 2522 (1979) will be studied. The approval system and Thai Industrial Standards concerning child car seat, ISOFIX anchorage systems and ISOFIX top tether anchorage will also be examined. Additionally, the approval system of the compulsory vehicle's equipment and compulsory equipment which is required by the law to be fitted on motor vehicles will be scrutinized.

In this research, the author will describe the whole picture of the Consumer Protection Laws in Thailand and the basic knowledge of Consumer Rights. However, this work will focus on preventive injury measures concerning child car seat and ISOFIX systems, in particular, the safety standard of products regarding child car seats and ISOFIX systems, but not including the post-injury measures which are relating to consumer remedial process after the injury has been sustained.

1.5 Methodology

This thesis will be conducted through documentary research. Legislations concerning the compulsory use of child car seat on motor vehicles are the primary source to be analyzed along with essential legal elements in foreign countries where legal measures relating to the compulsory use of child car seat was implemented for a long times and the goal to reduce the rate of fatality of children on motor vehicles in road accidents has been accomplished. Additionally, legislations concerning the approval of motor vehicles and child car seat, technical requirements and safety standards of child car seat and ISOFIX systems will be studied and utilized as a model in order to suggest an approach toward the adoption of such measures in Thai law. Furthermore, text books, journals, articles, international institution reports, official documents, materials in public conference, online resources, both domestic and

foreign materials and both in Thai and English language are the secondary source to be cited and utilized as the reference to provide credibility to this research.

1.6 Expected Results

1.6.1 Realize the problems of the legislations concerning the compulsory use of child car seat on motor vehicles, safety standards of child car seat and ISOFIX anchorage systems and ISOFIX top tether anchorage, and the compulsory equipment to be fitted on motor vehicles intended to support the use of ISOFIX child car seat in Thailand.

1.6.2 Understand the essential legal elements of legislation concerning the compulsory use of child car seat on motor vehicles, the approval of motor vehicles and child car seat, technical requirements and safety standards of child car seat and ISOFIX anchorage systems and ISOFIX top tether anchorage under EU Directive, UK, and U.S. laws, and UN-Regulations.

1.6.3 Propose essential legal elements for implementation of the compulsory use of child car seat on motor vehicles, Thai Industrial Standard for child car seat, and compulsory equipment to be fitted on motor vehicles intended to support the use of ISOFIX child car seat.

CHAPTER 2

GENERAL IDEA OF YOUNG PASSENGER INJURY PREVENTION ON PERSONAL MOTOR VEHICLES AND GENERAL CHARACTERISTIC OF CHILD CAR SEAT AND ISOFIX SYSTEMS

In this chapter, a general idea of young passenger injury prevention on personal motor vehicles will be introduced through the utilization of automotive passive safety systems. Additionally, a standard child car seat and ISOFIX systems according to the UN-Regulations annexed to the 1958 Agreement will be examined.

2.1 Young Passenger Injury Prevention

Fatality from road accidents is currently the ninth leading causes of death in all age groups worldwide,¹⁴ moreover, it is predicted to be the eighth leading cause of death in 2030.¹⁵ The rate of injury and fatality on road accidents will be rising unstoppably because of the urbanization and motorization in low-income and middle-income countries. Meanwhile, road accident is also the top-ten leading cause of death in children ages between 1 to 19 years old. Additionally, amongst approximately 950,000 deaths of children caused by injuries in 2004, the leading cause of death is road accident which accounts for more than 22% of global child injury deaths.¹⁶

2.1.1 Road Accident Risk Factors and Safety Measures for Intervention

Injuries and deaths caused by road accidents are considered to be a major public health issue which affects both individual and public sector. In an individual's

¹⁴ World Health Organization, The global burden of disease: 2004 update (Geneva : WHO Press 2004)

¹⁵ Mathers D. Colin and Loncar Dejan, Projections of global mortality and burden of disease from 2002 to 2030 (2006) Volume 3 Issue 11 PLoS Med 2011

¹⁶ Margie Peden and Kayode Oyegbite and et al, World report on child injury prevention (Geneva : WHO Press 2008) 2,6

aspect, bodily injury and death cause a direct severe impact to injured person and an indirect impact on families who lose their beneficial advantages from a family member who is injured or lose one's life from the road accidents. On the contrary, in a public's aspect, road accidents are a massive responsibility to the nation in the form of cost in healthcare systems which begins with an admission to a hospital and end-up with a lifetime health follow up. Furthermore, human resources are the most valuable resources to society and country arising out of the productivity and prosperity generated by each person.¹⁷

Therefore, it is necessary to coordinate with all sectorial bodies both private and public sectors to conduct studies and researches concerning the cause of injury and death on road accidents, particularly the major risk factors and discovery methods to prevent and reduce injury and fatality by implementing appropriate intervention.¹⁸

Normally, there are three crucial road injury risk factors; (1) infrastructure and environment; (2) safety standards of motor vehicles and; (3) behavior of road users.¹⁹

Focusing on the first risk factor, safer road and friendly environment for all road users are the crucial elements for preventing and reducing road accidents that State, government agencies, and local administrative have to design, construct and maintain all roads and concerned traffic infrastructures in a proper condition. Secondly, all motor vehicles on the road shall comply with the general requirements of motor vehicle safety standards. Lastly, the behavior of the road users shall be monitored and controlled by virtue of the traffic laws. Furthermore, legal measures controlling injury and fatality risk factors of road users' behavior are normally

¹⁷ World Health Organization, 'Fact Sheet #1 Road Safety: Basic Facts'
<http://www.who.int/violence_injury_prevention/publications/road_traffic/Road_safety_media_brief_full_document.pdf> accessed 16 December 2016

¹⁸ World Health Organization, 'World Report On Road Traffic Injury Prevention' (Geneva : WHO Press 2004) 9
< http://www.who.int/violence_injury_prevention/publications/road_traffic/world_report/en/> accessed 16 December 2016

¹⁹ World Health Organization, 'Global Status Report on Road Safety 2015' (WHO Press, 2015) x
<http://www.who.int/violence_injury_prevention/road_safety_status/2015/en/> accessed 16 December 2016

focusing on (1) Speed; (2) Drink and Drive; (3) Drive and Call; (4) Safety Belt; and (5) Child Restraint Systems (child car seat).

2.1.2 Passive Safety Systems for Children on Motor Vehicles

Passive safety systems are the automotive safety systems that function and active only on the crash event. These systems do not directly prevent or reduce road accidents but passive safety systems will protect and reduce body injury or fatality of the driver and passenger from road accident. For example, the driver and the passenger in the front seat are provided with adult safety belts and front air bags for preventing and reducing bodily injury and fatality from road accidents. Passive safety systems are in contrast with active safety systems which are automotive safety systems that actively function for minimizing the risk of road accident and assisting the driver from motor vehicle malfunction such as Antilock Braking Systems (ABS), Tire Pressure Monitoring Systems (TPMS), Electronic Stability Control (ESC).²⁰

For this reason, children should have additional passive safety systems on motor vehicles other than adult safety belts and front passenger air bags that are equipped to reduce and prevent injury and fatality from road accidents. Thus, child car seat is the supplementary passive safety systems that are designed and constructed especially for children who are physically unfit for using adult safety belt.

However, it is unable to define the scope of the term ‘children’ explicitly by depending solely on the range of age. By using a combination of age and the minimum height of children that are allowed to use adult safety belts, the appropriate definition of the term ‘children’ can be achieved. For example, children who are under 12 years of age or not exceeding 135 centimeters in height shall be restrained by appropriate child car seats suitable for size. In this case, if a child is 8 years old but is higher than 135 centimeters, he is allowed to use an adult safety belt instead of a child car seat because his body is fit to use an adult safety belt.

²⁰ Haroon H. Hamid, ‘The NHTSA’s Evaluation of Automobile Safety Systems: Active or Passive?’ (2007) Volume 19 Issue 3 Loyola Consumer Law Review 227

2.2 Child Car Seat

Nowadays, most of the countries in the world require adult safety belts to be compulsorily fitted on motor vehicles as passive safety equipment. Technical requirements and safety standard of adult safety belt are designed for mature persons who are physically fit to use adult safety belts. Normally, a standard three-point belt is designed to restrain adults with motor vehicle's seat structure at the pelvis bone of human's structure. Lap belt will secure adult body with motor vehicle's structure and a diagonal belt will restrain the upper body from moving forward which could cause severe or fatal injuries in the crash events.

Meanwhile, Anatomy of a child's body is unfit to use an adult safety belt as the passive safety device on motor vehicles since the pelvis bone is normally completely developed at the age of at least 10 years old, therefore, it is not safe for a child to be restrained by an adult lap belt with motor vehicle's seat structure.²¹ In some cases, an adult lap belt may cause injuries to internal organs or the abdomen of children during the crash event because the body of a child is normally small and short, hence, a lap belt will be placed on the upper pelvis bone or the abdominal area instead of the lower pelvis bone.²² Additionally, babies or infants may be faced with cervical spine injury in frontal crash events because the anatomy of a big baby or infant's head is not compatible with the strength of a small neck and weak cervical vertebra. For this reason, very young children will be suggested not to use adult safety belts and use rearward-facing child car seats for the better protection on motor vehicles.

According to the special anatomy of the children, child car seat is invented and designed by automotive specialists and automotive product manufacturers for crash protection. The first child car seat for crash protection was launched in 1968 by Ford Motor Company called "Tot-Guard", following by the first rearward-facing child car

²¹ Lotta Jakobsson, Isaksson-Hellman, Lundell, 'Safety For The Growing Child- Experiences From Swedish Accident Data' (Paper Number 05-0330) 2 <<http://www-nrd.nhtsa.dot.gov/pdf/esv/esv19/05-0330-O.pdf>> accessed 2 December 2016

²² World Health Organization, 'Youth and Road Safety' (WHO Press, 2007) 31 <http://apps.who.int/iris/bitstream/10665/43607/1/9241595116_eng.pdf> accessed 2 December 2016

seat invented by General Motors called “Love Seats”.²³ During that time, there were no technical requirements or safety standards of child car seat prescribed by the laws. However, in 1971 the first safety standard of child car seat was compulsory enforced in the U.S. prescribed in Federal Motor Vehicle Safety Standards (FMVSS No. 213).²⁴ Furthermore, in 1978, a child car seat is prescribed as a compulsory equipment intended to be used on motor vehicles, and children are required by the law to be restrained with child car seats while travelling on motor vehicles in the State of Tennessee in where is the first State in the U.S. to pass the law relating to young passenger safety on motor vehicles.²⁵

On the opposite side of the world, regarding to the Community Law, EU Directive 91/671/EEC is the first legislative instrument for implementing the compulsory use of child car seat in the member countries of the Community. However, the technical requirements and safety standard of child car seat prescribed in each Member’s national standard shall be approved to be in accordance with The EU’s standard. Later in 2003, it was the first time that child car seats which were launched in the market and used on motor vehicles shall be approved in accordance with UN-ECE Regulation No. 44. Following by the approval established under UN-Regulation No. 129 in 2014 since the alternative enhanced child car seat standard was enforced in parallel with UN-ECE Regulation No.44.

2.2.1 Classification of Child Car Seat Based On Mass Of Children (UN Regulation No.44)

Child car seat is classified by the mass of the children into five groups as follows;

²³ Lauren Smith, ‘The Evolution of Kids Car Seats’ (October 2015)
<<http://www.goodhousekeeping.com/life/parenting/g2870/car-seat-history/>> accessed 2 December 2016

²⁴ Deborah D. Stewart, ‘More than Forty Years of Progress for Child Passenger Protection, A Chronicle of Child Passenger Safety Advances in the USA (Safe Ride News, 2009) 1
<<http://saferidenews.com/srndnn/LinkClick.aspx?fileticket=NIPfcuqNL1U%3D&tabid=375>>
Accessed 2 November 2016

²⁵ Ibid 2

- (1) Group 0 for children weighing less than 10 kg (for infants from birth to approximately 6-10 months);
- (2) Group 0+ for children weighing less than 13 kg (for infants from birth to approximately 12-15 months);
- (3) Group I for children weighing between 9 – 18 kg (for toddlers from approximately 9 months to 4 years);
- (4) Group II for children weighing between 15-25 kg (for children from 4 to 6 years);
- (5) Group III for children weighing between 22-36 kg (for children from 6 to 11 years).

Figure 2.1 Child car seat in 5 mass groups (0, 0+, I, II-III)²⁶



²⁶ PandaTrueno, 'Introduction to Child Car Seat' (July 2009) <<http://www.motortrivia.com/section-safety-zone/004-child-seat-type/child-seat-type.html>> accessed 2 December 2016



Group I



Group II-III

Under the technical requirements and safety standard of child car seat, the law prohibits the use of forward-facing position child car seat in Group 0 and 0+. Consequently, child car seats in Group 0 and 0+ for infants are only available as rearward-facing child car seats.²⁷ When a child outgrows a rearward-facing child car seat, it shall be replaced by a forward-facing child car seat in Group I. And then after a child outgrows a forward-facing child car seat, it shall be replaced by a booster seat or a booster cushion in Group II and III. These situations cause financial problems to parents who need to buy new child car seats suitable for their child's weight in every age gap. For this reason, child car seat manufacturers introduce the integrated child car seats in order to help parents with a burden of expenses on child car seats.

Integrated child car seat is a type of child car seat for multiple mass groups. It is divided into two types; (1) Convertible child car seat and; (2) Combination child car seat.

(1) Convertible child car seat is a child car seat which combines Group 0, 0+, and I in a single product. It means that a convertible child car seat is suitable for infants and children weighing less than 18 kg. Moreover, this type of child car seat is able to be used in a rearward-facing position then transform into a forward-facing car seat when a child outgrows a rearward-facing car seat.

²⁷ UN-Regulation No. 44/04, Art 6.1.9

(2) Combination child car seat is a child car seat which combines Group I to III together. It means that a combination child car seat is suitable for children weighing between 9 – 36 kg. or a child ages between 9 months to 11 years. This child car seat is intended to be used in a forward-facing position. Additionally, the harness of a forward-facing child car seat is able to be removed from the seat's structure and transforms to be a booster seat for older children. Children on booster seats are restrained by adult safety belt afterwards.²⁸

2.2.2 ISOFIX Child Car Seat

The installation of a child car seat on motor vehicles by securing with an adult safety belt requires a lot of time and strong attention of parents because since each child car seat has a different method of installation. In some cases, parents correctly install child car seat with seat's structure; however, the safety belt is not tightened enough to restrain a child car seat with seat's structure on crash events. Therefore, a child car seat may be movable and cause injury or fatality to children. Thus, these situations drastically reduce the effectiveness and efficiency of child car seat to protect children on motor vehicles in road accidents.

According to German research on inappropriate installation or misuse of child car seat, only 35 percent of children were appropriately secured with child car seats.²⁹ More than 65 percent of children were improperly secured with child car seats which drastically reduce the capability of child car seats for effective protection. Misuse or inappropriate installation of child car seat is normally in the form of loose installation of child car seat, loose straps, incorrect adult safety belt routing, and adult safety belt routing crossing the neck.³⁰ In order to resolve inappropriate installation and misuse

²⁸ Child Passenger Safety Technical Encyclopedia
<http://www.carseat.org/Technical/tech_update.htm#convtCR> accessed 2 December 2016

²⁹ Federal Highway Research Institute, 'Child Safety in Cars' (February 2015) 4
<http://www.bast.de/EN/Publications/Media/Children-safety-in-cars.pdf?__blob=publicationFile&v=3> accessed 2 December 2016

³⁰ W. Fastenmeier and U. Lehnig, 'BAST: REPORT M 178'
<<http://www.bast.de/DE/Publikationen/Berichte/unterreihe-m/2007->

of child car seat, ISOFIX child car seat has been introduced to parents in order to eliminate difficulties and inappropriate of child car seat installation.³¹

ISOFIX child car seat is different from a typical child car seat in term of installation. Typical child car seat is fitted on motor vehicles using adult safety belt to secure child car seat with the seat's structure. Meanwhile, ISOFIX child car seat is fitted on motor vehicles using standardized ISOFIX attachments in connection with standardized ISOFIX anchorage systems and an additional anti-rotation device such as top tether or support leg.

ISOFIX child car seat is able to be installed on motor vehicles in a short period of time and with less attempt. This system is also called "Plug and Play" due to the special characteristic of installation. However, ISOFIX systems which are used in connection with motor vehicle's structure are enclosed only in child car seats in Group 0, 0+, and I because of the limitations of maximum dimensions and total weight of child car seat and children.³²

Figure 2.2 ISOFIX systems (ISOFIX attachments and ISOFIX anchorage systems)³³



2004/m178.html;jsessionid=15F5F59AD5F8E4C1D3F841D477AD91AF.live21301?nn=286356>
accessed 2 December 2016

³¹ UNECE, 'UN Regulation No 129 Increasing the safety of children in vehicles: For policymakers and concerned citizens' (February 2016) 15
<https://www.unece.org/fileadmin/DAM/trans/publications/WP29/CHILD_RESTRAINT_SYSTEMS_brochure.pdf> accessed 2 December 2016

³² Federal Highway Research Institute (n 22) 5

³³ ISOFIX Systems < <http://en.volkswagen.com/en/innovation-and-technology/technical-glossary/isofix-system.html>> accessed 2 December 2016

Figure 2.3 ISOFIX child car seat with anti-rotation device (top tether connector)³⁴



Figure 2.4 ISOFIX child car seat with anti-rotation device (support leg)³⁵



³⁴ Maxi-Cosi Child car seat MiloFix < <https://www.kidsroom.de/en/maxi-cosi-child-car-seat-milofix> > accessed 3 December 2016

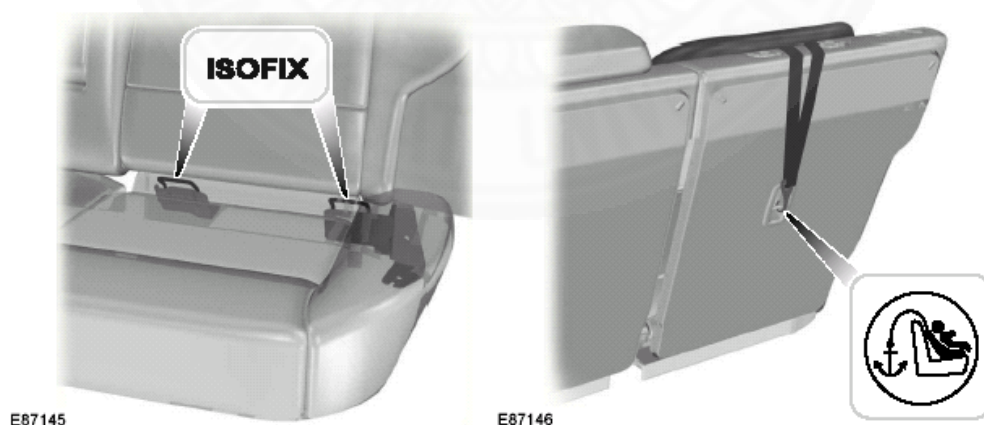
³⁵ Maxi-Cosi Pearl Group 1 Car Seat in Black Raven < http://www.kiddicare.com/p/Maxi-Cosi_Pearl_Group_1_Car_Seat_in_Black_Raven.htm > accessed 3 December 2016

2.3 ISOFIX Anchorage Systems and ISOFIX Top Tether Anchorage

As mention in the ISOFIX child car seat, ISOFIX attachments are used to secure child car seat in connection with ISOFIX anchorage systems. Moreover, additional anti-rotation device, in particular, top tether connector needs an ISOFIX top tether anchorage for anchoring the anti-rotation device with the motor vehicle's structure.

Without ISOFIX anchorage systems and ISOFIX top tether anchorage, ISOFIX child car seat cannot be installed on motor vehicles. For this reason, the U.S. law requires all passenger motor vehicles which are manufactured after 1 September 2002 to be fitted with LATCH systems (Lower Anchors and Tethers for Children).³⁶ Meanwhile, motor vehicles for carriage of passenger not more than eight seats including driver seat (Category M1) which are intended to be sold in the member countries of the European Community shall be compulsorily fitted with ISOFIX anchorage systems and top tether anchorage by virtue of Regulation (EC) No. 661/2009.

Figure 2.5 ISOFIX anchorage systems and ISOFIX top tether anchorage³⁷



³⁶ Deborah D. Stewart (n 17) 6

³⁷ ISOFIX anchor points < <http://www.fordmanuals.org/page-364.html>> accessed 3 December 2016

According to the general idea of young passenger injury prevention on personal motor vehicles and aforesaid information relating to the standard child car seat and ISOFIX systems, children who travel on a personal motor vehicle with the parents should utilize an appropriate child car seat in order to protect the fatality or reduce a body injury on a road accident.



CHAPTER 3

FOREIGN LAWS CONCERNING THE COMPULSORY USE OF CHILD CAR SEAT AND SAFETY STANDARDS OF CHILD CAR SEAT AND ISOFIX SYSTEMS

In this chapter, the foreign laws concerning the safety of child car seat will be determined by the laws of developed countries such as European Community, the United Kingdom, the United States of America where statutory instruments were enacted to assure that the children who travel on passenger car with their family will be protected with the same level of protection as mature person from accidents or unexpected incidents on land transport. Furthermore, the scope of this research will be divided into two aspects; (1) the type-approval requirement for the safety of child restraint system (technical requirement of child car seat), and (2) the type-approval requirement of ISOFIX anchorages and ISOFIX top tether anchorages (new equipment) which are fitted in the motor vehicle in order to jointly function or work together with the ISOFIX child car seat.

3.1 EU Law

In the European Union, the primary aim of the establishment of European Communities was the economic integration. The core objectives declared in the preamble of the Treaty establishing the European Economic Community, so called the EEC Treaty or also known as the Treaties of Rome 1957, stated that “lay the foundation of an ever closer union among the peoples of Europe,...,improve the living and working conditions of their peoples,..., contribute a common commercial policy and abolish restrictions on international trade,...”

The intention of the economic integration of the Union has been accomplished by the creation of a common market which achieved by eliminating internal barriers to trade. For this reason, the solutions for fulfilling the objective of the creation of a

common market have been drawn as a structure of the Communities that were created by the Treaty of Establishing of European Economic Community.³⁸

The key factor in achieving economic integration was implemented in the EEC Treaty which is considered to be the primary source of EU laws. The EEC Treaty comprises of 240 articles in six separate parts. The foundations of the Community were identified in the second part concerning the freedom of movement both on persons and goods. Moreover, the approximation of economic policy and the harmonization of national law in a specific area such as transport have been included in this part.³⁹

Once the transportation had been a primary community's common policy, the common transport markets were created as a way to achieve the goal of free movement. For this reason, the harmonization of national laws and the progression on the approximation of the technical regulation concerning transportation and safety measures have been an important part of the policy, therefore it was specified in the EU laws.⁴⁰

In order to implement such transport policy proposal, the Treaty on the Functioning of the European Union or abbreviated as TFEU, empowers the European Parliament and the Council (the Council of Ministers of the European Union), with the consulting of the Economic and Social Committee and the Committee of the Regions, with the power to lay down measures to improve transport safety.⁴¹ In this case, all necessary solutions implemented under the common transport policy, such as the safety measures on transportation or type-approval requirements for the general safety of motor vehicles, shall be specified on the secondary sources which are the technical legal term used to describe the types of subordinate law that the institute (the

³⁸ Tony Storey and Chris Turner, *Unlocking EU Law* (2nd edn, Hodder Education 2008) 7

³⁹ Treaty establishing the European Economic Community, EEC Treaty [1958] <<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=URISERV%3Axy0023>> accessed on 22 October 2016

⁴⁰ Piero Soave, 'Common transport policy: overview' (Fact Sheet on the European Union, October 2016) <http://www.europarl.europa.eu/atyourservice/en/displayFtu.html?ftuId=FTU_5.6.1.html> accessed on 21 October 2016

⁴¹ The Treaty on The Functioning of The European Union – Consolidated Version [2012] OJ C 326/85, Art 90, 91 (ex Article 70, 71 TEC)

European Parliament coordinating jointly with the Council) uses as statutory instruments to fulfill the objective of the Treaties.⁴²

The EU laws concerning the safety of child car seat, particularly on the subject of the compulsory use of child car seat, the type-approval requirement of child car seat (technical standard requirement of child car seat) and the type-approval requirement of ISOFIX anchorages and ISOFIX top tether anchorage which are fitted on vehicle for jointly functioning with the ISOFIX child car seat, have been identified in the EU Regulation and EU Directive. Thus, it is necessary to determine the type and specific characteristic and effect of the secondary sources of law or subordinate law, EU Regulation and Directive in particular.

The institute (the European Parliament acting jointly with the Council) has the power to enact secondary legislations pursuant to the Treaties binding all Member States in different effects according to types of subordinate legislation.⁴³

The Regulation is defined in Article 288 Paragraph 2 of TFEU (ex Article 249 TEC) provides that “A regulation shall have general application. It shall be binding in its entirety and directly applicable in all Member states.”

The Regulation is general legal provision which provides the detailed measure which generally applied to all Member States throughout the whole Community. The Regulation need not to be implemented as an internal law of the Member State because the detailed measure provided by the Regulation becomes the internal law in each Member State automatically. Moreover, the Member State cannot implement the detailed measure differently or other than such measure provided by the Regulation.⁴⁴ The Regulation will be valid in each Member State on the date specified or on the twentieth day after the publication in the Official Journal (OJ).⁴⁵

Article 288 Paragraph 3 of TFEU (ex Article 249 TEC) provides that “A directive shall be binding, as to the result to be achieved , upon each Member State to

⁴² TFEU [2012] OJ C 326/171, Art 288 (ex Article 249 TEC)

⁴³ Nigel Foster, EU law DIRECTIONS (2nd edn, Oxford University Press 2010) 103

⁴⁴ Ibid 104

⁴⁵ TFEU [2012] OJ C 326/171, Art 297 (ex Article 254 TEC)

which it is addressed, but shall leave to the national authorities the choice of form and methods.”

Unlike Regulation, Directive is not directly applicable to all Member States but binding on whom to be specified. Furthermore, the Directive leaves the room for each Member State to implement their own internal law in accordance with the Directive which lays down the aims that shall be achieved. The Member State is able to provide the alternative choices of form and method of implementation with discretion of each Member State. Normally, the Directive will identify a specific period of time for implementation. Therefore, each Member State shall annex such Directive as a national law before the deadline identified in the Directive.⁴⁶

3.1.1 The Compulsory Use of Child Car Seat

The very first EU legislation concerning the compulsory use of child car seat was introduced in the Council Directive 91/671/EEC⁴⁷ where it ensured that children who are under 12 years of age or less than 150 cm in height shall be restrained by an approved child car seat suitable for the height and weight of the children.⁴⁸ The passive safety measure for children travelling in a vehicle with their family was compelled on motor vehicle for carriage of passenger consisting of no more than eight seats including the driver’s seat.⁴⁹ Each Member State was supposed to implement effective measure in accordance with the Directive as an internal law before January 1993.⁵⁰ However, the Directive left some exceptions for children in particular ages who are allowed to be restrained by approved restraints or adult safety belts instead of child car seats. In some cases, a very young child shall not be restrained by child car

⁴⁶ Tony Storey and Chris Turner, *Unlocking EU Law* (2nd edn, Hodder Education 2008) 65

⁴⁷ Council Directive of 16 December 1991 on the approximation of the laws of the Member States relating to compulsory use of safety belts in vehicles of less than 3, 5 tonnes [1991] OJ L 373/26

⁴⁸ Dir 91/671/EEC, OJ L 373/27 Art 2 Para 2

⁴⁹ Dir 91/671/EEC, OJ L 373/27 Art 1

⁵⁰ Dir 91/671/EEC, OJ L 373/28 Art 8 Para 1

seat.⁵¹ During that time, there are already enough child car seats in the market, therefore, the Directive was enforced on the parents to encourage the compulsory use of child car seat.⁵² However, the harmonized type-approval requirement of child car seat in EU law has not been established so the child car seats shall be approved by the national standard of each Member State.⁵³

For the reason that the preceding Directive relating compulsory use of child car seat has specified some exceptions, moreover, the child car seat has not been classified for the appropriate children's mass, the Directive 91/671/EEC was amended by Directive 2003/20/EC.⁵⁴

The Directive 2003/20/EC provides a significant transformation in three elements relating to the compulsory use of child car seat. First, exemptions under the Directive 91/671/EEC are eliminated⁵⁵ and secondly, the appropriated child car seat should be approved in accordance with the technical requirement of UN-ECE Regulation 44.03 or its equivalent. Lastly, the child car seat which was intended to be used in the front seat without deactivating the air bag system is prohibited.⁵⁶ Additionally, the compulsory use of child car seat has been extended to a motor vehicle other than a passenger car that has seats not exceeding eight seats including driver's seat, in particular a vehicle for carriage of passenger consisting of more than eight seats and a motor vehicle for carriage of goods.⁵⁷

According to the Directive, a child car seat was first clarified and classified into groups of child car seat based on a mass of a child.

⁵¹ Dir 91/671/EEC, OJ L 373/27 Art 4 Para 1, 2

⁵² Opinion on the proposal for a Council Directive on the approximation of the laws of the Member States relating to compulsory use of safety belts in vehicles of less than 3, 5 tonnes [1989] OJ C 159/53

⁵³ Dir 91/671/EEC, OJ L 373/26 Para 11

⁵⁴ Directive 2003/20/EC amending Council Directive 91/671/EEC relating to the compulsory use of safety belts and child-restraint systems in vehicles [2003] OJ L115/63

⁵⁵ Dir 2003/20/EC [2003] OJ L115/65, Art 4

⁵⁶ Opinion of the Economic and Social Committee on the 'Proposal for a Directive of the European Parliament and of the Council amending Council Directive 91/671/EEC on the approximation of the laws of the Member States relating to compulsory use of safety belts in vehicles of less than 3, 5 tonnes'[2001] OJ C260/30

⁵⁷ Dir 2003/20/EC [2003] OJ L115/64, Art 1 Para 2(1)

A child car seat is divided into two types as follows;⁵⁸

(1) An integral child car seat is a seat comprising of a combination of straps, securing buckle, adjusting device, attachments, and in some cases, a supplementary chair and/or impact shield. A child shall be restrained by an integral strap or straps of child car seat itself.

(2) A non-integral child car seat is a seat comprising of a partial restraint. A child shall be restrained by an adult safety belt which passes around the body of a child or a safety belt restrains a child car seat which the child is placed.

A child car seat is classified based on child's mass into five groups as follows;⁵⁹

- (1) Group 0 for a child weighing less than 10 kg;
- (2) Group 0+ for a child weighing less than 13 kg;
- (3) Group 1 for a child weighing from 9 kg to 18 kg;
- (4) Group 2 for a child weighing from 15 kg to 25 kg;
- (5) Group 3 for a child weighing from 22 kg to 36 kg.

This Directive repealed the exception provided in Article 4 of Directive 91/671/EEC, therefore, a child who is shorter than 150 cm in height shall be restrained by an integral or non-integral child car seat suitable for the child's mass. However, the Member States may allow particular children to be restrained by an adult safety belt⁶⁰ or not to be restrained in special circumstances.⁶¹ Nevertheless, children under three years of age may not be allowed to be transported without any restraint by child car seat.⁶² Furthermore, children under three years of age may also not be allowed to be transported with restraint by child car seat used in the front seat of a motor vehicle without deactivated of air bag system.⁶³

⁵⁸ Dir 2003/20/EC [2003] OJ L115/64, Art 1 Para 2(4)

⁵⁹ Dir 2003/20/EC [2003] OJ L115/64, Art 1 Para 2(3)

⁶⁰ Dir 2003/20/EC [2003] OJ L115/64, Art 1 Para 3(1)(a)(ii)

⁶¹ Dir 2003/20/EC [2003] OJ L115/64, Art 1 Para 3(1)(a)(iii)

⁶² Dir 2003/20/EC [2003] OJ L115/64, Art 1 Para 3(1)(a)(i)

⁶³ Dir 2003/20/EC [2003] OJ L115/64, Art 1 Para 3(1)(b)

Before May 9, 2008, Member States may permit the use of child car seat which is approved by national standard. After that time, a child car seat shall be approved by the Directive 77/541/EEC or UN-ECE Regulation 44/03 or any other subsequent adaptation.⁶⁴

A child car seat has been considered to be a safety instrument used in motor vehicle for children to protect injury and fatality's feasibility on unexpected incidents on the road. This safety instrument is a priority objective of The Working Party on Passive Safety (GRSP), a subsidiary body of the World Forum for Harmonization of Vehicle Regulation (WP.29), in relation to develop a passive safety requirement for vehicles.⁶⁵

In 2012, new technical requirements developed by the working party (GRSP) in particular, child car seat technical requirements or new Regulation on Child Restraint System, was established and annexed to the Agreement of the United Nations Economic Commission for Europe (UNECE) concerning the adoption of uniform technical prescriptions for wheeled vehicles, equipment and parts which can be fitted to and/or be used on wheeled vehicles and the conditions for reciprocal recognition of approvals granted on the basis of these prescriptions (Revised 1958 Agreement).⁶⁶ Such technical prescription entered into force on 9 July 2013 as the UN Regulation 129 or i-Size Regulation.⁶⁷ The Agreement of UNECE or the revised 1958 Agreement was acceded by the European Community on 24 March 1998 according to a Council Decision 97/836/EC.⁶⁸

⁶⁴ Dir 2003/20/EC [2003] OJ L115/64, Art 1 Para 3(1)(c) and (d)

⁶⁵ United Nations Economic Commission for Europe, 'Introduction, Working Party on Passive Safety (GRSP), World Forum for Harmonization of Vehicle Regulations (WP.29)' <http://www.unece.org/trans/main/wp29/meeting_docs_grsp.html> accessed on 24 October 2016

⁶⁶ United Nations Economic Commission For Europe 'UN Regulation No 129 Increasing the safety of children in vehicles, For policymakers and concerned citizens' February 2016, 5 <https://www.unece.org/fileadmin/DAM/trans/publications/WP29/CHILD_RESTRAINT_SYSTEMS_brochure.pdf> accessed on 24 October 2016

⁶⁷ Directive 2014/37/EU amending Directive 91/671/EEC relating to the compulsory use of safety belts and child restraint systems in vehicles [2014] OJ L59/32, Intro Para 4

⁶⁸ Council Decision 97/836/EC with a view to accession by the European Community to the Agreement of the United Nations Economic Commission for Europe concerning the adoption of uniform technical prescriptions for wheeled vehicles, equipment and parts which can be fitted to and/or

In brief, the UN Regulation No.129 or i-Size Regulation establishes the alternative parallel technical prescriptions of child car seat according to those constituted under the UN-ECE Regulation No.44.⁶⁹ Additionally, the new technical requirement of Regulation No.129 constitutes the enhanced child restraint system which improves child car seat's technical requirements in many aspects, for example, test for side impact, the rear-facing car seat for children up to 15 months, and etc.⁷⁰

In 2014, there were some changes on the EU law concerning the compulsory use of child car seat. Directive 2014/37/EU provides an alternative type of child car seat which is approved by new technical requirement under the UN Regulation No.129 other than those approved under UN-ECE Regulation No.44 or Directive 77/541/EEC.⁷¹ This Directive entered into force on 20 March 2014, and the Member States shall implement internal measures in order to comply with this Directive within six months after the Directive's effective date.⁷² Thus, in all European countries who are the member of European Community, they shall allow the use of newly approved child car seat under UN Regulation No.129 as an alternative choice for parents other than a child car seat which was approved under old technical prescriptions of UN-ECE Regulation No.44 or Directive 77/541/EEC.

