

Embracing Informal Mobility in Bangkok

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Executive Summary

Introduction

Informal transport is a basic service indispensable to the dynamic urban life in Bangkok. As the city continues to grow and modernize, informal transport in Bangkok not only survives but thrives. It provides demand-responsive services to the city residents who live or work where formal public transport is inadequate. The informal transport sector also creates a large number of jobs for low-skilled workers, many of whom are rural immigrants. Its existence will remain partly informal, with some legal status but only limited institutional support. Regardless of its status, informal transport is here to stay.

Against the backdrop of the emergence of rail transit and the decline of public buses in Bangkok, informal modes of transport continue to co-exist with one another, keeping the city's transport system as mode-rich and diverse as before. Among these various modes, passenger vans and motorcycle taxis have established themselves even more prominently as the key transport modes for Bangkokians. The total number of passenger vans and motorcycle taxis has increased, and certainly so has the ridership. While the exact ridership is not known, there could be as many as one million person-trips on passenger vans and 5 to 7 million person-trips on motorcycle taxis daily.

Even though informal transport is supporting the burgeoning travel demand in this dynamic city, there is considerable room for improvement for modal connectivity between informal and formal modes, not to mention for service quality and safety, as well as the economic livelihoods of the operators. But the city's current transport policies and plans do not yet take these issues into account. Policymakers often ignore or turn a blind eye on informal transport services. When they do pay attention, the policy approach and the resulting regulations tend to be either punitive or misaligned. There are certainly many reasons for this, one of which is the fact that there is currently little empirical evidence on the importance of informal



transport in Bangkok, particularly in terms of transport mobility and accessibility of the urban poor. To ensure that future transport policies that target the urban poor and informal transport are evidence-based, we conduct a set of empirical studies that provide policy-relevant insights into the informal transport sector of Bangkok.

Our empirical study conducted during 2012-2013 sheds light on three aspects of the current situations of informal mobility in Bangkok. First, the demand-side studies focus on travel behaviors of the poor and vulnerable population in Bangkok. Second, the supply-side studies focus on two major informal transport modes, namely passenger vans and motorcycle taxis, examining whether and how they are utilized by the urban poor. And third, the institutional studies examine laws, regulations, and organizational practices and norms that govern the informal transport markets. This policy brief presents the key findings from the study and the policy recommendations.

How the poor travel

It is often assumed in the literature on informal transport that the poor rely on informal modes for their economic livelihoods. The evidence from our three sets of surveys suggests otherwise.

Travel survey in low-income communities

The evidence from the household survey in low-income communities suggests that travel behaviors of the urban poor depend not only on income, but also other factors, such as public transport access, job location, and home community location. Residents in low-income communities in the suburban areas where public transport services are inadequate tend to travel by private motorcycles. On the other hand, in communities that are located where public transport services are more comprehensive, residents are more likely to depend on public transport. However, there is no significant difference in household transport expenditures between the two groups of communities, probably due to the ability to trade-off between expenditures spent on public transport and private transport.



Occupation-based travel survey

In another survey that targets low-income occupational groups, the results reveal that privately-owned motorcycle is the most popular mode of transport, followed by employer-provided transport and public bus. Informal transport constitutes a small share among the mode of transport of individuals in the sample. Dependence on private motorcycles is more intense among male commuters, and increases with age. More importantly, there is a significant relationship between housing type and mode of commute, i.e. individuals whose accommodation is provided by employers are highly likely to travel by employer-provided transport.

The average commute time is 28 minutes and the average commute cost is 24 baht per trip. Average commute times do not vary significantly among occupational group, ranging between 20 and 34 minutes per trip. The average commute costs of informal modes, specifically motorcycle taxis and vans, are higher than the average cost of public buses, and are closer to the average cost of private motorcycles. This perhaps explains the small share of informal modes in our sample of the urban poor. The urban poor who can afford to use these informal modes of transport may choose private motorcycles, and those who cannot may have to resort to lower-quality but cheaper public buses.

Travel survey of migrant workers

More than one million migrant workers constitute a large group of the urban poor in the Bangkok Metropolitan Region (BMR). These migrant workers are generally more vulnerable than the locals, because they do not receive state welfare and are not protected by labor laws. Our questionnaire survey of Myanmar workers shows that their travel characteristics are different from those of the locals. A majority of the respondents commute by bus, followed in distance by private motorcycles, and only a handful use motorcycle taxis. Probably due to the high cost of transfer, few of the respondents have more than one transfer to reach the destinations.

