THE NATIONAL SINGLE WINDOW IN MALAYSIA – THE INFLUENCING FACTORS FROM THE USERS PERSPECTIVE

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Abstract
The National Single Window (NSW) is a pertinent trade facilitation measure of Malaysian trade process in the sense of simplifying and harmonizing trade documents. This research seeks to identify factors that contribute to the effectiveness of its implementation. The influencing factors were organized under four (7) categories consist of regulatory policy, institutional support, user awareness, electronic system reliability, training, ICT support facility, simplified procedure. In addition, a total of 30 elements was founded under these seven factors. This research fills in the gap in trade facilitation research through the identification on the important role plays by government policy particularly in the national single window process, which was previously very lacking.

Introduction
International trade is generally an exchange of goods from one country to one another to fulfil the supply and demand between nations which evolved with broader supply chain activities. It is normally involves three things that moves together with cross border movement which are cargo, people and modes of transport either land transport, air transport, or sea vessel (Choon, 2011). Beyond the physical movement of the goods, there are detail information that entwined with the cargo being moves which carries the status of the cargo (ADB, 2009). Cargo information management plays an important roles to measure the supply chain process efficiency, public administrators' efficiency and legislative impact on market efficiency. Therefore, management of information at international border is very important because it will determine information traffic during clearance of goods at the border (Djankov, Freund, & Pham, 2006).

Background of the Study
Trade Facilitation
The logistics industry has undergone an evolution in management to improve its efficiency as demanded by trade atmosphere nowadays. There is more and more facility that has been developed by United Nation by its subsidiaries and other international agencies to encourage national and international trade. During 1998, trade facilitation was introduced by the United Nation as a potential solution to the world trade with the objectives of simplifying the trade process and minimizing transaction costs in international trade while maintaining effective levels of government control. Trade facilitation defined as *"systematic rationalization of customs procedures and documents. In a broader sense, it covers all the measures that affect the movement of goods between buyers and sellers, along the entire international supply chain"* (ADB, 2009). Even more important, from a trade facilitation action agenda is the establishment of a single window will force authorities to collaborate and streamline their processes, to collaborate and consult with the business community and in the best of cases also lead to coordinated border management, cutting lead time not only in the administrative procedures but also in the actual border-crossing (Pontén, 2011).

Single Window
Single Window is a trade facilitation strategy to enable cross border trade by practicing single location or entry point to manage regulatory documents or information for import, export and transhipment cargo. It is established that by having single window traders will enjoy efficiency time and cost saving. According to Economic Commission of European recommendation 33 Single Window defines as *"A facility that allows parties involved in trade and transport to lodge standardize information and documents with a single entry*

point to fulfil all import, export and transit regulatory requirement. If information is electronic then individual data elements should only be submitted once" (UN/CEFACT, 2005)

The concept is recognize and promoted by several world organization that are concerned with trade facilitation among others are United Nation Economic Commission of Euro (UNECE), United Nation Centre of Trade Facilitation and Electronic Business (UNCEFACT), World Custom Organization (WCO) and Association of Southeast Asian Nations (ASEAN).Single Window is a system which carried out accustom to local culture and the Logistics industry situation whereby the medium of information transfer are based on both electronic and hard copy documents for the formalities (UN/CEFACT, 2005). Data and document exchange for cargo delivery always involves big volume of transactions through its various agencies (Grainger, 2010a). This situation normally leads to negative impact where it's allowed for unfair practice and undesirable act due to the expose chances in order to create good governance [8]. Therefore, this system is very consistent with trade atmosphere because it's create systematic working environment as they gather important agencies in the process of custom clearance in the international border under one nucleus administration (Choon, 2005). So, the existence of the system supports an efficient movement of physical goods.

Component in Single Window Delivery

The emergence of National Single Window in Malaysia was initiated from the adaption of trade facilitation measures developed by UNCEFACT purposely to facilitate trade through effective management of information (UN/CEFACT, 2005). Thus, a committee has been set up by the Ministry of International Trade and Industry that brought to the appointment of Dagang Net Technologies Sdn Bhd to serve as national IT service providers to develop a reliable framework for the operation of Single Window in Malaysia since mid 90's. Since then, Dagang Net has become the sole assessment service providers to design, develop, manage and operate NSW system in Malaysia until 2014; after another contract renewal in 2009 (Choon, 2011). Single Window in Malaysia is designed to operate in electronics means in order to assist the clearance process between trade community and custom office at the border. This trade community consists of port operators, shipping agencies, forwarding agents and traders. Existing structure, National Single Window is consisting of five core services namely Electronic Declarations (e-Declare), Electronic Manifest (e-Manifest), Electronic Duty Payment (e-Payment) and Electronic Preferential Certificate of Origin (e-PCO) to covers basic cross boarding activities (UNNExT, 2010). Figure 1 shows simple diagram on information transaction process in national single window from the users to the respective authority. The submission process will be assisted by system moderator currently host by DagangNet Technologies Sdn Bhd that will act based on specific request on main five core services.