3.1.2 Type Approval of Child Car Seat

After the end of World War I, the automotive sector has become an important major sector of the industry in European Continent. The government of each country implemented their own national technical standard concerning the assembly and construction requirement of motor vehicle fundamentally relating to a safety in use,

be used on wheeled vehicles and the conditions for reciprocal recognition of approvals granted on the basis of these prescriptions [1997] OJ L346/78, Art 1

⁶⁹ Regulation No 44 the Economic Commission for Europe of the United Nation (UN/ECE) Uniform provisions concerning the approval of restraining devices for child occupants of power driven vehicles (child restraint system) [2007] OJ L 306/1

⁷⁰ Dir 2014/37/EU [2014] OJ L59/32, Intro Para 5

⁷¹ Dir 2014/37/EU [2014] OJ L59/33, Art 1 Para 2

⁷² Dir 2014/37/EU [2014] OJ L59/33, Art 2, 3

signaling, lighting, and etc.⁷³ In 1958, the leading countries who had formed the European Economic Community concluded the first international agreement which was aimed to develop international requirements for the approval of equipment and parts intended to be fitted or used in motor vehicles, also known as the 1958 Agreement.⁷⁴ Focusing on the European Communities level, in 1970, it was the very first time of establishing a legal framework concerning type-approval of motor vehicle and it was adopted in the Council Directive 70/156/EEC.⁷⁵ After that, there were more than fifty legislations in relation to an approximation of law concerning technical prescriptions of systems, equipment, component and parts intended to use in motor vehicle which were adopted subsequently. In another words, after a legal framework regarding motor vehicle's type approval had been adopted by Directive 70/156/EEC, technical prescriptions of motor vehicle, systems, equipment, component and parts were harmonized and adopted as an approximation of the law by many subsequent Directives.⁷⁶

Currently, the Directive 2007/46/EC lays down a new legal framework for the approval of motor vehicles, systems, components and separate technical units which repeals the Directive 70/156/EEC due to the complexity of law in the previous Directive's framework and laws on technical prescriptions in subsequent Directives. Under this Directive, a child car seat or another alternative technical term known as child restraint systems are considered to be a 'system' which is an assembly of devices functioning one or more duties in a motor vehicle and it is required to be

⁷³ Commission of the European Communities, Proposal for a Directive of the European Parliament and of the Council on the approval of motor vehicles and their trails, and of systems, components and separate technical units intended for such vehicles (COM/2003/0418 final, 2003) 3

⁷⁴ Agreement concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicle Equipment and Parts of 20 March 1958

⁷⁵ Council Directive 70/156/EEC of 6 February 1970 on the approximation of the laws of the Member States relating to the type-approval of motor vehicles and their trailers [1970] OJ L 42

⁷⁶ Commission of the European Communities, Proposal for a Directive of the European Parliament and of the Council on the approval of motor vehicles and their trails, and of systems, components and separate technical units intended for such vehicles (COM/2003/0418 final, 2003) 3

subjected to the technical prescriptions.⁷⁷ Moreover, the child car seat is still considered as a ‘component’ which is a device intended to be part of vehicle and it may be type approved independently subject to technical prescription specified in Directive, Regulation or a UN-ECE Regulation annexed to the Revised 1958 Agreement.⁷⁸ This Directive constitutes legal obligations relating to child car seat to Member States and manufacturers as follows;

3.1.2.1 Obligation of Member States

Member States shall ensure that the manufacturers applying for the approval of motor vehicle, systems, components or separate units comply with their obligations before the approval is certified by the Member States for that particular vehicles or automotive systems, components or separate technical units satisfies the administrative process and fulfills technical requirements of that automotive object as specified by Directive, Regulation or UN-ECE Regulation annexed to 1958 Agreement.⁷⁹ Member State shall approve only such vehicles, systems, components or separate technical units which satisfy the requirement of this Directive.⁸⁰ Moreover, the Directive requires Member States to register or permit the sale or enter into service only if such vehicles, systems, components and separate technical units satisfying the requirements of the Directive.⁸¹ This Directive lays down general obligations for Member States concerning a legal framework for type approval of vehicles, systems, components and technical units. Each Member State shall implement the internal measure in accordance with the provided measures laid down in the Directive.

⁷⁷ Directive 2007/46/EC establishing a framework for the approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles [2007] OJ L263/5, Art 3 Para 1(1), (23)

⁷⁸ Dir 2007/46/EC [2007] OJ L263/6 Art3 Para 1(1), (24)

⁷⁹ Dir 2007/46/EC [2007] OJ L263/7 Art 4 Para 1

⁸⁰ Dir 2007/46/EC [2007] OJ L263/7 Art 4 Para 2

⁸¹ Dir 2007/46/EC [2007] OJ L263/7 Art 4 Para 3

The system of type-approval is based on two fulfillments of criteria. First, the competent authorities of each Member States will approve a vehicles, systems, components or separate technical units after the automotive prototypes has been verified or tested by the competent authorities or technical service who is an organization or body designated by the approval authority of each Member State to test or examine the prototype of required approval object whether it fulfills specific technical requirements laid down in Directive, Regulation, and UN-ECE Regulation annexed to 1958 Agreement. Secondly, the manufacturer shall have to qualify the conformity of products which is the system to ensure that the manufacturer produces each automotive product in conformity with the type-approved vehicle, systems, component or separate technical units by requiring the manufacturer to establish an internal monitoring system to enable the quality control process in order to detect the deficiency in conformity with the requirements.⁸²

After the fulfillments of manufacturer's obligations, the Member States shall grant an EC type approval with regard to a system which conforms to the administrative documents and which qualifies the technical requirements provided in the separate Directive, Regulation and UN-ECE Regulation annexed to the 1958 Agreement.⁸³ Member States shall permit the sale or entry into service of components or separate technical units provided that it complies with technical requirements specified in separate Directive, Regulation and UN-ECE Regulation annexed to the 1958 Agreement⁸⁴ and marked by EC type approval mark as prescribed in relevant separate Directive and Regulation.⁸⁵

Therefore, the Member States shall permit the sale or enter into service of a child car seat if it complies with technical prescriptions laid down in regulatory act and it has already been granted an EC type-approval by the competence authority in each Member State and affixed with the EC type-approval mark.

⁸² Commission of the European Communities, Proposal for a Directive of the European Parliament and of the Council on the approval of motor vehicles and their trails, and of systems, components and separate technical units intended for such vehicles (COM/2003/0418 final, 2003) 9

⁸³ Dir 2007/46/EC [2007] OJ L263/9 Art 10 Para 1

⁸⁴ Dir 2007/46/EC [2007] OJ L263/15 Art 28

⁸⁵ Dir 2007/46/EC [2007] OJ L263/12 Art 19 Para 1

Furthermore, the Directive also lays down penalties applicable for the infringement of the provision which Member States shall adopt in their own domestic legislation.⁸⁶ Additionally, Member States shall adopt this Directive and implement necessary internal measures in accordance with all substantive amended provisions provided in this Directive.⁸⁷

3.1.2.2 Obligation of Manufacturers

The Directive imposes general obligations on manufacturers who produce automotive vehicles, systems, components and technical units which are required to be type-approved under the law to respond to the approval authority during the processes of approval including satisfying a relevant administrative document and technical requirements according to the relevant regulatory act. Moreover, manufacturers are responsible for ensuring the conformity of products as well.⁸⁸

3.1.2.3 Technical Requirements Concerning Child Car Seat

The technical requirements or technical prescriptions concerning the construction and installation of child car seat are provided in Annex IV of the Directive 2007/46/EC which lays down relevant regulatory act identified specific technical requirements or technical prescription of child car seats such as separate Directive, Regulation or UN-ECE Regulation annexed to 1958 Agreement.⁸⁹ Under the obligation of the manufacturers, child car seats shall be produced in conformity with technical requirements or technical prescriptions, or in other words, it is required to be the type-approved vehicle, systems or component according to this Directive. Therefore, the manufacturers need to comply with the obligations otherwise, they

⁸⁶ Dir 2007/46/EC [2007] OJ L263/22 Art 46

⁸⁷ Dir 2007/46/EC [2007] OJ L263/22 Art 48

⁸⁸ Dir 2007/46/EC [2007] OJ L263/7 Art 5 Para 1

⁸⁹ Dir 2007/46/EC [2007] OJ L263/7 Art 1 Para 3

cannot enter their products into the market because the child car seat is not type-approved and not qualified to have met standard requirements of the product. Technical requirement or prescriptions of child car seat are provided in the separate Directive, Regulation and UN-ECE Regulation annexed to 1958 Agreement as follows;

(1) Directive 77/541/EEC⁹⁰ is the very first statutory legislation which harmonized technical requirement concerning safety belts and restraint systems on the Community level. In the first instance, the Directive laid down technical requirement or prescription of safety belts and restraint system in separate Directive itself and subsequent amendment thereto. However, after it was amended by the Directive 2000/3/EC,⁹¹ technical requirements of child car seat had been laid down separately from technical requirements of safety belts and restraint systems. The technical requirement of child car seat in accordance with the Directive 77/541/EEC was replaced by Annex XVII of this Directive.⁹² The new requirement of child car seat provided by Annex XVII of Directive 2000/3/EC refers to the technical requirement of child car seat as specified in UN-ECE Regulation No.44 which is the uniform provisions in relation to the approval of child restraint systems.⁹³ The initial technical requirement of child car seat and the amendments of the Directive thereto was established as an overlap between technical requirements of safety belts and restraint system with the technical requirements of child car seat (child restraint systems). In 1997, the European Community acceded to the 1958 Agreement according to the Council Decision 97/836/EC. It constituted a substantive change in the aspect of the integration of technical prescriptions provided by the UN-ECE Regulation annexed to the 1958 Agreement incorporating to the separate Directive in order to implement the

⁹⁰ Directive 77/541/EEC on the approximation of the laws of the Member States relating to safety belts and restraint systems of motor vehicles [1977]) OJ L220/95

⁹¹ Directive 2000/3/EC adapting to technical progress Council Directive 77/541/EEC relating to safety and restraint systems of motor vehicles [2000] OJ L53/1

⁹² Dir 2000/3/EC [2000] OJ L53/4 Annex

⁹³ Dir 2000/3/EC [2000] OJ L53/71 Annex XVII

technical requirement of child car seat distinctively from the technical requirements of safety belts and restraint systems in a short time.⁹⁴

Therefore, the child car seat (child restraint systems) shall be type-approved in accordance with the Directive 77/541/EEC by fulfilling the technical requirement of uniform technical provisions of child restraint systems as provided in UN-ECE Regulation 44 and amendments up to series 03.⁹⁵ However, Directive 77/541/EEC was repealed by the Regulation (EC) No 661/2009 on 1 November 2014,⁹⁶ therefore, after this date, the child car seat did not have to be type-approved by fulfilling technical requirements of child car seat in accordance with the UN-ECE Regulation 44 amendment series 01 or 02, nevertheless, technical requirements of UN-ECE Regulation 44 amendment series 03 are still applicable by virtue of the Directive 2007/46/EC.

(2) UN-ECE Regulation No 44 amendment series 03 is the uniform technical provision relating to approval of child car seat which is capable of the use in motor vehicle in order to diminish the risk of injury and fatality on unexpected road incidents, however, it does not include the child car seat which is able to fold in undesirable case.⁹⁷

UN-ECE Regulations are the harmonized provisions relating to technical requirements of vehicle, systems, components and separate technical units which are annexed to the 1958 Agreement of the United Nations Economic Commission for Europe (UN-ECE). This international agreement is a legal production of WP.29 or World Forum for Harmonization of Vehicle Regulation which is the sectorial body of the United Nation Economic and Social Council. This institution was established in 1952 as a working party of experts on technical prescriptions of vehicles, systems, components and separate technical units in order to improve the

⁹⁴ Dir 2000/3/EC [2000] OJ L53/1 Intro Para 3, 4 and 5

⁹⁵ Dir 2000/3/EC [2000] OJ L53/71 Annex XVII

⁹⁶ Regulations (EC) No 661/2009 of The European Parliament and of The Council concerning type-approval requirements for the general safety of motor vehicles, their trailers and systems, components and separate technical units intended therefor [2009] OJ L200/13 Art 19 Para 2

⁹⁷ UN-ECE Regulation No 44 Uniform provisions concerning the approval of restraining devices for child occupants of power driven vehicle (child restraint systems) [2007] OJ L306/1 Art 1.1

vehicle safety and eliminate the trade barrier by harmonizing the provision on technical requirements of motor vehicles globally.⁹⁸

The 1958 Agreement is the international law concerning the harmonization of provisions relating to technical requirements of motor vehicles, systems, components and separate technical units at global level ensuring that barrier of trade shall be eliminated by the harmonized technical requirement of vehicles and affirming that the safety of vehicles will be improved continuously pursuant to the advancement of new technology and scientific knowledge.⁹⁹ This Agreement lays down two main objectives of the legislation. First, the Agreement affirms the safety of vehicles in all countries of the Contracting Parties by harmonizing the technical requirement of vehicles, systems, components and separate technical units provided as a minimum standard of internal technical requirements of vehicles annexing the relevant separate technical regulation to the 1958 Agreement. Nowadays, there are 137 technical regulations annexed to the 1958 Agreement and a few subsequent regulations will be coming into force later.¹⁰⁰

The second objective of the 1958 Agreement is to eliminate the trade of barrier on technical requirements of each Member States. The law lays down the principle of mutual recognition of approval on motor vehicles, systems, components and separate technical units which provides a framework of reciprocal recognition for each country of the Contracting Parties to grant a type-approval of motor vehicles and so on in accordance with the 1958 Agreement. On the other words, the vehicles, systems, components and separate technical units which are tested and verified as type approved in one country according to the separate Regulations annexed to the 1958 Agreement, shall be approved in other countries of the Contracting Parties

⁹⁸ Ushio Ueno, 'WP 29 Activities and Recent topic' (The 2nd Public and Private Joint Forum in Asian Region, Indonesia, 2011)
<http://www.jasic.org/j/06_archive/report23/111114_99The%20material%20for%20the%202nd%20Public%20and%20Private%20Joint%20Forum%20.pdf> Accessed on 27 October 2016

⁹⁹ Global technical harmonization of vehicles <<http://eur-lex.europa.eu/legal-content/EN/LSU/?uri=CELEX:31997D0836>> Accessed 27 October 2016

¹⁰⁰ United Nation Economic and Social Council, 'Status of the Agreement, of the annexed UN Regulations and of amendments thereto (ECE/TRANS/WP.29/343/Rev.24, 2016) 351

applying the same Regulations without further checking or other testing conditions.¹⁰¹

Under the 1958 Agreement, there are sixty-two Contracting Parties from the EU and outsider such as Australia, Japan, Republic of South Korea, Malaysia, and Thailand.¹⁰² However, the principle of the reciprocal recognition provides in the 1958 Agreement shall be applied to countries which acceded particular Regulations annexed to the 1958 Agreement the same way as the other countries. It has been noted that under the 1958 Agreement, the Contracting Parties are not obliged by the Agreement to be bound by the provisions of the Agreement. For example, Thailand has been a Contracting Party since 2006 but Thailand is not bound by any of the separate UN Regulations and Article 10 of the Agreement by the virtue of the reservation clause.¹⁰³ On the Community level, the European Community acceded to the 1958 Agreement on 1997 by the virtue of Council Decision 97/836/EC.¹⁰⁴

The technical requirements of child car seat, which were harmonized and improved under the UN-ECE Regulation No 44, were further developed by the Working Party on Passive Safety (GRSP) which is a Working Group of WP.29 (The World Forum for Harmonization of Vehicle Regulations). The GRSP Party is a working group of experts and automotive specialists on the passive safety who introduced and invented brand new and better technical requirements of child car seat in order to improve better protection for children who travelling on vehicles.¹⁰⁵ The harmonization of technical requirements concerning child car seat is identified in UN-ECE Regulation No 44 and Regulation No 129 annexed to the 1958 Agreement which

¹⁰¹ Global technical harmonization of vehicles <<http://eur-lex.europa.eu/legal-content/EN/LSU/?uri=CELEX:31997D0836>> Accessed 27 October 2016

¹⁰² United Nation Economic and Social Council, 'Status of the Agreement, of the annexed UN Regulations and of amendments thereto (ECE/TRANS/WP.29/343/Rev.24, 2016) 39

¹⁰³ Ibid 40

¹⁰⁴ Council Decision 97/836/EC [1997] OJ L346/78

¹⁰⁵ Introduction, Working Party on Passive Safety (GRSP), World Forum for Harmonization of Vehicle Regulations (WP.29) < http://www.unece.org/trans/main/wp29/meeting_docs_grsp.html> accessed on 29 October 2016

allows the brand new enhanced child car seat to be invented and developed as alternative technical requirements parallel with the previous one.

Type-approval of child car seat shall be granted by the competent authority of Member States if the characteristic and qualification of child car seat meet the technical requirements prescribed in Annex IV of the Directive 2007/46/EC.¹⁰⁶ Annex IV of this Directive provides the list of requirements for the type-approval of vehicles, systems, components and separate technical units by dividing the list of requirements into two parts. In the first part, it lays down the list of regulatory acts which are the secondary legislation of EU law that specifies technical requirements of the type-approval relevant to automotive objects such as the Directive 77/541/EEC which is the regulatory act identifying technical requirements of safety belts and child restraint systems.¹⁰⁷ The second part consists of the UN-ECE Regulations and the series of an amendment.¹⁰⁸ In this part, the subsequent list of regulations of the UN-ECE shall be recognized as an alternative technical requirement equivalent to the separate Directive or the Regulation concerning technical requirements for type-approval of vehicles, systems, components and separate technical units.¹⁰⁹ The technical requirements of child car seat provided in UN-ECE Regulation No 44 amendment series of 03 and any further amendments shall be recognized as alternative technical requirements for type-approval of child car seat granted under the Directive 77/541/EEC.¹¹⁰

Furthermore, technical requirements of child car seat provided in UN-ECE Regulation No 44 amendment series 03 have been amended in the series 04 by the Regulation 661/2009¹¹¹ due to the changing of technical requirement of child car seat pursuant to the UN-ECE Regulation No 44 amendment series 04 annexed to the

¹⁰⁶ Dir 2007/46/EC [2007] OJ L263/9 Art 10 Para 1, 2

¹⁰⁷ Dir 2007/46/EC [2007] OJ L263/82 Annex IV Part I

¹⁰⁸ Dir 2007/46/EC [2007] OJ L263/87 Annex IV Part II

¹⁰⁹ Dir 2007/46/EC [2007] OJ L263/19 Art 35 Para 1

¹¹⁰ Dir 2007/46/EC [2007] OJ L263/87 Annex VI Part II

¹¹¹ Reg (EU) 661/2009 [2009] OJ L200/8 Art 4 Para 2 and Annex IV

1958 Agreement.¹¹² Thus, from 1 November 2012, a child car seat shall be granted type approval if it satisfies technical requirements of UN-ECE Regulation No 44 amendment series 04. Moreover, from 1 November 2014, a child car seat which is type-approved under the UN-ECE Regulation No 44 amendment other than the series 04 shall be prohibited from the sale and entry into service.¹¹³

(3) UN Regulation 129 is the brand new regulation concerning the technical requirements of child car seat which is developed based on enhanced technology improving safety for children and reducing inappropriate or misuse of child car seat with the new installation system called ISOFIX. The UN Regulation 129 was introduced by researchers and automotive specialists of the Working Party on Passive Safety (GRSP) which is the subsidiary body of WP.29.¹¹⁴

The UN Regulation No 129, or also known as the i-Size Regulation, lays down new principles for better protection provided in technical requirements of this Regulation. The enhanced child restraint systems or i-Size child car seat has been invented based on the improvement of new requirements and testing. For example, i-Size child car seat compelled the rear-facing child car seat. The i-Size child car seat can accommodate children up to 15 months of age instead of 9 months as earlier specified in the UN-ECE Regulation No 44. Moreover, side impact testing and new dummies for testing have been introduced in this Regulation. More importantly, the new enhanced child car seat contains only ISOFIX systems which are systems used in connected to the structure of motor vehicle instead of using an adult safety belt to restrain a child car seat on the vehicle's structure. It means that the i-Size child car seat can only be used with a vehicle, which ISOFIX anchorage systems and top tether anchorage are fitted.¹¹⁵

¹¹² OICA, 'UN/ECE Regulatory Procedures' (Informal document No. 10, November 2003) < <https://www.unece.org/fileadmin/DAM/trans/doc/2003/wp29/TRANS-WP29-131-inf10e.doc>> Accessed on 29 October 2016

¹¹³ Reg (EC) 661/2009 [2009] OJ L200/11 Art 13 Para 2(b), 5(b)

¹¹⁴ Introduction, Working Party on Passive Safety (GRSP), World Forum for Harmonization of Vehicle Regulations (WP.29) < http://www.unece.org/trans/main/wp29/meeting_docs_grsp.html> accessed on 29 October 2016

¹¹⁵ UNECE, 'UN Regulation No 129 Increasing the safety of children in vehicles' (ECE/TRANS/NONE/2016/1, United Nation 2016), 6

Furthermore, i-Size child car seat is classified by the size of a child (height and maximum weight) instead of mass of a child as provided in the UN-ECE Regulation No 44. However, nowadays i-Size Regulation will be applied to the enhanced child car seats in Phase I which applies to only the integral harness ISOFIX child car seats for a younger child but not including booster seats for an older child. The Regulation is still developing technical requirement to be applied to the child car seat for an older child in Phase II and III.¹¹⁶

This Regulation entered into force on 9 July 2013 which was annexed to the 1985 Agreement. Later on, the technical requirement of the enhanced child car seat specified under this Regulation was adopted as an alternative requirement to the existing Community law by the virtue of Council Decision 97/836/EC that the Community acceded to the 1985 Agreement.¹¹⁷

3.1.3 The Requirement of the Installation of ISOFIX Anchorage Systems and Top Tether Anchorage

ISOFIX is a vehicle system jointly invented by experts of the automotive industry and child car seat manufacturers in 1990.¹¹⁸ The ISOFIX system became an international standard for securing a child car seat with a structure of vehicle under the development of International Standard Organization publishing in 1999 called ISO 13216-1:1999 Seat bight anchorages and attachments,¹¹⁹ and in 2004 called ISO

<https://www.unece.org/fileadmin/DAM/trans/publications/WP29/CHILD_RESTRAINT_SYSTEMS_brochure.pdf> Accessed on 29 October 2016

¹¹⁶ Ibid 7

¹¹⁷ United Nation Economic and Social Council, 'Status of the Agreement, of the annexed UN Regulations and of amendments thereto (ECE/TRANS/WP.29/343/Rev.24, 2016) 171

¹¹⁸ Britax, 'History & Heritage' < <https://us.britax.com/why-britax/history-heritage/>> Accessed 29 October 2016

¹¹⁹ ISO, 'ISO 13216-1:1999'

< http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=30437> Accessed 29 October 2016

13216-2:2004 Top tether anchorages and attachments.¹²⁰ ISOFIX systems comprise of four necessary technical units as follows;¹²¹

(1) ISOFIX anchorage systems are the two pieces of rigid metal horizontal bar fitted on a seat structure located between a seat and a backrest used in connection with ISOFIX attachments instead of securing a child car seat by an adult safety belt.¹²²

(2) ISOFIX attachments are parts of child car seat consisting of two rigid metal bars used in connection with ISOFIX anchorage systems.¹²³

(3) ISOFIX top tether anchorage is a piece of rigid metal horizontal bar fitted in designed location used in connection with ISOFIX top tether strap connector in order to secure child car seat from rotating.¹²⁴

(4) ISOFIX top tether strap connector is a piece of the connector which is connected to a top tether anchorage in order to transfer restraint force to a vehicle's structure.¹²⁵

Child car seat is classified into two systems. Firstly, a child car seat is intended to be fitted on a vehicle by means of using an adult safety belt securing a child car seat with a vehicle's structure. These systems are type-approved in accordance with the UN-ECE Regulation No 44. Secondly, a child car seat is intended to be fitted on a vehicle by means of using systems known as ISOFIX systems as a vehicle's structure securing a child car seat with those systems in a specific type-approved motor vehicle. Thus, ISOFIX systems are required as vehicle's structure or compulsory equipment on a vehicle intended to be used in connection with ISOFIX child car seats such as an approved ISOFIX child car seat manufactured in conformity with UN-ECE

¹²⁰ ISO, 'ISO 13216-2:2004'

< http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=36058 > Accessed 29 October 2016

¹²¹ Regulation No 14 of UN/ECE on Uniform provisions concerning the approval of vehicles with regard to safety-belt anchorages, ISOFIX anchorages systems and ISOFIX top-tether anchorages [2010] OJ L109/4 Para 2.16

¹²² UN/ECE Reg No 14 [2010] OJ L109/4 Para 2.18, 2.19

¹²³ UN/ECE Reg No 14 [2010] OJ L109/4 Para 2.20

¹²⁴ UN/ECE Reg No 14 [2010] OJ L109/4 Para 2.24

¹²⁵ UN/ECE Reg No 14 [2010] OJ L109/4 Para 2.25

Regulation No 44 or an approved i-Size child car seat manufactured in conformity with UN-Regulation No 129.

Furthermore, ISOFIX anchorages systems and ISOFIX top tether anchorage are also required to be type-approved in accordance with technical requirements of the UN-ECE Regulation No 14 specified by the Regulation (EC) 661/2009¹²⁶ under the meaning of systems or components as same as a child car seat, otherwise it cannot be sold or entered into service within the Community as a whole vehicle or particular systems or each component.¹²⁷ The relevant motor vehicles that are required by the Regulation (EC) 661/2009 to be compulsorily fitted ISOFIX anchorage systems and ISOFIX top tether anchorage are the motor vehicle in category M (motor vehicles for carriage of passenger and N (motor vehicle for carriage of goods).¹²⁸

In regard to the progressive development of child car seat, the new installation systems known as ISOFIX is invented and introduced to the parents. However, the previous child car seat installation systems using an adult safety belt to secure a child car seat with a vehicle's structure are still parallel functioned with the new model of child car seat. Parents will have alternative choices to provide better designed and new installation systems of child car seat with ISOFIX systems for their children in order to resolve problems of inappropriate installation or misuse of child car seat. Therefore, this Regulation imposes manufacturers with an obligation to ensure that the vehicles are designed, constructed and assembled to reduce the risk of injury and fatality to the occupants.¹²⁹ It means that the manufacturer is obliged to install type-approved ISOFIX anchorages systems and ISOFIX top tether anchorages in all new vehicles ensuring the new vehicle will minimize the risk of injury to children who use ISOFIX child car seat which is designed to resolve problems of installation.¹³⁰

¹²⁶ Reg (EC) 661/2009 [2009] OJ L200/8 Art 4 Para 2 and Annex IV

¹²⁷ Reg (EC) 661/2009 [2009] OJ L200/8 Art 4 Para 2, 3

¹²⁸ Reg (EC) 661/2009 [2009] OJ L200/8 Art 5 Para 3(e) and Reg (EU) 2015/166 [2015] OJ L28/8 Art 9 Para 2

¹²⁹ Reg (EC) 661/2009 [2009] OJ L200/8 Art 5 Para 1

¹³⁰ Reg (EC) 661/2009 [2009] OJ L200/8 Art 5 Para 2(e)

3.1.4 Penalties

As mention before in the general knowledge of EU legislations, the Directive is not compatible to all Member States. Furthermore, the Directive leaves the room for each Member State to implement their own internal law in accordance with the Directive. Normally, the Directive will identify specific periods of time for implementation. Then, each Member State shall annex the Directive into a national law before the deadline identified under the Directive.¹³¹ Moreover, the Directive provides legal obligations for all Member States implementing the internal penalties applicable to the infringement of the obligations prescribed in the Directive.

According to Directive 2007/46/EC, the law lays down the obligations for Member State to implement internal measures and determine the penalties applicable to infringement of the provisions for achieving the objectives of this Directive as follows;

(1) The Member States shall prohibit the registration, sale, and entry into service of motor vehicles without correct type-approval and valid certificate of conformity.¹³²

(2) The Member States shall prohibit the sale of components and separate technical units which do not comply with the technical requirements prescribed by the relevant regulatory acts or separate Regulation Annexed to the 1958 Agreement and are not properly marked with EC-type approval mark.¹³³

(3) The Member States shall determine the penalties for the infringement of the Directive in general, for example, fraud, forgery and other infringements relating to the conformity of productivity and vehicle safety.¹³⁴

¹³¹ Tony Storey and Chris Turner, (n 46) 65

¹³² Dir 2007/46/EC [2007] OJ L263/19 Art 26 Para 1

¹³³ Dir 2007/46/EC [2007] OJ L263/19 Art 28 Para 1

¹³⁴ Dir 2007/46/EC [2007] OJ L263/19 Art 46

3.2 UK Law

The United Kingdom is one of the Member Parties of European Community, for this reason, the UK has to be bound by the EU laws recognizing the legal validity and direct applicability arising from Community Treaties and Regulations. Furthermore, other indirect applicable obligations of Community shall be implemented in form of UK secondary legislations such as Orders in Council or Statutory Instruments.¹³⁵ On 23 June 2016, a referendum took place decided that the UK should leave to the European Community, however, a referendum itself does not constitute a starting point of withdrawal but the process of leaving shall be required the notification from the head of State, Prime Minister generating two years period of leaving to take effect.¹³⁶ Thus, the UK is now on Member Parties of European Community, consequently, the UK shall be bound by EU legislations and has duties to implement internal legislations pursuant to EU obligations.

3.2.1 The Compulsory Use of Child Car Seat

There are many UK legislations and statutory instruments dealing with the compulsory use of child car seat. Under the Road Traffic Act 1988 abbreviated as 'RTA 1988' hereafter, the law empowers the Secretary of State to legislate regulation concerning requirements and exceptions of compulsory use of child car seat for a person who is the age under fourteen occupying in a motor vehicle for carriage of passenger not exceeding eight seats including a driver's seat.¹³⁷

¹³⁵ Nigel Foster, (n 43) 126

¹³⁶ Joosje Hamilton and Andrew Sheftel, 'Brexit-UK and EU legal framework' (Norton Rose Fulbright, June 2016) <<http://www.nortonrosefulbright.com/knowledge/publications/136975/brexit-uk-and-eu-legal-framework#1>> Accessed 30 October 2016

¹³⁷ Road Traffic Act 1988 (RTA 1988), s 14 para 1, 6 and s 15 para 9

3.2.1.1 General Restrictions on Carrying Children on Vehicle

RTA 1988 lays down requirements relating compulsory use of child car seat at any seat positions, in both front and rear of vehicle,¹³⁸ additionally, the law imposes criminal offenses to a driver who does not comply with those requirements specified by this law.¹³⁹

(1) Children Occupying Front Seat

In the front seat, the law requires a child under the age of fourteen to be restrained by appropriated child car seat. The characteristics and descriptions of appropriated child car seat and some exemptions for not using child car seat are provided in subsequent regulation.¹⁴⁰ Furthermore, the law prohibits the use of rear-facing child car seat In the front position of the vehicles while a front air bag is still functioning, not deactivated.¹⁴¹

(2) Children Occupying Rear Seat

In the rear seat, the law also requires children under the age of fourteen on a vehicle to be restrained by appropriated child car seat. The characteristics and prescriptions of appropriated child car seat and exemptions for not using child car seat are specified in the regulation.¹⁴²

¹³⁸ RTA 1988, s 15 para 1, 1A, 3, 3A

¹³⁹ RTA 1988, s 15 para 2, 4

¹⁴⁰ RTA 1988, s 15 para 1

¹⁴¹ RTA 1988, s 15 para 1A

¹⁴² RTA 1988, s 15 para 3, 3A

3.2.1.2 Children Occupying Appropriated Child Car Seat

The Motor Vehicles (Wearing of Seat Belts) Regulations 1993 abbreviated as ‘MV(WSB)R 1993 hereafter, The Motor Vehicles (Wearing of Seat Belts) (Amendment) Regulations 2006 abbreviated as ‘MV(WSB)(A)R 2006 hereafter and The Motor Vehicles (Wearing of Seat Belts) (Amendment) (No.2) Regulations 2015 abbreviated as ‘MV(WSB)(A)(2)R hereafter, lay down detailed definitions of child car seat and a child who requiring to occupy a child car seat, characteristics and prescriptions of appropriated child car seat. Moreover, some exemptions for children not using a child car seat travelling on vehicle are provided in those statutory instruments as follows;

(1) Size of Child

RTA 1988 requires that a person who is under the age of fourteen shall be restrained by appropriated child car seat when traveling on vehicles. Under those general requirements, the definition of a child and classification of a child is given by MV(WSB)R 1993 amended by MV(WSB)(A)R 2006.

A child means a person who is under the age of fourteen years and classifies into two groups as follows;¹⁴³

(1) Small child means a person who is under the age of twelve and under the height of 135 centimeters.¹⁴⁴

(2) Large child means a person who is under the age of fourteen but not a small child. It means that a child who is under the age of fourteen years and older than twelve years old, or a child who is higher than 135 centimeters regardless of age ranges will be determined as a large child.

¹⁴³ The Motor Vehicles (Wearing of Seat Belts) Regulations 1993 (MV(WSB)R 1993) , SI 1993/176, reg 2 para 3 amended by MV(WSB)(A) R 2006, reg 10 para 5

¹⁴⁴ The Motor Vehicles (Wearing of Seat Belts) (Amendment) Regulations 2006 (MV(WSB)(A)R 2006, SI 2006/1892, reg 10 para 5

(2) Appropriated Child Car Seat

MV(WSB)R 1993 amended by MV(WSB)(A)R 2006 provides meaning of child car seat or child restraint as a seat belt or other combination of devices used by a child on a vehicle intended to be installed directly to suitable anchorages or to be used in connection with an adult safety belt in order to restrain a child's body with a vehicle's seat. Additionally, child car seat shall be marked in accordance with EU approval mark. In such case, a child car seat which has been approved by competent authorities of other Member States of European Community shall be determined as a child car seat under this regulation.¹⁴⁵

In the other words, a child car seat comprises three general elements. First, it is intended to be used on a vehicle by means of connecting with ISOFIX anchorage systems or by in conjunction with an adult safety belt in order to restrain a child's body with a vehicle's seat. Secondly, child car seat shall be marked in accordance with EU approval mark authorized by their competent authorities. Thirdly, in case a child car seat does not approve by UK authorities, it shall be approved by other The Member States who have the requirements of the law of that State corresponding to this Regulation. It means that child car seat shall be approved by the countries which are the member of Contracting Party of the 1958 Agreements and adopted the UN-ECE Regulation No 44.

A small child who is under the age of twelve years and below the height of 135 centimeters shall be restrained by an approved child car seat in accordance with UN-ECE Regulation No 44 amendment series of 03 or 04, or UN Regulation No 129.¹⁴⁶ On the contrary, a large child who is under the age of fourteen years but not a small child or a child who is higher than 135 centimeters shall be

¹⁴⁵ MV(WSB)R 1993, reg 2 para 5(a)(i)(ii), 5(b)(i)(ii) amended by MV(WSB)(A)R 2006, reg 10 para 7

¹⁴⁶ MV(WSB)R 1993, reg 2 para 8(a) and reg 8 para (1)(a), (2)(a)-(c) amended by MV(WSB)(A)R 2006, reg 10 para 8 and amended by MV(WSB)(A)(2)R 2015, reg 4, 5

restrained by an approved child car seat in accordance with UN-ECE Regulation No 44 amendment series of 03 or 04, or UN-Regulation No 129.¹⁴⁷

In this case, a large child is allowed to be restrained alternatively by an adult safety belt instead of a normal child car seat.¹⁴⁸

(3) Exemptions For Not Using Child Car Seat

MV(WSB)R 1993 amended by MV(WSB)(A)R 2006 imposes some exemptions for a child not using child car seat while travelling on vehicle as follows;¹⁴⁹

(1) A small child who is under three years of age travelling in a licensed taxi or licensed hired car may be unrestrained by child car seat if its seat is not available in the vehicle. Additionally, this child is not required to wear an adult safety belt because it is considered unsafe restraining by an adult safety belt.¹⁵⁰

(2) A small child who is over three years of age travelling in a licensed taxi or licensed hired car may be unrestrained by child car seat if its seat is not available in the vehicle. However, this child is required to be restrained by an adult safety belt.