Conclusions

Based on the results, we conclude that the poor in Bangkok rely less on informal transport than normally perceived. They own and use private motorcycles whenever and wherever possible because the costs of owning and using motorcycles



are low. It is clear that Bangkok has moved beyond the income threshold of motorcycle-based motorization. This is not the case with foreign migrant workers, possibly due to limited access to credits and the difficulty in obtaining driver's licenses.

Public buses remain an important mode of transport for the poor, who rely less on informal transport modes, as the fares are generally more expensive than buses. Meanwhile, the average commute time is about 30 minutes, indicating that low-income people do not live very far from job locations. This means they are not likely to use passenger van services, which tend to serve long distance and cost more than buses.

Passenger Vans: The Indispensable Substitute

Passenger vans play a crucial role in the public transport system in the BMR. As of June 2013, there are 4,058 registered passenger van operators providing services on 115 licensed routes, and, in addition, possibly as many unregistered vans also in service in the BMR. The total ridership of passenger vans in the BMR could be as large as one million per day. Passenger vans provide fast, affordable, and reasonably safe services that are well utilized by the middle and lower-middle class, who often live in the suburbs and work in the central business districts. Passenger van services are often point-to-point, fast with limited stops, use expressways, and have relatively comfortable seating, in exchange for higher fares. Passenger vans operate primarily during rush hours, targeting middle class professionals who work during regular work hours and have a greater value of time than the poor.

The government plays a limited role in service planning and operation of passenger vans. The quantity and route regulations established by the land transport law were designed with the objectives of maintaining order, protecting existing public transport operators, and preventing destructive competition among van operators. However, attempts to modify existing routes to serve growing demand have been obstructed by registered van operators.



The excessive and complex regulations by three different government agencies render passenger van operations prone to redundant regulatory enforcement. Every van operator, regardless of whether his van is legally registered to provide service, must join a route association, or win, which often liaises with officials from the authorities on the operator's behalf at a price. The authorities, in turn, play an important role in conflict resolution for van operators. Such interrelationship among individual operators, win managers, and the authorities has been in place for almost two decades. Given the status quo, the existing system of passenger van operations cannot be reformed easily.

Policy Recommendations

A number of adjustments should be made in order to raise the level of service quality, enhance competitiveness, and improve integration between van services and other modes of public transport.

- Modify regulations on registration. It would make more sense to eliminate the requirement that all vans be licensed to operate in a specific route before receiving a yellow license plate. All passenger vans should be allowed to apply for a commercial license plate, just like the way taxis do, but they must belong to a route association, or win, which in turn, must report the route and operation plan of all its members. The association is liable to ensure that their vans adhere to the reported operation plan and is subject to fine if its members fail to follow the plan.



- Legalize route associations. Since the win becomes an important mechanism in governing most key aspects of the van operation, it must have a legal status and become legally responsible for planning a new service. It should be required to submit an operational plan directly to the Department of Land Transport (DLT) directly. The DLT checks whether the operation has been implemented effectively according to the plan, and penalizes the association that cannot effectively control its members. Self-regulation by a van operators association will reduce the administrative burden of the DLT.
- Establish a framework and a process for conflict resolution. A framework for conflict resolution among route associations must be established in order to prevent public disorder due to cut-throat competition among public transport operators.
- Adjust and enforce vehicle and performance standards. The existing regulations on vehicle and performance standards should reflect the changing market characteristics and must be strictly enforced. The role of the Bangkok Mass Transit Authority (BMTA) as a de facto regulator should be removed. The BMTA's participation in this market should be just an operator that has to compete with other operators.

Regulations of passenger vans on market entry must be overhauled. The existing routes must be re-designed to meet the pre-specified level of service standards. A concession to operate each route will be awarded by competitive bidding process. The level of service and performance standards for each van route will be reviewed every two years and the new bidding process for the concession will take place at the same interval.

Since a large number of passenger van operators are driver-owned, these operators will be affected by the change from the BMTA joint-service contract to a concession system and will oppose the change. For this reason, successful transition will require careful preparations. An organizational framework in which individual driver-operators can join together and form a cooperative to bid for the concession right for van operation must be created. Technical assistance for service planning to help each cooperative prepare for the bidding process must also be provided.



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Motorcycle Taxis: The Feeder Army Ants

Motorcycle taxis have been an essential element of Bangkok's public transport systems for a few decades now. They critically serve as an informal feeder system that provides travelers with accessibility to the main trunk systems. The continuing lack of integration between land use and transport policy and planning makes motorcycle taxis even more indispensable as a feeder transport mode. The number of motorcycle taxis in Bangkok has constantly increased in the past few decades. There were as many as 5,598 wins and 103,797 operators registered with the DLT in 2012. The number is very likely to grow even further in the next few years, when more mass rail transit systems are completed.

