



# The increasing of potential in tourism logistics supply chain to Khon Kaen ME city, Thailand

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## Abstract

This research aims to study the situation of tourism logistics supply chain in Khon Kaen ME city and to conduct and study the SWOT analysis of tourism logistics supply chain in Khon Kaen ME city. Recommendations are also made for increasing the potential in the tourism logistics supply chain to Khon Kaen ME city. The study was conducted by means of qualitative research and involved the collecting of data from experts and other relevant stakeholders by means of in-depth interviews, journal article reviews, and various other research data and statistics pertaining tourism logistics and transportation. Content analysis, pattern matching and explanation building were also used. The study's results and recommendations for increasing of the potential in tourism logistics supply chain to Khon Kaen ME city include the use of guidelines for development including: an integrated transport systems, tourism logistics and transport services, human resource development, technology and innovation in the development of public transport in Khon Kaen, green logistics and transport, the use of Intelligent Transport Systems (ITS), organizing of the space for passenger boarding and alighting, adding of more facilities at the linkage sites in order to provide an effective access at every public transport terminal, improving and enhancing the pedestrian and bicycle paths so as to facilitate access to public transportation terminals, adding of route boards and PR posters at the linkage sites of public transport, and regulating and aiding travelers' needs.

**Keywords:** MICE, event, tourism logistics, supply chain, Thailand.

## Introduction

MICE is essential to Thailand's economy because it generates a direct income. MICE industry is an industry that involves meetings (M), incentive travel (I), conventions (C), and exhibitions and events (E) (Thailand Convention & Exhibition Bureau, 2017). When the MICE participants spend time in the country, it brings associated business profits from their expenditures. In addition, Thailand earns parts of its fortune from business negotiations, investments, and from product exhibitions which create the circulation of enormous amounts of income. MICE also stimulates the exchange of knowledge and the transmission of technology which has led to the nation having the ability to enhance its human resources. Moreover, MICE play an important role in building the country's image and elevating its reliability (Thailand Convention & Exhibition Bureau, 2015). Since it is involved with meetings, incentive tourism, international conferences and exhibitions, MICE, itself, is apt to be involved with meetings, incentive travel, and professional conventions, as well as with exhibitions and events (Ministry of Tourism and Sports, 2018).



The holistic view of conditions in the MICE industry was summarized from the evaluation of expenditure on tourism in the Asian region and was performed by The World Travel & Tourism Council in their Travel & Tourism Economic Impact (World Economic Forum, 2015; South East Asia 2015 report). It can be seen that the business travel expenditures within the Asian region in 2014 had amounted to 60.70 billion US dollars or 28% of the total tourism travel in Asia, while leisure travel expenditures had accounted for 158.00 billion US dollars or 72% of total tourism travel (Office of the National Economics and Social Development Board, 2018).

Khon Kaen ME city stands for a MICE city (M) and an event city (E) or “a city of festivals, conventions, seminars, and is a place for regional goods expositions”. Khon Kaen has incorporated the three-year municipal development plan 2019-2021 in its strategies. Khon Kaen province was designated as the 5th MICE city by the Thailand Convention and Exhibition Bureau. This propulsion towards a MICE city status completes the 4-year provincial development strategy 2018-2021, which had been created with the vision: ‘Khon Kaen, a pleasant city that is becoming an ASEAN Metropolis’. The vision was composed of 3 major missions: 1) the strengthening of the communities with happy citizens, 2) making the city an inviting place, as well as giving it an integrated provincial administration and development model, and 3) developing the city as the center of the Greater Mekong Sub-region (GMS) for economy, communication, and human resources, all of which leads towards an ASEAN metropolis under the name, “Khon Kaen, ME city” (Khon Kaen Municipality, 2018).