(3) A small child who is over three year of age travelling over a short distance in a passenger car on an unexpected event may be unrestrained by child car seat if its seat is not available in the vehicle. However, this child is required to be restrained by an adult safety belt.

(4) A small child who is over three years of age travelling in passenger car where two rear seats have been fitted with other child car seats may be

¹⁴⁷ MV(WSB)R 1993, reg 2 para 8(b) and reg 8 para (1)(c), (2)(a), (2)(c) amended by MV(WSB)(A)R 2006, reg 10 para 8 and amended by MV(WSB)(A)(2)R 2015, rec 4, 5

¹⁴⁸ MV(WSB)R 1993, reg 2 para 8(b) amended by MV(WSB)(A)R 2006, reg 10 para 8

¹⁴⁹ MV(WSB)R 1993, reg 10 para 1 amended by MV(WSB)(A)R 2006, reg 16 para 1

¹⁵⁰ Explanatory Notes to The Motor Vehicles (Wearing of Seat Belts) (Amendment) Regulations 2006, para 2.6

unrestrained by child car seat if its seat is not appropriated for the child, however, a child is required to wear an adult safety belt.

In conclusion, a small child who is under three years of age shall be restrained by approved child car seat anytime without exemption when travelling on a personal passenger car. While a small child who is over three years of age shall be restrained by approved child car seat, however, in some situation as provided the law allows this child to be unrestrained by a child car seat but the child is required to wear an adult safety belt. Meanwhile, a large child over twelve years of age, or a child who is the height greater than 135 centimeters shall be alternatively restrained by approved child car seat or adult safety belt.

(4) Penalties For Non-Compliance

The driver shall be liable an offence for a drive with a child in front seating position of motor vehicles without using child car seat or with a child using rearward-facing child car seat in front seating position of motor vehicles without deactivated front passenger air bag, a fine on Level 2 of the standard scale,¹⁵¹ or a maximum fine of 500 Pound.¹⁵² Meanwhile, a driver shall be liable an offense for a drive with a child in rear seating positions of motor vehicles without using child car seat, a fine on Level 1 of the standard scale,¹⁵³ or a maximum fine of 200 Pound.¹⁵⁴

3.2.2 Type Approval of Child Car Seat

Directive 2007/46/EC establishes a framework for automotive vehicles type-approval systems as well as systems, components and separate technical units intended to be used on a vehicle or separated use. A child car seat is one of automotive systems and components that shall be required to be type-approval by

¹⁵¹ RTA 1988, Schedule 2, Part I: Offences under the Road Traffic Act 1988

¹⁵² Criminal Justice Act 1988 (CJA 1988) s 37

¹⁵³ RTA 1988 (n 140)

¹⁵⁴ CJA 1988 (n 141)

satisfying the relevant administrative procedures and technical requirements of child car seat in accordance with Directive 2007/46/EC, then that seats are legal to sale or entry into service throughout the Communities. However, in domestic level, this Directive is not directly applicable to each Member State of European Community. Consequently, it is necessary to implement internal legislations in form of statutory instruments such as regulation pursuant to measures or obligations provided by the Directive. The Road Vehicles (Approval) Regulations 2009 abbreviated as RV(A)R 2009, is internal legal instrument implementing the Directive 2007/46/EC to be effective and applicable in the UK.¹⁵⁵

The manufacturer of child car seat requiring EC type-approval for child car seat must apply the application to approval authority for EC type approval certificate which is the official document specifying that a type of child car seat requiring EC type approval is approved by approval authority because this type approved child car seat satisfies all requirements.¹⁵⁶ Then, the approval authority shall determine and make a decision to grant an approval if its application satisfies relevant administrative procedures and child car seat meets the technical requirements of child car seat laid down in the relevant directive and regulation as prescribed in Annex IV of the Directive 2007/46/EC.¹⁵⁷ It means that child car seat shall be required to be granted EC type-approval certificate if it fulfills technical requirement and prescriptions identified in Directive 2007/46/EC that are;

- (1) UN-ECE Regulation No 44 series 04 or;
- (2) UN Regulation No 129

Moreover, the law imposes the obligation to the manufacturer who holds an EC type-approval of child car seat granted by approval authority, shall affix an approval mark specified in the technical requirement of UN-ECE Regulation No 44 series 04 or UN Regulation No 129.¹⁵⁸

¹⁵⁵ Explanatory Notes to The Road Vehicles (Approval) Regulations 2009, para 2.1

¹⁵⁶ The Road Vehicles (Approval) Regulations 2009 (RV(A)R 2009), SI 2009/717, reg 12 para 1(b)

¹⁵⁷ RV(A)R 2009, reg 13 para 19(a)

¹⁵⁸ RV(A)R 2009, reg 15 para 1(b)

Figure 3.1 Example of Approval Mark in accordance with UN-ECE Regulation No 44¹⁵⁹

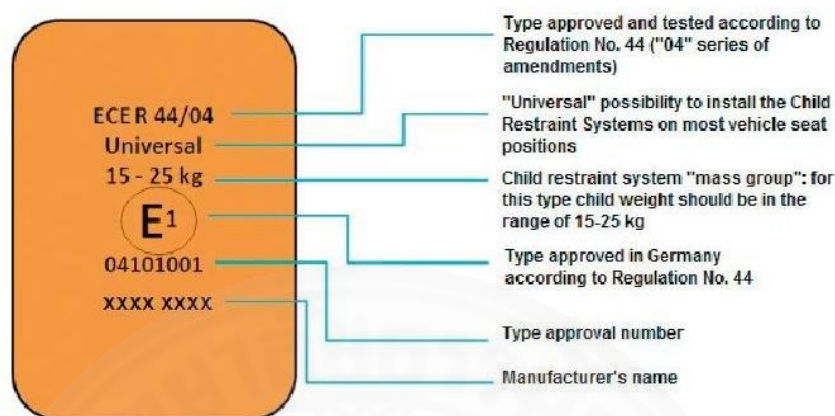
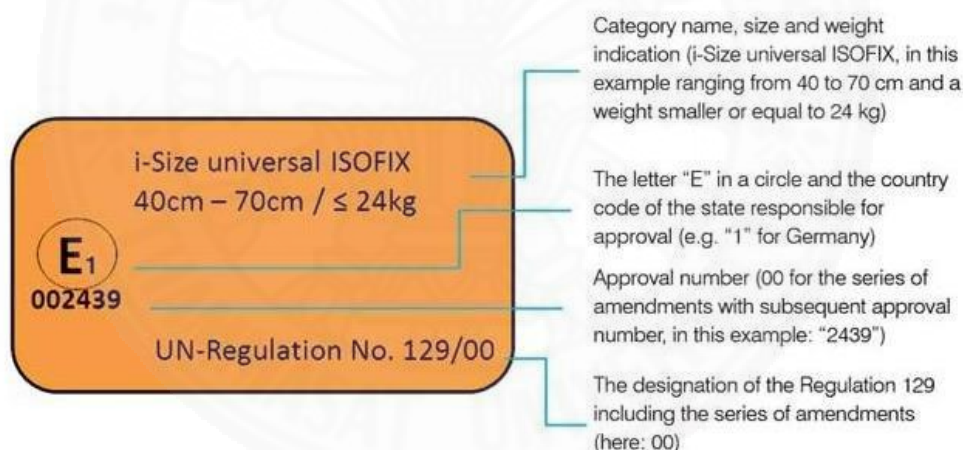


Figure 3.2 Example of Approval Mark in accordance with UN Regulation No 129¹⁶⁰



Furthermore, MV(A)R 2009 imposes criminal penalties to whoever forges, alters, use, lend to or allows to be used by another person, makes or has possession of any document closely resembling to, EC type approval certificate and an EC certificate of conformity with intention to deceive shall be liable for a fine or an imprisonment or both of penalties.¹⁶¹

¹⁵⁹ UNECE, (n 31) 19

¹⁶⁰ Ibid 21

¹⁶¹ MV(A)R 2009, reg 33 para 1, 2, 3

3.2.3 The Requirement of Installation of ISOFIX Anchorage Systems and ISOFIX Top Tether Anchorage

Regulation (EC) 661/2009 lays down technical requirements for type-approval of motor vehicle on general safety specifically on new installation systems of child car seat also known as ISOFIX anchorages systems and ISOFIX top tether anchorage. This legislation obliges manufacturer ensuring that all new vehicles shall be assembled by using advanced child car seat installation system---ISOFIX anchorage systems and ISOFIX top tether anchorage in order to resolve problems of inappropriate installation or misuse of child car seat that reduce child's safety while occupying a child car seat.¹⁶² Even though Regulation (EC) 661/2009 is directly applicable to all Member States of European Community without requiring implementation to national domestic laws, but on national level The Road Vehicles (Approval) Regulations 2009 which is UK statutory instruments also ensures that technical requirements for type approval of motor vehicle on general safety in particular compulsory installation of ISOFIX anchorages systems and ISOFIX top tether anchorage on all new vehicle shall be applicable effectively.

The manufacturer of motor vehicles requiring EC type-approval for relevant motor vehicles must apply the application to approval authority for EC type approval certificate.¹⁶³ Then, the approval authority shall determine and make a decision to grant type-approval certificate if its application satisfies relevant administrative procedures and motor vehicle meets all compulsory lists of technical requirements of all systems, components, and separate technical units compulsorily be fitted in motor vehicle category M (motor vehicles for carriage of passengers) and N (motor vehicles for carriage of goods) specified in the relevant directive and regulation as prescribed in Annex IV of the Directive 2007/46/EC.¹⁶⁴ It means that a family car or personal

¹⁶² Safer cars: seat belts and child restraint systems < http://eur-lex.europa.eu/summary/EN/uriserv:240305020201_1> Accessed 31 October 2016

¹⁶³ RV(A)R 2009, s 12 para 1(a)

¹⁶⁴ RV(A)R 2009, s 13 para 1(a)

vehicle which is classified on M1 vehicle's category shall be granted type-approval certificate if a vehicle is constructed and assembled with all systems, components, and separate technical units specified in Annex IV Part I of vehicle category M1 of Directive 2007/46/EC. ISOFIX anchorages systems and ISOFIX top tether are among compulsory systems requiring to be fitted in vehicles category M1 as specified in Annex IV Part I of Directive 2007/46/EC which is replaced by Annex III of Regulation (EC) 661/2009. Therefore, all new passenger vehicles in category M and motor vehicles for carriage of goods in category N shall be required to install the ISOFIX anchorage systems and ISOFIX top tether anchorage in order to use in conjunction with the ISOFIX child car seat.

3.2.4 Penalties

The Road Vehicles (Approval) Regulation and relevant Act impose penalties applicable for infringement of the provisions of Directive 2007/46/EC as follows;

(1) A motor vehicle shall not be registered according to the Vehicle Excise and Registration Act 1994 in case the motor vehicle has not been accompanied by a certificate of conformity which is delivered by manufacturers who holds the type-approval certificate granted by approval authority if regarding all aspects of approval including technical requirements of the vehicle is satisfied.¹⁶⁵ Additionally, RTA 1988 prohibits the sale of motor vehicles which are not granted a type-approval certificate from approval authority or not accompanied by a certificate of conformity. This restriction including an offer to sell, supply, or expose for sale.¹⁶⁶ In this case, if motor vehicles have been supplied without a certificate of conformity which is showing that it complies with all type approval requirements, the supplier shall be liable for a fine on Level 5 of the standard scale, or a maximum fine of 5,000 Pound.¹⁶⁷

¹⁶⁵ RV(A)R 2009, reg 6 para 1(a), 2, 3(a), 4(a)

¹⁶⁶ RTA 1988, s 65 para 1, 2

¹⁶⁷ RTA 1988, Schedule 2, Part I: Offences under the Road Traffic Act 1988

These UK internal measures and penalties are implemented as domestic legal provisions pursuant to the Article 26 of Directive 2007/46/EC for the prohibition of registration, sale, and entry into service of vehicles without the correct type-approval or valid certificate of conformity.

(2) Whoever sales, offers to sell or supplies, or exposes for sale a child car seat which is not granted a type-approval certificate by approval authority or certificate of conformity accomplished by the manufacturer, he is guilty of this offense¹⁶⁸ and shall be liable for a fine on the Level 5 of the standard scale,¹⁶⁹ or a maximum fine of 5,000 Pound.¹⁷⁰

This internal measure and penalty applicable to infringement of this provision are implemented as domestic legal provisions pursuant to the Article 28 of Directive 2007/46/EC for prohibition the sale of components and separate technical units which do not comply with the technical requirements of the relevant regulatory acts or equivalent UN Regulation.

(3) MV(A)R 2009 imposes criminal penalties to whoever forges, alters, use, lend to or allows to be used by another person, makes or has possession of any document closely resembling to, EC type approval certificate and an EC certificate of conformity with intention to deceive shall be liable for a fine or an imprisonment or both of penalties.¹⁷¹

This internal measure and penalties applicable to infringement of this provision are implemented as domestic legal provision pursuant to the Article 46 of Directive 2007/46/EC for imposing the penalties for fraud, forgery and other infringements of the Directive in general.

¹⁶⁸ RTA 1988, s 65 para 1, 2

¹⁶⁹ RTA 1988, Schedule 2, Part I: Offences under the Road Traffic Act 1988

¹⁷⁰ CJA 1988 (n 141)

¹⁷¹ MV(A)R 2009, reg 33 para 1, 2, 3

3.3 US Law

The United States of America is the front runner on passive safety for children travelling on the vehicle. They have their own created systems of motor vehicle and equipment safety standard, specific certification system and different features of child car seat separately from systems initially originated in European Continent. Variations of laws concerning the compulsory use of child car seat differ from State to State. For this reasons, it is inevitable to study and research a unique legal scheme regarding motor vehicle safety standards, motor vehicle and equipment self-certification and young passenger riding safety law.

3.3.1 Compulsory Use of Child Car Seat

In the US, the first compulsory use of child car seat was legislated in Tennessee State in the first place on 1978. The law obliges parents restraining their children on the vehicle by child car seat that meets a federal standard requirement.¹⁷² After that, other States has initially emulated the law relating young passenger riding on vehicle subsequently throughout the US until the last State enacted child car seat law on 1985.¹⁷³ As regard to child car seat law, all States require children who travelling on the vehicle shall be restrained by child restraint devices. However, the detailed substantive law relating to compulsory use of child car seat is various, differed from State to State.¹⁷⁴ The reason that all States have further different of child passenger safety law because there is no intention on the federal level to indicate or lay down the approximation of substantive law relating to child car seat. The law depends upon the recognition of advanced scientific knowledge to support the

¹⁷² Deborah D. Stewart, 'More than Forty Years of Progress for Child Passenger Protection, A Chronicle of Child Passenger Safety Advances in the USA (Safe Ride News, 2009) 2
<<http://saferidenews.com/srndnn/LinkClick.aspx?fileticket=NIPfcuqNL1U%3D&tabid=375>>
Accessed 2 November 2016

¹⁷³ Ibid 3

¹⁷⁴ Child Passenger Safety Laws (Governors Highway Safety Association, November 2016)
<http://www.ghsa.org/html/stateinfo/laws/childsafety_laws.html> Accessed 2 November 2016

effectiveness of child car seat policy in each State. Consequently, the law legislator is merely recognized based on their own State scientific knowledge which is different in substantial detail of child passenger safety measures.¹⁷⁵

In particular, child passenger safety laws on vehicle in all State will prescribe on following matters;¹⁷⁶

(1) Who is a child that the law is protected? Normally, the law in all States has specified the definition of a child categorized by length of ages or combination of ages and weight and/or height. For example, in the State of Florida, the law defines a child who shall be required restraining a device for a child is the one under five years of age. In contrast, States of California defines a child who shall be required to use a child passenger safety device by ages in combination with weight and height of a child.

(2) What is a type of child car seat that a child shall be restrained when travelling on the vehicle? Typically, each State has identified the type of child car seat differently from State to State. The State of Alabama specifies a particular type of child car seat into different types, for example, a child in a specific length of age or a combination of age and weight and/or height such as infants rearward facing child car seat, toddler forward facing seat, and/or booster seat. In contrast, some others States such as Michigan, Minnesota just specify that a child in particular length of ages shall be required to use a “child restraint systems” or child car seat in simple term.

(3) Where is a safe position of a seat on the vehicle for a child? In 1993, front passenger air bag has been increasingly installed in order to protect a front passenger from the front collision. However, front air bag itself caused fatality to a young child who had been occupied a rearward facing child car seat. After this incident, the child passenger safety law in some States has been changed to prohibit a child from riding a

¹⁷⁵ Jin Yang Bae, Evan Anderson, Diana Silver, ‘Child Passenger Safety Laws in the United States, 1978-2010: Policy Diffusion in the Absence of Strong Federal Intervention’ (Social Science & Medicine, January 2014) 2, 9 <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3899584/>> Accessed 2 November 2016

¹⁷⁶ Ibid 5-6, Table 2

vehicle in the front seat and allow the only rear seat to be occupied by a child on the vehicle.¹⁷⁷

(4) What are exemptions provided by the law from the compulsory use of child car seat on the vehicle? In the US, each States has provided some exemptions for non-complying with a child passenger safety law. Fourteen exemptions are provided on each State differed in the amount of exemption and exemption's condition. For example, exemption from the reason of characteristic of a vehicle driver such as exempts from non-state residents driver, or non-parent driver; exemption from the reason of motor vehicle features such as exempts from other vehicles than passenger vehicle, or exempts from amount of young passenger that occupy a seat more than specified number of seat; exemption in special circumstances such as exempts from public emergency vehicle or exempts vehicle that has children in vehicle restraining a device and there is no more space for install another child car seat on that vehicle.¹⁷⁸

(5) What are the penalties imposing on vehicle operator either parents or driver? In relation to child passenger safety law is a technical substantive law so this child car seat law is necessary to impose offences and penalties in order to enable effectiveness and enforceable of the law. Legal penalties for violation of child passenger safety law are normally a fine, license point, or insurance points. In some State, the law requires the compulsory attendance of traffic safety education.

Furthermore, this research shall dig deep in the State law concerning child passenger safety particularly on the compulsory use of child car seat in the State of California as following the example of legislation.

California Vehicle Code

The law concerning a child passenger safety on motor vehicles is specified in Vehicle Code of California Law, Division 12 Equipment of Vehicles,

¹⁷⁷ Deborah D. Stewart, (n 172) 4-5

¹⁷⁸ Jin Yang Bae et al, (n 175) 5-6, Table 3

Chapter 5 Other Equipment, Article 3.3 Child Safety Belt and Passenger Restraint Requirements.

(1) Child Occupant On Motor Vehicles

The law requires children who are under eight years of age shall be restrained by appropriate child car seat which is in conformity with the federal motor vehicle safety standards in rear seat position of the vehicle.¹⁷⁹ All children who are under eight years of age shall be required by the law to use an appropriate child car seat with their weight and size according to the instructions, label, or manual of child car seat that manufacturer provided. On the other words, parents shall select proper restraining device which is appropriated for their children's weight and/or height such as infant rearward facing, or convertible forward facing child car seat, or booster seat. Additionally, all children restraining device are required to be manufactured in conformity with the FMSS No. 213 which is the federal motor vehicle safety standards for child restraint systems. Moreover, on January 1, 2016¹⁸⁰ the law will be effective and enforceable on the compulsory use of rearward facing infant seat by children who are under two years of age unless their weight exceeds 40 pounds, or their height exceeds 40 inches.¹⁸¹

Meanwhile, children who are eight years of age or over but not exceeding sixteen years old shall be required to restrain by appropriate child car seat or adult safety belt if it is fitted properly with children's body.¹⁸² The law requires children who are eight years of age but not exceeding sixteen years old restraining a child car seat which is manufactured in conformity with the federal motor vehicle safety standards for child restraint systems also known as FMVSS No. 213. In such case, the law provides an alternative restraining device for a child who is outgrown

¹⁷⁹ California Vehicle Code, Art 3.3, s 27360 para (a)

¹⁸⁰ California Vehicle Code, Art 3.3, s 27360 para (b)

¹⁸¹ 'Child Safety Seats' (California Highway Patrol) < <https://www.chp.ca.gov/programs-services/programs/child-safety-seats> > Accessed 3 November 2016

¹⁸² California Vehicle Code, Art 3.3, s 27360.5 para (a)

eight years old by using an adult safety belt instead of typical child car seat or booster seat. However, in case a child is over eight years of age but an adult safety belt is not properly fitted to a child's body, the law still requires a child to use a booster seat lifting a child's body up to secure properly with an adult safety belt.¹⁸³

(2) Children Occupy Rear Seat Of Motor Vehicles

The law requires a child who is under eight year of age shall be restrained by appropriate child car seat at the rear seat of the vehicle. However, the law lays down exemptions and allows a child to occupy in a front seat of vehicle with appropriate child car seat in particular circumstance, for example, the vehicle is no rear seat, the rear seats of vehicle are rearward facing seat, or the rear seats of vehicle are fully occupied by other children who is under seven years of age.¹⁸⁴ Nevertheless, the law prohibits a child occupies in the front seat of a vehicle with rearward facing child car seat which the vehicle is fitted with an active front airbag.¹⁸⁵

(3) Exemptions for Non-Restraining Child Car Seat

The law provides some exemptions for children who are under the age of eight years shall not be restrained by a child car seat in specific circumstances, for example, a child is exempted for using child car seat in case of physical unfitness, medical condition, or size as determined by the Court, or in case of emergency transportation in public emergency vehicle, or the weight of a child exceeds 40 pounds using an adult safety belt on rear seat of vehicle, or the height of a child exceeds 4 feet 9 inches (approximately 145 centimeters) using an adult safety belt on rear seat of vehicle.¹⁸⁶

¹⁸³ 'Enforcing California Restraint Laws for Children' (23 February 2013)
< http://www.carseat.org/Legal/99_Enf.pdf> Accessed 3 November 2016

¹⁸⁴ California Vehicle Code, Art 3.3, s 27363 para (e)(1)-(6)

¹⁸⁵ California Vehicle Code, Art 3.3, s 27363 para (f)

¹⁸⁶ California Vehicle Code, Art 3.3, s 27363 para (a)-(d)

(4) Offenses and Penalties

The law imposes penalties on vehicle's driver or parents who are presented on that vehicle for a violation of non-restraining child passenger devices in accordance with the law.¹⁸⁷ A penalty fines, on the first offense the driver or parent shall be liable for a fine one hundred USD, and on the second and subsequent offense, the driver or parent shall be liable for a fine 250 USD.¹⁸⁸ Moreover, the fines under theses offenses shall be allocated for child passenger safety community education and assistance program and supported to economically disadvantaged family in obtaining a child car seat.¹⁸⁹

(5) Other Relevant Provision

The law imposes the duties to the public or private hospital, clinic, or birth center shall provide and discuss on matters of legal requirements concerning the compulsory use of child car seat on children who are under eight years of age or relevant provision of child passenger safety law on transportation. Additionally, contact information of assistances on child car seat shall be provided at the same time.¹⁹⁰

3.3.2 Safety Standard of Motor Vehicle and Equipments

On the other side of the world, the safety standard of vehicle and equipment in the US has been independently developed and adopted in Federal and State level. The major differences between the European and the U.S. systems are the motor vehicle and equipment approval system which is a uniquely system also known as “self-certification” by manufacturer, and the separate vehicle and equipment's safety standard that are distinct from the European motor vehicle type-approval systems and

¹⁸⁷ California Vehicle Code, Art 3.3, s 27360 para (a) and 27360.5 para (a)

¹⁸⁸ California Vehicle Code, Art 3.3, s 27360.6 para (a)(1) and para (b)(1)

¹⁸⁹ California Vehicle Code, Art 3.3, s 27360.6 para (c)

¹⁹⁰ California Vehicle Code, Art 3.3, s 27363.5 para (a) and (b)

technical requirements of vehicle and equipment laid down in Community Directives, Regulations or UN-ECE Regulations.¹⁹¹

Under The National Traffic and Motor Vehicle Safety Act 1966, the National Highway Traffic Safety Administration (NHTSA) was established as the U.S. government agency located in Department of Transportation. The NHTSA has major duties on implementing and enforcing the vehicle safety standard by promulgating a specific vehicle and equipment's safety standards also known as Federal motor vehicle safety standards (FMVSS). Manufacturers and importers must comply with the legal framework of Approval Process prescribed in US Code (U.S.C.), Title 49: Transportation, Chapter 301: Motor Vehicle Safety, and following vehicle and equipment safety standards prescribed in Code of Federal Regulation, Title 49 Transportation, Chapter 5: National Highway Traffic Safety Administration, Part 571: Federal Motor Vehicle Safety Standards (FMVSS).

3.3.2.1 The US Approval Process

As aforementioned, the US has established a unique system to certify their motor vehicles and equipment met safety standards ensuring the consumer or users that vehicles and equipment shall be constructed and complied with minimum safety standards set by FMVSS. The law prohibits manufacture for sale in the U.S. or import into the U.S. of the motor vehicles and vehicle's equipment products which are not manufactured met the safety standards prescribed in FMVSS.¹⁹²

The law requires that motor vehicle or motor vehicle's equipment for sale in the US shall be certified by a manufacturer complying with safety standards specified in FMVSS.¹⁹³ It means that the manufacturer has a duty to certify their vehicles and vehicle's equipment products which are required by the FMVSS applying to motor vehicle and equipment that their products are met or complied with

¹⁹¹ Bill Canis and Richard K. Lattanzio, 'U.S. and EU Motor Vehicle Standards: Issues for Transatlantic Trade Negotiations' [2014] Congressional Research Service February 2014, 8 <<https://www.hsdl.org/?view&did=751039>> Accessed 5 November 2016

¹⁹² 49 U.S.C. s 30112 para (a)(1)

¹⁹³ 49 U.S.C. s 30115 para (a)

the minimum standard prescribed in FMVSS. The motor vehicle and equipment need not be type-approval before sold or distributed in the US, as same as in EU countries that motor vehicles, systems, equipment and separate technical units have to be approved by approval authority before manufacturing and selling in the European Community.

The law requires that ‘self-certification’ shall be made by a label or tag permanently affixed to the vehicle and in the case of vehicle equipment, a label or tag shall be made by affixed to that equipment or on the outside of the package.¹⁹⁴ Moreover, the specific-criteria on self-certification such as necessary requirements of information, wording of ‘self-certification’ are provided as follows;

(1) ‘self-certification’ of a motor vehicle is specified in Code of Federal Regulations, Title 49: Transportation, Part 567: Certification. The regulation requires the ‘self-certification’ label or tag shall be permanently affixed to each vehicle in means of unable to remove from a vehicle without destroying or defacing, on a location specified by this regulation, and contain the necessary listed information, for example, name of manufacturer, date of manufacture,¹⁹⁵ and including ‘self-certification’ as following sentence.¹⁹⁶

“This vehicle conforms to all applicable Federal motor vehicle safety, bumper, and theft prevention standards in effect on the date of manufacture shown above”

¹⁹⁴ 49 U.S.C. s 30115 para (a)

¹⁹⁵ 49 CFR 567.4 para (a), (b), (c) and (g)

¹⁹⁶ 49 CFR 567.4 para (g)(5)

Figure 3.3 Example of motor vehicle ‘Self-Certification’ label for passenger car¹⁹⁷

MFD BY: USA PASSENGER CAR CO., INC.		DATE OF MFD: 03/09
GVWR 4575 LB	GAWR F 2557 LB	GAWR R 2061 LB
GVWR 2075 KG	GAWR F 1160 KG	GAWR R 935 KG
THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY, BUMPER, AND THEFT PREVENTION STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.		
VIN: XXXXXXXXXXXXXXXX		TYPE: PASSENGER CAR

(2) ‘self-certification’ of vehicle’s equipment is specified in each separate safety standards for particular vehicle’s equipment as prescribed in Code of Federal Regulations, Title 49: Transportation, Part 571, Sub part B. Normally, the duty of vehicle certification is on vehicle’s manufacturer not on the equipment or system’s manufacturer. However, in case the FMVSS requires that some particular thirteen items of vehicle’s equipments, shall be conformed to minimum safety and performance requirements, these equipments are required to be certified by the manufacturer that such equipments meet those safety standards prescribed by FMVSS.¹⁹⁸ For example, child car seat is vehicle’s equipment that FMVSS requires to be certified by manufacturer complying with minimum standards prescribed in 49 CFR 571.213 FMVSS Standard No. 213 Child Restraint Systems.

FMVSS requires that child car seat shall be affixed with prescribed label with specified listed information such as the child car seat’s model name, the name of child car seat manufacturer, date of manufacture, and etc.¹⁹⁹ including ‘self-certification’ as the following sentence.²⁰⁰

“This child restraint system conforms to all applicable Federal motor vehicle safety standards.”

¹⁹⁷ National Highway Traffic Safety Administration, ‘New Manufacturers Handbook: Requirements for Manufacturers of Motor Vehicles and Motor Vehicle Equipment’ [2014] NHTSA February 2014, 55 < http://www.nhtsa.gov/cars/rules/maninfo/Manufacturer_Information_March2014.pdf> Accessed 5 November 2016

¹⁹⁸ National Institute of Standards and Technology, ‘A Guide to United States Motor Vehicle Parts Compliance Requirements’ [2012] NIST September 2012, 3
<http://gsi.nist.gov/global/docs/motor_vehicle_parts_guide.pdf> Accessed 5 November 2016

¹⁹⁹ 49 CFR 571.213 s 5.5

²⁰⁰ 49 CFR 571.213 s 5.5.2 (e)

Figure 3.4 Example of equipment ‘Self-Certification’ label for child car seat²⁰¹



As regards self-certification system, the manufacturer is obliged to comply with safety standard specified in FMVSS. Consequently, they have to conduct testing whether their vehicle and equipment comply with those standards. By this way, it is necessary to have secondary assurance by government agency enforcing self-certification system effectively without false or misleading by the manufacturer. Consequently, NHTSA, a government agency who discharges these duties according to the Motor Vehicle Safety Act 1966 shall enforce and implement secondary assurance measure by purchasing a vehicle or equipment from the dealer or distributor and conducting compliance test whether its vehicle or equipment that self-certified by manufacturer complying with applicable motor vehicle safety standards prescribed in FMVSS.²⁰² If self-certified motor vehicle or equipment is actually non-compliance, the manufacturer of that vehicle or equipment shall be liable for civil penalties and vehicles or automotive products may be recalled voluntarily by the manufacturer or compulsorily by order of the NHTSA.²⁰³

²⁰¹ Joyce Slaton, ‘7 deadly car seat mistakes even experienced parents make’ March 2015
<http://blogs.babycenter.com/products_and_prizes/03052015-7-deadly-car-seat-mistakes-even-experienced-parents-make/> Accessed 5 November 2016

²⁰² 49 CFR 554.4

²⁰³ Bill Canis and Richard K. Lattanzio, (n 191) 8

3.3.2.2 Safety Standard of Child Car Seat and LATCH systems

As mention before, the U.S. motor vehicle and equipment safety standards differ from the European Standards because the U.S. did not recognize and accede to be a Contracting Parties of the 1958 Agreement which is the international agreement that harmonizing the laws concerning technical requirements of motor vehicle, systems, equipment and separate technical units establishing just one piece of global technical requirements in order to eliminate a barrier to trade. Consequently, the U.S. applies their own vehicle safety standards issued by the NHTSA for all motor vehicles and vehicle's equipment launching in the U.S. market. Thus, motor vehicles and vehicle's equipment products manufactured outside the U.S. are impossible to import or sell in the U.S. without modification in accordance with the vehicle safety standards prescribed in FMVSS.²⁰⁴

The NHTSA is empowered by the Motor Vehicle Act 1966 issuing the vehicle safety standards applying to motor vehicles and equipment requiring that vehicle and equipment must be manufactured in conformity with those standards and certified by the manufacturer. The Act lays down Federal motor vehicle safety standards' features that contain specified terms of minimum performance requirements which are practicable, reasonable and appropriate generating automotive products safety²⁰⁵ in order to "protect against unreasonable risk of crashes occurring as a result of the design, construction, or performance of motor vehicles and protect against unreasonable risk of death or injury in the event crashes do occur."²⁰⁶

In this research, there are two pieces of Federal motor vehicle safety standards concerning child car seat (child restraint systems) and child car seat anchorage systems (child restraint anchorage systems, also known as LATCH system in US standards which are similar to ISOFIX anchorage systems and ISOFIX top

²⁰⁴ Marine Moguen-Toursel, 'Emergence and Transfer of Vehicle Safety Standards: Why We Still Do Not Have Global Standards' [2007] Vol.5 Business and Economic History Online <<http://www.thebhc.org/sites/default/files/moguen-toursel.pdf>> Accessed 6 November 2016

²⁰⁵ 49 U.S.C. s30101 and 30111 para 1

²⁰⁶ 49 CFR 571 FMVSS and Regulations, Foreword

tether anchorage systems in accordance with UN-ECE Regulation No 14) which will be determined as follows;

(1) FMVSS No. 213, Child Restraint Systems

Child restraint systems abbreviated as CRS or known generally as child car seat or car seat is a vehicle device defined by the Vehicle Safety Act 1966 that it is not a system, part, or component of a vehicle but it is manufactured and solely intended to be used only to protect a motor vehicle occupants against risk of accident, injury, or death.²⁰⁷ The NHTSA has issued Federal motor vehicle safety standards on child restraint systems prescribed minimum safety and performance requirements at 49 CFR 571.213 Standard No. 213: Child Restraint Systems. Normally, the person who shall certify a vehicle conforming to all applicable FMVSS is a vehicle manufacturer, not equipment manufacturer which its equipment is intended to be fitted or assembled in a vehicle. However, in this particular standard, the law requires child car seat manufacturer shall separately certify their products conforming to applicable FMVSS.²⁰⁸

The scope of Standard No. 213 is applicable to child car seat used in motor vehicles and aircraft.²⁰⁹ Definitions of relevant terms cited on this standard are provided in following lists in Section 4. Child car seat shall be manufactured in conformity with the specification prescribed in Section 5 as well as compulsory labeling requirements. Testing conditions and procedures reflecting minimum safety standard and performance requirements of child car seat are provided in Section 6 through Section 10.

²⁰⁷ 49 U.S.C. 30102 para (a)(8)(c)

²⁰⁸ National Institute of Standards and Technology, (n 198) 3

²⁰⁹ 49 CFR 571.213 s 1

(2) FMVSS No. 225, Child Restraint Anchorage Systems

Child restraint anchorage systems or also known in the U.S. as LATCH systems which stand for “Lower Anchors and Tethers for Children” are vehicle devices intended to be fitted in vehicles functioning in connection with child car seat that has lower anchorage attachment and top tether strap connector. LATCH systems are invented to eliminate inappropriate installation or misuse of typical child car seat using an adult safety belt securing child car seat with vehicle’s structure.

The NHTSA has issued Federal motor vehicle safety standards on child restraint anchorage systems prescribed in 49 CFR 571.225 Standard No. 225: Child Restraint Anchorage Systems. The scope of this standard is applicable to child restraint anchorage systems providing requirements relating to the proper location of LATCH systems and strength performance assuring the effectiveness of securing child car seat with a vehicle’s structure.²¹⁰ FMVSS Standard No. 225 applies to a passenger car, truck and multipurpose passenger vehicle including buses.²¹¹

Definitions of relevant terms in this standard relating to child restraint anchorage systems are provided in Section 3. LATCH systems comprise two separate technical units; (1) two pieces of lower anchorage, and (2) one piece of top tether anchorage.²¹² Lower anchorage systems shall be met a requirement in Section 9 and conformed to testing conditions and procedures prescribed in Section 10 to 11, whereas, top tether anchorage shall be met a requirement in Section 6 and conformed to testing conditions and procedures prescribed in Section 7 to 8.