Single Window Malaysian Development

It is a systematic system to supersede unorganized conventional system where data and information for custom clearance are traditionally undergone scattered processed. The establishments of Single Window are adapted from the introduced by UNECE in their Recommendation 33, where 3 general models are developed, namely: Single Authority, Single Integrated Automated System and Single Interface Automated system (UN/CEFACT, 2005). Malaysia for a record was adapting a single interface System between agencies (G2G) as well as Business to Government (B2G) with an adoption of UNEDIFACT manages by Dagang Net Technologies Sdn Bhd (Butterly, 2003). It is considered as part of soft infrastructure in facilitating trade which giving an opportunity to the traders and the business to deal with government by one transaction only. The next process will be handled by the lead agencies or third party IT service where information will be segregated among the related government agencies via electronic means. Significantly, this process allows data and documents to be managed in an efficient way by reducing redundancy in data management and minimizing error (Grainger, 2010b). There are 2 categories of government agencies who directly involve with Single Window i) other government agencies who compiling trade data and information; ii) secondly, permit issuing agencies which responsible for the endorsement of permit for import and export (Parks, Finnin, Cullen, & McLellan, 2007). Transparency in customs clearance to the harp with the characteristics of transparency in the system because the information was presented to be shared by all government agencies so there is no element of favouritism or a 'private' partnership between actors that would encourage such unhealthy acts of corruption and bribery. An officer is no longer able to use the power of arbitrary while conducting their task (Apostolov, 2008).

The emergence of National Single Window in Malaysia was initiated from the adoption of trade facilitation measures developed by UNCEFACT purposely to facilitate the trade through effective management of information (UN/CEFACT, 2005). Thus, a committee has been set up lead by Ministry International Trade Industry that brought to the appointment of Dagang Net Technologies Sdn Bhd to serve as national IT service providers to develop a reliable framework for the operation of Single Window in Malaysia since mid 90's. Since then, Dagang Net has become the sole assessment service providers to design, develop, manage and operate the NSW system in Malaysia until 2014, after another contract renewal in 2009 (Choon, 2011).

A national Single Window milestone in Malaysia from the 80's when they started to adopt intranet to automate internal information system before it's improved with the use of automated system via Wide Area Network (WAN) to allow message exchange between organizations for custom for clearance process. In the Stage 3, government serious involvements towards the implementation of electronic message and data exchange between interest parties particularly for custom clearance and shipping declaration process. It is consistent with recommendation from international organizations such as the United Nation for European Union (UNECE) and World Trade Organization, which encourage for trade facilitation program for a betterment of the world trade process therefore they comes with fresh initiative to enhance the efficiencies and the effectiveness of the cross border trade process. Single Window in Malaysia is designed to operate in electronic means to assist the clearance process between trade community and custom office at the border. This trade community consists of port operators, shipping agencies, forwarding agents and traders. Existing structure, National Single Window is consisting of five core services namely;

Electronic declarations (e-Declare)
Launched in 2002, this web-based application allows importers and exporters to submit import and export declarations to the Customs securely via the Network. Today, it is available at all ports and entry points in Malaysia. The average number of Customs related a transaction conducted per month is 958,141 and the current number of users is 3,316.

Electronic Permit (e-Permit)
This paperless, web-based permit application system enables importers, exporters and forwarding agents to apply for import/export permits from Permit Issuing Agencies (PIAs). As of July 2010, e-Permit has gone live at 17 permit-issuing agencies and. About 284,655 permits were transacted in 2009 with each electronic cycle taking about less than a day and the number of e-Permit users have hit 10,714 users. The E - Permit is one of the cornerstones in the development of a true SW for electronic trade facilitation in Malaysia.

Electronic Manifest (e-Manifest)
It allows port users to submit cargo and vessel manifests to the respective authorities via the Internet. It allows 674 port users to send an average of 482,920 electronic CUSREPs, CUSCARs and Inter Terminal Transfer Document (ITT) each month directly to respective authorities through the Network.

Electronic Duty Payment (e- Payment)
e-Payment is an online duty payment by way of electronic fund transfer service that enables preparation and submission of duty payment to Customs from agents or traders accounts. Duty categories including import and export duty, import sales tax, import excise duty and cess.

Electronic Preferential Certificate of Origin (E-PCO)
Implemented in January 2009, this Web-based Certificate of Origin application and approval system enables the environment for increased speed to market.

Methodology

Qualitative method

Case study is used to describe an intervention or phenomenon in real-life context, in which it occurred (Yin, 2009). The core strategy for this research is the individual experience of the subjects interviewed, represented through narrative analysis and interpretation to determine if a pattern or trend exists for further research efforts. The target audience was specific and focused to the group of users from private and public sectors unique to the national single window service in Malaysia particularly freight forwarders in the operational fields.

Units Analysis

Within the qualitative paradigm, research sampling size is not judgmental referring to the nature of this research which adopts the phenomenologist point of research. The sample selection may be small to be more focused and maintained the closeness to the situation and transform the pattern (Hussey & Hussey, 1997). This research adopts freight forwarders as the of unit analysis. Each participant was coming from different organization that contributes to a unique perspective of single window process with various background of experience in freight forwarding business. The percentage of respondents were selected according to purposive sampling. Purposive sampling allows researcher to examine a selected group of subject that hopes to be investigated (Singh, Fook, & Sidhu, 2006).