There are a complex set of regulations for motorcycle taxis under several authorities, many of which do not reflect the current market dynamics and characteristics. Because of the inadequate institutions, rent seeking activities are rampant. There are two sources of economic rent that are the targets of rent seeking. One is the locational rent that is attributed to the level of accessibility specific to the location of a motorcycle taxi stand. The other is the monopoly rent created by the operators' group by way of setting a quota on the number of operators in each location. The behaviors of the local mafia could either enforce or erode the monopoly and the economic rent.



A few implications arise with regards to allocative efficiency and equity. The first issue concerns unearned increment and value capture. As more rail transit lines are due to be completed in the next few years, it is rather certain that motorcycle taxis will continue to serve as an important feeder mode for those who live and work relatively close to transit stations. Without value-capture mechanisms, the additional economic rent created by new transit systems will be unfairly captured by the operators' groups and influential people. The government has to devise a mechanism to capture such an increase in economic rent to create fairness based on the beneficiary-pays principle. It is important that the government creates a competitive market for motorcycle taxi services, while adopting value-capture measures, so as to create a more efficient and fair feeder transport system.

The second issue regards the economic livelihoods of motorcycle taxi operators, who are squeezed by two opposing forces. On the one hand, the government wants to formalize and regulate the services. On other hand, the local influential people want to keep the services as informal as possible so as to continue reaping the economic rent. Because the motorcycle taxi drivers are legally considered as informal workers, they receive very little welfare support from the state. More consideration needs to be given to the welfare of these operators.





Policy Recommendations

There are a number of policy recommendations to be considered for improving efficiency and fairness in the motorcycle taxi market in Bangkok.

- Formal recognition of motorcycle taxis. Transport policy makers, planners, and scholars have to change their mindset about motorcycle taxis. They need to recognize their importance as an essential feeder service of the urban public transport system and the contribution to the overall mobility of the people in Bangkok;
- Move beyond playing the role of passive regulators. Relevant state agencies should play an active role in developing the policies and plans to integrate motorcycle taxis as part of the overall system. This should happen now as the government is pursuing mass transit system and transit-oriented urban development.
- More state involvement in economic regulations. The focus of the state's involvement in the motorcycle-taxi market has been mostly on social regulations, e.g., safety. The only economic regulation has been about fare levels. Because the markets are not a natural monopoly and are relatively contestable, the state should encourage more competition wherever possible.
- Adopt Information and Communications Technologies (ICT). More advanced information and communications technologies (ICT) should be adopted to improve the quality of service by exploring ways to integrate motorcycle taxis with other public transport systems, and to monitor the level of service and enforce rules and regulations;
- Improve the economic livelihoods of the operators. There are a large number of operators and workers who receive limited support from the state. Enhancing their economic livelihoods and security has to be part of the policy to improve the public transport sector;



- Empower the operators. The key objective is to increase their collective bargaining power against the influential people by supporting membership-based organizations; and
- Promote inclusive urban design. This includes parking and pick-up/drop-off areas for motorcycle taxis, particularly when designing new transit stations.

Institutions: The Labyrinthine Landscape

Policy, Planning, and Implementation

The Thai government has shifted its focus in urban transport policy from building roads to investment in public transport. However, the state has devoted much of its resources to urban rail transit investment, but not public buses. Since the investment in formal public transport cannot keep pace with demand, residents in many areas have to rely on informal transport. Feeder services in the BMR are provided almost entirely by informal operators. It is clear that the state does not see its role in developing road-based feeder systems, which are left to be taken care of by the private sector.

Currently, road-based public transport services in Bangkok are in the hand of three different agencies: the Office of Transport and Traffic Planning and Policy (OTP), the DLT, and the BMTA. The OTP has prepared a public transport network plan, which is supposed to be implemented by the BMTA, subject to approval from the DLT. The BMTA does not have sufficient resources to implement the plan. Besides, there is no single agency charged with planning and implementing public transport service delivery on a network basis. Because of the existing institutional and organizational arrangement, rail-based and road-based public transport is not planned as integral components of the urban transport system. The relevant agencies are not obliged to cooperate, so the interfaces between services provided by each agency are not well planned and implemented.