Furthermore, this standard lays down the general requirement in regard to the proper location for LATCH installation. The standard requires that each regulated vehicle manufactured on or after 1 September 2002, shall be installed with child restraint anchorage systems (lower anchorage systems) not fewer than two forward-facing rear seating positions, on a vehicle that comprising of three or more forward-facing in rear seating positions of the vehicle. Meanwhile, top tether

²¹⁰ 49 CFR 571.225 s 1

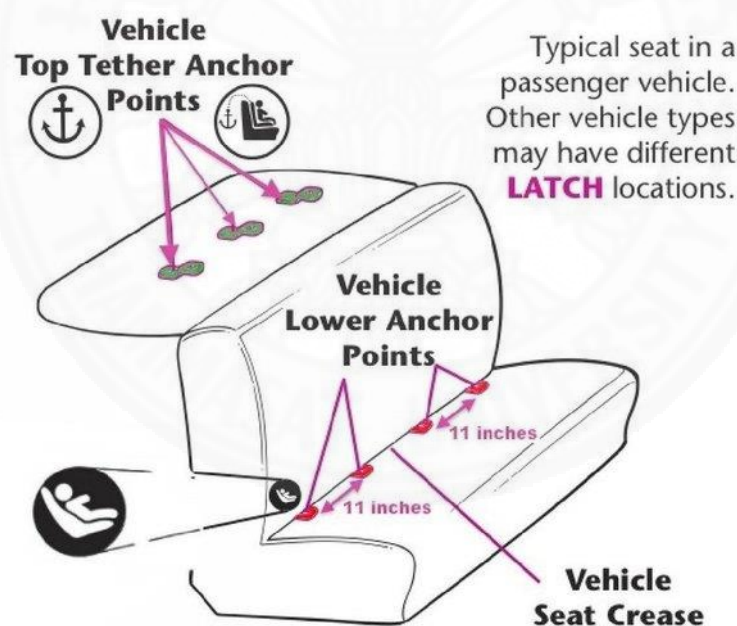
²¹¹ 49 CFR 571.225 s 2

²¹² 49 CFR 571.225 s 3 para 2 (a), (b)

anchorage shall be installed at the third forward-facing rear seating positions.²¹³ It means that at least one top tether anchorage shall be installed at each forward-facing rear seating positions. In this case, if the rear of the vehicle consists there forward-facing seating positions then at least two lower anchorage systems shall be fitted and all three forward-facing rear seating positions shall be fitted with three top tether anchorages.

In case each vehicle has no more than two forward-facing rear seating positions, it shall be installed with lower anchorage systems at each forward-facing in rear seating positions. However, if the vehicle has no rear seating position, lower anchorage systems shall be installed at forward-facing front seating position instead.²¹⁴

Figure 3.5 Configuration of properly installed locations for LATCH system²¹⁵



²¹³ 49 CFR 571.225 s 4.4 para (a)(1), (2)

²¹⁴ 49 CFR 571.225 s 4.4 para (a)(1), (2)

²¹⁵ LATCH 101: The Basics You Need to Know <<http://thecarseatlady.com/latch-101-the-basics-you-need-to-know/>> Accessed 7 November 2016

3.3.2.3 Other Manufacturer's Duties

The manufacturer has duties not only certifying their vehicles and automotive equipment products conforming to all applicable motor vehicle safety standards in accordance with FMVSS but also has additional obligations prescribed by the Act and subsequent Regulations.

(1) Duty to Manufacture or Import Motor Vehicle and Equipment Conforming to Applicable FMVSS

The law prohibits manufacture for sale, sell, offer for sale or import into the US of motor vehicle and automotive equipment products which are not conformed to the applicable U.S. vehicle safety standards in accordance with FMVSS.²¹⁶ Moreover, before launching automotive products in the U.S. or offering into the US, the law requires that manufacturer or importer shall certify their motor vehicles and automotive equipment products manufactured in conformity with all applicable Federal motor vehicle and safety standards.²¹⁷

(2) Duty to Inform and Submit Reports to NHTSA for Noncompliance or Defects of Motor Vehicles and Vehicle's Equipment Products

The law imposes notification obligation to manufacturers who are recognized intentionally or unexpectedly by themselves of any vehicle defects relating to vehicle safety, or noncompliance with vehicle safety standards prescribed in FMVSS. Self-certification is a system that manufacturer certifies their products conforming to applicable standards without approval by competent authority, consequently, in some case, any vehicle or equipment defects relating to vehicle safety or noncompliance with standards are unintentionally detected by the manufacturer. The manufacturer of motor vehicle and automotive equipment is

²¹⁶ 49 U.S.C. 30112 para (a)(1)

²¹⁷ 49 U.S.C. 30115 para (a)

obliged by the law to notify the NHTSA and submit a report concerning each defect causing vehicle safety in vehicle or automotive equipment, or each noncompliance with vehicle safety standards within five working days after the defect related to vehicle safety or non-compliance with vehicle safety standard has been determined to exist.²¹⁸

On the other hand, regarding the self-certification by manufacturer, the vehicle and equipment may contain some defects which violate vehicle safety standard, therefore, under the power of NHTSA empowered by the Motor Vehicle Safety Act 1966, the office of Investigation, sectorial agency of NHTSA, may perform an investigation on vehicle's condition according to the safety standard.²¹⁹ Furthermore, the Office of Investigation may conduct an inspection or compliance tests on suspected motor vehicle and equipment.²²⁰ Any existences of defects related vehicle safety or non-compliance with vehicle standards have been determined. The NHTSA may order the manufacturer to notify the owner, purchaser, and dealer of defected vehicle and equipment or non-compliance for a safety recall measure and provide a properly legal remedy to that person.²²¹

(3) Duty to Inform and Remedy Owners of Defected or Non-Compliance Motor Vehicles and Vehicle's Equipment Products

The manufacturer or importer of vehicle and equipment which have been determined to be non-compliance motor vehicles or automotive equipment products, or have defects related vehicle safety, shall inform the owner, purchaser, and dealer of non-compliance vehicle or equipment product, or defected vehicle or equipment within sixty days after submitting a report to NHTSA,²²² regardless of

²¹⁸ 49 U.S.C. 30118 para (c)(1), (2) and 49 CFR 573.6 para (a), (b)

²¹⁹ 49 CFR 554.5

²²⁰ 49 CFR 554.4

²²¹ 49 U.S.C. 30118 para (b)

²²² 49 CFR 577.7 para (a)(1)

whether existences of defect or non-compliance has been acknowledged by manufacturer or importer, or by the NHTSA.²²³ The notification shall be made containing compulsory lists of statement specified by the law including remedial measures without charge provided by the manufacturer such as repair, replacement, or refund of the purchase price of defected vehicle or equipment related safety vehicle, or non-compliance vehicle.²²⁴ Generally, the notification process and remedial measures provided by the manufacturer also known as “safety recall campaign” or in short as “recall”.²²⁵

(4) Duty to Maintain Records and Registration Form of Child Car Seat

The law imposes an additional obligation for the manufacturer of child car seat in order to assure that child car seat manufacturer can effectively contact and notify the owner or purchaser in case existences of either child car seat defects related equipment safety, or non-compliance with child car seat standards in accordance with FMVSS No. 123. In regard to the registration form, the manufacturer of child car seat shall furnish a registration form and electronic registration form or any documents providing child car seat model name or number, and child car seat’s owner contacts including name and mailing address.²²⁶ As a result of effective safety recall campaign, the law requires that the manufacturer of child car seat shall maintain records form, registration form for a period of not less than six years after the manufacture of child car seat date.²²⁷

²²³ 49 U.S.C. 30118 para (a), (b)

²²⁴ 49 CFR 577.5 and 577.6

²²⁵ National Highway Traffic Safety Administration, (n 197) 55

²²⁶ 49 CFR 571.213 s 5.8

²²⁷ 49 CFR 588.6

3.3.2.4 Penalties

The civil penalties on manufacturer who fails to comply with following duties prescribed by the laws is liable not more than 21,000 U.S. dollar, and not more than 105,000,000 U.S. dollar in related series of violations;²²⁸

(1) Duty to sale, offer for sale, or import into the U.S. of any motor vehicle and automotive equipment which have been manufactured in conformity with applicable federal motor vehicle safety standards.²²⁹

(2) Duty to certify or label compliance of federal motor vehicle safety standards.²³⁰

(3) Duty to notify and report to NHTSA and the owner or purchaser of defected or non-compliance of FMVSS motor vehicle and automotive equipment.²³¹

(4) Duty to remedy for defects related vehicle safety or non-compliance of FMVSS motor vehicle and automotive equipment.²³²

(5) Duty to maintain records and registration forms of child car seat.²³³

3.3.3 Supportive Measures for Low-Income Families or Disadvantaged Families in the US. and the State of California

Car seat distribution programs are established to support low-income families and disadvantaged families in obtaining a child car seat with a minimal cost or free of charge in order to increase the use of child car seat. These programs normally include the educational and training program that includes the demonstration of the proper

²²⁸ 49 CFR 578.6 para (a)(1)

²²⁹ 49 U.S.C. 30112

²³⁰ 49 U.S.C. 30115

²³¹ 49 U.S.C. 30118 and 30119

²³² 49 U.S.C. 30120

²³³ 49 U.S.C. 30117

installation and use of child car seat for children of all ages.²³⁴ The programs are normally targeted to low-income or disadvantaged parents of infants rather than low-income parents of old children due to the fact that parents with financial difficulty or poor families might be more likely to use child car seats if they receive financial assistance and safety education.²³⁵

In the US, the car seat distribution programs are provided in various schemes. It depends on the application of a local county or city health department in each State. According to the research on the effectiveness of car seat distribution and education programs conducted in the US, there are four alternative schemes of car seat distribution program that the local county or city health department will select to be the supportive measure as follows;²³⁶

- (1) Loan program
- (2) Low-cost rental program
- (2) Low-cost purchase
- (3) Giveaway.

Furthermore, Federal funding for car seat distribution and education programs was authorized under the State and Community Highway Safety Grant Program. This program is administered by the National Highway Traffic Safety Administration (NHTSA) at the Federal level and by the State Highway Safety Offices (SHSO) at the State level.²³⁷ The program provides funding to states to improve driver behavior and reduce deaths and injuries from road accidents. The funds can be spent in accordance with national guidelines for limited programs, for example, encourage the use of child

²³⁴ Policies and Programs to Improve Wisconsin's Health 'Car seat distribution & education programs' (9 April 2015) <<http://whatworksforhealth.wisc.edu/program.php?t1=20&t2=113&t3=127&id=180>> accessed 30 July 2017

²³⁵ Zaza Stephanie, 'Reviews of evidence regarding interventions to increase use of child safety seats' (2001) American Journal of Preventive Medicine, Volume 21, Number 4S 35

²³⁶ Ibid 36

²³⁷ U.S. Department of Transportation, Federal Highway Administration, 'State Highway Safety Programs' (21 January 2015) <<https://safety.fhwa.dot.gov/legislationandpolicy/policy/section402/>> accessed 30 July 2017

car seat, improve pedestrian and bicycle safety, and etc.²³⁸ In 2012, 28 states and District of Columbia received a total of \$7 million to implement car seat distribution and education programs.²³⁹

Several states also provide free or low-cost car seats to low-income families and disadvantaged families through their state Department of Health or the local county. For example, in the State of Ohio, The Ohio Buckles Buckeyes Program has been established to provide free child car seats to eligible low-income families and require the participants attend an educational class on proper use and installation before they receive child car seats.²⁴⁰

In the State of California, the law requires the counties or city health departments to prepare and maintain a listing of all child car seat low-cost purchase or loaner programs in their counties.²⁴¹ For example, in Los Angeles County, there are 14 distributors providing free child car seats to low-income parents. However, each distributor identifies the different eligibility criteria for the target group and requires participants to attend the education program before receive a free car seat or low-cost purchase.²⁴²

3.4 Comparative Relevant Issues on The Compulsory Use of Child Car Seat and Safety Standard of Child Car Seat from EU, UK, and the U.S.

Necessary legal elements concerning the compulsory use of child car seat on motor vehicles will be compared with three different jurisdictions and the approval of motor vehicles and child car seat will be analyzed into two different systems as follow;

²³⁸ Governors Highway Safety Association, 'State and Community Highway Safety Grant Program' <<http://www.ghsa.org/about/federal-grant-programs/402>> accessed 30 July 2017

²³⁹ Policies and Programs to Improve Wisconsin's Health (n 234)

²⁴⁰ Ibid

²⁴¹ California Vehicle Code, Art 3.3, s 27360.6 para (c)(1)(B)

²⁴² SafetyBeltSafe U.S.A., 'Child Safety Seat Distribution Program in Los Angeles County' (11 February 2016) <http://www.carseat.org/Resources/661_11-2-16.pdf> accessed 30 July 2017

3.4.1 Laws Concerning The Compulsory Use of Child Car Seat

Young passenger safety on vehicle laws or laws relating requirements of children using child car seat when travelling on vehicles are introduced and enacted in the form of technical legislations enforcing effectiveness of using children passive safety equipment on vehicles in advanced automotive industrial countries and most developed countries in this world, for example, most countries in European Community since 1991, the U.K since 1988 and the U.S. since 1978. Since then, young passenger laws in these countries have been implemented and amended many times according to the improvement of advanced technologies in automotive industry and new recognized motor vehicle safety concept in each country. Consequently, the diversities of detailed requirements on legislation concerning young passenger safety on a motor vehicle arise amongst these presented countries. However, substantive legal elements in young passenger safety on vehicle laws prescribed in EU Community Directives, UK legislations, and statutory instruments, and State laws in the U.S. are categorized and analyzed as follows;

3.4.1.1 Which children are protected by the law?

The law shall provide the specific meaning of children who are the subject and protected by the law. Moreover, the designated motor vehicle shall be specified to limit target group of motor vehicles that children frequently travel.

(1) Definition of Child, Children or Young Passenger

Under the road safety law in European Community, the U.K., and the U.S., driver and passengers on a motor vehicle shall fasten safety belts in any seating positions of the vehicle. In regard to the young passenger, any persons on specific age ranges identified by the law are excluded from compulsory use of adult safety belt, and then they are required by the law to be restrained by specific child car seat instead of the adult safety belt. Nevertheless, sometimes definition of children who are protected by the law is not defined not only specific age ranges but also

combined with child's weight and/or height. For example, the definition of children who are protected by the young passenger safety on vehicle law in the State of California is defined by age ranges. On the contrary, EU and UK young passenger safety law define the definition of children in terms of combination age ranges and child's height.

(2) Motor Vehicle

Normally, the law shall identify designated types of motor vehicle in that matter, the law requires children travelling in particular types of a vehicle shall be restrained by child car seat. According to a normal feature of land transportation, most of the time children would be travelled in land transport with their family by motor vehicle for carriage of passenger or vehicle for carriage of goods in some case. Additionally, when children are outgrowth enough for school, they would be transported by school bus or public transportations that the laws have already required a qualified vehicle driver and tougher vehicle safety conditions prescribed in other specific legislations. Consequently, in such case, it is not necessary to require children who travelling on a school bus or public transportation restraining a child car seat but it is sufficient to occupy just only a safety belt fitted in that vehicle. For example, EU law lays down designated motor vehicle in category M1, M2, M3, N1, N2, and N3 which are motor vehicles for carriage of passenger not only a family passenger car (M1/not exceeding eight seats) but also a van or a bus (M2 and M3/exceeding eight seats), and motor vehicles for carriage of goods (N1-N3). Meanwhile, UK law identifies designated motor vehicles in category M1, N1, N2, and N3 which are motor vehicles for carriage of passenger not exceeding eight seats (family passenger car), and motor vehicles for carriage of goods. However, the vehicles in M2 and M3 have excluded the compulsory use of child car seat but the law requires children to be restrained by safety equipment fitted in that vehicle. In regard to the U.S., the designated types of the vehicle depend on laws in each State. In this research, State of California identifies passenger vehicle, motor truck, and truck tractor is designated vehicle that requires children who travelling in these vehicles shall be restrained by child car seat.

3.4.1.2 What action is considered to comply with the law?

The safety equipment for a young passenger other than an adult safety belt shall be determined by the law for restraining children on motor vehicles and the safe seating position for children on motor vehicles shall be specified for protecting children from injury caused by front passenger air bag.

(1) Restraint

This part is determined to be a core element of law relating young passenger safety on a motor vehicle. The law in all countries presented young passenger safety policy specifies children shall be properly restrained by appropriate child car seat which is suitable for their ages and size as specified by the law when they travel on designated motor vehicles. It constitutes a general requirement for all children in particular age ranges or age ranges combined with child's size (weight and/or height) complying with the law by using specific safety equipment other than adult safety belt. However, the law is still providing limited exemptions for non-compliance with the law in special circumstances in order to decrease the tension of law enforcement by providing adult safety belt as a secondary choice of safety equipment for children protection when travelling on a motor vehicle.

(2) Young Passenger Safety Equipment

Regardless of special features of child car seat, the law in all countries presented young passenger safety on vehicle policy always requires children shall properly secure by child restraint systems or child car seat which is suitable for their age ranges and a child's size. However, in some case the law particularly identifies specific types and/or subgroups of child car seat for different age ranges and child's size as integral child car seat (rearward-facing child car seat for infant in Group 0 and 0+, and forward-facing child car seat for toddler in Group I), or non-integral child car seat (booster seat for a big child by restraining a child car seat with

adult safety belt in Group II and III). Additionally, the law may occasionally specify specific-positioning child car seat for children in particular age ranges.

For example, EU law requires that a child shall be restrained with integral or non-integral child car seat which is suitable for a child's mass in accordance with each sub-group of child car seat. On the other hands, UK law requires that a child to be restrained with appropriate child car seat which is suitable for their weight and height. Meanwhile, the prescribed types of child car seat to be used by a child in each state is various in the U.S. State of California, for instance, a child who is under two years of age shall use a rearward-facing child car seat only. In regard to children who are over two years of age shall use an 'appropriate child car seat'.

Furthermore, the child car seat intended to be used for a young passenger on a motor vehicle in each country is normally referenced to particular child car seat safety standard or technical requirement on child car seat. National motor vehicle and equipment safety standard or technical requirement provided by specific regulations annexed to the international agreement has been used as minimum requirements of the safety standard for child car seat. In this case, all EU countries adopt UN-ECE Regulation No.44 amendment of series 03 or 04 as minimum safety standard for child car seat to be used throughout European Community. Additionally, UN-Regulation No.129 is enforceable in parallel with aforesaid Regulation as the minimum safety standard which is a new version of technical requirements of the higher safety standard for i-Size child car seat. Meanwhile, the U.S. has their own national safety standard for motor vehicle and equipment namely Federal Motor Vehicle Safety Standards (FMVSS) which are a set of minimum safety requirement for vehicle and equipment.

Anyway, the young passenger safety law is not necessary to indicate a child car seat in a descriptive term such as a child under two years of age shall be restrained by integral rearward-facing child car seat. The simple term of "appropriate child restraint systems or child car seat" is effectively enforceable because the technical requirements or vehicle and equipment safety standard shall lay down a general requirement of child car seat, for example, child car seat for children

who are under two years of age (child car seat in Group 0 and 0+ according to UN-ECE Regulation No.44 shall be designed and constructed in rearward-facing.

(3) Safe Seating Positions

Child's seating positions in a motor vehicle are specified as one safety aspect of a child's transportation. Normally, children shall be restrained by appropriate child car seat in all seating positions on the motor vehicle. Except for rearward-facing child car seat, the law allows a child to be placed in such child car seat in front seating position of the vehicle in case a front passenger air bag has been deactivated. In case a child is outgrown to wear a child car seat and allowed to wear an adult safety belt, or a child travelling in a taxi without a child car seat, or a child travelling in a short distance in an unexpected event, a child shall be placed in rear seating positions of the motor vehicle. Furthermore, a young passenger safety laws in some countries prohibit young passenger occupies a front seating position of vehicles.

In EU Directive and UK law, a child would be allowed to be placed in a front seating position of the vehicle if he is restrained by appropriate child car seat except for a rearward-facing child car seat, a front passenger air bag shall be deactivated. On the contrary, young passenger safety law in the State of California prohibits a child who is under eight years of age occupies a front seating position of vehicles.

3.4.1.3 What exemptions are provided by the law?

The exemption for non-compliance of the young passenger safety on vehicle law depends on specific and limited causes variously prescribed in each State that reduce the tension of law enforcement or in other words, exemptions for non-use a child car seat are provided in order to implement the practically enforceable young passenger safety law. Exemptions for non-use a child car seat on a vehicle in each State are diverse. However, non-compliance causes are divided into two main reasons. First, exceptions are provided by a child's specific causes, and second, exceptions are provided by a motor vehicle's specific causes.

Exemptions for non-compliance from child's specific causes are provided by the law according to children physical figures, for example, a child will be exempted to use a child car seat if his body is outgrown and fitted to wear an adult safety belt instead of a child car seat. Another exemption is that a child has any physical unfitness or some medical condition that he/she is not appropriate to use a child car seat, however, these special conditions are required a medical certificate or a determination by a court.

Exemptions for non-compliance from vehicle's specific causes are provided by the law according to motor vehicle features, for example, emergency vehicle or public vehicle is exempted for using a child car seat such as police or security vehicle, taxi. Additionally, a child is exempted from exceeding the number of children to be placed in rear seating positions of the vehicle and there is no room for installing the third child car seat, and the exemption in case of transportation in short distance and unexpected event.

EU Directive lays down particular and limited exception causes for non-compliance with the young passenger safety laws as community legal criteria for implementing the internal legal measure in member states pursuant to that Directive. Consequently, EU Directive and UK law relating to young passenger safety on vehicle provide exemption for non-use child car seat in particular situations and limited causes, for example, exempt from child's specific causes such as an adult safety belt is suitable for a child's body, inappropriate physical conditions of a child, or exempt from vehicle's specific causes such as emergency and public service transportation, third's child condition on vehicle, short distance in unexpected event transportation. Meanwhile, in the U.S. there are totally fourteen exception causes for non-compliance with the young passenger safety law in all States. The number of exemptions in each State is various, for example, the young passenger safety law in the State of California provides limited non-compliance causes such as an adult safety belt is suitable for a child's body, or size, physical unfitness, and medical condition by determination of the Court, or emergency transportation in public emergency vehicle.

3.4.1.4 What penalties are imposed by the law and on Who for such violation?

Legal penalties for non-compliance with young passenger safety law are a crucial element for effective legal enforcement. EU Directive does not impose penalties for non-compliance but leaves a room for each member state to bring into force the law relating a compulsory use of child car seat and imposes particular penalties for the effectiveness of the enforcement of the law. In the UK, the law imposes a criminal penalty for non-compliance on a driver, a fine of 200 British Pounds for non-use of child car seat in rear seating positions of the vehicle and a fine of 500 British Pounds for non-use of child car seat in front seating position of the vehicle. On the other hands, in the U.S. penalties for non-compliance with the young passenger safety law are various for a fine, license point, or insurance point depending on the law in each State. For example, in the State of California, a driver or a parent who presents on a motor vehicle shall be liable for non-compliance with the young passenger safety law a fine of 100 US Dollars for the first instance and 250 US Dollar for the second and subsequent instances.

3.4.2 Motor Vehicle and Equipment Safety Standards

As regards this research on foreign laws concerning motor vehicle and equipment safety standards both European systems including UK system as well and U.S. systems, in summary, there are two different systems of vehicle and equipment type-approval and safety standards and technical requirements of motor vehicle and equipment; (1) type-approval of motor vehicle and equipment by each national approval authority in EU countries with the safety standard and technical requirement of motor vehicle and equipment prescribed in UN Regulations annexed to the 1958 Agreement and (2) self-certification by motor vehicle and equipment's manufacturer without approval by government agency in the U.S. with the motor vehicle and equipment safety standards prescribed in Federal Motor Vehicle Safety Standards.

3.4.2.1 Type-Approval Systems in EU Community and the UK

In EU Community, all motor vehicles and vehicle's equipment products shall be approved by each national approval authority before the motor vehicles and vehicle's equipment are distributed throughout EU countries. This legal framework for assuring the safety standards of motor vehicles and vehicle's equipment products is known as type-approval systems. The manufacturer shall apply for a type-approval certificate of a specific type of motor vehicles or vehicle's equipment products from the approval authority in each EU country. The motor vehicles and vehicle's equipment products with EC type-approval are able to sell and distribute in all EU countries. The systems of type-approval consist of two steps; (1) prototype of the specific type of motor vehicle and vehicle's equipment shall be satisfied with all technical requirements prescribed in EU Motor Vehicle Type-Approval Framework Directive and (2) the manufacturer shall ensure the conformity of productivity.

The EU Motor Vehicle Type-Approval Framework Directive lays down the list of applicable compulsory subjects in each category of motor vehicle and list of specific regulations that specify technical requirements of the subject in motor vehicle or vehicle's equipment.

As regards safety standard of child car seat, there are two particular UN-ECE Regulations that are parallel enforceable and specify technical requirements of child car seat; (1) UN-ECE Regulation No 44 and (2) UN-ECE Regulation No 129.

UN-ECE Regulation No. 44 prescribes technical requirements covering all type of child car seat (integral child car seat in Group 0, 0+, and I, and non-integral child car seat in Group II and III) and all means of installation (child car seat/ISOFIX child car seat). Meanwhile, UN-ECE Regulation No. 129 prescribes technical requirements for integral i-Size child car seats (ISOFIX i-Size child car seat) but not covering child car seats which are installed in a vehicle by an adult safety belt. Additionally, UN-ECE Regulation No. 129 is still developing technical requirements for non-integral child car seat (booster seat for older children). Consequently, the technical requirement prescribed in UN-ECE Regulation No.129 does not cover all

types of child car seat and not conclude as completed technical requirement for enhanced child car seat.

As regards safety standard of a motor vehicle, ISOFIX anchorage systems and ISOFIX top tether are compulsory vehicle's equipment that are required by EU Regulation to be fitted on motor vehicles in category M (motor vehicle for carriage of passengers) and N (motor vehicle for carriage of goods). The technical requirement of ISOFIX anchorage systems and ISOFIX top tether anchorage and installation are prescribed in UN-ECE Regulation No. 14. Therefore, all approved type of child car seats in accordance with UN-ECE Regulation No. 44 either securing with vehicle's structure by an adult safety belt (general child car seat) or ISOFIX systems are applicable to all motor vehicle for carriage of passenger and motor vehicle for carriage of goods.

3.4.2.2 Self-Certification System in the U.S.

On the contrary to EU and UK type-approval systems of motor vehicles and vehicle's equipment, the U.S. has no approval systems of motor vehicle and vehicle's equipment by a government agency. The U.S. established unique systems to ensure the safety standards of motor vehicle and vehicle's equipment products known as "self-certification" systems. The motor vehicle certifying systems does not require either approved type of specific motor vehicle and vehicle's equipment or type-approval certificate granted by the competent approval authority. The duties of manufacture or import automotive products in compliance motor vehicle safety standards and certify motor vehicles and vehicle's equipment products is obliged on the manufacturer or importer of these products.

However, the National Highway Traffic Safety Administration (NHTSA), the U.S. government agency has mainly activities to implement motor vehicle and vehicle's equipment safety standards and monitor the compliance with these safety standards of the manufacturer and importer. NHTSA develops and determines federal motor vehicle safety standards (FMVSS) which are the compulsory requirements for motor vehicle and vehicle's equipment manufacturers and importers to comply with these standards by manufacture or import only

compliance products with FMVSS. Furthermore, NHTSA ensures the effectiveness of self-certification systems by performing secondary motor vehicle safety assurance which is the system to monitor compliance with the applicable safety standards of motor vehicles and vehicle's equipment through random compliance with FMVSS conduct testing. In case certified motor vehicles or vehicle's equipment is non-compliance with FMVSS encountered by NHTSA, the certified motor vehicles or vehicle's equipment may be voluntarily recalled by the manufacturer or compulsorily recalled by NHTSA.

Unlike the EU and UK motor vehicle and vehicle's equipment safety standards, the U.S. does not a Contracting Party of the 1958 Agreement so the motor vehicle safety standards or technical requirements prescribed in separate Regulations annexed to the 1958 Agreement are not recognized in the U.S. even though this international agreement is a global harmonization of provisions concerning the technical requirements and safety standards of motor vehicle and vehicle's equipment products. For this reason, the U.S. has federal motor vehicle safety standards (FMVSS) which are the technical requirement of motor vehicle and vehicle's equipment similarly technical requirements of motor vehicle and vehicle's equipment prescribed in separate Regulations annexed to the 1958 Agreement. However, in details of safety standards there are different requirements between the U.S. motor vehicle safety standards and the separate Regulations adopted in EU countries and UK, consequently, it poses the technical barrier to trade automotive products between the U.S. and the EU countries because of the requirements of motor vehicle safety standards.

Anyway, under the U.S. motor vehicle safety standards both child car seat and LATCH systems (ISOFIX anchorage systems and ISOFIX top tether anchorage) shall be manufactured or imported in compliance with safety standards prescribed in FMVSS; (1) No. 213 for Child Restraint Systems (child car seat) and (2) No. 225 for Child Restraint Anchorage Systems (LATCH systems).

In summary, type-approval systems of motor vehicles and vehicle's equipment products in EU and UK is similar to approval-systems by competent authority of government agency either Thai compulsory component parts and equipment type-approval systems according to Notification of Department of Land

Transport under Motor Vehicle Act B.E. 2522 (1979) or compulsory standards of Thai Industrial Standards (TIS) according to the Industrial Product Standards Act B.E. 2511 (1968). Furthermore, Thailand is Contracting Party of the 1958 Agreement on harmonization of global motor vehicle regulations even though any UN Regulations annexed to the 1958 Agreement concerning harmonized provision on technical requirements of motor vehicle and vehicle's equipment were not recognized by Thailand. In practically, Thailand implements type-approval systems of compulsory component parts and equipment to be fitted on motor vehicles and adopts some UN Regulations as equivalent technical requirements, specifications, installations and approval procedures applicable to domestic law. Additionally, ASEAN community is currently preparing Mutual Recognition Arrangement on Type-Approval on automotive products (MRA) and harmonizing technical requirements of automotive products amongst ASEAN countries based on UN Regulations.

Moreover, under the Industrial Product Standards Act, the general standards and compulsory standards are often determined by utilizing UN-Regulation as guidelines to implement national industrial standards and in some case, Thai Industrial Standard (TIS) adopts or refers to UN-Regulation as equivalent to national industrial standard.

Therefore, Thailand should implement national industrial standards for child car seat and type-approval of compulsory component parts and equipment to be fitted on a motor vehicle in particular ISOFIX anchorage systems and ISOFIX top tether based on UN Regulations annexed to the 1958 Agreement.

CHAPTER 4

THAI LAWS CONCERNING THE COMPULSORY USE OF CHILD CAR SEAT AND SAFETY STANDARDS OF CHILD CAR SEAT AND ISOFIX SYSTEMS

In this chapter with regard to Thai laws, the whole picture of the Consumer Protection Laws in Thailand, the basic knowledge of Consumer Rights, and the Thai Traffic Law concerning to a passenger safety on motor vehicles will be studied. Furthermore, the approval system and Thai Industrial Standards concerning to a child car seat, ISOFIX anchorage systems and ISOFIX top tether anchorage, and the laws concerning the compulsory part and equipment that require by the law to be fitted on a motor vehicle and the approval system will also be scrutinized.

4.1 Introduction to Consumer Protection in Thailand

The legislations relating consumer protection have not been enacted and codified just only in the Consumer Protection Act B.E. 2555 (1979) but also located in a large number of specific legislations that are considered to be competent legal instruments to protect public safety and create fairness in society. To this day, there are currently more than 50 specific regulations concerning consumer protection.²⁴³ Among the complicated legislative measures, specific laws concerning consumer protection can be classified by purposes of its law as follows;²⁴⁴

Group I: the direct or indirect objective of each statute is in order to control and protect public from unsafe products and services.

Group II: the direct or indirect objective of each statute is in order to create fairness between consumers and producers or service providers.

Group III: the direct or indirect objective of each statute is in order to control and monitor given facts, information, and advertisings in media and entertainment.

²⁴³ Susom Supphanit, Consumer Protection Laws (9th edn, Chulalongkorn University Press 2014) 37

²⁴⁴ Susom Supphanit, The Consumer Protection Law in Thailand (1st edn, National Research Council of Thailand 1987) 7

Group IV: the direct or indirect objective of each statute is in order to provide the fundamental rights of consumers and remedial measures for product liability.

The information below will illustrate the example of statutes in Thailand relating to consumer protection law in all four groups. The regulations in Group I primarily act as a gate keeper protecting and prohibiting the existence of unsafe goods and services in a market. For example, The Industrial Product Standards Act B.E. 2511 (1968) is a legislative measure dealing with extensive problems on industrial products made and marketed in Thailand at the beginning of industrial development era. Establishing the industrial product standards is in favor of Thailand industry and also public safety from harmfulness of low-quality products and goods.²⁴⁵

Meanwhile, Land traffic Act B.E. 2522 (1979) is truly technical law because of the nature of the legislative procedure. The technical law does not require the sense of justice, public morals or even juristic reasoning but its specific function of this law could be used to solve a social problem in particular period of time.²⁴⁶ In the same time, it is actually a consumer law that provides appropriate legal measures for the road users in order to reduce the risk of fatality, bodily injury, and properties devaluation.²⁴⁷

In the second group (Group II), the State has enacted these laws in order to balance the negotiation power between entrepreneurs and consumers. For example, Competition Act B.E. 2542 (1999) has been promulgating for more than 18 years because the state realizes that in Market-Oriented Economy, free and fair competition is necessary for sustaining the efficiency of the economy.²⁴⁸ Competition Act, therefore, as a legal instrument of the State, it was established to cause an intervention in market structure and monitor entrepreneurial behavior in Thai economic system.