No	Organization status	Code	Designation	Years of Experience	Date of interview
1	Application Service Provider	P1	Advisor	21 years	January 2011
2	Royal Malaysian Customs	P2	Senior officer	10 years	March 2011
3	Royal Malaysian Customs	P3	Senior officer	12 years	March 2011
4	Freight Forwarder	P4	Operation	2 years	January 2011
5	Freight Forwarder	P5	Operation	9 years	January 2011
6	Freight Forwarder	P6	Operation	6 years	January 2011
7	Freight Forwarder	P7	Documentation and customer service officer	6.5 years	January 2011
8	Freight Forwarder	P8	Operation	4 years	January 2011
9	Freight Forwarder & shipping agencies	P9	Operation	3 years	January 2011
10	Freight Forwarder	P10	Operation	7 years	January 2011
11	Freight Forwarder & shipping agencies Freight forwarder	P11	Operation	3 years	January 2011
12	Freight Forwarder & shipping agencies	P12	Operation	19 years	January 2011
13	Freight forwarder	P13	Operation	8 years	January 2011
14	Kedai EDI	P14	Clerk	4 years	March 2011
15	Freight Forwarder	P15	Operation	8 years	May 2011
16	Freight Forwarder & shipping agencies	P16	Head of documentation and declaration	13 years	May 2011
17	Permit issuing agencies	P17	Head of division	9 years	September 2011
18	Permit issuing agencies	P18	Administrator	2 years	August 2011
19	Permit issuing agencies	P19	Manager	6 years	August 2011
20	Liner Operator	P20	Manager	8 years	August 2011
21	Port authority	P21	Senior manager	12 years	September 2011

Table 1: List of interview participants

As shown in Table 1, there were 21 participants selected from users in Klang Valley area with various lengths of experience in freight forwarding and shipping business. The majority of them who were still active came from Port Klang and Kuala Lumpur International Airport.

Data Collection

The main data collection method was in-depth and open-ended interviews, in which they were used to prepare interview guideline. Key informants provided supplementary data. The use of the interview guide indicated that there was some structure of the interviews, were treated as conversations during which the interviewer drew out detailed information and comments from the respondents. Average interview length is one hour for each participant.

Data Analysis

According to Gleene & Peshkin (1992), the data analysis in qualitative research deals with managing, filtering as well as selecting data using detail judgment and interpretation. It is spelled out using an entails process consist of sensing themes, constant comparison, recursiveness, inductive and/or deductive thinking and interpretation to generate meaning (Ruona, 2005). In this research, interview session voice data was properly recorded before the data were translated and filed according participants' unique code for easy references where pseudonyms were used to maintain its confidentiality. Hence, those data were those transcribing scripts were analyzed one by one to extract out the sensing themes that being discussed or mentioned by the participants.

Discussion

Single window is among trade facilitation measures which assist economic development and promotes logistics operational efficiency. Throughout the investigation, it showed that policy establishment, institutional cooperation, stakeholder awareness, electronic system reliability, training, ICT supporting facility, simplified procedure are the most significance factors of the effectiveness of national single window in Malaysia.

No	Factors	Elements
1	Policy establishment	• System ownership • Security • Internet Communication Technology (ICT) • Institutional Collaboration • Financial Facility • Data Harmonization • Investment Incentive
2	Institutional Cooperation	• Authority Collaboration • Data sharing • Trust
3	Stakeholder Awareness	• Publicity • Resistance to change • User knowledge • Information channel
4	Electronic System Reliability	• System ownership • Data security • Value added service • Administrative custom evaluation
5	Training	• Training availability • Training schedule • Training module • Electronic system literacy
6	ICT Supporting facility	• Mobilized equipment • System investment • Telecommunication infrastructure • Financial facility
7	Simplified Procedure	• Process re-engineering • Timeliness • Trust accountability

• Data sharing

Table 2: Factors identified by freight forwarders

As shown in Table 2, there are 30 elements categorised under the seven factors that contributes to the effectiveness of national single window in Malaysia.

Policy establishment

The government policies were highlighted as one of the important factors to determine the direction of effective single window. The importance of policy towards the implementation of single window was also highlighted by Grainger (2008), where he argued that though a policy is highly required to support trade facilitation development but less effort is made on its execution considering the trade environment's complexity, many different, often conflicting, interests are at work. Luddy (2011) emphasizes that upon the initiation of a single window system, a few important elements are to be considered as a national principle for the generalization of system for the domestic and international connectivity. Those elements were highlighted as a pertinent aspect of comprehensive fundamental to effective single window which includes understanding the key legal issues, enabling laws and regulations, information sharing, data protection, privacy, organizational issues, liability, competition, electronic documents, intellectual property rights, data retention, electronic signature, cross-border authentication, and e-documents of title. This study revealed that the government policy on single window were developed from a few elements that require government attention, mostly in realigning the strategy for single window delivery to be practically acceptable by the community at large. First, the system ownership highlighted the important warrant about the governance of single window that leads to perceived contribution to the diffusion, followed by security coverage, ICT, collaboration among stakeholders, financial facility, data harmonization, and investment incentives.