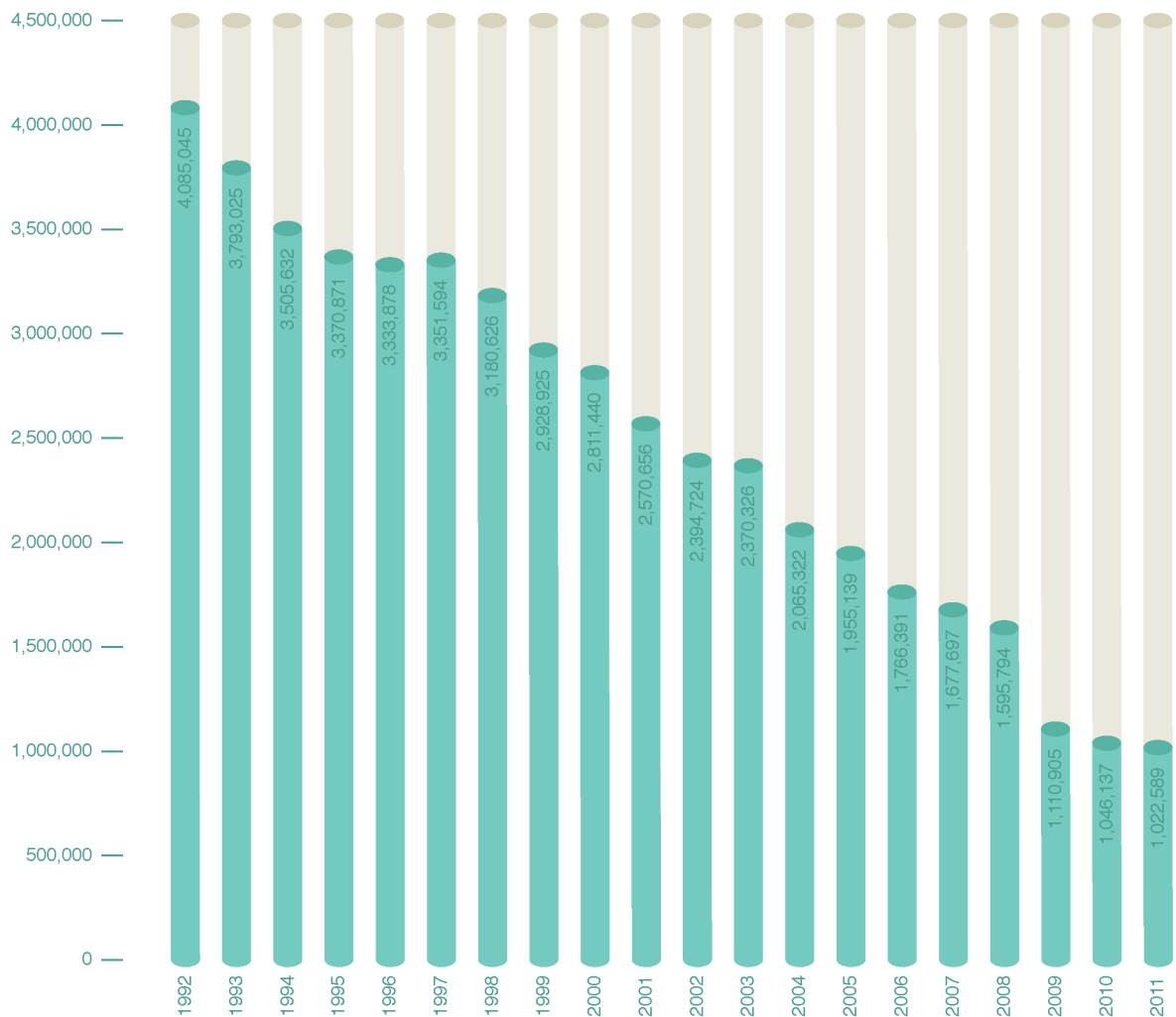


Regulations

The transport authorities in Thailand have long attempted to formalize the services through economic and social regulations. Social regulations, on the one hand, aim to assure the quality of service, especially safety, reliability, and comfort, and the labor conditions. Economic regulations, on the other hand, include restrictions on entry and exit and price control, so in principle public welfare is not diminished by natural monopolies and market structures with limited or excessive competition. As such, some aspects of informal transport are now regulated, such as vehicle and service registration.

The regulation of informal transport was carried out under the existing land transport law, which was written from a perspective of administration, and with little consideration of public welfare. Thus, the main objectives of introducing the regulation of informal transport are to prevent destructive competition and to preserve exclusive rights to existing operators. Currently, official regulations coexist with informal institutions: norms and practices that originated long before the formalization effort began. Official regulations do not replace pre-existing institutions, but reinforce the existing norms and practices. In addition, regulations bring about opportunities for rent-seeking behaviors by operators and government officials, thereby creating unnecessary, additional costs for the operators who pass them along to passengers.