For these reasons, the researchers have become interested in conducting a study on the increasing of potential in tourism logistics supply chain to Khon Kaen ME city. The results would contribute to the proposition of Khon Kaen becoming a designated area for sustainable tourism by strengthening the competitive competence of the domestic MICE industry. The knowledge and findings, obtained from the study, would be useful for providing recommendations to the government and private sectors regarding their development towards the MICE industry in Thailand (Office of the National Economics and Social Development Board, 2016). The neighboring countries also see the importance of upgrading their infrastructures and facilities to accommodate the transportation supply chain for travelers. This study will thus hopefully enhance knowledge and understanding of the transportation supply chain system and its databases via the integration of multiple disciplines (Ministry of Tourism and Sports, 2017). Such research would also be useful for further studies that are engaged with ASEAN area development. The findings could then serve as a model for similar areas as a method for the development of transportation of the supply chain or for relevant organizations. The overall results would lead to the preparation of transportation supply chain for the ASEAN Economic Community. The objectives of this study were thus as follows:

- To study the situation of tourism logistics supply chain in Khon Kaen ME city.
- To study the SWOT analysis of tourism logistics supply chain in Khon Kaen ME city.
- To offer recommendations for increasing of potential in tourism logistics supply chain to Khon Kaen ME city.

## **Research Methodology**

The study was conducted by means of a qualitative research methodology which involved collecting data from experts and relevant stakeholders with in-depth interviews, journal article reviews, and assessment of research and statistics concerning the situation of Khon Kaen ME city’s tourism logistics supply chain, the MICE industry, and it’s potential for the development of the tourism logistics supply chain consisting stakeholders such as:

- Government and relevant organizations samples consisted of the Tourism Authority of Thailand, Thailand Convention and Exhibition Bureau (TCEB), Local Administrative Organization, Office of Tourism and Sports, Bus and Train stations and the Airport in Khon Kaen, as well as the State Railway of Thailand. The term government and relevant



organizations, means the directors, the administrators, the departments heads, the heads of government sectors, and the staff members involved in the MICE, event and tourism logistics supply chain.

- Entrepreneurs samples consisted of people in the airlines business, taxi business, bus business, limousine business, shuttle bus business, TUK TUK business, and mini bus business. The term entrepreneurs, means the administrators, owners, and/or staff members involved in the businesses and services associated involved in the MICE, event and tourism logistics supply chain.

Using purposive random sampling, the researcher classified the experts, stakeholders, and major informants by their types of samples, and in order to continue data collection, asked the first informant of each sample type to introduce the researcher to four or five more qualified informants engaged in the same type of sample. The snowball sampling method requires that informants of each samples type introduce the next informants. Then content analysis was used to group all related data, after which it was analyzed for pattern matching by setting patterns of relationships between the variants from concerned researches and then analyzing the explanation building by clarifying the link between the occurring variants and a SWOT analysis. Then the researcher took the analyzed result to proceed with the thought of the increasing of the potential in tourism logistics supply chain to Khon Kaen ME city.

## Result and Discussions

### The situation of tourism logistics supply chain in Khon Kaen ME city

Khon Kaen province is an official hub with over 200 governmental organizations and universities, as well as medical and public healthcare centers situated therein. The private sectors in Thailand's decision to invest in the city was because Khon Kaen has high potential in all aspects, namely, trade, investments, education, healthcare, and communication that is linked to many cities in Asia. Khon Kaen is also a destination for the country's MICE industry owing to the nearly 300 scheduled flights that land there daily from many countries. Moreover, the government's strategic plan is to also promote Khon Kaen as the 5th MICE city of the country, making Khon Kaen comparable to being the capital of the Northeast. Moreover, it is the hub into the economic corridor of 6 countries in the Me Kong Sub-region: Thailand, the Socialist Republic of Vietnam, the People's Democratic Republic of Laos, the Republic of the Union of Myanmar, the Royal Kingdom of Cambodia, and the Republic of China which will lead to the center where trades, investments, and opportunities for global competition can emerge (Tunming, et al., 2017). For these reasons, the private sector has joined the government sector in preparing for the economic expansion towards Thailand 4.0. The Convention and Exposition Center is being constructed in Khon Kaen to provide a chance for the SME's to expand into the Indochina market where employment and occupations are available, and which will assist in distributing income to the local people. Listed below is the current transportation supply chain for travelers consisting of:

- Air transportation
  - Khon Kaen Airport, Khon Kaen
- Land transportation
  - Khon Kaen Bus Terminal 1
  - Khon Kaen Bus Terminal 2
  - Khon Kaen Bus Terminal 3
- Railway transportation
  - Khon Kaen Railway Station

Khon Kaen is the East-West Economic Corridor (EWEC) or Road 9 (R9) which is a part of the Greater Mekong Sub-region Transport Economic Corridors (GMS Corridors). EWEC is a key logistical hub connecting the four countries including Vietnam, Laos, Myanmar, and Thailand



with a length of 1,450 km. Most importantly, the route, that passes through Thailand, and is 950 km long and is considered as the longest part of the R9.

Khon Kaen is a part of the EWEC and connects with its neighboring provinces of Tak and Mukdahan. The provinces in Thailand, that are engaged in the East-West economic corridors development, number seven and include Tak, Sukhothai, Phitsanulok, Phetchabun, Khon Kaen, Kalasin, and Mukdahan. The objectives of the economic corridors are as follows: 1) to develop a highly efficient system that allows for the freer movement of trade, for investments, and for the development of four countries (Vietnam, Laos, Myanmar, and Thailand); and 2) to reduce logistical costs within the area to create a more effective movement of goods and people. The main strategies of the EWEC are to develop the EWEC route, to develop marine transportation, to develop railway transportation, to expedite better cross-border facilitation, to develop human resource in logistics, to promote cooperation with respect to the regional energy supply, to develop basic telecommunications, and to foster the development of tourism.

The possible positive impacts from EWEC for Thailand are that it could help to arouse economic activities in the areas that connect with the route. The impacts could lead to the following: (1) a greater distribution of income (2) a moderation of regulations that currently obstruct transportation, (3) further international investments, (4) the development of infrastructure, (5) the more effective distribution of goods to a bigger marketplace, and (6) the development of a more sustainable tourism industry. All these impacts, which will attract more investors, will result in improving competitiveness. However, these developments could also have some negative impacts. For instance, there could be higher marketing costs for the tourism industry.

The transportation supply chain has a direct impact on the efficiency of the tourism industry in Thailand with respect to: (1) the fundamentals of the transportation supply chain, which links the domestic and international tourism industries, and (2) the fundamental facilities that could possibly obstruct the development of logistics for the MICE participants (UNWTO, 2014).

In the recent past, Khon Kaen's tourism growth has shown a tendency to continuously increase, while the passenger transportation supply chain which is responsible for moving travelers within the Khon Kaen district still lacks appropriate development. Because of this, in the past, event organizers or organizers of MICE industry-related events have tended to choose venues having superior transportation potential, such as Bangkok, Chiang Mai, Phuket, and Pattaya. This, in turn, means fewer numbers of events, related to MICE industry, have taken place in Khon Kaen compared to other areas. Thus, the revenues that could potentially be created have not reached the levels that had been expected. This, coupled with the flexibility of energy prices has a direct effect on the initial costs of transportation in Khon Kaen, having severe impacts on both the private and governmental sectors.

Therefore, the operational costs of the transportation supply chain increases, and this factor could possibly lower the competitive competence of the MICE industry in the country. This stands in contrast with the global transportation supply chain condition which has shown increasing trends (Kisang & Jin-Soo, 2013). Such impacts have had their effects on the tourism industry. The development of the transportation supply chain is the tool behind economic profits, and thus, many countries around the world intend to develop MICE tourism with increases in world travel due to the growth of the tourism industry, and businesses related to the MICE industry have consequently expanded in numbers (Luo & Zhong, 2016)

Khon Kaen has continuously propelled itself to becoming the MICE and Events City whose economy is based on the revenue making the city a center for conferences, seminars, exhibitions, education, hospitalization, communication and tourism. Khon Kaen must regularly exhibit its capacity in catering for the activities listed above. For the city to reach its goal, the local people should take part in various activities that are set to direct Khon Kaen toward its desired goal. A sense of ownership on the MICE and Events City should be cultivated among the people. All stakeholders should take part in the maintaining of the public infrastructure,



environment and education development. The public involvement makes Khon Kaen a lively place under the concept of MICE and Events City (Khon Kaen ME city).