Institutional cooperation

Institutions in single window consist of government agencies or appointed agencies to hold authorized power to be carried to control cross-border activities. There were three important elements that have been highlighted by the users to determine effective institutional support, namely authority collaboration, data sharing, and trust. A collaboration between authorities is important to ensure the smooth border governance is in place. Findings showed that the users were facing with the redundant information requirement by the related authorities for clearance arrangement. Therefore, the related institutions should support this collaboration by having mutual collaboration to support the single window initiatives. However, referring to the current situation, the participation stage is minimal to ensure the effectiveness of a single window.

Stakeholder awareness

Every stakeholder in the single window community was driven by the objective of their authorized responsibility or business commitment to be achieved. Four main cross-border agencies such as the customs were concerned about all cross-border trading undergoing possible screening and evaluation for duty and sales tax collection as well as their responsibilities were probably related to security and control purpose. For other government agencies, their responsibilities were in the border area to ensure the customs are given the best advice about particular products under their custody with respect to national or international law. In simple words, other government agencies were responsible for providing knowledge and expertise towards the extensive security compliance for a particular product to protect the national resources. Business people in a different set of agenda are concerned about their productivity to improve their operation and making more profits. Within the single window, multiperspective mindset was being united to produce a single window. Therefore, the very beginning of a single window formation involves multi-interests of every stakeholder. The 'individuality' assessment is no longer acceptable in the single window community to ensure the single window mission is effectively achieved.

Electronic system reliability

Another factor identified as a pertinent factor that contributes to effective single window is electronic system reliability. Reliability in the context of single window is the status of each information pledge to its recipient, where the single window will become the first to receive information that will establish system

acknowledgement by the users. This factor is closely associated with another four elements highlighted by participants, namely system ownership, data security, technical assistant, and administrative custom valuation that influence the effectiveness of single window implementation

Training

Training availability is an important element of training. It must be available first as an option for participation from the respective targeted participants. Availability here means expert training sessions are continuously offered to the interested groups whenever it is required. Training provision should be one of the obligatory missions in the single window governance to expose knowledge to the industry. The availability needs to be open to the public. According to the research data, training availability showed that the government was serious to encourage migration to total electronic single window community. It was a part of soft facility that should be provided to every single layer within the community. Once training is available, it will increase the users' confidence to get involved with the electronic community. It was found that reluctance to involve with a single window system that encourage users to 'do it yourself' option was due to the perception of the complexity of the system and the anxiety of making mistakes to a system that would create more complications. Findings from the interviews showed that there were two reasons why the training availability was very limited. First, a logistics officer from a small medium enterprise excuses himself to participate in the electronic system as the system is too difficult to understand and tedious. Due to his position as a documentation officer cum agent to the customs, he has limited time to undergo training. He is at the point of not knowing where to start in training since it is not published anywhere. A slight mistake would lead to a delay due to declaration problem. Hence, he would prefer to choose an alternative service using 'Kedai EDI' located at Port Klang. For that reason, he has not proposed to his top management about the system to avoid impediment towards his daily work. Second, in the context of freight forwarders, they also faced training difficulties as in the event of their effort to recruit more staff who were involved with the operational unit. They have to spend their time to conduct training to their new subordinates apart from their official duties. It was due to the difficulty to get training from the system expert. Training availability was shown as an important element when the new industry comers who possess limited knowledge of cross-border information transfer require single window intermediary. Single window users were from various industries and different academic backgrounds, from the laymen to the highest level of management. Therefore, it would be possible to have public training available for users, so they will plan accordingly to attend the training.

ICT Supporting facility

Single window in Malaysia was an attempt for a fully electronic supporting environment. In a country with a wide geographical position like Malaysia, the decision of an electronic option was considered as the best solution since it will be able to support a faster information transfer between the users and public agencies. Since 1993, SMK-DagangNet is known as a backbone of the NSW for customs declaration transaction even though has been there but more room for improvement. There were four important elements highlighting the ICT supporting facility as a factor that encourages the effectiveness of single window. The ICT supporting facility should be supported by the government for the respective community and also an initiative by the business community to seriously support an electronic environment.

Simplified Procedure

Scholars researching trade facilitation highlighted the importance of simplistic procedures that are able to be developed through the mutual understanding and cooperation between the stakeholders by putting business actors in a safer position (Grainger, 2007). Transformation of physical documents into the electronic set must associate with change of procedures at times (UNNExT, 2012). It was discovered that four elements to support the importance of simplified procedures in order to support the effective implementation of single window in Malaysia, particularly in the Klang Valley. The elements were process re-engineering, timeliness, trust accountability, and data sharing.

Conclusion

Obviously, single window effective delivery was driven by government policy and streamlines procedures by various agencies. Government policy should focus into data security, specific single window policy, agencies authority and promotion towards the system usage that must be clearly set up to build up users trust towards single window. Single Window procedures on multiple window issues, redundant working

approach, unnecessary procedures and paperless and paperless create a powerful influence towards the implementation that must be used carefully and systematically managed.