Facts, information, and advertisements for goods and services are very crucial elements for consumers concerning the consumption decision making. There are

²⁴⁵ The Industrial Product Standards Act B.E. 2511 (1968) (TH) reason of enactment at remark

²⁴⁶ Somyot Chueathai, Civil Law : General Principle (20th edn, Winyuchon Press 2014) 58

²⁴⁷ Land Traffic Act B.E. 2522 (1979) (TH) REASON OF ENACTMENT

²⁴⁸ Latdawan Tantiwitthayaphithak and Sayamon Kaiyunwong, Private Law Reform : For Justifiable Economic Security. (1st edn, Mata Press 2015) 81-83

competent committees established under Consumer Protection Act B.E. 2522 (1979) both on advertisements and labels dealing with these issues; however, there are still some specific laws in Group III relating media and entertainment, for example, Film and Video Act B.E. 2551 (2008). Under this law, Film and Video Censorship Committee shall be established to perform duties prescribed by the law.²⁴⁹ Before each film is exhibited or broadcasted in theaters, it shall be reviewed and approved by the Film and Video Censorship Committee.²⁵⁰ Additionally, the committee shall rate each movie into seven groups depending on content and age of the viewers.²⁵¹

The last group is determined to be the main core of consumer protection laws. Consumer Protection Act B.E. 2522 (1979) explicitly lays down the consumer rights without nullifying the other provisions in specific consumer protection laws.²⁵²

In the case of preventive measure prescribed by specific consumer protection laws are not sufficient to protect public from injury by unsafe goods and services, in addition, product liability shall be considered and compensated to the injured consumers. In the markets, there are tons of goods distributed and sold each day. High scientific knowledge and advanced technology are used on good productions, it is, therefore, difficult for consumers to detect any defects or unsafe products. A strict liability has been applied in product liability cases under Product Liability Act B.E. 2552 (2008) in order to eliminate the burdensome on the consumers to prove the unsafe product and generate a fair compensation.²⁵³

4.2 The Laws Concerning Safety Standard of Child Car Seat

A child car seat or child restraint systems are supplemental equipment on motor vehicles. It is intended to be used as a passive safety device for children when they travel on vehicles with their family as same as adult safety belt restraining by

²⁴⁹ Film and Video Act B.E. 2551 (2008), Section 18

²⁵⁰ Film and Video Act B.E. 2511 (2008), Section 25

²⁵¹ Film and Video Act B.E. 2551 (2008), Section 26

²⁵² Susom Supphanit, Consumer Protection Laws (n 234) 155

²⁵³ Product Liability Act B.E. 2552 (2008) (TH) REASON OF ENACTMENT

mature persons on motor vehicles or helmet used by rider and passengers on motorcycles. In regard to its purposes of reducing bodily injuries and fatality rate of children on a motor vehicle, a child car seat should be able to effectively protect children from road accidents through the capability of safety equipment. For this reason, a child car seat has to be well designed and manufactured by specialists in automotive industries for utmost utilities of children protection.

As a result of the special feature, characteristic in manufacture and utility of child car seat, legal measures should be implemented for controlling the safety and standard of child car seat as preventive legal measures for product safety prior to distributing in the market, and also imperative consumer protection measures should be provided as fundamental human rights.

4.2.1 The Industrial Product Standards Act B.E. 2511 (1968)

Under this Act, the State is empowered by the law to control and monitor the standard of products both domestic manufactures and imports from foreign countries. This Act performs as a gatekeeper controlling safety standard and quality of products in the manufacturing process. Thus, the obligation under this Act is determined to be preventive measures for product safety.²⁵⁴

4.2.1.1 The Objective of The Law

The Industrial Product Standards Act was enacted in 1968 when Thailand was transforming economic system based on agriculture to an economic system based on industrial products where industrial sector had been boosted and sponsored by the government.²⁵⁵ Many industrial estates and small scale industries had been established, such as paper industry, automotive industry, and textile industry after the second national economic and social development plan was promulgated in

²⁵⁴ Susom Supphanit, The Consumer Protection Law in Thailand, (n 235) 9,49

²⁵⁵ The National Economic Development Board Office of The Prime Minister, The Second National Economic and Social Development Plan (1967-1971) (Bangkok 1967) 3

1967.²⁵⁶ As a result of the industrial development, there are a large number of industrial products manufactured and distributed in Thailand which has not been determined the industrial product standards. Without such industrial product standards, the industrial products distributed in the market would be manufactured in low quality reflecting the deterioration of product's trustworthiness. Additionally, lacking industrial product standards may cause harmful to public safety, the stability of industrial businesses, and economy of Thailand.²⁵⁷

4.2.1.2 Definitions and Types of Industrial Product Standards under The Industrial Product Standards Act B.E. 2511 (1968)

The official meaning of industrial product standards which is the subject of this law has not been specified in this Act; however, the law defines the meaning of standard as specifications of descriptions in following lists as provided in the law.²⁵⁸ Generally, the product standard means each type of specifications in some or all aspects of quality of each product or group of products which is necessary to specify at that time as well as the description of direct or indirect desirable characteristics of the specification of definition, containing or packaging, or methods of manufacturing.²⁵⁹

In addition, the definition of product standards is not only specified in Section 3 of this Act but also the industrial product standards which are cited or referred to product standards of foreign countries or international product standards. These product standards under section 15 shall be promulgated by Notification of Ministry of Industry in accordance with the recommendation of the Industrial Product

²⁵⁶ Ibid 6

²⁵⁷ Industrial Product Standards Act B.E. 2511 (1968), REASON OF ENACTMENT

²⁵⁸ Industrial Product Standards Act B.E. 2511 (1968), Section 3

²⁵⁹ Gullachart Sermsoomboon, 'Application of Legal Measures in the Certification of Occupational Health and Safety Management System (TIS 18000) in Thailand' (Master Degree, Dhurakijpundit University, 2000). 10

Standards Council. The Notification of Ministry of Industry in each product standards is required to publish in the Government Gazette.²⁶⁰

According to Industrial Product Standards Act B.E. 2511 (1989), the industrial product standards may be categorized into two groups. First, the product standards which are determined under section 15 of this Act, known as general product standards. Second, the product standards which are determined under section 17 of this Act, known as compulsory product standards. Official industrial product standards under this law shall be named as Thai Industrial Standards or abbreviated as TIS followed by the number of the standard and the year of promulgating.²⁶¹ The differences between two groups of industrial product standard will be described as follows;

(1) Industrial Product Standards under Section 15 (General Product Standards)

General industrial product standards may be determined by the Minister of Industry for the benefit of industrial promotion. Each standard shall be promulgated in a Ministerial Notification and published in the Government Gazette.²⁶² The general standard under this section is provided for industrial product manufacturers who try to comply with such issuing standard by manufacture industrial products pursuant to standard for good quality, and safe product as prescribed in Thai Industrial Standard (TIS) for the utmost utilities of the consumer.

Nevertheless, industrial products which are manufactured in conformity with the general product standards may cost a lot of money for investing in new technology and better quality of raw materials production. For this reason, the higher cost of investment on advanced technology, the higher price of the industrial

²⁶⁰ Industrial Product Standard Act B.E. 2511 (1989) amended Industrial Product Standards Act B.E. 2558 (2015), Section 15

²⁶¹ Oranee Kanoksophit, 'Legal Measures for Controlling Dangerous Substances in Textile and Garment Products: A Case Study of Aromatic Amines' (Master Degree, Thammasat University, 2015). 86

²⁶² Industrial Product Standards Act B.E. 2511 (1968), Section 15

According to Industrial Product Standards Act B.E. 2511 (1968), the law determines not only the general product standards for manufacturers who voluntarily raise the quality of their products up to the national standard level but also the product standards which oblige duties on the manufacturers or importers that particular product shall be manufactured in conformity with descriptions and specifications in accordance with such product standards prescribed in Royal Decree.²⁶⁸

For only particular kind of industrial products, the law requires the manufacturer and importer shall conform to product standards inevitably in order to protect the consumer and public from the harmful effect of some industrial product and also protect industrial business and economy of the country.²⁶⁹ For this reason, only specific kind of industrial products which are prescribed in the Royal Decree will be determined to be conformed to compulsory standards for the reason that if these kinds of product shall not be manufactured or imported in conformity with compulsory product standards, it may cause injuries to the consumer or the harmful

() .. (0702/4866) 2558

²⁶⁷ The Secretariat of the Senate. Notice of Ad hoc Committee on Draft of The Industrial Product Standards Act B.E... (SorWor(SorNorChor)0007/3329) 2015.

[illegible]

0007/3329) 2558

²⁶⁸ Industrial Product Standards Act B.E. 2511 (1968), Section 17

269 Ibid

effects of non-compliance with product standards may cause damages to industrial business and economy of the country.

Furthermore, before any particular kind of industrial product shall be determined to be conformed to the product standards prescribed in Royal Decree, the Industrial Product Standard Institute shall conduct a public hearing as prescribed in the Notification of the Industrial Product Standards Council.²⁷⁰ The significant criteria and procedure for conducting the public hearing shall be taken as prescribed in the Notification of Industrial Product Standard Institute.²⁷¹

Nowadays, the compulsory product standards have already been promulgated in Royal Decree for 108 lists in 10 categories.²⁷² Whoever will manufacture an industrial product which is required to conform to compulsory product standard as prescribed in Royal Decree, the evidence shall be provided to a competence official for inspection and receive the industrial product standards license from the secretary-general of Industrial Product Standards Institute.²⁷³ In this case, the manufacturer of the industrial product under this section shall submit the evidence to a competence official for inspection and receive the industrial product standards license of such products before the product manufacturing is commenced.

Not only the manufacturer but also the importer of industrial products who is required by the Royal Decree to import such products which are conformed to the compulsory standards, shall provide the evidence to a competence official for inspection and receive the industrial product standard license from the secretary-general of Industrial Product Standards Institute.²⁷⁴ Before importing such products which are required by the Royal Decree into Thailand, the importer is similar

²⁷⁰ Industrial Product Standards Act B.E. 2511 (1989), Section 18

²⁷¹ Notification of Industrial Product Standards Institute on Criteria and Procedure in Conducting Public Hearing under Section 18 of Industrial Product Standards Act B.E. 2511 (1968)
<http://app.tisi.go.th/notices/act_180248.html>

²⁷² The Thai Industrial Standards Institute, 'List of Compulsory Standards'
<http://app.tisi.go.th/standard/comp_tha.html> accessed 28 August 2016

²⁷³ Industrial Product Standards Act B.E. 2511 (1968) amended Industry Product Standards Act B.E. 2558 (2015), Section 20

²⁷⁴ Industrial Product Standards Act B.E. 2511 (1968) amended Industry Product Standards Act B.E. 2558 (2015), Section 21

to the manufacturer, shall submit the evidence to a competence official for inspection and receive the industrial product standards license. Then, they have a right to import such products which are manufactured in conformity with the industrial product standards.²⁷⁵

(3) Industrial Product Standards under Section 20 bi and 21 bis (Product Standards in Special Case)

In this case, the law does not specify other types of standard beyond the general standards under section 15 or the compulsory standards under section 17 but it is actually the mere alternative solution for manufacturing or importing the products which are required by the Royal Decree to conform to compulsory standards in necessary case and temporary period of time in order to generate a flexibility of applying the law in special case and reduce the tension of the law.²⁷⁶

In a case of necessity, the Secretary-General of Industrial Product Standards Institute has the power to permit a license from time to time for manufacturing²⁷⁷ or importing²⁷⁸ the industrial products which are required by the Royal Decree to conform to compulsory standards, to comply with the foreign or international standards which may be lower or higher than the usual compulsory standard. In this case, the foreign or international standard shall be approved by the Industrial Product Standards Council and the manufacturing²⁷⁹ or importing²⁸⁰ of such industrial products shall be in accordance with the rules and conditions prescribed by the Council.

²⁷⁵ Industrial Product Standards Act B.E. 2511 (1968), Section 29

²⁷⁶ Industrial Product Standards Act B.E. 2511 (1968) amended Industrial Product Standards Act B.E. 2522 (1979), REASON OF ENACTMENT

²⁷⁷ Industrial Product Standards Act B.E. 2511 (1968), Section 20 bis

²⁷⁸ Industrial Product Standards Act B.E. 2511 (1968), Section 21 bis

²⁷⁹ Industrial Product Standards Act B.E. 2511 (1968), Section 20 bis paragraph 2

²⁸⁰ Industrial Product Standards Act B.E. 2511 (1968), Section 21 bis paragraph 2

4.2.1.3 Industrial Product Standards Licenses

The Industrial Product Standards Licenses can be classified into three types as follows;

(1) Industrial Product Standards License for Displaying a Standard Mark

Any person who manufactures industrial products which have been determined the industrial product standard under section 15 may display the standard mark on industrial products provided that such products have been inspected by competent official and the license has been granted by the Secretary-General of Industrial Product Standards Institute.²⁸¹ The license for displaying the standard mark in this type shall be granted to any person who manufactures the industrial products which have already been determined by the Ministerial Notification under section 15 or known as the general standard, but not include a person who imports the industrial products from foreign countries.²⁸² Only domestic manufacturers of industrial products have a right to display the standard mark on his industrial products voluntarily after they have filed the application type (1) or Form Mor-Aor. 1²⁸³ and submitted all necessary evidence prescribed by the law²⁸⁴ to the Industrial Product

²⁸¹ Industrial Product Standards Act B.E. 2511 (1968) amended Industrial Product Standards Act B.E. 2558 (2015), Section 16

²⁸² Thai Industrial Standards Institute (TISI) Ministry of Industry, License Application Manual (2nd edn 2014)
<http://www.tisi.go.th/images/stories/pdf/licensee_manual.pdf> accessed 2 September 2016

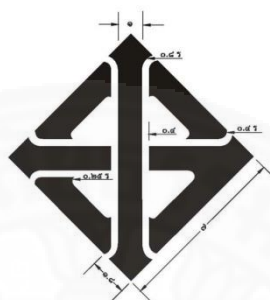
²⁸³ Notification of Industrial Product Standards Institute on Type of Application Forms for a License to Display the Standard Mark, Manufacture the Industrial Product under Section 20, and Import the Industrial Product under Section 21

²⁸⁴ Ministerial Regulation on Criteria and Procedure of Application, Inspection, Authorization for a License to Display the Standard Mark under Section 16, Manufacture the Industrial Product under Section 20, and Import the Industrial Product under Section 21 B.E. 2549 (2006)

Standards Institute and received the license to display the standard mark from the Secretary-General.

The Minister of Industry shall determine the standard mark which is used to exhibit on the industrial products at the picture below.²⁸⁵

Figure 4.1 Standard Mark under Section 16²⁸⁶



After the licensee has received the product standard license under this section, the licensee, or in this case the domestic manufacturer has a right to display its mark on the products. The standard marks shall be made by the licensee and its mark shall be clearly and obviously displayed on industrial products or container, or package of the product, or tag which is attached to the product. The particular number of Thai Industrial Standard (TIS and following number) which has been granted in the license, and full name or the initial name of licensee or licensee's trademark shall be exhibited together with the standard mark on the industrial products.²⁸⁷

Any person except the licensee has no right to exhibit or use standard marks on their product²⁸⁸ and no person shall imitate the standard mark which is misled to the public.²⁸⁹ In the case of violation of these provisions, they

²⁸⁵ Industrial Product Standards Act B.E. 2511 (1968), Section 30

²⁸⁶ Ministerial Regulation on Pattern of Standard Marks B.E. 2549 (2006)
<http://www.tisi.go.th/law/pdf_files/rules/rule2549/mark1.jpg> accessed 3 September 2016

²⁸⁷ Ministerial Regulation on Criteria and Procedure on Displaying the Standard Mark on Industrial Product B.E. 2550 (2007)

²⁸⁸ Industrial Product Standards Act B.E. 2511 (1968), Section 31

²⁸⁹ Industrial Product Standards Act B.E. 2511 (1969), Section 32

shall be liable to imprisonment for a term not exceeding three months or to a fine of 100,000-1,000,000 baht or both of penalties.²⁹⁰

Furthermore, the licensee, or in this case the manufacturer shall be liable to imprisonment for a term not exceeding three months or to a fine of 100,000-1,000,000 baht or both of penalties,²⁹¹ in case they use or exhibit the standard mark on the industrial products which are not manufactured in conformity with the industrial product standards.²⁹²

(2) Industrial Product Standards License for Manufacture

Any person who manufactures the industrial products which are required by the Royal Decree to manufacture in conformity with the compulsory product standards, shall provide the evidence to the competence official and receive the license from the Secretary-General of the Industrial Product Standards Institute.²⁹³ The license for manufacture in this type is granted for the manufacturer of the industrial products which are required by the Royal Decree to manufacture in conformity with the product standard or known as compulsory standard. The manufacturer shall apply for a license to manufacture industrial product under section 20 and submit an application type (III) or Form Mor-Aor. 3 to the Industrial Product Standards Institute,²⁹⁴ and provide the necessary evidence prescribed by the law to a competent official for inspection,²⁹⁵ and receive a license from the Secretary-General before they start industrial product manufacturing.

²⁹⁰ Industrial Product Standards Act B.E. 2511 (1969), Section 52

²⁹¹ Industrial Product Standards Act B.E. 2511 (1968), Section 54

²⁹² Industrial Product Standards Act B.E. 2511 (1968), Section 35

²⁹³ Industrial Product Standards Act B.E. 2511 (1968), Section 20

²⁹⁴ Notification of Industrial Product Standards Institute on Type of Application Forms for Displaying the Standard Mark under Section 16, Manufacturing the Industrial Product under Section 20, and Importing the Industrial Product under Section 21

²⁹⁵ Ministerial Regulation on Criteria and Procedure of Application, Inspection, Authorization for a License to Display the Standard Mark under Section 16, Manufacture the Industrial Product under Section 20, and Import the Industrial Product under Section 21 B.E. 2549 (2006)

The standard mark in this type has been determined by the Minister of Industry in order to use or exhibit on the industrial products at the picture below.²⁹⁶

Figure 4.2 Standard Mark under Section 20²⁹⁷



In the case of the exhibition the standard mark on the industrial product, the licensee has solely right to exhibit or display the standard mark on his product.²⁹⁸ The condition of displaying the standard mark on the industrial product has been specified by the law as same as the condition of displaying the standard mark by the licensee under section 16.²⁹⁹

The law imposes the criminal penalty on the manufacturer who fails to apply for a license and provide necessary evidence to a competent official for inspection,³⁰⁰ shall be liable to imprisonment for a term not exceeding two years or a fine not exceeding 2,000,000 baht or both of penalties.³⁰¹ Moreover, the licensee shall be liable to, even though they have already had a license for manufacturing the industrial product under section 20 provided that they fail to manufacture the industrial product which is required by the Royal Decree to manufacture in

²⁹⁶ Industrial Product Standards Act B.E. 2511 (1968), Section 30

²⁹⁷ Ministerial Regulation on Pattern of Standard Marks B.E. 2549 (2006)
<http://www.tisi.go.th/law/pdf_files/rules/rule2549/mark1.jpg> accessed 4 September 2016

²⁹⁸ Industrial Product Standards Act B.E. 2511 (1968), Section 31

²⁹⁹ Ministerial Regulation on Criteria and Procedure on Displaying the Standard Mark on Industrial Product B.E. 2550 (2007)

³⁰⁰ Industrial Product Standards Act B.E. 2511 (1968), Section 20

³⁰¹ Industrial Product Standards Act B.E. 2511 (1968), Section 48

conformity with the compulsory standard, imprisonment for a term not exceeding two years or a fine not exceeding 2,000,000 baht or both of penalties.³⁰² In addition, the manufacturer has a duty to display or exhibit the standard mark only on the industrial products which are qualified to the compulsory standard.³⁰³ If the manufacturer fails to comply with this duty, he shall be liable to imprisonment for a term not exceeding two years or a fine not exceeding 2,000,000 baht or both of penalties.³⁰⁴

(3) Industrial Product Standards License for Import

The law requires that anyone who imports industrial products which are required by the Royal Decree to import the industrial product in conformity with the compulsory standard shall provide the evidence to a competent official for inspection and receive a license for import from the Secretary-General of Industrial Product Standards Institute.³⁰⁵ The license for import in this type is similar to the license for manufacture under section 20 in term of the type of industrial products which are the object of the authorization. The product which is required by the law that the importer shall have a license before importing such industrial product is identically the same products which the manufacturer shall receive a license before manufacture as required by the law. The importer shall apply for a license prior to importing the industrial product in application type (V) or Form Mor-Aor. 5 to Industrial Product Standards Institute,³⁰⁶ and submit required evidence as prescribed by the law to a competent official for inspection.³⁰⁷

³⁰² Industrial Product Standards Act B.E. 2511 (1969), Section 29, 51

³⁰³ Industrial Product Standards Act B.E. 2511 (1968), Section 35

³⁰⁴ Industrial Product Standards Act B.E. 2511 (1968), Section 54

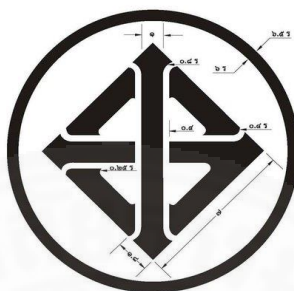
³⁰⁵ Industrial Product Standards Act B.E. 2511 (1968), Section 21

³⁰⁶ Notification of Industrial Product Standards Institute on Type of Application Forms for Displaying the Standard Mark under Section 16, Manufacturing the Industrial Product under Section 20, and Importing the Industrial Product under Section 21

³⁰⁷ Ministerial Regulation on Criteria and Procedure of Application, Inspection, Authorization for a License to Display the Standard Mark under Section 16, Manufacture the Industrial Product under Section 20, and Import the Industrial Product under Section 21 B.E. 2549 (2006)

The standard mark for displaying on the importing industrial product has been determined identically to the standard mark for displaying on the manufacturing product under section 20 in a picture below.³⁰⁸

Figure 4.3 Standard Mark under Section 21³⁰⁹



The right to display or exhibit the standard mark on the industrial product is solely on the importer who has already received the license.³¹⁰ The criteria and procedure on displaying the standard mark have been determined similarly to the condition imposed on the standard mark under section 20.³¹¹

Furthermore, the law imposes the criminal penalties on the importer who fails to apply for a license and provide relevant required evidence to a competent official for inspection,³¹² shall be liable to imprisonment for a term not exceeding two years or a fine not exceeding 2,000,000 baht or both of penalties.³¹³ In addition, similarly, the manufacturer, the importer shall be liable to, although they have already received the license for import from the Secretary-General provided that they fail to import such industrial products which are not in conformity with the compulsory standard as prescribed in the Royal Decree, imprisonment for a term not

³⁰⁸ Industrial Product Standards Act B.E. 2511 (1968), Section 30

³⁰⁹ Ministerial Regulation on Pattern of Standard Marks B.E. 2549 (2006)
<http://www.tisi.go.th/law/pdf_files/rules/rule2549/mark1.jpg> accessed 4 September 2016

³¹⁰ Industrial Product Standards Act B.E. 2511 (1968), Section 31

³¹¹ Ministerial Regulation on Criteria and Procedure on Displaying the Standard Mark on Industrial Product B.E. 2550 (2007)

³¹² Industrial Product Standards Act B.E. 2511 (1968), Section 21

³¹³ Industrial Product Standards Act B.E. 2511 (1968), Section 48

exceeding two years or a fine not exceeding 2,000,000 baht or both of penalties.³¹⁴ And in the same way, the importer has a duty to display or exhibit the standard mark only on the imported products which are qualified to the compulsory standard. If the standard mark is exhibited on importing products which are not in conformity with the standard, the importer shall be liable to imprisonment for a term not exceeding two years or a fine not exceeding 2,000,000 baht or both of penalties.³¹⁵

4.2.1.4 The Thai Industrial Standard for Child Car Seat

The non-existence of Thai Industrial Standard for child car seat and the existence of Thai Industrial standard for ISOFIX anchorage systems and ISOFIX top tether anchorage will be determined as follows;

(1) Child Car Seat

Nowadays, the Industrial Product Standards Institute has been determined the child car seat neither a product which has been specified the industrial standard known as general standard by the Minister of Industry under section 15³¹⁶ nor a product which is required by the Royal Decree to manufacture or import in conformity with the compulsory standard under section 17.³¹⁷ However, some driver and passenger safety equipment for the road users or vehicle occupants have already been determined the industrial product standards, for example, protective helmet for vehicle users,³¹⁸ seat belts for automobiles.³¹⁹

³¹⁴ Industrial Product Standards Act B.E. 2511 (1968), Section 29, 51

³¹⁵ Industrial Product Standards Act B.E. 2511 (1968), Section 35, 54

³¹⁶ TISI has been determining the industrial product standards more than 3100 lists since 1968
<http://www.tisi.go.th/site-link/IBLab/data_std/std_name.xlsx> accessed 5 September 2016

³¹⁷ There are currently 108 compulsory standards on 28 August 2016
<http://app.tisi.go.th/standard/comp_tha.html> accessed 5 September 2016

³¹⁸ TIS: 369-2556 Thai Industrial Standard for Protective Helmets for Vehicle Users

³¹⁹ TIS: 721-2551 Thai Industrial Standard for Safety-Belt for Automobiles

The enactment of quality or standard controlling measure on particular products by government sector is direct objective to generate safety to the public and consumers, and prevent an influx of low-quality or non-compliance with standards of industrial products from outside of the country. Moreover, government sectors are able to boost up the business competitiveness of domestic entrepreneurs through implementing such measures overcoming the technical barriers to trade in the international business transaction.³²⁰

In case automobile safety equipment, adult safety belts for automobiles are required by the Royal Decree to manufacture or import this product in conformity with the compulsory standard which is called TIS: 721-2551 namely Thai Industrial Standard for Seat Belts for Automobiles. The new version of TIS for seat belts has been promulgated on February 26, 2011 which amended the previous version of seat belt standard.³²¹ The revision of seat belts for automobile standard increasingly generates the safer conditions for the driver and passenger when the car crashes and reduces the risk of injury or fatality on the road accidents.³²²

The previous version of industrial product standard for seat belts for automobile was TIS: 721-2539 which has been already repealed by TIS: 721-2551 on 26 February 2011. Japanese Industrial Standard for Automotive parts – Seat Belt (JIS D 4604-1995) had been used as a documentary guideline for implementing the Thai version of the industrial standard for seat belts for automobile (TIS: 721-2539).³²³ However, after seat belts for automobile's standard had been used for

³²⁰ Worawut Korwongphanich, 'Importance of Auto Parts Standards and Testing to Markers' <<http://www.sciencepark.or.th/documents/downloads/Presentation%201.3%20Important%20of%20auto%20part%20standard%20&%20testing%20to%20markets.pdf>> accessed 2 September 2016

³²¹ TIS: 721-2539 Thai Industrial Standard for Seat Belts for Automobiles <[http://irrigation.rid.go.th/rid5/download/CDNum1-2552%20\(E\)/fulltext/TIS721-2539.pdf](http://irrigation.rid.go.th/rid5/download/CDNum1-2552%20(E)/fulltext/TIS721-2539.pdf)> accessed 6 September 2016

³²² Thai Federal On Logistics, 'TIS: for seat belts for automobiles has been amended by Thai Industrial Standards Institute' <http://www.thailog.org/index.php?option=com_content&view=article&id=2150:285&catid=126&Itemid=524> accessed 10 October 2016

³²³ TIS: 721-2539 Thai Industrial Standard for Seat Belts for Automobiles, page 3 <[http://irrigation.rid.go.th/rid5/download/CDNum1-2552%20\(E\)/fulltext/TIS721-2539.pdf](http://irrigation.rid.go.th/rid5/download/CDNum1-2552%20(E)/fulltext/TIS721-2539.pdf)> accessed 10 October 2016

almost 15 years, the current seat belts for automobile standard has been amended by using the UN-ECE Regulation No.16 which is the technical standard requirements for adult safety belt for an automobile as a guideline for implementing the better version of TIS for seat belts.³²⁴ Moreover, the mutual recognition on harmonization of automotive safety and emission standards based on UN-ECE Regulations had been prepared by ASEAN–Product Working Group on Automotive (APWG) which has been established in 2004³²⁵ in accordance with the resolution of the ASEAN Consultative Committee on Standards and Quality (ACCSQ), a sectoral body under the purview of the ASEAN Economic Minister³²⁶ in order to eliminate the technical barriers to trade or non-tariff barriers on automotive products as the vision specified in ASEAN Economic Community Vision 2025,³²⁷ and harmonize the national standards with the international standards for achieving the end-goal of “One Standard, One Test, Accepted Everywhere”.³²⁸

(2) ISOFIX Anchorages Systems and Isofix Top Tether

Anchorages

Even though the child car seat has not been determined an industrial standard which obliges manufacturer or importer to produce or import in conformity with TIS, the ISOFIX anchorages systems and ISOFIX top tether have

³²⁴ TIS: 721-2551 Thai Industrial Standard for Safety-Belt for Automobiles, page 3

³²⁵ Automotive Product Working Group – APWG, ‘Technical barriers to trade concerning automotive parts and vehicles (26 March 2010)
<http://www.tisi.go.th/images/stories/download_seminar/26Mar10/apwg.pdf> accessed 10 October 2016

³²⁶ Association of Southeast Asian Nations, ‘ACCSQ Structure’ <http://asean.org/?static_post=accsq-structure> accessed 10 October 2016

³²⁷ Association of Southeast Asian Nations, ‘ASEAN Community Vision 2025’ page 15
<<http://www.asean.org/wp-content/uploads/images/2015/November/aec-page/ASEAN-Community-Vision-2025.pdf>> accessed 10 October 2016

³²⁸ Association of Southeast Asian Nations, ‘ASEAN cooperation on standards and conformance to facilitate trade in the region’
<<http://asean.org/asean-economic-community/sectoral-bodies-under-the-purview-of-aem/standards-and-conformance/>> accessed 10 October 2016

already been promulgated in Ministerial Notification as a general standard.³²⁹ Therefore, the law does not require the entrepreneur or importer to manufacture or import in conformity with the standard, however, if Thai entrepreneurs manufacture ISOFIX anchorages or ISOFIX top tether anchorages in conformity with the TIS, they may be authorized to display industrial mark on the industrial products provided that ISOFIX anchorages or ISOFIX top tether anchorages had been inspected and authorized by the Secretary-general of Industrial Product Standards Institute.³³⁰

In 2009, the industrial standard for seat belts for automobile had been amended to version TIS: 721-2551 which is used UN-ECE Regulation No.16 as a guideline, from previous version TIS: 721-2539 which applied the Japanese Standard as a guideline.³³¹ Then, there would be necessarily improvement of seat belt anchorages in pursuit of a new standard for a seat belt for an automobile at the same time. The industrial standard for seat belt anchorages, ISOFIX anchorages, and ISOFIX top tether anchorages was amended in the same year, from the previous version of TIS: 1467-2540 to a new version of TIS: 1467-2550³³² by using the equivalent UN-ECE Regulation No.14.³³³

The improvement of both standards was made in order to increasingly protect the road users from car accident and reduce the rate of injuries and fatalities; moreover, Thailand is a major exporter of automobile parts to

³²⁹ Ministerial Notification No.3840 (B.E. 2551) TIS: 1467-2550 Thai Industrial Standard for Safety-Belt Anchorages, ISOFIX Anchorages Systems and ISOFIX Top Tether Anchorages

³³⁰ Industrial Product Standards Act B.E. 2511 (1968) amended Industrial Product Standards Act B.E. 2558 (2015), Section16

³³¹ TIS: 721-2539 Thai Industrial Standard for Seat Belts for Automobiles, page 3
<[http://irrigation.rid.go.th/rid5/download/CDNum1-2552%20\(E\)/fulltext/TIS721-2539.pdf](http://irrigation.rid.go.th/rid5/download/CDNum1-2552%20(E)/fulltext/TIS721-2539.pdf)> accessed 10 October 2016 and TIS: 721-2551 Thai Industrial Standard for Safety-Belt for Automobiles, page 3

³³² Ministerial Notification No.3840 (B.E. 2551) TIS: 1467-2550 Thai Industrial Standard for Safety-Belt Anchorages, ISOFIX Anchorages Systems and ISOFIX Top Tether Anchorages

³³³ TIS: 1467-2550 Thai Industrial Standard for Safety-Belt Anchorages, ISOFIX Anchorages Systems and ISOFIX Top tethers Anchorages page 1

worldwide destinations such as European countries, USA, Australia and Japan,³³⁴ consequently, it is necessary to determine the national standard in line of international standard for eliminating the technical barriers to trade or the non-tariff barrier on automotive products. On 1 May 2006, Thailand acceded to the 1958 Agreement³³⁵ becoming a contracting party which is used E53 as ECE symbol.

However, Thailand asserted that it will not be bound by any of the UN Regulations, nor by Article 10 of the Agreement.³³⁶ Practically, Thailand has amended the national standard in line with the UN-ECE Regulation as many as possible by using the UN-ECE Regulation as a guideline³³⁷ or equivalent national standard.³³⁸ Therefore, Thailand has not opposed any technical regulation listed in the 1958 Agreement; nevertheless, Thailand has not adopted any technical regulation in UN Regulation.³³⁹

As a result of the amended industrial standard for safety belt anchorages by using UN-ECE Regulation No.14 as equivalent, it caused directly to the ISOFIX anchorages systems and ISOFIX top tethers anchorages standard which is incorporated in a same national standard with the safety belt anchorages (TIS: 1467-2550). Nevertheless, under the Motor Vehicle Act B.E. 2522 (1979), the ISOFIX anchorages systems and ISOFIX top tether anchorages shall not be required to be installed in a personal motor vehicle as compulsory equipment intended to be fitted on the motor vehicle. Thus, there are some critical problems arising from this cause and

³³⁴ Thailand Board Of Investment, 'Thailand: Global Green Automotive Production Base' page 2
<http://www.boi.go.th/upload/content/BOI-brochure%202015-automotive-20150325_70298.pdf>
accessed 11 October 2016

³³⁵ Agreement Concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicle Equipment and Parts 1958

³³⁶ Status of the Agreement, of the annexed UN Regulations and of amendments thereto
<<http://www.unece.org/fileadmin/DAM/trans/main/wp29/wp29regs/updates/ECE-TRANS-WP.29-343-Rev.24.pdf>> accessed 11 October 2016 page 20

³³⁷ TIS: 721-2551 (n 302)

³³⁸ TIS: 1467-2550 (n 311)

³³⁹ Automotive Engineering Bureau, Department of Land Transport. 'UNECE REGULATIONS' (March 2010) 17
<http://www.tisi.go.th/images/stories/download_seminar/26Mar10/unece%20regulations.pdf>
accessed 15 October 2016

it will be discussed in Part 4.3, The Law Concerning Motor Vehicle and Equipment Safety Standards.

4.2.2 The Consumer Protection Act B.E.2522 (1979)

There are a large number of specific laws concerning consumer protection and public safety in Thailand; however, the legal purposes of these laws are most generate public order, in other words, the competent officials or authorized bodies shall perform such duties by virtue of the law, particularly in law enforcement. On the specific consumer protection laws, the state is directly an injured person not a private person or individual, so criminal penalties are usually imposed in every specific Act.³⁴⁰ Nevertheless, Consumer Protection Act is a very first law that explicitly lays down the principle of consumer protection or consumer rights.

Consumer Protection Act B.E. 2522 (1997) is the law that recognizes the rights of consumer generally. The law imposes the duties on business man who is a seller, manufacturer, importer of goods for sale, purchaser of goods for re-sale, or service provider, also on a person who operates an advertising business in order to protect the consumers properly from unfair treatments of business man because in sale and service transaction at the present time, the consumers are induced to make a consumption decision by using marketing and advertising plans provided by entrepreneur and advertising business. They usually take advantage of the unequal power of bargaining and unawareness of consumers on actual quality and price of goods and services.³⁴¹

The Office of the Consumer Protection Board has been established by the virtue of this law. The Board shall perform duties and exercise powers in order to protect the consumer rights and public safety.³⁴² Moreover, there shall be ad hoc

³⁴⁰ Susom Supphanit, Consumer Protection Laws (n 234) 145

³⁴¹ Consumer Protection Act B.E. 2522 (1979), reason of enactment at remark

³⁴² Consumer Protection Act B.E. 2522 (1797), Section 10

committees³⁴³, namely the committee on an advertisement, the committee on labels, and the committee on contract performing duties prescribed by this law or entrusted by the Board.³⁴⁴

The Consumer Rights

The consumer rights were initially recognized in Constitution of Kingdom of Thailand B.E. 2540 (1997). With expressly written in the supreme law, a person shall be protected as consumer provided by the law.³⁴⁵

The consumer shall be protected as consumer prescribed by the law as follows;³⁴⁶

(1) The right to receive correct and sufficient information and description as to the quality of goods or services, for example, the right to receive truthful advertisements or accurate labels including precise fact and information of services and goods, and enough for consumption decision making.

(2) The right to exercise the freedom of choice in goods and services. For example, in consumption decision making, goods or services are voluntarily chosen by the consumers without unjustifiable inducement.