MICE and the notion of an Events City is set to make the city a preferable destination among different levels of tourists including the people who come for quality leisure time and also the high-value tourists. To attract these groups of quality travelers, it is important for Khon Kaen to tighten-up its standards in tourism, which can be achieved by the exploitation of a value chain, a process believed to foster satisfactory sentiments among the visitors. Moreover, the province should find the ways to sustainably spread income to its regions. Things to be implemented to make Khon Kaen a city of Mice and Events and the nation's leading tourism destination are *inter alia* expanding business relating to tourism and conferences, stretching tourism period of the province, promoting weekdays tourism, monthly hosting Mice and Event exhibitions.

Tourism sustainability is based also on collaboration among different tourism organizations and the creation of capacity among tourism entrepreneurs. Moreover, the dispersing of tourism business is needed to spread income to the locals and to increase more alternatives for the tourists. The organizations with high capacity usually minimize the working process that involves a lot of paperwork while information technology is highly emphasized. Innovation is used to increase the personnel performance and their loyalty to their organizations.

The area that is now Khon Kaen bus station, was once a wasted and empty piece of land without the passenger building on the west side. Only a few food stands were in that area. However, as time passed, the bus station became more congested due to the increasing numbers of buses and passengers. There was not enough room for parking and the passengers. To tackle this matter, Khon Kaen Municipality, therefore, built a new passenger building on the west side of the station, thus utilizing valuable resources.

In the future, Khon Kaen bus stations will be developed internally to give more comfort to the passengers. Furthermore, a rail system will be established to link the three bus stations together to ensure convenient transfers for the passengers and also to cater for the ever-expanding size of the city. The development of the public rail system also promotes the green area in the province since effective public transportation helps reduce using personal motor vehicles. The development of the rail system in Khon Kaen also serves to reduce traffic problem for the city.

### **The result of SWOT analysis of tourism logistics supply chain in Khon Kaen ME city**

After interviewing relevant stakeholders in order to obtain results to establish a SWOT analysis of tourism logistics supply chain in Khon Kaen ME city for use at the present time, the researcher, government and private corporation representatives now propose developing the tourism logistics supply chain in Khon Kaen ME city.

#### **Strengths**

- The focus of the transport infrastructure development of Khon Kaen has always been put on road development, and this has resulted in the convenience of road network across the area. The road standards and the quality of road network are also considered to be fit for use and meet the required standards.
- The geographical location of Khon Kaen is beneficial to connect it to the land road network to the neighboring countries. Khon Kaen can thus be a hub for connectivity, and the logistics system can be further developed in various types of ways as it is also located on East-West Economic Corridor (EWEC).
- Khon Kaen is suitable for being a global production base as a variety of resources are available such as an abundant natural resource that draws the needed attention of investors and tourists, and well-trained and experienced human resources.



- Main road connection is available throughout the province, so the accommodation area, local business and department stores, and tourist attractions are all connected.
- A variety of public transport options are available for transport connectivity namely Air Terminal, Bus terminal 1, Bus terminal 2, Bus Terminal 3, and railway station.
- All public transport including the Air Terminal, Bus terminal 1, Bus terminal 2, Bus Terminal 3, and railway station are all connected and accessible by shuttle bus and taxi. This connectivity enhances the efficiency of the logistic system and public transport system.
- The location is potentially accessible from most transport system, which leads to more business and investment opportunities.
- People from diverse backgrounds coming to the area makes MICE & Events successful, and variety of cultures and identities are also brought into the area.
- The organization of MICE & Events should consist of various kinds of activities and be available at different periods because visitors are from the local area and also outside the city.
- Khon Kaen consists of both a business area with a variety of public transport options, so the level of city growth and the development of MICE & Event organization are potentially high.