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NON-PHYSICAL BARRIERS FOR THE SOUTH EAST ASIA (ASEAN) MAINLAND CROSS BORDER RAIL FREIGHT MOVEMENTS: FACTORS THAT COULD AFFECT THE REGION'S SEAMLESS RAIL FREIGHT MOVEMENTS

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ASEAN Rail Performance

In this sub-region, the dependency of rail transportation, specifically the train, to carry freight is not obvious. Instead, the train could be said among the least use mode of transportation for carriage of freight crossing the international borders, in this sub-region. The less reliance of train to move freight crossing the international border in this sub-region is also influenced by the fact that there are a very limited number of facilities that enable the cross border rail freight movements to happen. As on 2014, there is only one border which the cross border freight trains services available in this sub-region, which is between Malaysia and Thailand through Padang Besar of Malaysia and Padang Besar of Thailand. There is another rail link connecting two neighbouring countries, which is between Thailand and Lao PDR, through the Friendship Bridge located between Nong Khai in Thailand and Vientiane in Lao PDR. The carriage of freight through this particular link would only commence in 2015 (The Nation, 2013). As for the time being, the movements between Malaysia and Thailand will become the only active cross border rail freight movements in this sub-region.

In ASEAN, the train services are been made available by the local governments. Most of the service providers are either owned by the governments or controlled by the governments. Indirectly it means that the governments operate the trains' services in their respective countries. Kereta Api Tanah Melayu Berhad (KTMB) in Malaysia (Yeow, 2008), State Railway of Thailand (SRT) in Thailand (Devakula, 2008), Vietnam Railways in Vietnam (datviet, 2014) and Myanmar Railways in Myanmar (KPMG, 2013) are the sole train service provider in their respective countries, which are under the control of the government. They are also the sole service provider for rail freight in the countries. As for another two countries, Lao PDR and Singapore, the trains' services in their countries are and were operated by their neighbours. As for Lao PDR, SRT of Thailand provides the train services in the country. Meanwhile as for Singapore, the trains' services are and were operated by KTMB of Malaysia. For these two countries, the unavailability of railway facilities for freight trains limiting their opportunity to have their own state run railway companies. The situation in Cambodia is different from its neighbours. In Cambodia, the train services had been privatised in some area in the country (Hilton, 2012). Thus, two different companies run the operations of trains in Cambodia.

Under the managements of the local governments, most of the rail freight services in this region do not seems to performs very well. The table below shows the amounts of freight carried by ASEAN mainland countries, through rail freight services, for the past few years, as recorded by the World Bank:

	2010	2011	2012
Singapore	-	-	-
Malaysia	1384	1535	3071
Thailand	3161	2455	2455
Vietnam	3901	4101	3959
Lao PDR	-	-	-
Cambodia	-	-	-
Myanmar	-	-	-

Table 1: Goods carried by train (million ton-km) (World Banks, 2014)

Looking at the available data, Malaysia is the only country, which had increment in volume of freight carried. As for the other two countries, the numbers are not very encouraging, the data showed above only cover the freight carried in the countries. As for cross border rail freight movements, there is still yet to be available the data on the volume of freight carried.

Malaysia railway industry could be said as owning the most advance railway facilities in this sub-region. With the on-going constructions of double tracks and electrifying them, and also constructions of inland containers depot (ICD), it can be said that Malaysia is currently leading the developments of the railway facilities. Eventually, such developments of new facilities do not provide positive impacts on Malaysia rail freight performance. With the available facilities, KTMB is still facing losses and debt. Until 2014, current KTMB chairman, Ir. Nawawi Ahmad mentioned that they had earned 380 million Ringgit Malaysia, equivalent to about 118.07 million US Dollar. Eventually, such amount of profit would not be sufficient enough to cover the debt and losses they faced so far. For the same period of services, KTMB is facing the loss of 700 million Ringgit Malaysia, which equal to about 217.49 million USD (Bernama, 2014). Such losses are made available by the media to the public. KTMB Gemas Operation Executive, Basri Abu Bakar, mentioned about the financial losses faced by KTMB as follow: "In total, income for KTMB had been mentioned through media. KTMB had never gain profits. KTMB is facing loses every year."

The performance of Malaysian northern neighbour, Thailand, is not very encouraging either. Through the services provided by SRT, the company had yet to earn enough profit to enable them to cover the operation cost. According to Prasong Poontharat, the director-general of the State Enterprise Policy Office, SRT was facing the debt of 7.58 billion baht, which is equivalent to about 0.23 billion USD (Chantanusornsiri, 2012). As on April 2014, according to Public Debt Management Office of Thailand, SRT is facing 113,484.970 million baht of debt (Public Debt Management Office, 2014). The company, which was founded as Royal State Railway of Siam in 1890, was reportedly bankrupt in the mid of 2000. From that incident, SRT required 60 billion baht to cover future losses and investment, on top of to cover the existing obligations of the company (Brixi and Schick (2002).

In Vietnam, the needs for railway facilities are overshadowed by the performance of other mode of transportations and its geographical landscape. As for the time being, the only international railway connection that it has is between Vietnam and China. The connectivity that Vietnam has with its region is fairly new. As far as the performance of its rail industry is concerned, according to Myint Thein, who is the Deputy Minister for Rail Transportation of Vietnam, Vietnam government is operating the railway industry at a loss. The government spend Ks 45 billion, which is nearly US$463,717 just to run the railway and maintain them in the country (Eleven, 2014).
"That's why our government is spending Ks 40 or Ks 45 billion yearly for the public. On the other hand, we are facing difficulties because the government has spent money for the upgrading of railroads and the renovation of coaches and locomotives (Myint Thein, 2014)."
Also, the railway transportation is among the seven sectors that had caused the nation to own the debt of Ks 900 billion, equivalent to 0.22 billion USD (Nyein Nyein, 2013).