(3) The right to expect the safety of using goods and service. For example, safety, quality, and standard of goods and services shall be taken into account. While using goods and services in accordance with the description, instruction, or manual, and in proper carefulness, it must be safe and does not cause damages to life, body, or property.

(4) The right to receive a fair contract.³⁴⁷ This right was implemented in 1998. The consumer shall be protected from unfair contract terms of business man.

³⁴³ Consumer Protection Act B.E. 2522 (1979), Section 14

³⁴⁴ Office of the Consumer Protection Board. OCPB and Consumer Protection. (17th edn, SorGorSorKor Press 2015) 2

³⁴⁵ Constitution of Kingdom of Thailand B.E. 2540 (1997), Section 57

³⁴⁶ Consumer Protection Act B.E. 2522 (1979), Section 4

Exploitation by taking advantage of an unfair contract provided by business man is not acceptable.

(5) The right to have considered and compensated for injury. In the case of damages have been caused by violating the consumer rights in (1)-(4), the consumers have the right to be injury considered and compensated under the law on such specific law that concern such matter or under this Act.

(1) Legal Measure for Product Safety

The Consumer Protection Act B.E. 2522 (1979) intentionally provides preventive and remedial legal measures against injury or harmfulness of unsafe products or services which are on sale or provided in the markets. Assigned legal measures have been settled by the law, for example, consumer protection against advertising, consumer protection against labeling, consumer protection on contract, and other types of consumer protection.

The Consumer Protection Act shall generally apply to all goods and services as general rule of law unless there is specific consumer protection Act that concerns such matter. The provision of Consumer Protection shall be applied only insofar as it is not repeatedly or contrary to such provision in specific Act.³⁴⁸

On interpretation this provision, the law generally protects the consumer in all aspects. Initially, the provision in specific Act which is concerning to consumer protection laws where its appearance is in various types of law such as Act, Royal Decree, or Ministerial Notification, is enforceable on such matter.³⁴⁹ Then, the provision in Consumer Protection Act might be used in case there is no provision in specific law in such matter providing fundamental consumer rights.

³⁴⁷ Consumer Protection Act B.E. 2522 (1979) amended by Consumer Protection Act B.E. 2541 (1998), Section 4 (3bis)

³⁴⁸ Consumer Protection Act B.E. 2522 (1979), Section 21

³⁴⁹ Susom Supphanit, Consumer Protection Laws (n 234) 168

For example, there is no provision regulating media advertising on the sale of food products by using promotional strategy in Food Act B.E. 2522 (1979).³⁵⁰ However, the Consumer Protection Act B.E. 2522 (1979) empowered the Prime Minister to promulgate ministerial notification regarding the method of advertisement on products by using a promotional strategy such as prize contest in advertising or attached premiums.³⁵¹ In this case either manufacturer or importer who would like to operate promotional strategy on sale of food products shall comply with this regulation.³⁵²

(2) Consumer Protection against Labeling

The principle of consumer protection against labeling has been promulgated in Consumer Protection Act since 1979 in order to protect the consumer rights and public safety. The law imposes legitimate duties and responsibilities on business man³⁵³ either manufacturer or importer to provide necessary information and facts of products and goods including correctly and adequately description of quality for the consumer on consumption decision making. According to aims behind the compulsory use of labeling so that the statement on the label shall be truthful and not caused misunderstanding on the subject matter of facts in the goods.³⁵⁴

(3) Label-Controlled Goods

The label on goods plays an important role in consumption decision making. The statement on the label can solely induce consumers to pick the product

³⁵⁰ Food Act B.E. 2522 (1979), Section 41 and Announcement of Food and Drug Administration on Criteria for Food Advertisement B.E. 2551 (2008)

³⁵¹ Consumer Protection Act B.E. 2522 (1979), Section 8 and 22 para 2 (5) and Ministerial Notification No.5 B.E. 2534 (1991)

³⁵² Susom Supphanit, Consumer Protection Laws (n 234) 169

³⁵³ Consumer Protection Act B.E. 2522 (1979), Section 4

³⁵⁴ Office of the Consumer Protection Board, (n 322) 22

where it is put on the supermarket shelf to a shopping cart instantly. For the lawful labeling, the law identifies goods as label-controlled goods as follows;³⁵⁵

(1) Goods which are manufactured for sale by the factories under the Factory Act B.E. 2535 (1992).

(2) Goods which are ordered or imported into Thailand for sale.

(3) Goods which are regularly used by the public or Goods which may be harmful to health or cause physical or mental harm because of the use or the nature of such goods.

(4) Goods which are not controlled by other law.³⁵⁶

Additionally, the law has empowered the committee of label to promulgate the rules and procedure concerning to the description of label on label-controlled goods³⁵⁷ which is namely Announcement of the committee on label in regard to the description of label on label-controlled goods. The regulation details the rules and procedure of labeling as follows;³⁵⁸

1) The label shall be in Thai language which is appeared on the goods, or container, or package of goods, or inserted in or put together with the goods, or container, or package of goods including usage manual and tag which is attached to the goods, to be obviously noticed and read by the consumer.³⁵⁹

2) The label of label-controlled goods shall contain trustful statements and not cause misunderstanding on the subject matter of facts concerning the place of origin, condition, quality of such goods.³⁶⁰ Other descriptions shall be as follows;³⁶¹

³⁵⁵ Consumer Protection Act B.E. 2522 (1979), Section 30

³⁵⁶ Office of the Consumer Protection Board (n 322) 24

³⁵⁷ Consumer Protection Act B.E. 2522 (1979), Section 31

³⁵⁸ Office of the Consumer Protection Board (n 322) 24

³⁵⁹ Announcement of the committee on label in regard to descriptions of label on label-controlled goods, Art. 1 and 3

³⁶⁰ Announcement of the committee on label in regard to descriptions of label on label-controlled goods, Art. 1

³⁶¹ Announcement of the committee on label in regard to descriptions of label on label-controlled goods, Art. 2

(2.1) The statements which identify what the goods are, for example, the name of goods or type of goods. In case the goods which imported or ordered from foreign countries into Thailand for sale shall be indicated a place of manufacture.

(2.2) The name or trademark of the manufacturer for sale which has been registered in Thailand.

(2.3) The name or trademark of the importer for sale which has been registered in Thailand.

(2.4) The locating place of the manufacturer or the place of importer operating the business for sale as the case maybe.

(2.5) Quantity, size, and capacity of goods shall be indicated as the case may be.

(2.6) The instruction shall be identified what the goods are used for, for example, the cleaning device is used for wooden floor or marble floor, food container is used for gas oven or microwave oven.

(2.7) Recommendations of use or prohibitions of use shall be indicated in order to be correctly used by the consumer.

(2.8) Caution (if any)

(2.9) Date of production or Expiry date or Best before date (if any)

(2.10) Price of goods in Thai Baht and additional foreign currency

In fact, there are a lot of goods without a label or with illegitimate label put on the market regularly even though the law compels the entrepreneur both the manufacturer and importer shall comply with the law of labeling. For this reason, the committee of label established under the Consumer Protection Act has a power of order to rectify the illegitimate label on the entrepreneur or cease the usage of such label which does not comply with the descriptions of the label on label-controlled goods as prescribed by the committee on label's announcement.³⁶² Additionally, the entrepreneur shall be liable to imprisonment or fine or imprisonment and fine

³⁶² Consumer Protection Act B.E. 2522 (1979), Section 33

provided that they sale the label-controlled goods without label or with illegitimate label or with ceased label by the order of committee of label.³⁶³

On the business's point of view, whatsoever that caused damages to the business is risky so the entrepreneur should take risk management. According to the law, there is an alternative solution that reduces and eliminates the risk of business losses in regard to the usage of the illegitimate label. In the case of suspicion and uncertainty of usage, the application might be filed to the committee on labels in order to receive the consideration and opinion of the committee whether the label used on label-controlled goods conform with the announcement of the committee and the law of labeling under Consumer Protection Act.³⁶⁴ After the application has been received by the committee on labels, the consideration and opinion on such label shall be given to the applicant in 30 days. Such label shall be deemed to be approved provided that the opinion of the committee on the label has not been received by the applicant on prescription period. Additionally, the entrepreneur shall not be liable on conforming with such opinion provided that the given opinion has been considered to be invalid afterward and the committee on labels notifies the other opinions.³⁶⁵

(4) Consumer Protection in Other Types

Advanced scientific knowledge and technology is the crucial factor that brings about the new innovation to the society. The consumable product which is placed on sale in the marketplace has been improving all the time because of its advancement. For this reason, the consumer does not possibly know whether the product is safe and suitable for usage due to the fact that they might not be aware of specific knowledge on goods production. Additionally, the product is normally made or manufactured in large quantity in the factory so the consumable product is usually in form of industrial product. Quality control by a business itself is one part of preventive measure protecting the consumer injuries from the defective or unsafe

³⁶³ Consumer Protection Act B.E. 2522 (1979), Section 52

³⁶⁴ Consumer Protection Act B.E. 2522 (1979), Section 34

³⁶⁵ Consumer Protection Act B.E. 2522 (1979), Section 34 and 39

product before the goods will be distributed to the market. However, quality control error is always feasible and, then it might cause damages to life, body, and properties of the consumer.³⁶⁶

In this case, the consumer has the right to have considered and compensated for injuries provided that such damage is caused by unsafe product under the Consumer Protection Act B.E. 2522 (1979) or the Product Liability Act B.E. 2551 (2008) together with the Consumer Case Procedure Act B.E. 2551 (2008).³⁶⁷ Nevertheless, the establishment of preventive legal measure to control the defective or unsafe products which have already been distributed in the market but has not been reached to the hand of the consumer yet or the product has already been bought by consumers but its defect has not been perceived at that time, is the best solution to protect injuries caused by such unsafe product.

Not only the consumer protection measures against advertising, against labeling and on contract but also other types of measure have been provided by Consumer Protection Act B.E. 2522 (1979). The law empowers the Consumer Protection Board that shall conduct as follows;³⁶⁸

1) When there is a reasonable cause to suspect that any goods may be harmful to consumers, the Consumer Protection Board may order the entrepreneur to test or verify the suspected goods. In case the entrepreneur does not comply with the order of the Consumer Protection Board or delay the process of testing and verify without reasonable cause the Consumer Protection Board may arrange the testing or verifying of suspected product by the expenses of the entrepreneur.³⁶⁹

2) In urgency and necessary case, the Consumer Protection Board shall have the power of order to prohibit the sale of such goods temporarily until such

³⁶⁶ Sukda Thanitcul, Product Liability Law (2nd edn, Winyuchon Press 2003) 16

³⁶⁷ Anan ChantaraOpakorn, Product Liability Law. (1st edn, Thammasat Law School Press 2016) 96

³⁶⁸ Office of the Consumer Protection Board (n 322) 31

³⁶⁹ Consumer Protection Act B.E. 2522 (1979) amended Consumer Protection Act B.E. 2556 (2013), Section 36

product will be tested or verified as safe goods, provided that the Board has reasonable cause to believe that such goods may be harmful to consumers.³⁷⁰

3) In case the result of product testing or verification of goods appears to be unsafe goods for consumers and the harmfulness of such goods cannot be protected by the rules of labeling under Section 30 or other laws, the Consumer Protection Board shall have a power to impose an order on entrepreneur as follows;³⁷¹

(3.1) Prohibit the sale of such goods.

(3.2) Perform product recall from the marketplace or the consumers by the expenses of the entrepreneur.

(3.3) Modify of such goods in secure conditions, or replace with indistinguishable goods or the price of such goods is compensated by the expenses of the entrepreneur.

(3.4) Return such goods in case the goods are ordered or imported from overseas by the expenses of the entrepreneur.

(3.5) Destroy such goods.

(3.6) Announce, inform, or advertise relevant information about the harmfulness of such goods to the consumer or relevant procedures in accordance with (3.1)-(3.5) by the expenses of an entrepreneur.

According to the consumer protection on other types, there are special preventive measure for controlling unsafe goods which have already been sold in the market as well as the goods which have already been bought by the consumer and there is no other means to protect the harmfulness of such goods by the measure of labeling or provided in other laws, that is (1) the prohibition on sale of such goods and (2) the recall on such goods from the consumer. After the Consumer Protection Board has been established since 1992, the power has been used by the Board under this provision to prohibit the sale of such goods several times, for example, the prohibition on sale and service of baraku, electronic baraku, and electronic cigarette as well as

³⁷⁰ Consumer Protection Act B.E. 2522 (1979) amended Consumer Protection Act B.E. 2556 (2013), Section 36

³⁷¹ Consumer Protection Act B.E. 2522 (1979) amended Consumer Protection Act B.E. 2556 (2013), Section 36 para2 (1)-(6) and para3

liquid that is used with baraku, electronic bararu, or electronic cigarette as prescribed by the order of the Consumer Protection Board No. 9/2558³⁷² and the prohibition on the sale of electroshock weapon as prescribed by the order of the Consumer Protection Board No. 5/2556.³⁷³

However, the product recall measure prescribed by this law has just been amended since 2013 by the Consumer Protection Act B.E. 2556 (2013) and the order of the Consumer Protection Board on product recall measure under this law has never been done since then.³⁷⁴ The product recall measure ordered by the Consumer Protection Board is known as compulsory product recall measure because the order under this section are mandatorily made by a competent body empowered by the law and it tends to be used as a last resort.³⁷⁵ Nevertheless, there is another form of product recall which is initially undertaken by the entrepreneur which is known as voluntary product recall measure.

In the business world, the entrepreneur is the person who knows his product as well as the process of productive activities best all the way long to complete as a finished product. Therefore, the entrepreneur is in the position that he should be the person who realizes any errors in process of production or defects of goods. In addition, the entrepreneur usually records the data on who is the related person in his business chain such as suppliers, carriers, retailer, and in some cases the customers who will be the target of his products.³⁷⁶ Thus the product recall measure should be voluntarily undertaken by the entrepreneur rather than compulsory product recall measure as prescribed by the law.

Nonetheless, in the practical business transaction, the entrepreneur is unwilling to voluntarily undertake on product recall measure by recalling unsafe or defective products from consumers due to the high cost of product recall measure as

³⁷² Office of the Consumer Protection Board (n 322) 128

³⁷³ Office of the Consumer Protection Board (n 322) 127

³⁷⁴ Office of the Consumer Protection Board (n 322) 110-128

³⁷⁵ Sutthinee Borisuttham, 'The Consumer Protection: Product Recall' (Master Degree, Thammasat University, 2011). 20

³⁷⁶ Oranee Kanoksophit, (n 252) 125

well as consumer contacting costs, transportation costs, repairing or replacing costs may cause financial trouble to the entrepreneur. However, the entrepreneur normally carries out voluntary product recall measure provided that its measure can protect his business reputation and bring about long-term beneficially to his business.³⁷⁷ Therefore, when the product recall measure has not been undertaken voluntarily or inefficiently undertaken by the entrepreneur, the compulsory product recall measure shall be ordered by the competent body in order to monitor the voluntary product recalling and ensure the effectiveness of this measure.

4.3 The Laws Concerning Motor Vehicle and Equipment Safety Standards

Not all child car seats can be used on a specific model of personal motor vehicle in Thailand. The child car seats distributed in the market currently divided into 2 types that are (1) child car seat securing with vehicle's structure by adult safety belt³⁷⁸ and (2) child car seat securing with vehicle's structure by ISOFIX anchorages systems (without requiring adult safety belt).³⁷⁹ In the first case, a child car seat can be installed in all types or specific models of motor vehicle because it is secured on a vehicle's seat by an adult safety belt which has already been fitted in all motor vehicles by the law.³⁸⁰

4.3.1 Motor Vehicle Act B.E. 2522 (1979)

All motor vehicles on the road shall be registered after they have been bought from the car dealer or local vehicle distributor³⁸¹ and the driver shall have a driving

³⁷⁷ Pakorn Nilrapunt, 'Product Recall Measure: Australia and the United States' (Administrative Law, Volume 1, 2006) 5

³⁷⁸ Britax, 'Britax® Car Seat model First Class Plus' <<http://www.britaxthailand.com/CARSEATS/First-Class-Plus.html>> accessed 12 October 2016

³⁷⁹ Britax, 'Britax® Car Seat model Max Fix II' <<http://www.britaxthailand.com/CARSEATS/MAXFIX-II.html>> accessed on 12 October 2016

³⁸⁰ Ministerial Regulation on Component Parts and Equipment on Motor Vehicle B.E. 2551 (2008)

³⁸¹ Motor Vehicle Act B.E. 2522 (1979), Section 6(1)

license prior to the permission of first driving.³⁸² The objective of implementing motor vehicle register systems and requiring of the driving license is ensuring that the public will be safe from using the standard type-approval of a motor vehicle and the motor vehicle shall be occupied by the competent occupant who drives responsibly. Moreover, the competent are responsible for controlling and monitoring the use of the motor vehicle to be lawful according to the purposes and types of the vehicles. This regulation still imposes the criminal penalty on the occupant who fails to comply with the law. In case of using the motor vehicle which has not been registered, the occupant shall be liable to a fine not exceeding 10,000 Baht,³⁸³ while whoever does not abide by the Minister Regulation on Component Parts and Equipment on Motor Vehicle B.E. 2551 (2008) shall be liable to a fine not exceeding 1,000 Baht.³⁸⁴ In such a case, the driver who fails to have a driving license shall be liable for imprisonment for a term not exceeding one month or a fine not exceeding 1,000 baht or both penalties.³⁸⁵

According to this law, the definition of a motor vehicle has not been provided explicitly, however, the necessary of technical safety requirements on characteristics of the motor vehicle or component parts and equipment have been specified in subordinate legislation. Under this law, the motor vehicle has been classified into many groups such as a public vehicle, service vehicle, and personal vehicle.³⁸⁶ Additionally, the motor vehicle in each group shall be classified by purposes, for example, personal motor vehicle shall be divided into two types that are (1) the personal vehicle for carriage of passenger and (2) the personal vehicle for carriage of goods but not for transportation business under the law of Land Transport Act.³⁸⁷

³⁸² Motor Vehicle Act B.E. 2522 (1979), Section 42

³⁸³ Motor Vehicle Act B.E. 2522 (1979), Section 59 and Section 6(1)

³⁸⁴ Motor Vehicle Act B.E. 2522 (1979), Section 58 and Section 5(2)

³⁸⁵ Motor Vehicle Act B.E. 2522 (1979), Section 64

³⁸⁶ Motor Vehicle Act B.E. 2522 (1979), Section 4 para2

³⁸⁷ Motor Vehicle Act B.E. 2522 (1979), Section 4 para4

4.3.1.1 Types of Personal Vehicle

In this research, only the personal motor vehicle for carriage of passenger and personal motor vehicle for carriage of goods will be determined to be objective of this research because children or babies usually travel or transport with their family except in special circumstances such as a public bus or school bus. At that time children or babies who travel with their family should be protected as same as adults who will be protected by an adult safety belt or front air bag from dangerous on road events, for example, car crash, stops, abruptly slowing down. In this case, an adult safety belt cannot be sufficiently protected or reduce the injury or fatality's rate due to the fact that the adult safety belt has been designed for a mature person.

The personal vehicle has been classified into two types as follows;³⁸⁸

(1) Personal Vehicle for Carriage of Passenger

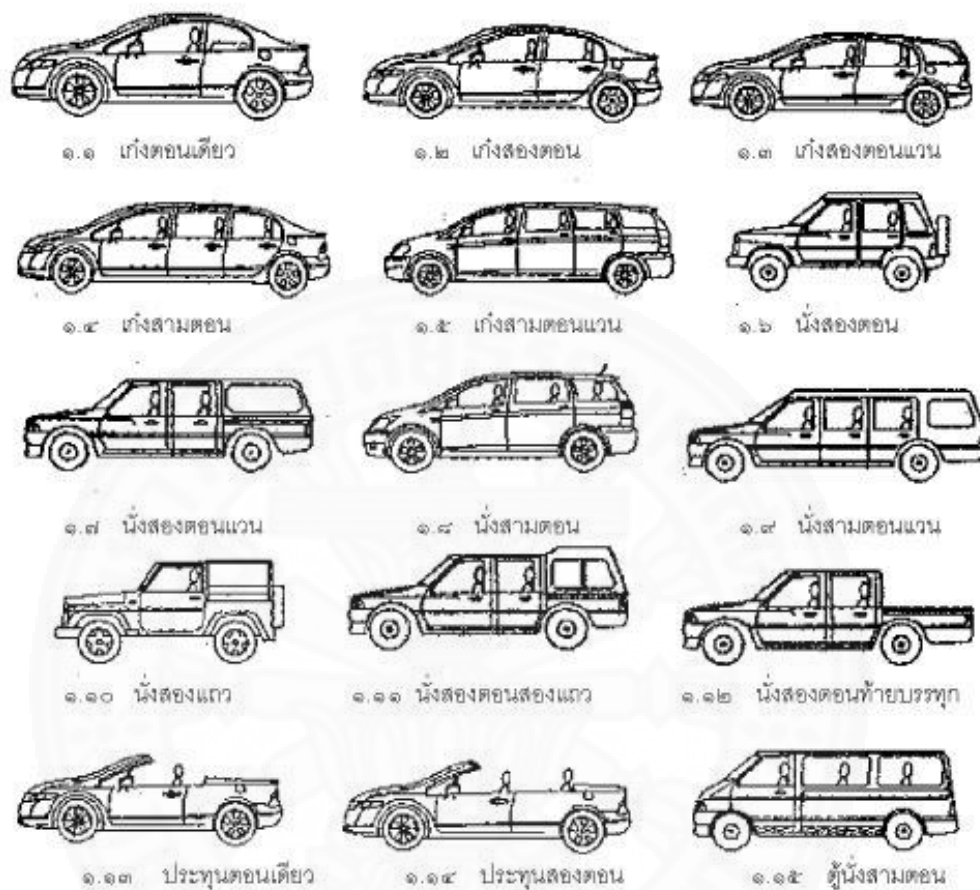
The personal motor vehicle for carriage of passenger has been divided by size and capacity of carriage of passenger into two types as follows;³⁸⁹

1) personal vehicle for carriage of passenger not exceeding seven persons, the maximum width cannot be greater than 2.55 meters, the maximum length cannot be greater than 12 meters and the height cannot be greater than 4 meters. The example of a personal vehicle of this type is a sedan, family car, SUV not exceeding 7 seats and pickup truck (4 doors).

³⁸⁸ Ibid

³⁸⁹ Ministerial Regulation on Characteristic, Capacity and Power of Each Types of Registered Motor Vehicle B.E. 2548 (2005) Article 3(□), (□) and (□)

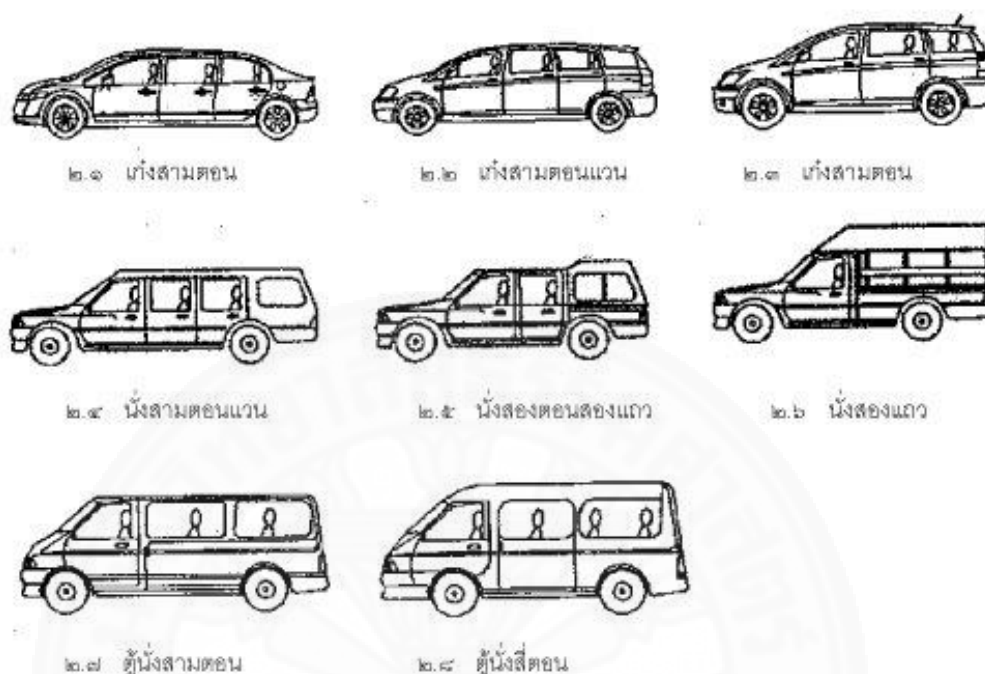
Figure 4.4 Personal Vehicles for Carriage of Passenger not Exceeding 7 Persons³⁹⁰



2) Personal vehicle for carriage of passenger more than seven persons, the width, the length and the height are the same or more than a personal vehicle for carriage of passenger not exceeding seven people. The example of a personal vehicle of this type is a van.

³⁹⁰ Autocheck, 'Personal vehicle for carriage of passenger not exceeding 7 persons'
http://www.autocheck.in.th/section2_1.php?car_id=3#show_page accessed 13 October 2016

Figure 4.5 Personal Vehicles for Carriage of Passenger Exceeding 7 Persons³⁹¹



(2) Personal Vehicle for Carriage of Goods

The personal vehicle for carriage of goods has been specified the characteristic and capacity of the vehicle in the same subordinate law that specified personal vehicle for carriage of the passenger.³⁹² The personal vehicle for carriage of goods shall be the maximum width cannot be greater than 2.55 meters, the maximum length cannot be greater than 12 meters and the maximum height cannot be greater than 4 meters. In case the vehicle is width not exceeding 2.30 meters, the height of vehicle shall be not exceeding 3 meters. The example of a personal vehicle of this type is pickup truck (2-door cab), truck car (2-door).

³⁹¹ Autocheck, 'Personal vehicle for carriage of passenger exceeding 7 persons'
<http://www.autocheck.in.th/section2_1.php?car_id=2#show_page> accessed 13 October 2016

³⁹² Ministerial Regulation on Characteristic, Capacity and Power of Each Types of Registered Motor Vehicle B.E. 2548 (2005) Article 3(□)

Figure 4.6 Personal Vehicles for Carriage of Goods³⁹³



4.3.1.2 Compulsory Component Parts and Equipment on Personal Motor Vehicle

The Motor Vehicle Act B.E. 2522 (1979) empowers the Minister of Transportation to regulate the subordinate law in order to lay down the necessary and sufficient component parts and equipment of the motor vehicle for the safety of the occupant, passenger, and other road users.³⁹⁴ The Ministerial Regulation on component parts and equipment of motor vehicles B.E. 2551 (2008) specifies 28 lists of component parts and equipment on personal motor vehicles such as motor vehicle's

³⁹³ Autocheck, 'Personal vehicle for carriage of goods'
<http://www.autocheck.in.th/section2_1.php?car_id=3#show_page> accessed 13 October 2016

³⁹⁴ Motor Vehicle Act B.E. 2522 (1979), Section 5(2)

structures, power generators, brakes, fuel systems, electronic systems and etc.³⁹⁵ Furthermore, Director-General of Department of Land Transport is empowered by the Ministerial Regulation to prescribe technical requirements of compulsory component parts and equipment concerning qualification, specification, performance, systems, efficiency, installation, type, dimension and amount in Notification of Department of Land Transport.³⁹⁶ Additionally, for the safety purposes and implementing national safety standards of compulsory component parts and equipment on a vehicle in line with international standards, Director-General of Department of Land Transport is empowered to prescribe criteria and procedures for the approval of compulsory component parts and equipment on a vehicle in Notification of Department of Land Transport.³⁹⁷

All types of vehicle are required to be fulfilled with specific lists of component parts and equipment. If the motor vehicle fails to fulfill with the compulsory lists of component parts and equipment of motor vehicle, it will be denied to register and not be used for transportation,³⁹⁸ as a result, the vehicle occupant may face a criminal penalty for a fine not exceeding 1,000 baht.³⁹⁹ In such case, after the motor vehicle has been registered, the component parts and equipment of registered motor vehicle does not complete in accordance with the lists provided in the Minister Regulation or the new unauthorized items or devices have been installed on the motor vehicle and may cause bodily or mental injuries to other people. In this case, the motor vehicle shall not be used until it is completely installed component parts and equipment in accordance with the lists provided by the law or an unauthorized item or

³⁹⁵ Ministerial Regulation on Component Parts and Equipment on Motor Vehicle B.E. 2551 (2008), Art.3(1)-(28)

³⁹⁶ Ibid Art.11

³⁹⁷ Ibid Art.12

³⁹⁸ Motor Vehicle Act B.E. 2522 (1979), Section 6(1)

³⁹⁹ Motor Vehicle Act B.E. 2522 (1979), Section 5(2) and Section 58

device shall be removed out of the vehicle. Whoever fails to comply with this law shall be liable to a fine not exceeding 2,000 baht.⁴⁰⁰

(1) Safety Belt and Safety Belt Anchorage

The safety belt and safety belt anchorage are two compulsory equipment that required by the law to be installed in a vehicle. These equipments shall have capabilities of restraining secured bodies of the driver and passenger on a seat in order to protect the bodily injuries or reduce the damages of the vehicle occupants from road accidents.⁴⁰¹ Moreover, the installation and qualification of safety belts have been provided by the Notification of Department of Land Transport on The Criteria of Installation and Qualification of Safety Belts for Motor Vehicle B.E. 2555 (2012).

The safety belts shall be manufactured in accordance with such standard. In case, the domestic manufactured or assembled the motor vehicle, the safety belt shall be approved in accordance with the Thai Industrial Standard for seat belts for automobile (TIS: 721-2551).⁴⁰² On the other hand, the imported motor vehicle from abroad, the safety belt shall be approved in accordance with the UN-ECE Regulation No.16 Safety Belts Series 04 or TIS: 721-2551 or approved by the Department of Land Transport.⁴⁰³

(2) ISOFIX Anchorage and Top tether Anchorage

Nowadays, ISOFIX anchorage and top tether anchorage has not been required by the law to be installed in a motor vehicle as compulsory component

⁴⁰⁰ Motor Vehicle Act B.E. 2522 (1979), Section 12 para1 and Section 60

⁴⁰¹ Ministerial Regulation on Component Parts and Equipment on Motor Vehicle B.E. 2551 (2008), Art.3(24)

⁴⁰² Notification of Department of Land Transportation on Criteria of Installation and Qualification of Safety Belts for Motor Vehicle B.E. 2555 (2012), Art.5(1)

⁴⁰³ Notification of Department of Land Transportation on Criteria of Installation and Qualification of Safety Belts for Motor Vehicle B.E. 2555 (2012), Art.5(2)

parts and equipment in the motor vehicle. However, there are some brands and models of personal vehicles in Thailand which have already installed the ISOFIX systems on the vehicle.⁴⁰⁴ For example, Toyota models Camry 2015, Altis, Prius, Alphard, Vellfire and etc., Honda models CRV2015, Accord, Civic, etc., Nissan models Teana, X-Trail, and etc., Mazda models CX5, Mazda3, Mazda2, Subaru XV, Isuzu MU-X, Lexus, Mercedes Benz, BMW, Porsche, Audi, and etc.

4.3.1.3 The Approval of Motor Vehicle and Equipment in Thailand and Asian Community

Thailand is a member country of ASEAN Community. Therefore, it is necessary to understand the approval system of automotive products between national approval system prescribed in domestic laws and community approval system prescribed in Draft of Mutual Recognition Arrangement on Type Approval on Automotive Product (MRA).

(1) The National Approval of Vehicle Equipment

Under Motor Vehicle Act B.E. 2522 (1979), the law does not define a definition of vehicle type-approval but the law requires all compulsory component parts and equipment to be fitted in motor vehicle prescribed in Ministerial Regulation.⁴⁰⁵ This regulation lays down minimum requirements for compulsory equipment that need to be fitted in a motor vehicle in order to assure road users, driver and passenger, and the public that all vehicles operating on the road are capable of safe running. The Ministerial regulation on Component Parts and Equipment on Motor Vehicle B.E. 2551 (2008) empowers the Director-General of Department of Land Transport determines technical requirements, specifications, installations and

⁴⁰⁴ Britax Thailand, 'Lead a life without limits with Britax's ISOFIX range' (Facebook, 21 April 2015) < <https://www.facebook.com/Britax-Thailand-137402046288913/posts/> > accessed 18 October 2016

⁴⁰⁵ Motor Vehicle Act B.E. 2522 (1979), Section 7(1)

approval procedures in the Notification of Department of Land Transport.⁴⁰⁶ Thus, the approval of component parts and equipment is the procedure that the law requires particular compulsory component parts and equipment on a motor vehicle shall be approved by the competent authority in accordance with technical requirements, specification, installation and approval procedures of specific compulsory component parts and equipment prescribed in the Notification of Department of Land Transport.

The Ministerial Regulation empowers Director-General of Department of Land Transport determines specific type-approval of component parts and equipment pursuant to compulsory component parts and equipment on motor vehicle prescribed in Ministerial Regulation. Consequently, just only compulsory component parts and vehicle equipment that are required by the Ministerial Regulation to be fitted in the vehicle as pre-condition for vehicle registration. In this case, all 28 component parts and equipment may be required by the Notification of Department of Land Transport to be type-approved, for example, audible warning device,⁴⁰⁷ engine power,⁴⁰⁸ speedometer,⁴⁰⁹ and safety glazing material.⁴¹⁰

Nowadays, there are just four compulsory equipment that the Notification of Department of Land Transport promulgates these equipment to be type-approved.⁴¹¹ However, vehicles' equipment other than those specified by Ministerial Regulation as compulsory component parts and equipment to be fitted in a motor vehicle are not able to determine to be type-approved because the law does not

⁴⁰⁶ Ministerial Regulation on Component Parts and Equipment on Motor Vehicle B.E. 2551 (2008), Art.11 and 12

⁴⁰⁷ Notification of Department of Land Transport on Technical Requirements, Specifications, Installations, and Approval Procedures for Audible Warning Device B.E. 2559 (2016)

⁴⁰⁸ Notification of Department of Land Transport on Technical Requirements, Specifications, Installations, and Approval Procedures for Engine Power B.E. 2559 (2016)

⁴⁰⁹ Notification of Department of Land Transport on Technical Requirements, Specifications, Installations, and Approval Procedures for Speedometer B.E. 2557 (2014)

⁴¹⁰ Notification of Department of Land Transport on Technical Requirements, Specifications, Installations, and Approval Procedures for Safety Glazing Materials B.E. 2558 (2015)

⁴¹¹ Retrieve the Notification of Department of Land Transport on Technical Requirements, Specifications, and Approval Procedures for Compulsory Component Parts and Equipment from official website of Office of The Council of State
<http://www.krisdika.go.th/wps/portal/general/!ut/p/c4/04_SB8K8xLLM9MSSzPy8xBz9CP0os3g_A2czQ0cTQ89ApyAnA0__EIOAQGdXA4MAM_2CbEdFAHco68Y!/> accessed 25 October 2016

empower the Director-General of Department of Land Transport issuing Notification that requires equipment other than compulsory equipment as prescribed in Ministerial Regulation. For example, ISOFIX anchorage systems and ISOFIX top tether anchorage do not determine as compulsory equipment to be fitted in a motor vehicle so these equipment are not able to determine to be type-approved promulgated by Notification of Department of Land Transport. In this case, this equipment is necessary and need to be fitted on all personal vehicles in order to jointly connect with ISOFIX child car seats, consequently, ISOFIX anchorage systems and ISOFIX top tether anchorage shall be determined to be compulsory component parts and equipment to be fitted in motor vehicle prescribed in Ministerial Regulation.