### **Weaknesses**

- Traffic density of Khon Kaen is increasing which makes the duration of a trip and transportation longer.
- Development of transport infrastructure, especially railway transport, is still limited to some areas. Also, there is still a lack of effective transport connectivity between air transportation and bus stations. These problems make the transport network relatively incomplete.
- Logistic management of the government section is still unclear in terms of the division of separate departments with a clear job description for the following areas; policy, regulator and operator. As their roles are unclear, some parts of their work are overlapping and resulting in ineffective operation.
- The operation of infrastructure development has created impacts on society and the environment and it seems to lack preparation although it is funded by the government. The lack of preparation seems to be found in all process; prioritization, a research study of the project, land purchase and expropriation, and this results in developmental delays and inconsistency. Also, because of a poor public relations, the news and the information have not been adequately delivered to the public. Without much information, there is some denial of the projects planned without needed public participation and buy-in.
- Laws and regulations of transportation are outdated and do not respond to the mission and role of operational departments. They are also obstructing the private sector from investing or management of the transport infrastructure.
- Public transport fares are considerably high compared to living expenses.
- Road network in the city area cannot be expanded because of the improper city plan. That is why traffic is so dense on all main roads in the city area.
- Streets and alleys are not effectively connected as there are many dead-end alleys and as a result, it is difficult to lessen traffic density of the main roads.
- Streets in the old city area of Khon Kaen are also not effectively connected to the main roads around the city, so traffic is heavy in all areas and it is seemingly getting heavier.
- In public transit points, the area for small transit vehicles such as motorcycles is still limited, and drivers eventually need to park their vehicles on the pavement.
- There are poor connections to link all transport system and for vehicles and also for pedestrians.
- Limited parking space for personal cars exists for those who wish to change the mode of transportation to enter the mass transit space.



- Khon Kaen Air Terminal is poorly linked with Bus Terminal 3 because only a few types of transport are available, such as shuttle bus and taxi. So, travelers' choices are limited.
- For most activities of MICE & Events, the traveler transit system is ineffective. With an effective transit system travelers need to carry their luggage, and this offers more opportunities to increase a level of economic activity along the route.
- There is limited space for recreations or waiting areas in all types of public transports for those who need to make a transit.
- There is also limited space for transit.

## Opportunities

- Globalization has changed society and economics of Khon Kaen. Potential policy planning requires flexibility, innovation, creativity, and even adaptation to a changing environment. Participation in regional economic community broadens the network. For instance, the fact that Khon Kaen is selected to be MICE city and Thailand is in ASEAN Economic Community (AEC) this allows ASEAN to be a potential production base and to establish the role of the region as a global economic hub. As a result, the number of travelers and commuters coming to or passing through Khon Kaen will significantly increase as well as will the volume of trade within the ASEAN region. In addition, regional and international cooperation frameworks and agreements will attract more tourists, trades, and investment projects.
- Khon Kaen city should design a city plan that supports the development of the city and public transport system to spread urbanization throughout the city. This will also help to increase the level of city growth, foster change in travel behaviors and, lead to the expansion of residential area on the outskirts, and this create higher needs for transportation from the residential areas to a work place, a school, and also to the MICE & Events activity zone.
- Awareness of climate change, which results in a significant increase of global temperature and global warming, has a great impact on human's behavior, especially for transportation. More attention has to be put on public transports, green vehicles, or other types of transportation that is environmentally friendly e.g. walking and cycling.
- The change of population structure which is now an Aging Society means that the number of elderly reverses with the number of a working age population. For Khon Kaen, the proportion of elderly will be significantly increased to 25% in 2030, and these elderlies will require a better public transport system. Hence, transport infrastructure should be well planned and designed to promote equal accessibility for the elderly, children, and people with disabilities to public transport in the future.
- Technological change and innovation are the keys to the future world and Khon Kaen. Intelligent technology has a direct impact on human life, lifestyles, travel behaviors, and also a new generation of businesses. Khon Kaen is currently working on the digital economy, so a plan for future development of transport infrastructure and other facilitations must concern innovative technological change.
- Increasing efficiency of transportation and logistics reduces the cost and enhances the competition ability of the country. This can be achieved by pushing forward the notion of the railway system to become the main transport system of the country together with the development of a generally more efficient transport system.
- Ability to link all public transport services at the sites of MICE & Events; those that are operating and those that are being planned, will be beneficial in designing and developing the city plan.
- Liveliness and a variety of the activities of MICE & Events should be organized around Khon Kaen city. More areas and space should be provided to support these activities, and the uniqueness of each area should be brought out to attract more visitors and investors.
- The organization of MICE & Events should be exciting and the participation of different kinds of public transport services will ultimately encourage more public participation and visits to MICE & Events.