The seamless movements suggested that the movements of rail freight could be made throughout the sub-region to maximise the capability and reliability of the rail freight services. As for now, the railway industry is moving inside the country, which limiting the possibility of generating the income for the country. By having the seamless journey, it could support the neighbouring countries in providing the services so that the demand and reliability of the rail freight could increase to the level where it could compete or even perform better than the other mode of transportations.

Institutional seamless journey
Uninterrupted journey will increase the value of rail freight services. The confidence level of the market is important to ensure the sustainability of the rail freight movements. In term of definition of seamless journey, it could be seen through three different perspectives namely linguistically, terminologically and conceptually. Macmillan had define the term seamless as below (2007):

1. Made without seams
2. Changing or continuing very smoothly and without stopping."

Terminologically, seamless carries the same meaning as coherent or uninterrupted. As for the seamless journey concept for cross border rail freight, deriving from the definition of seamless

linguistically and terminologically, it is a cross border journey from the point of origin until the point of destination without having to undergo any changes in between. Under this particular category, the seamless journey will exist if the shipments do not need to change legal documentations or formalities upon crossing the international borders. Documentations and information prepared at the place of origin will be use for the whole journey and border inspections are unnecessary. For the time being, the local government controls the regulations relating to cross border rail freight movements. There are a few ASEAN level declarations made concerning either freight movements or transportation, but the option of enforcing such regulations is within the hand of the members. Thus, as far as the regulations are concern, changes are necessaries for cross border rail freight movements. For the cross border movements that require going across a few countries, a lot of regulations from various countries need to abide to. For instance are the shipments between Thailand and Singapore back then. The regulations that need to be abide to consist of the combination of regulations from Thailand, Malaysia and Singapore. Even though the shipments just going through Malaysia, which were regarded as the transit process only by the Malaysian customs officers, still, the consignor and the carrier could not neglect on not to abide the regulations and prepared the legal documentations required by the authorities of the transit countries. Each institutional procedure will add more time on the shipments schedule.

There are a few ASEAN level declarations made concerning either freight movements or transportation. Declarations such as 1998 ASEAN Framework Agreement on the Facilitation of Goods in Transit (AFAFGIT), 2005 ASEAN Framework Agreement on Multimodal Transport (AFAMT) and 2009 ASEAN Framework Agreement on the Facilitation of Inter-State Transport (AFAFIT) are meant for the transportation of freight crossing the international borders. Eventually, the option of enforcing such declarations is within the hand of the members. Ratifications are not necessary mean that the members will apply such declaration. Thus, as far as the current individual regulations are concern, changes are necessaries for cross border rail freight movements. For the cross border movements that require crossing few countries, a lot of regulations from various countries need to abide to. These various procedures would result in non-seamless journey.

Non-physical barriers

"Anything that prevents progress or makes it difficult for someone to achieve something." Linguistically, that is the meaning of barrier as been defined by MacMillan (2011). In order to have institutional seamlessness, the important things that need to be looked into are the institutional barriers, which are also known as the non-physical barriers. Theoretically, these barriers are the factors that hindering the seamless journey, institutionally. According to Regmi (2013), there are various barriers that could hinder the cross border movements generally. Among them are as such:

1. Inconsistent and time consuming, costly border crossing formalities and procedures.
2. Restriction/limitation on entry of vehicles.
3. Transhipment needed at the border.
4. Different standards of vehicles and drivers.
5. Restrictive visa requirement.
6. Difficult and different process for transit traffic.
7. Differential/reciprocal tariffs/charges.
8. Incompatible working hours at borders.
9. Coordination among various stakeholders.
10. Excessive security checks.

Looking at the list above, the institutional barriers had been highlighted in the form of formalities and regulations of the country in enabling the cross border movements. There are some of the institutional barriers mentioned above, which could not be avoided. But, for some of the others, by improvising the formalities available, the idea of seamless journey could be materialised.

Knowledge

The experience of this sub-region in handling the cross border rail freight movements is fairly new. With the experience of having a few cross border movements collectively throughout the history, it might be a very challenging situation in finding the best practice of cross border rail freight movements.

The knowledge under the scope of cross border rail freight movements could be looked into through a few ways namely through the knowledge of physical aspect of the movements and the knowledge over institutional aspects of the movements. As for the physical aspect of the movements, as for the time being, most of the technologies or facilities available in this sub-region are different from one country to another. David B. Hill had mentioned this particular situation by taking the example of Europe (2013):

"...cross border is a major issue in Europe because technology is different in the other side of the border..." (2013)
In this sub-region, Ruth Banomyong mentioning the same example over the differences that exist between neighbouring countries on the aspect of facilities:

"...Malaysia is electrified its rail system but Thailand, they still using diesel locomotive. So that means that you can't even cross the border. You stuck because you don't have any energy (2013)."
Such situation requires the knowledge of various parties in enabling the movements of train on the other side of the border. The knowledge in this context touches on the knowledge's own by the service providers. If the service providers have no knowledge of the facilities and condition of railway facilities at the other side of the border, it would be difficult for them to move the shipments seamlessly.