Meanwhile, child car seat is supplemental equipment intended to be used for children on the vehicle but it needs not to be fitted on all motor vehicles as pre-condition for vehicle registration and it is not determined to be compulsory component parts and equipment to be fitted on a motor vehicle by the nature of equipment itself. Therefore, Under the Motor Vehicle Act B.E. 2522 (1979) and subordinate legislation cannot specify child car seat to be equipment that is required by the law to be type-approved. However, type-approval or the procedure that the law requires vehicle's equipment in particular child car seat shall satisfy technical requirements, specifications, installations. Moreover, the approval procedures can be accomplished under the Industrial Product Standards Act B.E. 2511 (1968) if there is a Thai Industrial Standard for Child Car Seat promulgated pursuant to this Act. Unfortunately, TIS for child car seat has not been determined to be either general standard or compulsory standard yet.

Under the Motor Vehicle Act B.E. 2522 (1979) and subordinate law, there is no Ministerial Regulation or Notification of Department of Land Transport lays down general criteria for the approval procedures of compulsory component parts and equipment to be fitted on the motor vehicle. Nevertheless, the relevant administrative process and technical requirements, specifications, installations and each approval process of particular compulsory vehicle's equipment have been prescribed in each Notification of Department of Land Transport concerning technical requirements, specifications, installations, and the approval procedures.

From analytical research,⁴¹² the Notification lays down the administrative process for manufacturers of specified equipment or vehicle assembler or vehicle importer applies for the type-approval certificate at Automotive Engineering Bureau, Department of Land Transportation. The approval authority shall grant type-approval certificate if the applicant satisfies the approval procedures as follows;

- (1) Prototype of specified equipment shall be met technical requirements, specifications, installations, and conducted testing by inspection body;
- (2) Each product shall be manufactured in conformity with type-approval of designated equipment (Conformity of Productivity)

Normally, the Notification identifies technical requirements, specifications, and installations that require manufactures to satisfy these standards, however, such equipment shall be deemed to satisfy those standards prescribed in Notification if there is type-approval certificate in accordance with Thai Industrial Standards (TIS) or specific technical requirements of equipment identified in UN-Regulation annexed to the 1958 Agreement.

Actually, Thailand has been Contracting Party of the 1958 Agreement since 2006 but not bound by any UN Regulations.⁴¹³ Thus, the principle of reciprocal recognition between Contracting Party acceded to identically specific UN Regulation annexed to the 1958 Agreement is not applicable to Thailand. However, the Notification recognizes the type-approval certificate granted by approval authority of Contracting Party of the 1958 Agreement.⁴¹⁴

In regard to technical requirements, specifications, installations of vehicle's equipment, even though Thailand does not adopt any EU Regulation

⁴¹² Analyze from the Notification of Department of Land Transport on Technical Requirements, Specifications, Installations, and Approval Procedures for Audible Warning Device B.E. 2559 (2016) and Notification of Department of Land Transport on Technical Requirements, Specifications, Installations, and Approval Procedures for Safety Glazing Materials B.E. 2558 (2015)

⁴¹³ Automotive Engineering Bureau, Department of Land Transport, 'UN Regulation' (March 2010) 17 <http://www.tisi.go.th/images/stories/download_seminar/26Mar10/unece%20regulations.pdf> accessed 25 October 2016

⁴¹⁴ Jiraporn Kaewkraisorn, 'Thailand Views on IWVTA & 1958 Agreement' (The 2nd Public and Private Joint Forum in Asian Region, Jakarta, November 2011) <http://www.jasic.org/j/06_archive/report23/16th_GI_Meeting.pdf> accessed 25 October 2016

annexed to the 1958 Agreement, but the Notification cites or uses the relevant UN Regulation as equivalent other than national standard prescribed in Thai Industrial Standards and accept only test report or type-approval certificate according to relevant EU Regulation.⁴¹⁵

(2) The ASEAN Type Approval of Automotive Products

Under ASEAN Economic Community, the cooperation on the elimination of standards and technical barrier to trade had been established by working groups under ASEAN Consultative Committee on Standards and Quality (ACCSQ), sectorial body under the purview of ASEAN Economic Minister.⁴¹⁶ Automotive Product Working Group (APWG) has been set up by the resolution of the 24th meeting of ACCSQ in order to discharge relevant activities concerning harmonization of automotive standards and technical requirements and certification for eliminating a technical barrier to trade of automotive products amongst ASEAN countries.⁴¹⁷

APWG has performed major activities as follows;⁴¹⁸

- (1) Harmonizing automotive technical standards based on UN-ECE Regulation.
- (2) Preparing Mutual Recognition Arrangement on Type Approval on Automotive Product (MRA).

⁴¹⁵ Ibid

⁴¹⁶ ASEAN Cooperation on Standards and Conformance to Facilitate Trade in The Region <<http://asean.org/asean-economic-community/sectoral-bodies-under-the-purview-of-aem/standards-and-conformance/>> accessed 25 October 2016

⁴¹⁷ Automotive Product Working Group – APWG, ‘Technical barriers to trade concerning automotive parts and vehicles’ (26 March 2010) <http://www.tisi.go.th/images/stories/download_seminar/26Mar10/apwg.pdf> accessed 10 October 2016

⁴¹⁸ Audit and Assessment Division, Thailand Automotive Institute (TAI), ‘ASEAN and The Implementation of Single Automotive Standard’ <http://www.thaiauto.or.th/2012/news/news-detail.asp?news_id=3161> accessed 25 October 2016

Nowadays, the draft of Mutual Recognition Arrangement on Type Approval on Automotive Product is expected to be ratified by ASEAN Secretariat in 2016, and then nineteen automotive products shall be approved in accordance with separate 19 UN-ECE Regulations. Additionally, a member state of ASEAN shall recognize testing report or type-approval certificate granted by designated technical service of other member states of ASEAN without further testing or re-certificated in importing country.⁴¹⁹

After MRA on Type Approval on Automotive Product has been effective, the technical standards which are technical barrier to trade of 19 lists of automotive product shall be eliminated amongst the ASEAN countries, for example, adult safety belt has been approved in accordance with UN-ECE Regulation No. 16 by designated technical service in exporting country, this equipment shall not be re-testing or re-certificated in importing country. Thus, when specified automotive products in MRA have been approved by designated technical service in one member state of ASEAN countries, approved products shall be exported to all member state of ASEAN countries. Furthermore, technical standards of automotive products in line with UN-ECE Regulation as harmonized by MRA will improve a safety standard to the automotive product in ASEAN countries.⁴²⁰

4.3.2 Road Traffic Act B.E. 2522 (1979)

This law has been initially enacted in order to regulate the use of vehicles and control land transportation where the motor vehicles on the road have continuously increased until now.⁴²¹ The law provides the provision controlling the use of a vehicle and technical traffic regulations for public safety and the road users, for

⁴¹⁹ Trakarn Chindavijak, 'ASEAN Mutual Recognition Arrangement (MRA) Implications (The American Chamber of Commerce in Thailand, September 2014)
<https://www.amchamthailand.com/asp/view_doc.asp?DocCID=4407> accessed 26 October 2016

⁴²⁰ Audit and Assessment Division, Thailand Automotive Institute (TAI), 'ASEAN and The Implementation of Single Automotive Standard' <http://www.thaiauto.or.th/2012/news/news-detail.asp?news_id=3161> accessed 25 October 2016

⁴²¹ Road Traffic Act B.E. 2522 (1979), REASON OF ENACTMENT

example, the characteristic of authorized vehicles used in transportation, traffic signal, and traffic sign. Additionally, this law has been amended multiple times for implementing the safety measures concerning the uses of motor vehicles on the road such as the compulsory use of safety belts,⁴²² the restriction of mobile phone using on the vehicle for the driver.⁴²³

4.3.2.1 The Nature of Vehicles On the Road

The law prohibits the use of unsecured or unfit vehicles on transportation. In addition, the vehicle shall have component parts and equipment in accordance with the law of motor vehicle.⁴²⁴ In such case, whoever fails to comply with this law shall be liable for a criminal penalty a fine not exceeding 500 baht.⁴²⁵

4.3.2.2 The Compulsory Use of Safety Belts

The law imposes the compulsory use of safety belts on driver and passenger on a motor vehicle. A driver and passengers of a motor vehicle must fasten safety belts while the motor vehicle is moving on the road.⁴²⁶ In such case, the driver who fails to fasten a safety belt or does not render a passenger of the motor vehicle to fasten a safety belt shall be liable to a fine not exceeding 500 baht.⁴²⁷

The Traffic Act empowers the Commissioner-General to prescribe the category or type of motor vehicles, character, and procedure of using seat belt.⁴²⁸

⁴²² Road Traffic Act B.E. 2522 (1979) amended Order of the Head of the National Council for Peace and Order No.14/2560 Measures to improve the legal enforcement of traffic law.

⁴²³ Road Traffic Act B.E. 2522 (1979) amended Road Traffic Act B.E. 2551 (2008), Section 43(9)

⁴²⁴ Road Traffic Act B.E. 2522 (1979), Section 6 para1, 2

⁴²⁵ Road Traffic Act B.E. 2522 (1979), Section 6 para1, 2 and Section 148

⁴²⁶ Road Traffic Act B.E. 2522 (1979), Section 123 para2

⁴²⁷ Road Traffic Act B.E. 2522 (1979), Section 123 and Section 148

⁴²⁸ Road Traffic Act B.E. 2522 (1979), Section 123 para3

Under the Rule of Royal Thai Police concerning the category or type of motor vehicles, character and procedure of using a seat belt, for the personal motor vehicle not exceeding 7 seats and registered before 1 January 2011 the law requires driver and passenger who occupy the front seating position next to the driver must fasten a safety belt.⁴²⁹ The reason that the law requires only the driver and passenger who occupy in front seating position must fasten up their bodies with safety belt while travelling but not including passengers who occupy in rear seating position of the vehicle because the motor vehicle that registered before 1 January 2011 was installed safety belts only on a driver seat and front row passenger next to the driver seat. Meanwhile, the personal motor vehicle not exceeding 7 seats and registered after 31 December 2010 the law requires a driver and all passengers of a motor vehicle must fasten a safety belt while travelling.⁴³⁰

In conclusion, it is clear that Thailand's road safety standard has not met the best practice of the road safety legislation, particularly the law concerning the safety of young passenger on motor vehicles. The current Traffic Laws do not provide sufficient safety measure for children who travel on a motor vehicle. Moreover, there is no national standard of child car seat, therefore, many child car seats distributed in a marketplace and online market are unable to be applied on a motor vehicle in order to protect and reduce the risk of bodily injury and fatality on a road accident. Furthermore, the motor vehicle safety standards are still inadequate, particularly the compulsory automotive part and equipment that require by the law to be fitted on motor vehicles in order to connect with an ISOFIX child car seat.

⁴²⁹ Rule of Royal Thai Police concerning the category or type of motor vehicles, character and procedure of using seat belt B.E. 2560 (2017), Art 3 and 4(1)

⁴³⁰ Ibid Art 4(2)

CHAPTER 5

ANALYSIS ON LEGAL APPROACH IN IMPLEMENTING THE COMPULSORY USE OF CHILD CAR SEAT ON PERSONAL MOTOR VEHICLES AND ESTABLISHING CHILD CAR SEAT STANDARD AND ISOFIX SYSTEMS

In this chapter, the loopholes of the Thai Traffic Law, Motor Vehicle Law, and Product Safety Law will be analyzed and the answers or responses to solve these legal problems will be proposed respectively. Additionally, the obstacles to implementing the law concerning the compulsory use of child car seat on personal motor vehicles and safety standard of child car seat and ISOFIX systems will be scrutinized.

5.1 Problems on The Compulsory Use of Child Car Seat and Safety Standard of Child Car Seat in Thailand

According to the detailed study in Chapter 4, problems concerning young passenger safety law on motor vehicles, safety standard of child car seat and relevant issues relating general requirements and safety standards of motor vehicles and equipment will be analyzed as follows;

5.1.1 The Absence of Law Concerning the Compulsory Use of Child Car Seat on Personal Motor Vehicles

The Road Traffic Act imposes the compulsory use of safety belt on a driver and all passengers in a motor vehicle. It means that children or young passengers are defined as a typical passenger, therefore, they are required by the law to wear a safety belt while travelling without exception.

According to the said rule, it may seem like the law has already provided a safety measure through the compulsory use of safety belt, however, most of the children practically travel on a motor vehicle without fastening up their bodies with the safety belt. Moreover, in some cases, the children are placed on a lap of their

parents in the front seat of the motor vehicle especially a baby or toddler whose body is too small to wear a safety belt. Unfortunately, the parents usually neglect to arrange other safety devices using on a motor vehicle for their children and let their children face with unexpected events on the road.

Under current passenger safety law relating to compulsory use of safety belt, the law does not pay attention to children who are travelling with their family as passengers on motor vehicles. The only mature person will be utilized a safety belt for reducing and protecting bodily injury or fatality on unforeseen accidents on the road. Meanwhile, the children, who are the subject of absolute rights on their bodies and lives, do not receive the same level of protection by the law comparing to their parents. Even though in some cases, children can apply for safety protection by using an adult safety belt but it does not generate appropriate safety for children because an adult safety belt is designed and constructed for adult protection. Additionally, in car crash events, children who are restrained by adult safety belts may be injured by safety belt itself, not by a direct result of a car crash.

Generally, parents have a duty to obtain additional safety protection for their children. Consequently, without legal enforcement, children safety protection on vehicles depends upon parents' discretion to utilize a child car seat. If their parents recognize the benefits of using a child car seat instead of placing their children in the rear seating position of vehicles without restraining or holding their infant or baby on their laps in the front seating position of the vehicles, children will be efficiently protected in any adverse vehicle incidents. However, supplemental safety equipment intended to be used on a vehicle for children is imposing a burden of additional expenses to pay out of parent's wallet. For this reason, some parents may disregard or neglect to grasp the importance of using a child car seat in order to protect and reduce injury and fatality's feasibility on road accidents.

Furthermore, government agencies, which have direct responsibility to encounter with road accidents and dealing with the safety on roads, have never launched a policy regarding child car seat on a national level even though Thailand is currently the world first rank of highest fatality rate from road accidents. Therefore, in order to reduce the feasibility of child fatality from road accidents and recognize children fundamental rights, in particular, the right of survival, the government and

legislators should introduce young passenger safety policy and implement legal measures enforcing the use of child car seat effectively.

Therefore, in consideration of the initiation of this law by the government, the legislator should implement a young passenger safety on motor vehicles law or alternatively call for the compulsory use of child car seat law which requires children who travel on motor vehicles to be restrained by appropriate child car seat regarding child's age and size.

5.1.2 The Absence of Laws concerning Safety Standards of Child Car Seat

The Industrial Product Standards Act B.E. 2511 (1968) is the law that lays down standards of products which are manufactured or imported into Thailand. Thai Industrial Standards (TIS) are divided into two types; (1) General Standards and (2) Compulsory Standards. General Standards are determined for products that need to be promoted safety or quality standards of domestic products manufactured by Thai manufacturers. If manufacturers produce goods that have been already determined to be in accordance with a general standard and satisfy the requirement of that standard and administrative process, the manufacturers have the right to exhibit a standard mark on their products. This standard mark is an official symbol ensuring the consumer that these products satisfy the safety and quality standard determined by the government agency. Meanwhile, compulsory standards are determined for the particular types of products that the law requires that the manufacturer or importer shall manufacture or import such products in conformity with a compulsory standard set by Thai Industrial Standard Institute. Normally, compulsory standards are determined for products that need special certification by a government agency that such products are safe for the public and consumers, and do not have negative effects on domestic industry and economy of the country.

The differences of general standard and compulsory standard are the source of law that empowers the Minister of Industry with the ability to determine standards and the obligations of the manufacturer and importer. In regard to the source of law, general standards are determined by Minister of Industry and promulgated in Ministerial Notification and published in Government Gazette, meanwhile,

compulsory standards are determined by Minister of Industry, promulgated in the Royal Decree and published in Government Gazette. According to the obligations of manufacturer and importer imposed by the law for products which are required to comply with compulsory standards, the domestic manufacturer and importer shall manufacture or import such products in conformity with the compulsory standards. The manufacturer and importer are obliged by the law to apply for a license to manufacture or a license to import such products that need a compulsory standard certification. On the other hands, the manufacturer or importer is not obliged by the law to manufacture or import such products in conformity with general standards. Nevertheless, it is a voluntary option for the manufacturer not including the importer to comply with general standards by manufacturing products fulfilling all requirements of the standards, then, they can apply for a license for the exhibition of standard mark and display that mark on their products in order to certify the consumer that these products are safe and met Thai industrial Standards set by the government agency.

In relation to child car seat under the Thai Industrial Standards, there is currently no general standard or compulsory standard determined by Minister of Industry. Therefore, child car seat in Thailand is still lacking legal measure to control safety standards and requirements of child car seat that is manufactured by Thai entrepreneurs or imported from outside countries.

The necessity of the implementation of Thai Industrial Standard for Child Car Seat is the legal measure ensuring that both Thai manufacturer and importer of child car seat are controlled and certified by the government agency and that the products are safe for use to guarantee children's safety on motor vehicle, met safety standards and requirements, and capable of protection bodily injury or death of children on motor vehicle caused by accidents on the road. Furthermore, the promulgation of Thai Industrial Standard for child car seat should be implemented in parallel with the traffic law concerning the compulsory use of child car seat on a motor vehicle. If children are enforced by the law to be restrained by a child car seat when they travel on a motor vehicle, a child car seat or life safety equipment shall be effectively capable of protections against accidents on the road through effectiveness and safety requirements of child car seat. Moreover, it should control both child car seats which

are made in Thailand and imported child car seats made in foreign countries through the legal measure introducing the determination of compulsory standard for child car seat in the form of Thai Industrial Standard for Child Car Seat.

In regard to safety requirements, specification, and inspection of child car seat prescribed by compulsory Thai Industrial Standard, it should adopt and utilize international standard concerning technical requirements of child car seat instead of new developing national standard in order to develop safety standards and technical requirements of child car seat in short period of time and to be in line with developed countries where child car seat has been invented by automotive specialist and used for children on motor vehicles for a long times.

5.1.3 Inadequacy of Motor Vehicle and Equipment Safety Standards

Subject to Motor Vehicle Act B.E. 2522 (1979), the vehicle type-approval is in the form of the combination of two legislative instruments; (1) the general requirement of compulsory component parts and equipment to be fitted on motor vehicle prescribed by Ministerial Regulation and (2) the type-approval of vehicle's equipment prescribed by Notification of Department of Land Transportation.

The general requirement of compulsory component parts and equipment to be fitted on a motor vehicle is the administrative legislation that lays down component parts and equipment which are required by the law to be fitted with each type of motor vehicle. The Ministerial Regulation prescribes the requirement of necessary component parts and equipment that require being fitted with each type of motor vehicle, not including the technical requirements, specifications, installations and approval procedures of vehicle's equipment. In relation to type-approval of vehicle's equipment, the Notification of Department of Land Transport specifies the technical requirement, specification, installation and approval procedure of each compulsory component parts and equipment that prescribed by the Ministerial Regulation. Consequently, only component parts and equipment are required to be determined the type-approval of vehicle's equipment.

In case of child car seat, this equipment is not the compulsory component parts or equipment that is required by the Ministerial Regulation to be fitted on motor vehicle, therefore, subject to the type-approval of vehicle's equipment, the General-Director of Department of Land Transport does not have a power to prescribe a child car seat to be approved under this law. Meanwhile, ISOFIX anchorage systems and ISOFIX top tether anchorage are the equipment used in connection with ISOFIX child car seat. If this equipment has not been fitted compulsorily on personal vehicles, the ISOFIX child car seat would not be able to install on that motor vehicle. Consequently, it is necessary that ISOFIX anchorage systems and ISOFIX top tether anchorage shall be amended and added as a compulsory component parts and equipment that is required by the Ministerial Regulation to be fitted on all personal motor vehicles.

Furthermore, the technical requirement, specification, installation and approval procedure of ISOFIX anchorage systems and ISOFIX top tether shall be implemented and determined by General-Director of Department of Land Transport and promulgated in Notification of Department of Land Transport. Additionally, the technical requirements of ISOFIX anchorage systems and ISOFIX top tether anchorage shall adopt the international standard in order to implement type-approval of this equipment in a short period of time and improve safety standards and requirements to be in line with the international standard.

5.2 Problem on Incompatibility of ISOFIX Child Car Seat and Motor Vehicles without ISOFIX Systems

Nowadays, there are two types of child car seat distributed in Thailand; (1) general child car seat and; (2) ISOFIX child car seat. The child car seats both general child car seat and ISOFIX child car seat may be approved in accordance with UN Regulation No. 44 if it is manufactured in European Countries and some countries outside EU that adopt the UN Regulation No. 44 as a technical requirement and safety standard for child car seat. Meanwhile, Thailand is currently lacking the improvement of law concerning the compulsory automotive equipment and parts which are required by the law to be fitted on motor vehicles, in particular, ISOFIX anchorage systems

and ISOFIX top tether anchorage. Consequently, only general child car seats which are installed on motor vehicles by using an adult safety belt are entitled as compatible with all models of motor vehicle. On the other hands, ISOFIX child car seats which are fitted on motor vehicles by using ISOFIX attachment are compatible with specific models of motor vehicles which are fitted with ISOFIX anchorage systems and ISOFIX top tether anchorage. Therefore, parents who buy an ISOFIX child car seat for their children may encounter with the installation problem in a motor vehicle without ISOFIX anchorage systems and ISOFIX top tether anchorage fitted on that vehicle.

For this reason, it is necessary to amend the law concerning compulsory equipment and parts that are required by the law to be fitted on motor vehicles in order to support the use of ISOFIX child car seats.

Furthermore, i-Size child car seat which is approved in accordance with UN Regulation No. 129 is considered to be an ISOFIX child car seat since all i-Size child car seats can be installed only on a motor vehicle which is fitted with ISOFIX anchorage systems. Consequently, before technical requirements and safety standard of enhanced child car seat (UN Regulation No. 129) will be adopted as domestic product standard, all new models of motor vehicle in Thailand shall be fitted with ISOFIX anchorage systems and ISOFIX top tether anchorage for a period of time in order to prepare for most of the motor vehicles on the road to be able to support the use of i-Size child car seat.

For the implementation of Thai Industrial Standard for child car seat in a short period of time, it should adopt the technical requirements and safety standard of child car seat according to UN Regulation No. 44 as Thai Industrial Standard for child car seat in the first instance. After the existence of the law that requires ISOFIX anchorage systems and ISOFIX top tether anchorage to be fitted on motor vehicles for a period of time, the technical requirements and safety standard of enhanced child car seat according to UN Regulation NO. 129 shall be adopted as the alternative product standard in parallel with TIS for child car seat which adopts the UN Regulation No. 44.

5.3 The Obstacles of Implementing The Compulsory Use of Child Car Seat Law in Thailand

Before implementing the law concerning the compulsory use of child car seat, the policy maker or public legislator should realize that there are many difficulties that the public policy or the law concerning the safety of children on motor vehicle will be opposed by the public who lacks awareness of the benefits of the child car seat on motor vehicle. Moreover, the related parties involved in this policy should be properly educated or trained in order to be competent officers who are able to assist a family on how to use a child car seat as early as since a child was born, for example, a nurse or a law enforcement officer enforcing the traffic law.

Furthermore, the ability of the parents to possess an appropriate child car seat which complies with a safety standard should be concerned.

5.3.1 Unawareness of The Use and Benefit of Child Car Seat on Motor Vehicle

Nowadays, most people in Thailand realize that not only a driver and passenger who occupy front seat but also all passengers on the back row of motor vehicle have to wear safety belts while travelling by virtue of the Order of the Head of the National Council for Peace and Order No.14/2560 concerning measures to improve the legal enforcement of traffic law. However, only a small number of parents in Thailand realize that their children, who are under 12 years old should be restrained by a child car seat while travelling instead of placing a child on parent's lap or on a back seat without a safety belt.

The unawareness of the use and benefit of child car seat should be considered as follows;

5.3.1.1 Most Thai Parents are Unaware of the Benefit of Using Child Car Seat

After a child was born, the parents usually prepared on how to raise a child with the best interest, however, there is one certain issue that most Thai parents usually neglect which is a safety of a child on a motor vehicle. Many parents and relatives believe that a newborn baby or infant should not be placed on a child car seat because of the fragility of cervical vertebra (neck bone) and backbone. The best way to carry a child while travelling on motor vehicle is holding and placing on a lap of parents as appear on the online controversy in case of Amita Marie (Tata Young) who posted online picture and video clip of her child sitting on a child car seat which many people commented that she should not place her baby on a child car seat since a child is too small to sit on a child car seat and the child might be injured.⁴³¹

Misunderstanding and unawareness of the use and benefit of a child car seat by people in the society may cause many parents to stop providing a child car seat to their children because of the public confusion. When the usage rate of child car seat is relatively low, most people usually oppose to the compulsory use of child car seat policy initiated by related government agencies because they think that rendering a child car seat is a heavy burden to them financially which is not worth a benefit that a child will receive from the device. Therefore, both public and private sector should disseminate and distribute the information of usage and benefit of child car seat in order to create public mutual understanding and generate the increasing usage rate of child car seat automatically as a voluntary measure.

5.3.1.2 The Government Sectors are Unaware of the Benefits of Establishing Car Seat Policy

The unawareness of the use and benefit of child car seat by parents is the evidence of a poor safety policy on transportation which is disregarded by the

⁴³¹ Dailynews, 'TaTa Young and her husband clarify a newborn baby can sit on a child car seat' Dailynews (Bangkok, 12 February 2016) <<http://www.dailynews.co.th/entertainment/379040>> accessed 25 May 2017

relevant government sectors who discharge and has the responsibility to resolve the problem of high injury and fatality's rate of road accidents. Currently, Thai traffic legislations have not met the best practice of road safety regulations yet, particularly child restraint systems, as a result, there is no specific government agency who is responsible for promoting and supporting the safety policy concerning the compulsory use of child car seat.

According to a domestic literature review by the author, there is no direct documentary research relating to the benefit of using a child car seat on a motor vehicle made by the government agency, moreover, there is no project promoting the use of child car seat on a motor vehicle for the safety of children organized by the government agency. Nonetheless, there are a few academic researches and projects promoting the use and benefit of child car seat which was published and distributed by academic research center such as Child Safety Promotion and Injury Prevention Research Center (CSIP) under the Department of Pediatrics, Mahidol University, Faculty of Medicine, Ramathibodi Hospital⁴³² and by private sectors such as automotive manufacturers⁴³³ and child car seat importers.⁴³⁴ Moreover, CSIP and Chevrolet launched a project named "Child Occupant Safety Campaign" on 2 February 2016 to encourage the parents to use a child car seat through road show activities at school and automotive exhibitions.⁴³⁵

⁴³² Child Safety Promotion and Injury Prevention Research Center (CSIP), 'A safety of child car seat on motor vehicle and a proper usage of child car seat' (2016) (16) Child Safety Promotion <<http://csip.org/ebook/no16/ebook16.html>> accessed 25 May 2017

⁴³³ CSIP 'Chevrolet and Ramathibodi Hospital launched project "Child Occupant Safety Campaign"' (Child Safety Promotion and Injury Prevention Research Center (CSIP), 3 February 2016) <<http://csip.org/wordpress/2016/02/03/%E0%B9%80%E0%B8%8A%E0%B8%9F%E0%B9%82%E0%B8%A3%E0%B9%80%E0%B8%A5%E0%B8%95%E0%B8%88%E0%B8%B1%E0%B8%9A%E0%B8%A1%E0%B8%B7%E0%B8%AD%E0%B9%82%E0%B8%A3%E0%B8%87%E0%B8%9E%E0%B8%A2%E0%B8%B2%E0%B8%9A%E0%B8%B2/#more-4281>> accessed 25 May 2017

⁴³⁴ Britax Thailand 'How to buy an appropriate child car seat' (Britax Thailand) <<http://www.britaxthailand.com/%E0%B8%A8%E0%B8%B9%E0%B8%99%E0%B8%A2%E0%B9%8C%E0%B8%84%E0%B8%A7%E0%B8%B2%E0%B8%A1%E0%B8%9B%E0%B8%A5%E0%B8%AD%E0%B8%94%E0%B8%A0%E0%B8%B1%E0%B8%A2/%E0%B9%83%E0%B8%84%E0%B8%A3%E0%B8%84%E0%B8%A7%E0%B8%A3%E0%B9%83%E0%B8%8A%E0%B9%89%E0%B9%80%E0%B8%9A%E0%B8%B2%E0%B8%B0%E0%B8%99%E0%B8%B1%E0%B9%88%E0%B8%87%E0%B8%99%E0%B8%B4%E0%B8%A3%E0%B8%A0%E0%B8%B1%E0%B8%A2.html>> accessed 25 May 2017

⁴³⁵ CSIP (n 424)

Furthermore, the Council of Minister recognized the UN's proclamation of the "Decade of Action for Road Safety" which aims to reduce the fatality rate of road accidents to 10 per 100,000 population before 2020 through the implementation of the Strategic Map of Decade of Action for Road Safety conducted by Road Safety Directing Center.⁴³⁶ The Strategic Map determines Thailand Operational Framework under Global Plan for the Decade of Action for Road Safety 2011-2020 into 8 issues as follows;⁴³⁷

(1) Encourage the compulsory use of helmet: aiming at a motorcyclist and a passenger must wear a helmet while riding.

(2) Decrease road user behavior's risk: aiming at decreasing drink-driving behavior.

(3) Eliminate high-risk roads: aiming at eliminating all high-risk roads at designated time.

(4) Improve road user behavior: aiming at the compliance with the speed limit, particularly motorcycle, public transport vehicle, and lorry.

(5) Improve motor vehicle safety standards, particularly safety standard of the motorcycle, pick-up truck, public transport vehicle, and lorry.

(6) Improve road user performance.

(7) Improve responsiveness to post-crash emergencies and the ability of health and other systems to provide appropriate emergency treatment and longer term rehabilitation for crash victims.

(8) Develop road safety management and specify government agency responsibilities.

According to Strategic Map, an issue of the use of child car seat on a motor vehicle has not been indicated as part of the key plan. Without the encouragement of the use of a child car seat on a motor vehicle by specifying in Thailand Operational Framework, it is difficult for the operational level to implement specific measure pursuant to the Strategic Map. For this reason, an issue of encouraging the compulsory use of child car seat should be determined as a critical

⁴³⁶ Department of Disaster Prevention and Mitigation (n 7) 1-2

⁴³⁷ Ibid 13

issue in the operational framework of the Strategic Map of Decade of Action for Road Safety.

On operational level, there are many related government officials who should be competent authorities to support, promote and enforce a compulsory use of child car seat policy, for example, a nurse who discharges or releases a baby out of a hospital should be a competent officer who is responsible for the duties to discuss with parents and provide information on the traffic law requiring a child car seat to be used for transportation of a child on motor vehicle. In this case, a competent official shall also provide contact information to the relevant person or a related government agency or another contact that could provide information and assistance relating to a child car seat requirements, installation, and inspection. However, a competent official does not have any obligation to provide any assistance regarding a child car seat other than providing the contact information.

The competent official in the Department of Land Transport who has a duty to authorize a driving license and other related officials should be responsible for the duties to provide information on child car seat law, information and assistance relating to child car seat requirements, installation, and inspection.

The legal enforcement official has a duty to enforce a child car seat law. In case that the police officer reasonably suspects a violation of child car seat law, he may stop a vehicle which transports a child and may issue a traffic ticket requiring a driver to pay a determined penalty fine.

For this reason, any related competent officials who are required by the law to provide related information about child car seat law, child car seat requirements, or any assistance should be trained or strictly instructed of relevant issues concerning the child car seat law in order to support, promote, assist, encourage and enforce the child car seat law effectively and efficiently.

5.3.2 A Heavy Burden of Parents to Possess an Appropriate Child Car Seat

For the reason that the price of a standard child car seat is usually high and a child requires more than two pieces of child car seat from birth until 12 years old or until the child's body is big enough or appropriate to wear a safety belt. The parents' expenses on child car seat are a heavy financial burden to some families and it may cause difficulties for parents to buy a standard child car seat. Consequently, both difficulties acquire a standard child car seat and the supportive measure established by the government sector for supporting disadvantaged families should be determined as follows;

5.3.2.1 Difficulties of Parents to Obtain a Standard Child Car Seat

The price of a standard child car seat is varied from 10,000 Baht to more than 20,000 Baht. A child car seat with ISOFIX or LATCH systems is normally more expensive than a child car seat with seat belt installation. The price of similar brands and models of child car seats with safety belt installation which met EU safety standard (UN-ECE Reg. No.44/4) is approximately 11,500 Baht⁴³⁸ – 15,200 Baht.⁴³⁹ The price of similar brands and models of child car seats with ISOFIX systems which met EU safety standard (UN-ECE Reg. No.44/4) is approximately 17,925 Baht⁴⁴⁰ –

⁴³⁸ Punita 'A price of Daiichi Car Seat Model Dualwell Organic Red'(punita.com)
<<http://www.punnita.com/%E0%B9%80%E0%B8%9A%E0%B8%B2%E0%B8%B0%E0%B8%99%E0%B8%B1%E0%B9%88%E0%B8%87%E0%B9%83%E0%B8%99%E0%B8%A3%E0%B8%96%E0%B8%A2%E0%B8%99%E0%B8%95%E0%B9%8C%E0%B8%84%E0%B8%B2%E0%B8%A3%E0%B9%8C%E0%B8%8B%E0%B8%B5%E0%B8%97%E0%B8%84%E0%B8%B2%E0%B8%A3%E0%B9%8C%E0%B8%8B%E0%B8%B5%E0%B8%97dualwell>> accessed 26 May 2017

⁴³⁹ Lazada 'A price of Daiichi Car Seat Model Dualwell Organic Red' (lazada.co.th)
<<http://www.lazada.co.th/daiichi-dualwell-season-2-organic-red-1844021.html?spm=a2o4m.category-180601000000.0.0.wTaPfh&ff=1&sc=MUZj&rb=25414&boost=3>> accessed 26 May 2017

⁴⁴⁰ Punita 'A price of Daiichi Car Seat Model First 7 Organic Tangerine' (punita.com)
<http://www.punnita.com/%E0%B9%80%E0%B8%9A%E0%B8%B2%E0%B8%B0%E0%B8%99%E0%B8%B1%E0%B9%88%E0%B8%87%E0%B9%83%E0%B8%99%E0%B8%A3%E0%B8%96%E0%B8%A2%E0%B8%99%E0%B8%95%E0%B9%8C%E0%B8%84%E0%B8%B2%E0%B8%A3%E0%B9%8C%E0%B8%8B%E0%B8%B5%E0%B8%97?product_id=2185> accessed 26 May 2017

24,400 Baht.⁴⁴¹ The price of similar brands and models of child car seat with LATCH systems which met US safety standard (FMVSS) is approximately 13,997 Baht⁴⁴² – 19,950 Baht.⁴⁴³

Each child car seat is incapable of restraint a child's body from birth until 12 years old by one single product. In addition, a child usually requires more than two pieces of car seat from birth until is appropriate for a child to wear an adult safety belt, for example, a baby requires an infant car seat in Group 0 or Group 0+ (rearward-facing car seat or convertible car seat); a toddler requires a car seat in Group I (forward-facing car seat); and a big child requires a car seat in Group II or III (combination car seat or booster seat).

Until a child is older than 12 years old or the child's body is appropriate to wear a safety belt, the parents have to pay for a car seat approximately 15,000-20,000 Baht for each specific group of child car seat and a child has to change a car seat depending on mass of a child at least 3 times. Consequently, the parents' expense on child car seat will be amounting to approximately 45,000-60,000 Baht for each child. In this case, the total expense on a child car seat is calculated based on a single child. In some cases, a family has more than one child so the parents' expense on child car seat will be double and it may be burdensome comparing to the household income.