## Threats

- Instability in politics and government policies on the development of transport infrastructure that are inconsistent and vague cause the delay of infrastructure development in Khon Kaen. They also affect planned timing and service efficiency and as a result, the public's needs are not being served consistently.
- In Khon Kaen, there is a lack of integration between government departments involved in management and development of infrastructure of public transport.
- Natural disasters such as floods and other disasters have a direct impact on transport infrastructure.
- The local road network structure is insignificant, which means that many roads are merely small alleys and located too close to private property, which makes development difficult.

## Recommendations for increasing the potential in tourism logistics supply chain to Khon Kaen ME city

Integrating the transport system: there should be efforts to develop the transport infrastructure and services by integrating these with all agencies involved in both the planning and development of the infrastructure to achieve the comprehensive transportation network, transportation in the city, and between Khon Kaen and linkage cities (the connection between the model of transportation in the province). Efforts must be made to reduce energy consumption and greenhouse gas emissions in transportation. The promotion of cooperation in various fields and in the economic sphere is critical. Facilitation of trade and investment and elevation of traveling is needed (Sengpiehk, 2010). Support for the important policies of the government, such as modifications to the Thailand 4.0 by adjusting the economic structure, driven by production innovation and technology to complement the value-added goods and services is needed. Developing the potential industrial cluster to promote more investment in the country is a need as well. The Eastern Economic Corridor Development is the development of the eastern coastal area, as the leading economic area in the region (Homsombat, 2013) for supporting Khon Kaen's MICE & events participants.

Green logistics and transportation is a need requiring less focus on fossil energy use and more use of clean energy or alternative energy in the public transport system (Mulali, et al., 2014). Promotion of an environmentally friendly transport technology is vital, for example, supply buses powered by electricity and promote electric vehicles in order to reduce carbon emission levels. Applying of strict measures to inspect cars and motorcycles is also important to consider. Encouraging the use of busses among commuters is essential. Support non-engine traveling in the city, for example, promote cycling and walking (Canhong, et al., 2014). Developing the facilities that support vehicle level reductions must be an important consideration. Promoting of traveling safety measurement for MICE & event participants and physical exercise and sustainable transport are equally critical considerations (Jedlinski, 2014).

Intelligent Transport Systems (ITS): Establishing a real-time traffic light control system is desirable. Supporting the electronics service price charging is thus important. Transmitting the traffic information without using the other traffic information centers. Using of the GPS to control public transport and merchandise transport and using technology in providing higher effective services is non-negotiable (Ishfaq, 2010).

Tourism logistics and transport services: Elevating the service and administration management for public transport facilitation and supply chain management in order to enhance the effectiveness of logistics, is an important factor that affects the national potential in competitiveness. it allows the effective and punctual movement of the travelers and meets both the entrepreneur and general user needs (Zhi, et al., 2014). Establishing effective transport for people from every group, and providing adequate, punctual, clean, convenient,



safe, standardized, good-coverage, economy services, including reasonable ticket prices which are affordable for MICE & event participants would also go a long way. Furthermore, Public Private Partnership (PPP), good governance, transparency and equity can be involved in infrastructure development and in administrative management as well as transportation services (Spencer & Steyn, 2017).

Human resource development: In order to support the effective and standardized administrative management and transportation infrastructure in Khon Kaen, the personnel in transportation are essential for policy planning. To drive the policy to the desired achievement, the establishment of an institute of training and development for public transport personnel should be prioritized (Jose & Inkyo, 2013).