The factor of knowledge also touched on the procedures of movements on the other side of the border. As for the time being, the regulations applied are local based regulations. Thus, the formalities and formats are different from the other side of the border. Take a good example of customs procedures between Malaysia and Thailand. Both countries have their own set of rules regarding the international shipments. Although there are a lot of similarities between them, but the effect of non-similarity is more obvious, whereby it will hinder the seamless journey. For example is the aspect of documentations. Each country requires different set of documentations to enable to freight to be moved inside the country. With lack of knowledge available that could be used as the references to the stakeholders, seamless journey concept might be far from reach. On top of that, the standard of procedures between these countries are different, which make the customs of both countries difficult to work together uniformly.

Regulations
ASEAN is very well known for the working groups created by the members in dealing with various issues concerning the sub-region. In most occasions, the members will make a declaration in translating their efforts of working together for certain issues. AFAFGIT, AFAFIT and AFAMT are the good examples of declarations made between the members concerning the issue of transportations and logistics. Eventually, the enforcements of those declarations are in the hands of the members, which made the uniformity of regulations is yet to be materialised. The tendency of the members in this sub-region to use mutual agreed declarations is not high. Instead, when it comes to the transportation and logistics sector, the members tend to use their local regulations to assist the industry, even though there are declarations made on the said industry. The local regulations will weight on the need and necessary of the country. Protocol 6 of AFAFGIT, which touched on the Railways Border and Interchange Stations, had yet to be ratified by any of ASEAN members, as on 2012 (Foreign Affairs Division Office of the Permanent Secretary for Interior, 2012).

The differences in regulations could be witnessed through different branches of enforcements bodies. From the regulations perspective, the protection of service provider in the country is very obvious. In most of the members' countries, there could only be a single service provider for the freight trains services. Such situation created monopoly environment that hinder other service providers from operating inside those countries. Mentioning on this problem, Multimodal Freight Sdn. Bhd. Branch Manager, Rizat Rahim had gave an example of Malaysia and Thailand situation. According to him:

"As for now, even if Malaysia (KTMB) wants to enter into Thailand, there are already a lot bureaucracies involved. Malaysia Customs with their customs bureaucracies and Thailand with theirs. Once the train want to cross to Lao PDR from Thailand, there are other bureaucracies involved. And so on. If all the procedures are not standardised, how will the train reach Kunming?"
Talking on the railway law in Thailand, Ruth Banomyong mentioned as follow:

"Currently, the issue with Thailand is that the SRT has its own law and in its law basically says that train and locomotives need to be one operated by staff of SRT and the locomotives need to belongs to them."

Looking at the two members of ASEAN as the example, the restriction from the regulations on the service providers in those countries had indirectly hindering the possibility of other service providers to operate in the countries. Such condition will definitely hinder the seamless journey for cross border rail freight movements. As for the time being, the shipments between Malaysia and Thailand have to undergo changes of locomotives. Aliffin Abu, Padang Besar KTMB officer stated that:

"For the movements inside Malaysia, the Thais need to deal with KTMB and for the movements in Thailand, we need to deal with SRT."
The waiting time due to these procedures varies. It could be as early as a few minutes and it could be as long as days. Rizal Rahim explained that because of such regulations, sometimes the shipments faced a very long delay.

"Due to the problem with Thai locomotive, we reach here within a few days, but got stuck up to weeks. Thus, it creates problems for the shipment."
Opening the opportunities for other service providers, which could be done by the regulations control, to operate in the countries of members will make the intention of seamless journey more reachable. The problem of unavailability of locomotives could be solved with the improvising or alteration of regulations.

Commitment
In enabling the cross border rail freight movements to be seamless, commitments from various parties are necessary. It will complete the needs of the other stakeholders, which at the end will complete the chain of cross border rail freight movements. Below is the stakeholders' dependency diagram for logistics service as presented by Ruth Banomyong.

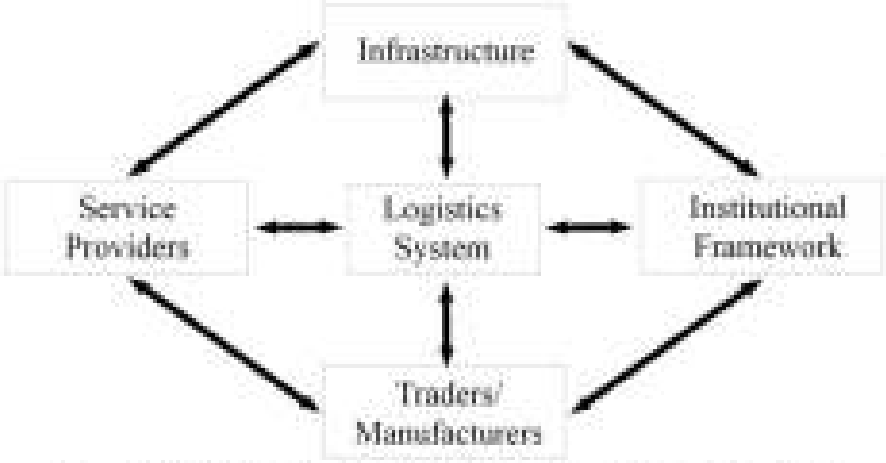

Figure 1: Macro Logistics System Framework (Banomyong, 2008)

Through the said diagram, it can be seen that every single stakeholders do rely on the other stakeholders in completing a shipment, especially the commitment from the country's government. The government of the country determines the shape and future of logistics industry using the regulations as the tool. The commitment of the governments could be seen through two different perspectives namely the commitments on shaping the future of rail industry and the commitments of preparing the ample preparation for the railway future.