In low-income families or disadvantaged families or families with many children, parents will encounter with the struggle to afford a child car seat.

⁴⁴¹ Lazada 'A price of Daiichi Car Seat Model First 7 Organic Tangerine' (lazada.com) <<http://www.lazada.co.th/daiichi-first-7-organic-tangerine-isofix-6138768.html?spm=a2o4m.category-180601000000.0.0.wTaPfh&ff=1&sc=MUZj&rb=25414&boost=3>> accessed 26 May 2017

⁴⁴² Punita 'A price of Chicco Car Seat Model NEXTFIT Convertible Car Seat – Intrigue' (punita.com) <<http://www.punita.com/%E0%B9%80%E0%B8%9A%E0%B8%B2%E0%B8%B0%E0%B8%99%E0%B8%B1%E0%B9%88%E0%B8%87%E0%B9%83%E0%B8%99%E0%B8%A3%E0%B8%96%E0%B8%A2%E0%B8%99%E0%B8%95%E0%B9%8C%E0%B8%84%E0%B8%B2%E0%B8%A3%E0%B9%8C%E0%B8%8B%E0%B8%B5%E0%B8%97/CHICCONEXTFITCONVERTIBLECARSEAT-INTRIGUE>> accessed 26 May 2017

⁴⁴³ Central 'A Price of Chicco Car Seat Model NEXTFIT Convertible Car Seat – Intrigue' (central.co.th) <<http://www.central.co.th/g/chicco-%E0%B8%84%E0%B8%B2%E0%B8%A3%E0%B9%8C%E0%B8%8B%E0%B8%B5%E0%B8%97-%E0%B8%A3%E0%B8%B8%E0%B9%88%E0%B8%99-ch430793198700-%E0%B8%AA%E0%B8%B5%E0%B8%94%E0%B8%B3-%E0%B9%80%E0%B8%97%E0%B8%B2>> accessed 26 May 2017

Consequently, it will cause difficulties for these parents and has the effect on a child who is requiring a car seat while travelling on a motor vehicle. Under these circumstances, the government sector should establish supportive measures to settle this issue.

On the other hand, there is an alternative opinion that the law should eliminate a heavy burden of the parents in obtaining an appropriate child car seat through the implementation of a legal duty to render a child car seat together with a motor vehicle at the time of purchase to a car dealer or a motor vehicle distributor. However, this research is conducted based on the presumption that the parents have a duty to obtain a child car seat for their children. It is not the duty of a motor vehicle's owner or a car buyer to pay an additional price of a motor vehicle plus a price of a child car seat for the reason that the car buyer does not have a child. Therefore, the law should not impose an unnecessary burden to the motor vehicle buyer who does not have a child.

5.3.2.2 Establishment of Supportive Measures For Disadvantaged Families and Low-Income Families By Government Sector

In order to balance the best interests of a child through a usage of a standard child car seat on motor vehicle and the heavy economic burden, the government sector should establish and launch supportive measure for some parents, by providing any assistances relating to a standard child car seat suitable for disadvantaged families, or low-income family, and laying down specific requirements or certain criteria for determining whether a person is suitable to be a target group that should be subsidized. In this case, any assistance provided by a government agency should be aiming to particular persons who qualify under the specific criteria, for example, low-income family or disadvantaged family.

There are many schemes of the car seat distribution program for low-income families or disadvantaged families. Most of the schemes of car seat distribution program require disadvantaged families and low-income families to attend a class for the education and assistance program that includes the

demonstration of the proper installation and use of child car seat for children of all ages.

In order to, increasing the use of child car seat in the disadvantaged family and low-income family, there are four alternative schemes of car seat distribution program that the government agency should select to be the supportive measure as follows;

- (1) Loan program
- (2) Low-cost rental program
- (2) Low-cost purchase
- (3) Giveaway.

Selected schemes of car seat distribution program should be considered based on current social and economic conditions, government budget or designated government agencies' budget, competent government agencies which directly control and monitor on the supportive measure. However, by increasing usage rate of child car seats in low-income families and disadvantaged families through a loan or a low-cost rental scheme of car seat distribution program will generate the use of child car seat only for a short-term period. After returning a child car seat or ending of the rental period, there will be little or no change in a long-term behavior.⁴⁴⁴

Moreover, the fines collected, particularly from the violator of child car seat law should be allocated as a separate fund to be used for the education and assistance program, and assistance to low-income families and economically disadvantaged families for a loan, or low-cost rental, or low-cost purchase, or giveaway of a child car seat. The supportive measures established by the government agency are the important legal assistance for particular parents who severely affected because of high expenses on a child car seat. Furthermore, by reducing the heavy burden in obtaining a standard child car seat is for the best interest of children.

Decreasing the burden for parents in buying a child car seat for no more than one seat, the government agency, association, organization relating to road safety should establish second-hand car seat trading. However, the second-hand car

⁴⁴⁴ Barbara Louis and Michael Lewis, 'Increasing Car Seat Use for Toddlers from Inner-City Families' (1997) [American Journal of Public Health] Vol. 87 No. 6, 1044

seat trading arrangement should set up the inspection body capable of testing and inspect the second-hand car seat whether it should be traded with other users. Since the car seat usually has an expiration date so an ability and efficiency of the car seat to prevent and reduce the risk of injury and fatality on crash accident will be decreasing throughout its lifespan.

5.3.3 Establishment of a Competent Agency Pursuant to Car Seat Law

The use of child car seat policy should be recognized on Planning Level and also specified in the Operational Framework of the Strategic Map of Action for Road Safety in order to identify the relevant government agency and organization to be a driving institute transforming a policy on planning level and implementing a particular measure for action.

Board of Road Safety Directing Center should establish the Working Group for research and implement a child car seat policy in Thailand. Additionally, direct and relevant public agencies who are responsible for the road safety, public health, and car seat product should participate on this working group, for example, Ministry of Transport, Ministry of Public Health, Ministry of Education, Ministry of Commerce, Department of Land Transport, Department of Disease Control, Royal Thai Police, Thai Industrial Standard Institute, Transport and Traffic Policy Plan Office, and Thai Health Promotion Foundation.

In details, in order to effectively enforce car seat law and other relevant legislation, the public agencies, for example, the car seat policy promotion Institute and the car seat policy monitor and control Institute should be established to be the key authoritative bodies.

In pursuance of enforcing a child car seat law, there are currently public agencies which are entitled to the responsibilities empowered by the traffic law and product safety law, for example, Royal Thai Police is a competent agency under the traffic law, Department of Land Transport is a competent agency under the motor vehicle law, and Thai Industrial Standard Institute is a competent agency under the standard product law. Consequently, it is not necessary to establish a new institute or

empower a particular public agency to control and enforce the compulsory use of child car seat.

Meanwhile, it is necessary to establish new institutes or empower related public agencies for the responsibilities of promoting, supporting, educating the use of child car seat, and assisting the low-income families or disadvantaged families in obtaining a child car seat in low-cost or other measures.

Additionally, there should be a legal provision that provides support and assistance to the particular officials in order to provide education and information relating to the current traffic law that requiring a child car seat to be fitted to the vehicles and other information or contact of public agencies responsible for the child car seat distribution program. Moreover, the empowering of the competent agency to provide a subsidized assistance for economically disadvantaged families is also much needed.

For example, at the time of release a newborn from a public or private hospital, a designated official shall provide support and discuss with the parents about current traffic law relating the compulsory use of child car seat, along with the information and assistance relating the requirement of child car seat, method of installation, and inspection and other relevant information. Alternatively, the said official is able to provide the parents with contact information of related public agency organizing child car seat distribution program or subsidized assistance. However, a designated official does not have a duty to provide assistance on child car seat other than what stated in the current law.

For instance, there should be a new institute or division under the Department of Land Transport providing assistance in the form of child car seat distribution program for economically disadvantaged families or low-income families, such as loan or rental with a minimal fee, low-cost purchase, or free providing. However, all assistance in the form of child car seat distribution program provided by public agency requires all participants who attend the distribution program or subsidized assistance to pass an educational program and a test relating to the benefit of using child car seat, the proper method of installation, and inspection before receiving any assistance.

Moreover, the said divisions or other associations also arrange a trading program for the parents who are unable to purchase more than one car seat, and desire to obtain a second-hand car seat through the trading program. In order to ensure the safety of a child, the division should establish an inspection and certification body to inspect and certify the second hand car seats in the trading program to determine whether or not the car seats are in proper condition for the effective and efficient use as second-hand car seat and to be reused by other children in the trading program.

5.3.4 Legal Enforcement

Owing to the current Traffic Law, a police officer or a competent official has the power to stop a motor vehicle when he finds that a driver or any passenger violates or fails to comply with the provision of Traffic Law or Motor Vehicle Law. On the occasion that the Car Seat Law is enforced, a police officer or a competent official shall be able to exercise his or her power to stop a motor vehicle when he or she manifestly finds that a child is not restrained with an appropriate child car seat, or the child car seat or installation is not in accordance with the criteria prescribed by the Commissioner-General. In this case, the police officer or competent official also has the power to give a warning or issue a traffic ticket requiring the driver to pay a determined penalty fine.

In order to prevent the opportunities for the misconduct of the police officer or the competent official, the Commissioner-General should identify the category or type of vehicle requiring a usage of child car seat, character of appropriate child car seat, and procedure of appropriate installation explicitly in order to eliminate the discretion of the police officer or the competent official. Additionally, it is necessary to set up the training instruction program for all police officers or competent officials in order to increase the efficiency of legal enforcement.

However, in case that the parents have received a traffic ticket requiring them to pay determined penalty fine due to the misbehavior or the ill intent of the police officer or the competent official, the law provides a solution for the parents who do not violate or disobey the Traffic Law or Motor Vehicle Law by filing a notice of

dispute explaining an allegation to a specified address in the traffic ticket issued by the police officer or competent official, or to the prescribed address of the Commissioner-General within 50 days after receiving a notification by the Registrar under the Motor Vehicle Act.⁴⁴⁵ However, provided that after receiving a notice of the dispute, the police officer or competent official is still insisting upon that allegation, it is possible for the parents to resort to another approach by submitting all the evidence to the inquiry official for filing a lawsuit to the Court contemplation of verifying the validity of the allegation.

5.4 Adoption of Alternative Technical Requirements And Safety Standard of Child Car Seat And Anchorage Systems Between Global Standard (EU Standard) and US Standard

In Thailand, most of the automotive equipment and parts are usually determined as industrial products that required by the law to conform with the compulsory product standard or voluntarily conform to the general product standard. For example, the safety belt is considered to be industrial products that are required by the law to manufacture or import in conformity with the compulsory standard. Meanwhile, safety belt anchorage, ISOFIX anchorage and ISOFIX top tether anchorage are considered to be industrial products that should be voluntarily manufactured in conformity with the general product standard.

Additionally, the compulsory equipment and parts that are required by the law to be fitted on motor vehicle under the Motor Vehicle Act shall meet the technical requirement, qualification, specification, performance, systems, efficiency, installation, type, dimension and amount determined by the Director-General of Department of Land Transport which are in conformity with the international standard.

⁴⁴⁵ Road Traffic Act B.E. 2522 (1979) amended Order of the Head of the National Council for Peace and Order No.14/2560 Measures to improve the legal enforcement on traffic law, Section 141/1 para 2, 3

Furthermore, in ASEAN Community, Automotive Product Working Group (APWG) has been established in order to harmonize the automotive standards and technical requirements based on UN-ECE Regulation, The APWG also prepares a Draft of Mutual Recognition Arrangement on Type Approval on Automotive Product (MRA). For this reason, the domestic automotive product standards usually adopt an international standard as a guideline or an equivalence to the national standard.

According to this research, the author utilizes two pieces of international automotive standard as model laws by comparing between EU standard (UN-ECE Regulation or Regulation annexed to the 1958 Agreement concerning the adoption of uniform technical prescriptions for wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles and the conditions for reciprocal recognition of approvals granted on the basis of these prescriptions), and US standard (FMVSS-Federal Motor Vehicle Safety Standard). According to the child car seat and anchorage standard, both standards are insignificantly different on the technical requirements. For example, most of EU standard child car seat with ISOFIX installation system can be used on US motor vehicle, conversely, most of US standard child car seat with LATCH installation system can be used on EU motor vehicle.

Consequently, Thailand should adopt UN-ECE Regulation No.44 or Regulation No.44 annexed to the 1958 Agreement as equivalent to a national standard for child car seat because safety standard of the automotive product should be manufactured in conformity with advanced technologies and in line with international standard and ASEAN Community.

5.5 Alternative Voluntary Measures For Increasing Usage of Child Car Seat Before Implementing a Compulsory Measure

The most powerful measure to increase the usage of child car seat is the legal enforcement of the Child Car Seat Law as a compulsory measure that directly raises a usage rate of child car seat on a motor vehicle. Before implementing the Child Car Seat Law, however, the public and the parents should have been informed and received information about the benefit and necessity of the use of child car seat on a

motor vehicle. Consequently, educational program, training and the public campaign should be used as a voluntary measure to increase the use of child car seat.

There are many voluntary measures that cause a short-term effect of increasing the usage of child car seats; nevertheless, it should be realized that without legal enforcement, merely voluntary measures are insufficient to affect the rate of usage and change the road user's behavior. The recommended voluntary measures for increasing the usage of child car seat on motor vehicle are as follows;

5.5.1 Public Campaigns

The public campaign is normally the most important visible intervention to increase child car seat usage rate. The example of the recommended public campaign could incorporate different methods as follows;

- (1) Television advertising;
- (2) Radio advertising;
- (3) Press advertising;
- (4) Outdoor advertising;
- (5) Outdoor project launch event;
- (6) Activities designed and funded to support the project in local communities;
- (7) Sponsorship of sporting and cultural events; and
- (8) Community or school based promotional events.

The activities of the public campaign should be designed to inform, advise, encourage and persuade the target group. In this case, the parents and students should be a priority target of the car seat campaign. Additionally, it is crucial to the success of child car seat legal implementation that the parents and the public recognize the benefits of child car seat. Thus, child car seat public campaign is a necessary part of a coordinated program to support the legal implementation.

5.5.2 Education and Training

Educational and training programs for the benefit and necessity of using a child car seat are the voluntary long-term intervention in raising awareness and understanding of the parents and the public. The educational and training program should not be arranged and organized in the form of short-term activities. In order to adjust the road user's behavior, increase the public support, influence social norm and make the use of child car seat more widely acceptable. There are many role-players and approaches that can be used for educational and training program as follows;

(1) Public health officials should provide and discuss the benefits of child car seat to new parents or child patients who have been involved in a car accident through literature method or oral advice. In some cases, public health agencies should arrange public health promotion through road safety campaign or exhibition.

(2) Motor vehicle and child car seat manufacturers should provide information and handbook manual informing the parents and customers how to properly use a child car seat for children on a motor vehicle including a guide for installation, the pictures of misuses or incorrect installation.

(3) Road safety officials should provide educational and training program to the public as direct duties, voluntary promote the benefits of child car seat, and recommend a car seat use on a motor vehicle for children while the Car Seat Law is not in place.

(4) Teachers and other educational officials shall have direct duties to instruct students at the school. Then, children can use their knowledge to discuss road safety issues with their parents. Once they have increased their knowledge on road safety behavior, they may influence their parents to change unsafe behaviors on a road and employ the best practice of road safety rendering a child car seat for their children.

5.5.3 Insurance and Public Incentive Schemes

The insurance industry has an opportunity to be a key-player in increasing the use of child car seat. For example, the insurance company may encourage the use of child car seat on a motor vehicle by making a clear wording of their policies that crash

compensation can be reduced significantly if it appears that a child occupant was not using a child car seat at the time of the crash.



CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusion

According to this study, Thailand is on the verge of becoming the world's first rank of countries where the highest rate of a fatality on road accidents occurred. However, the legal measures regarding the intervention of severe situation, particularly the compulsory use of child car seat for children who travel on personal motor vehicles with their family, has never been introduced and prescribed in the form of legislation. Additionally, national safety standard of child car seat has not been determined to ensure the consumer that the product will be safe for use and effectively protect children from bodily injury and fatality caused by road accidents. Furthermore, the laws concerning the safety standards of motor vehicles, particularly compulsory component parts and equipment to be fitted on motor vehicles, need to be improved in order to support the use of ISOFIX child car seat or new enhanced child car seat to eliminate the inappropriate installation or misuse of child car seat.

For this reason, Thailand should implement legal safety measure on motor vehicles for children in the form of the compulsory use of child car seat, determine the national compulsory product standard of child car seat, and improve the general safety requirements of motor vehicles by adding enhanced technology equipment to be a compulsory equipment to be fitted on motor vehicles for supporting the use of child car seat. Furthermore, for effective legal enforcement, the law should be applicable to social and economic conditions in Thailand. Consequently, the law concerning the compulsory use of child car seat, Thai Industrial Standard for child car seat and ISOFIX anchorage systems and ISOFIX top tether anchorage that are required by the law to be fitted on motor vehicles should be implemented and amended phase by phase respectively.

According to the implementation of the compulsory use of child car seat law and a national standard of car seat law, most parents in Thailand will be economically affected because of a high price of standard child car seat and amount of applicable

child car seat, even though, a child will receive ultimate benefit and utmost protection from a standard child car seat. Therefore, the government and related public agencies should prepare and establish necessary assistant measures supporting economically disadvantaged families and low-income families in order to overcome any social and economic obstacles that prevent achievement of child car seat legal implementation and enforcement. Additionally, for increasing child car seat usage rate, it is crucial to employ not only the compulsory measure through legal enforcement but also the voluntary measures through public campaigns, education and training program, and insurance or other public incentive schemes.

6.2 Recommendations for Legal Implementation on The Compulsory Use of Child Car Seat and Safety Standards of Child Car Seat and ISOFIX Systems

Recommendations for legal implementation and legal amendment on the compulsory use of child car seat, the industrial standard for child car seat and the compulsory installation of ISOFIX systems on motor vehicles will be provided as follows;

6.2.1 The Compulsory Use of Child Car Seat on Personal Motor Vehicles

According to the Road Traffic Act B.E. 2522 (1979), the legal provision concerning the compulsory use of child car seat should be added in Chapter XVII, following paragraph 2 of Section 123. The provision shall specify essential elements of young passenger safety on motor vehicle as follows;

- (1) Who is protected by the law?
- (2) What is the safety standard required by the law?
- (3) What are the exemptions of non-compliance provided by the law?
- (4) Who is responsible for non-compliance?
- (5) What is the legal penalty for non-compliance?

For example “***The driver of a vehicle must render the passenger who is under the age of 12 years or less than 135 centimeters in height to be restrained with appropriate child car seat while travelling.***”

In paragraph 3 the provision shall be amended in order to empower the Commissioner-General to be able to prescribe the category and type of vehicle, the character and procedure of using child car seat, the character of appropriate child car seat and the exception of non-compliance with the law.

For example, “The category or type of vehicle, character and procedure of using seat belt under paragraph two and ***the use of child car seat under paragraph three*** shall be prescribed by the Commissioner-General by the publication in the Government Gazette.”

Furthermore, legal provision imposed a penalty for non-compliance with the law has already been determined in Section 148 which refers to the violation of Section 123. Consequently, it is not necessary to amend a penalty provision unless the penalty imposed in Section 148 does not constitute effective legal enforcement.

6.2.2 Thai Industrial Standard of Child Car Seat

Under the Industrial Product Standards B.E. 2511 (1968), child car seat should be determined a compulsory standard under Section 17. Thai Industrial Standard for child car seat (TIS: xxx - xxx for child car seat) shall be promulgated in Royal Decree and published in Government Gazette.

In regard to TIS for child car seat, it should adopt the uniform provision concerning the approval of child restraint systems (child car seat) prescribed in UN-Regulation No. 44, amendment of series 04 annexed to the 1958 Agreement as equivalent to Thai Industrial Standard.

6.2.3 Improvement of Compulsory Component Parts and Equipment on Motor Vehicle and Type-Approval of ISOFIX Anchorage Systems and ISOFIX Top Tether Anchorage

Under the Motor Vehicle Act B.E. 2522 (1979), personal motor vehicles shall be compulsorily fitted with component parts and equipment prescribed in Ministerial Regulation on compulsory component parts and equipment to be fitted on motor vehicles B.E. 2551 (2008). Consequently, ISOFIX anchorage systems and ISOFIX top tether anchorage should be the compulsory component parts and equipment to be fitted on personal motor vehicles.

Thus, Article 3 of Ministerial Regulation on compulsory component parts and equipment to be fitted on motor vehicles B.E. 2551 (2008) shall be amended as follows;

“Inter-provincial taxi, taxi, service vehicles and personal vehicles shall be fitted with component parts and equipment specified in the following list;

(29) ISOFIX anchorage systems and ISOFIX top tether anchorage”

Furthermore, for the reason of safety and conformity with an international standard, ISOFIX anchorage systems and ISOFIX top tether anchorage should be an approved type in accordance with Notification of Department of Land Transport promulgated by General-Director of Department of Land Transport.

Therefore, General-Director of Department of Land Transport shall announce the Notification of Department of Land Transport on technical requirements, specifications, installation and the approval of ISOFIX anchorage systems and ISOFIX top tether anchorage by adopting the uniform provision concerning the approval of vehicles with regard to ISOFIX anchorage systems and ISOFIX top tether anchorage prescribed in UN Regulation No. 14 as equivalent or Thai Industrial Standard for safety-belt anchorages, ISOFIX anchorage systems and ISOFIX top tether anchorages (TIS:1467-2550).

6.2.4 The Recommended Transitional Phase of Relevant Legal Implementation

The legal implementation and legal amendment of compulsory use of child car seat on personal motor vehicles, industrial standard for child car seat and the compulsory installation of ISOFIX systems on motor vehicles should be divided phase by phase respectively as follows;

Phase I: The compulsory product standard for child car seat adopting the technical requirements and safety standard of UN Regulation No. 44 will be determined as Thai Industrial Standard (TIS) prescribed in Royal Decree. Additionally, ISOFIX anchorage systems and ISOFIX top tether anchorage will be added as the compulsory vehicle equipment and parts which are required by the Ministerial Regulation on compulsory component parts and equipment to be fitted on motor vehicles B.E. 2551 (2008).

Phase II: After the relevant laws in Phase I have been implemented for a period of time, there have been lot of approved child car seats distributed in the market, and most of the new models of motor vehicles have already been installed with the ISOFIX anchorage systems and ISOFIX top tether anchorage, the compulsory use of child car seat should be implemented and enforce with some exceptions, for example, a child who is more than three years old may be allowed to restrain body with an adult safety belt in rear-seat position, or etc.

Phase III: After the law concerning the compulsory use of child car seat in Phase II has been enforce for a period of time and most of the parents have already recognized the duties to apply an approved child car seat to restrain their children while travelling on personal motor vehicle, the law concerning the compulsory use of child car seat shall be amended and some exceptions in Phase II shall be eliminated and limited for only the necessary exceptional circumstances.

Phase IV: After the parents are familiar with the use of approved child car seat in accordance with Thai Industrial Standard implemented in Phase I and the new model of motor vehicles have already been designed and constructed to support the use of i-Size child car seat, the technical requirements and safety standard of enhanced child car seats which adopted the UN Regulation No. 129 may be

determined as compulsory industrial standard (TIS) for the enhanced child car seat prescribed in Royal Decree as the alternative product standard in parallel with Thai Industrial Standard for child car seat implemented in Phase I.

6.3 The Recommendations for Overcoming the Obstacles of Legal Implementation on The Compulsory Use of Child Car Seat

The obstacles of legal implementation on the compulsory use of child car seat can be indicated in three major issues; (1) the parents are still lacking the knowledge about the best safety practice for children on motor vehicle; (2) the parents must bear heavy economic burden of child car seat's expenses; and (3) there is no responsible public agency and competent official for supporting and assisting the use of child car seat. Thus, the recommended solutions for overcoming these obstacles are provided as follows;

6.3.1 Raising The Parents and Public Awareness

According to the current public perception, a small number of parents recognize that they have a duty to ensure the safety of a child passenger by restraining his or her body with child car seat while travelling on a motor vehicle. There are still numerous families in Thailand who lack awareness relating to the necessity and benefits of child car seat. For this reason, alternative voluntary measure for increasing the usage rate of child car seat should be employed and amalgamated with compulsory measure through legal enforcement, for example, public promotion campaigns via television, radio, and published material. Additionally, educational and training programs are crucial voluntary measures for increasing public awareness and changing road user's behavior effectively.

6.3.2 Providing Assistances to Economically Disadvantaged Families and Low-Income Families

A standard child car seat is usually expensive. The cost of one standard car seat is approximately 10,000 – 20,000 Baht so it imposes the burden upon the parents who have the economic difficulty. Consequently, government and public agency should arrange and provide the necessary supportive measures or subsidized assistance as a remedial measure for economically disadvantaged families or low-income families.

An alternative scheme of child car seat distribution program should be applied and utilized based on a current social and economic condition at that time. For example, responsible public agencies should launch the child car seat distribution project for designated families such as economically disadvantaged families or low-income families in the form of the loan program, low-cost rental program, low-cost purchase program, or giveaway program.

Furthermore, the child car seat trading program should be arranged and organized by the responsible public agency or association in order to reduce the parents' expenses on child car seat.

6.3.3 Establishing The Responsible Public Agencies and Competent Officials

In the interest of providing assistance to economically affected families and increasing the usage rates of child car seat, the law should identify the related public agencies and empower competent officials in order to execute the compulsory use of child car seat program.

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ข้อสังเกตของคณะกรรมการวิสามัญพิจารณาร่างพระราชบัญญัติมาตรฐานผลิตภัณฑ์อุตสาหกรรม(ฉบับที่...)พ.ศ. (อก 07702/4866) 2558. (Thai Industrial Standards

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APPENDICE

APPENDIX A

THAILAND COUNTRY PROFILE AND RELATED ROAD SAFETY INFORMATION⁴⁴⁶

THAILAND

Population: 67 010 502 • Income group: Middle • Gross national income per capita: US\$ 5 340



INSTITUTIONAL FRAMEWORK	
Lead agency	National Road Safety Directing Center
Funded in national budget	Yes
National road safety strategy	Yes
Funding to implement strategy	Partially funded
Fatality reduction target	Less than 10 deaths per 100 000 population (2010–2020)

SAFER ROADS AND MOBILITY	
Formal audits required for new road construction projects	No
Regular inspections of existing road infrastructure	No
Policies to promote walking or cycling	No
Policies to encourage investment in public transport	Yes
Policies to separate road users and protect VRUs	No

SAFER VEHICLES	
Total registered vehicles for 2012	32 476 977
Cars and 4-wheeled light vehicles	11 829 221
Motorized 2- and 3-wheelers	19 169 418
Heavy trucks	901 014
Buses	137 609
Other	439 715
Vehicle standards applied ^a	
Frontal impact standard	No
Electronic stability control	No
Pedestrian protection	Yes

^a UNECE WP.29.

POST-CRASH CARE	
Emergency room injury surveillance system	Yes
Emergency access telephone numbers	1669
Permanently disabled due to road traffic crash	4.6% of admitted patients ^b

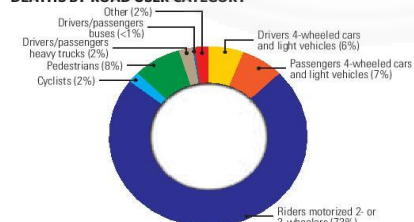
^b 2006, Study of Dr. Datanee Sawaporn, MD, "Incidence of Disability and Impact from Road Traffic Injury".

DATA	
Reported road traffic fatalities (2012)	14 059 ^c (79% M, 21% F)
WHO estimated road traffic fatalities	24 237
WHO estimated rate per 100 000 population	36.2
Estimated GDP lost due to road traffic crashes	3.0% ^d

^c Bureau of Policy and Strategy, Office of Permanent Secretary, Ministry of Public Health. Defined as unlimited time period following crash.

^d 2009, Dr. Pichai Thuaneranon, PhD, "Traffic Accident Costing in Thailand 2004".

DEATHS BY ROAD USER CATEGORY



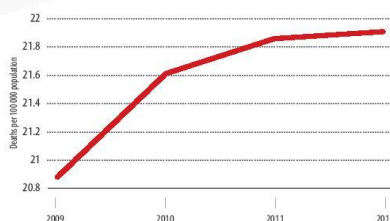
Source: Injury Surveillance System (data from 2012).

SAFER ROAD USERS	
National speed limit law	Yes
Max urban speed limit	80 km/h
Max rural speed limit	90 km/h
Max motorway speed limit	120 km/h
Local authorities can modify limits	No
Enforcement	0 1 2 ③ 4 5 6 7 8 9 10
National drink-driving law	Yes
BAC limit – general population	≤ 0.05 g/dl
BAC limit – young or novice drivers	≤ 0.05 g/dl
Random breath testing carried out	Yes
Enforcement	0 1 2 3 4 5 ⑥ 7 8 9 10
% road traffic deaths involving alcohol	26% ^e
National motorcycle helmet law	Yes
Applies to drivers and passengers	Yes
Law requires helmet to be fastened	Yes
Law refers to helmet standard	Yes
Enforcement	0 1 2 3 4 5 ⑥ 7 8 9 10
Helmet wearing rate	52% Drivers ^f , 20% Passengers ^f
National seat-belt law	Yes
Applies to front and rear seat occupants	No
Enforcement	0 1 2 3 4 5 ⑥ 7 8 9 10
Seat-belt wearing rate	58% Drivers ^f , 54% Front seats ^f
National child restraint law	No
Restrictions on children sitting in front seat	No
Child restraint law based on	—
Enforcement	—
% children using child restraints	—
National law on mobile phone use while driving	Yes
Law prohibits hand-held mobile phone use	Yes
Law also applies to hands-free phones	No
National drug-driving law	Yes

^e Injury Surveillance System (data from 2012).

^f Survey of Thai Roads Foundation (data from 2012).

TRENDS IN REPORTED ROAD TRAFFIC DEATHS



Source: Bureau of Policy and Strategy, Office of Permanent Secretary, Ministry of Public Health.

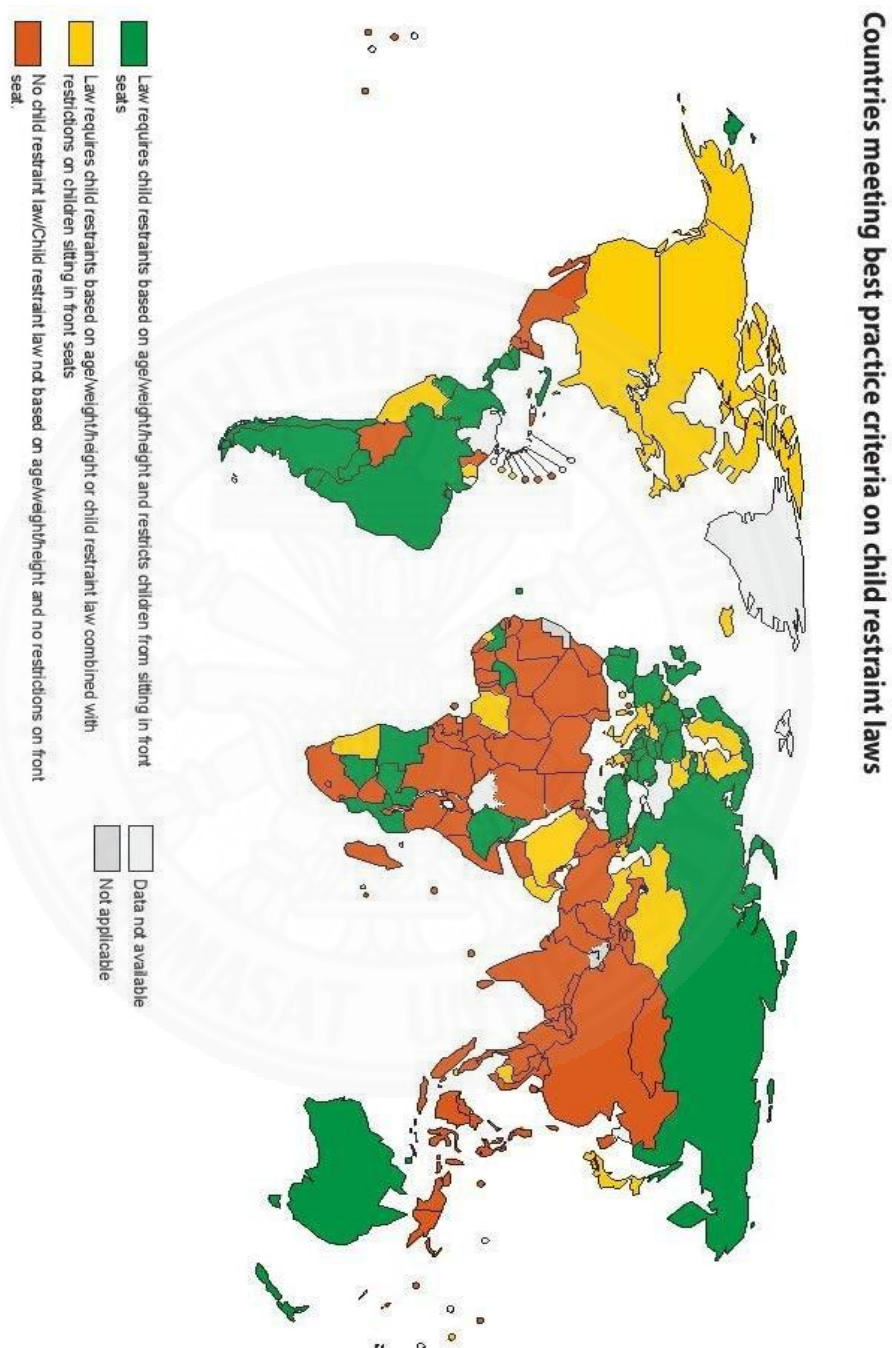
Legislative reference conducted by WHO. Vehicle safety data from UNECE WP.29. Other data collected by questionnaire and shared by Ministry of Public Health.

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⁴⁴⁶ World Health Organization (n 1) 235

APPENDIX B

MAP OF COUNTRIES HAVING CAR SEAT LAW⁴⁴⁷



⁴⁴⁷ World Health Organization (n 1) 37

APPENDIX C

DIAGRAM OF CHILD CAR SEAT CLASSIFICATION

ACCORDING TO UN REGULATION NO.44⁴⁴⁸

Group	Weight
Group 0	up to 10 kg
Group 0+	up to 13 kg
Group 1	9 to 18 kg
Group 2	15 to 25 kg
Group 3	22 to 36 kg

Weight of child [kg]	9	10	11	12	13	14	15	16	17	18	22	25	36
Age of child	9 months									3 years		6 years	12 years
Group 0													
Group 0+													
Group I													
Group II													
Group III													
Integrated restraint system													
Approved for ISOFIX													
Rearward facing, sideward facing mandatory													

⁴⁴⁸ UNECE (n 31) 16

BIOGRAPHY

Name	Mr Supantachart Jantachote
Date of Birth	October17, 1989
Educational Attainment	2008-2011: Bachelor of Laws, Thammasat University 2008-2014 : Bachelor of Political Science, Ramkhamhaeng University
Publications	Jantachote, Supantachart. “Implementation of Laws Concerning The Compulsory Use of Child Car Seat on Personal Motor Vehicles and Safety Standard of Child Car Seat and ISOFIX Systems.” Master Degree. Thammasat University, 2016.
Work Position	Business Owner Heliconia and Cutting Flowers Farm, Singburi
Work Experiences	2012: Recruitment Officer Canon Prachinburi (Thailand),.Ltd