Technology and innovation in the development of public transport in Khon Kaen: Promote research and development in various advanced technologies and intelligent systems that advance quickly. Implementing of technology in the development of infrastructure and transportation services to produce a higher efficiency for MICE & event participants is needed. Supporting the government policies in the economy, society, and industrial development (Islam, et al., 2013), is crucial.

Organizing the space for passenger boarding and alighting is another recommendation to note. Solving the traffic disruption to designate the boarding and alighting point for personal cars, taxi, motorcycle taxi, and public transport at the proper sites is needed (Creazza, et al., 2014) in Khon Kaen Passenger Terminals 1, 2 and 3 in order to link them to the airport. Paint clear and proper colors at the boarding and alighting sites along Prachasamosorn Rd., Sri Chan Rd., Na Muang Rd., KlangMuang Rd., Lang Muang Rd., Maliwan Rd., and Mitraphap Rd. and then also improve the stops for taxis, motorcycles, and minibuses so as to avoid traffic disruption.

Add more facilities at the linkage site in order to provide more effective access at every public transport terminal (Cole, 2009) along Prachasamosorn Rd., Sri Chan Rd., Na Muang Rd., KlangMuang Rd., Lang Muang Rd., Maliwan Rd., and Mitraphap Rd. Provide standard facilities for pedestrians and drivers as designated by the Transport and Traffic Policy Plan Office. The facilities should be in the proper size suiting the footpath size in each area. Provide a traffic system that accommodates the pedestrians, for example, add road crossing lights, street boundaries, crosswalks, and cross signs for public safety. Provide sheltered facilities for people who are waiting for the passengers and for transportation, for example, shelters with a roof, benches to sit on, PR posters, transportation schedules and lights for commuter safety at night (Rosa, et al., 2014).

Improve and enhance the pedestrian and bicycle paths to facilitate access to public transportation terminals (Lin, et al., 2014). Level the footpath surface, install lights and organize the vendors on Prachasamosorn rd. etc. Build a roof to cover the walkway from the station building to the bus stop. Develop safer walkways and provide good access to the parking lot. Paint and draw line for bicycle parking in order to separate them from the car user's area. Provide the parking lot for bicycles with a roof. Designate the speed limit for cars when sharing the road with bicycles at 40 km/hr (Baldacchino, et al., 2013).

Add route boards or PR posters at the linkage site of public transport. Install the signs in both directions - to and from the terminal building and the linkage sites and the important stations (Mxunyelwa, 2017). Provide the travelling information to the users at the linkage sites of public transport, for example, busses, public transport vehicles, minibuses etc. (Boonla, et al., 2014).

Control the travelling needs: It is an efficient aid to control the numbers of vehicles sharing the space of road network and parking lots. this should be done by cooperating with the transport offices in order to arrange the routes and motivate the users (Muhcina, et al., 2008). For example, the signs for parking prohibition along Prachasamosorn Rd. and Srichan Rd. in the rush hours. This is A guideline that can help reduce the number of vehicles and the traffic intensity especially in the rush hour periods (Tang, 2014).



## Conclusions

The recommendations for increasing of the potential in tourism logistics supply chain to Khon Kaen ME city include the guideline for development following: Integrated Transport Systems, tourism logistics and transport services, human resource development, technology and innovation in the development of public transport in Khon Kaen, green logistics and transport, the intelligent Transport Systems (ITS), organize the space for passenger boarding and alighting, add more facilities at the linkage site in order to provide the effective access at every public transport terminal, improve and enhance the pedestrian and bicycle path to facilitate access to public transportation terminal, add the route board or PR poster at the linkage site of public transport, and control the travelling needs.

The recommendations for future research were to study: the guidelines for the development of reliability and punctuality, the guidelines for the development of the coverage service in public transportation Maung Khon Kaen District, the guidelines for reducing and prevention of the accident in public transportation system, the guidelines for development of special channel for public transport system, the guidelines for the development of intelligent traffic signal management system, the guidelines for the development of public transportation direction map of tourism spots in Khon Kaen, ME - Khon Kaen Application for smart phone, fast lane for MICE & Event participants, pre-tour and post-tour for MICE & Event participants, and provide the site for shuttle busses parking.

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