The service of cross border rail freight movements between Malaysia and Singapore had taken place for quite some time. Eventually, it had been stopped in 2011 (Agence France-Presse, 2011). The service had ended due to the changed of ownership over the land which the train facilities located. The Singapore government had discontinued the rail freight services between these two neighbouring countries. This particular historical event is a good example on how the commitment of the members could influence the sustainability of rail industry in this region, which indirectly influences the possibility of seamless movements for rail freight. For Malaysia and Thailand, the limitation made by

the government on who could run the service in the countries had indirectly limiting the possibility of seamless journey. But for Singapore, the rail freight industry had been stopped upon the closure of KTMB facilities in Singapore. As in Malaysia, even tough there is suggestion made by Railwaymen's Union of Malaysia (RUM) to enable multiple service providers in Malaysia, but such idea is not been accepted very well. It shows that the government is still not committed to run the seamless rail freight movements.

Another commitment issue from the government is on the constructions of railway facilities. As on 2012, there are still some missing links on the railway connections between the countries. The table below shows the progress of developments of links connecting the ASEAN mainland members:

Country	Missing sections/ route & spur lines	Rail length (km)		Pre-feasibility (Pre-FS) or Feasibility Study (FS) status	Implementation status	Planned completion year
		Existing length of section	New construction			
Cambodia	Poipet (Thailand border) – Sisophon	-	28	Completed	Ongoing	2015
	Phnom Penh – LocNinh (Vietnam border)	32	254	Ongoing	Not commenced (under negotiation for funding)	2015
Vietnam	LocNinh (Cambodia border) – Ho Chi Minh City	20	129	FS Completed	Not commenced	2020
Thailand	Aranyaprathet – Klongluk	-	6	FS Completed	The budget for the rehabilitation had been allocated and is now in the process of bidding its contractor	2014
Lao PDR	Vientiane - Thakhek	-	330	FS Completed	Not commenced	2020
	Thakhek – Mu Gia (Vietnam border)	-	136	FS Completed	Not commenced	2020
Vietnam	Mu Gia (Lao PDR border) – Tan Ap	-	53	Pre-FS Completed	Not commenced	2020
	Tan Ap – VungAng	6	66	FS Ongoing	Not commenced	2020

Table 2: Current Status of SKRL Network Project (ASEAN, 2012)

With the absent of rail links, movements of trains could not take place. Thus, with the unavailability of rail links, there are concerns on the commitments made by the governments to complete such unavailability.

Finance

"If trillions of Vietnamese dong are invested in building roads only, they would be degraded in five or seven years because of overloading. However developing railways will help prevent money being wasted on constantly fixing roads or building new ones."

Above are the words by the Deputy Minister of Planning and Investment of Vietnam, Dang Huy Dong on the issue of how important the railway in the effort to improve Vietnam's economy. Deputy Transport Minister of Vietnam, Nguyen Ngoc Dong, mentioned that there is a need to improve the rail service due to the benefits that the transportation could provide for the transportation of goods, which will indirectly benefits the nation's economy. (Viet Nam News, 2014). With the absent of rail links, the constructions of new rail links are must to ensure the connectivity, which at the end might enable to enable them to construct the facilities on their own. Due to such economic problem, some of the members of this sub-region need to request financing from outside of the country to enable them to construct the facilities.

A good example would be the finance constraint faced by Lao PDR. For the country, which only had a few kilometres of railways, and with the majority of the citizens earn less than five US Dollar per day, constructing the railway facilities would become a major finance problem. Thus, to finance the project, the nation has to put itself in the position of long-term financial restraint. Lao PDR needs 7.2 billion US Dollar o develop the rail facilities in the nation. In materialising the project, they had to make loans from China to finance the constructions. The amount of loan made by Lao PDR is high and it is very risky to the country considering the fact that the country only has the gross domestic produce (GDP) of 8.3 billion US Dollar. Indirectly, the loan made by the country equals to about 86% of its GDP (Campbell, 2013). The deal made between Lao PDR and China was considered as the economics' transformations for the country. According to Ekaphone Phouthonesy, which is the deputy editor of the government-owned Vientiane Times:

"The business sector has also welcomed the development project as they believe cheap transportation will make cost of production low."
Such dream will stay put as where it is right now until the funding arrived for them to develop the rail industry (Campbell, 2013).

Conclusion
The idea of connecting this sub-region through rail is within this sub-region reach. The institutional seamless journey will bring more opportunities for the members, not only economically but also the opportunities to improve the local railway industry. But, the institutional barriers are more complicated to tackle as compared to physical barriers. Institutional seamless will eventually increased the reliability of rail freight industry in the future as most of the problems hindering the seamless movements originated from the institutional barriers.

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