In the case of passenger vans, thanks to the existing cabinet resolution to give the BMTA the sole license to operate bus services in the BMR, van operators are required to enter a contract with the BMTA, as joint-service operators. While the BMTA is supposed to take an active role in the daily management of vans, in reality, it leaves this duty to van operators to coordinate amongst themselves. As a result, the informal organizational structure of each van route, or win, coexists with the formal structure established by the law. The win owner controls which operators can operate in the route that he “owns.” The win members must pay a large sum of a win entry fee and win management fees to the owner. In return, the owner takes care of the day-to-day management of the route, such as van dispatching and parking arrangement, and protects members from law enforcement and harassment by government officials.



The Average Daily Bus Ridership (Source: BMTA 2011 Annual Report)

In the case of motorcycle taxis, the government has implemented a series of initiatives to formalize and regulate the operation in the past 30 years, using the Motor Vehicle Act, B.E. 2522 (A.D. 1979) as the main legal framework. The DLT has issued a set of regulations on setting fare, safety, and operators' conduct and behaviors. But very much like the case of passenger vans, the de facto regulators are the local mafia, who work with win leaders and managers in controlling the



routes and levels of services within their territories. Like passenger van operators, motorcycle taxi operators are still subject to harassment and capricious law enforcement. But with the establishment of the Motorcycle Taxi Association of Thailand, there is hope that informal transport operators may increase their negotiation power against public officials and the mafia, as well as the recognition of their presence and importance in transport policies and plans.

In both cases of passenger vans and motorcycle taxis, regulations so far have not increased competition, but rather prevent competition for the market. Both van and motorcycle win ownerships are highly valuable sources of income, and rent seeking is rampant, and underground. Despite all the regulations, neither informal transport operators nor win owners pay taxes and fees. In the case of vans, registered operators pay the joint-service fees to the BMTA, which views the fees as compensation for their loss of passengers. Some registered van operators who feel that BMTA does nothing to protect their exclusive operating rights simply refuse to pay the fees, but continue to pay for the win membership. It is clearly proven that the official regulations can do little to protect consumers.

However, the authorities are extremely slow in adjusting their regulatory frameworks, operating standards and procedures to fit with the growing and changing demand. As a result, the operators choose to offer the services even if they are against the law, because the benefit of doing so is greater than the risks of being arrested and the costs of fines. That is why all of them are engaged in rent-seeking activities in one way or another, often by way of paying protection fees to public officials and the local mafia. The prevalence of rent seeking activities would be a major obstacle to any reform.



Overall Policy Recommendations

In addition to the mode-specific recommendations above, we propose an additional set of overall policy recommendations for improving public transport, because the existence of informal transport is attributable to the inadequacy and ineffectiveness in providing formal public transport. We agree with several suggestions in the 2007 World Bank report “Strategic Urban Transport Policy Directions for Bangkok,” including: (1) redesign of bus routes and services; (2) reforming the bus system; (3) bus service delivery by competitive tendering; and (4) enhancing institutional and regulatory capacity.¹ We propose additional policy changes, as follows.

1. Change in policy mindset

The government must change its mindset and consider public transport services as a type of basic welfare. Officials have to recognize the network characteristics of public transport systems, so as to realize the potential of cross-subsidizing unprofitable routes by profits from lucrative routes. The relevant agencies have to become more pro-active in making policies and plans that integrate the formal and informal feeder services into the overall public transport system, while revamping the regulations that are currently obstructing service improvement.

2. Back to basics: Integrated transport-land use planning and design

In addition to developing a regional plan for the BMR, all Comprehensive Plans under the Bangkok Metropolitan Administration (BMA) and surrounding provinces should integrate transport planning and land use planning. The integrated transport and land use planning is particularly important at the level of distributor roads, which are crucial to improving public transport systems as they determine the networks and systems of feeder services. Without complete road network hierarchy, formal bus systems would never be able to replace motorcycle taxis as the main feeder system for rail transit systems. Long-term urban planning should take this issue into account. In addition, as the government is promoting the concept of Transit-Oriented Development (TOD), it is important that the design of transit stations includes appropriate space for feeder transport.



3. Institutional re-alignment and regulatory revamp

The current land transport law cannot accommodate the reality of urban transport system in the BMR on three fronts. First, it does not promote the development of integrated transport networks, neither intramodal nor intermodal. Second, it does not include informal transport services. Third, it does not have provisions for dealing with metropolitan transport systems that go beyond one jurisdiction. Thus, this Act needs to be reformed or a new one should be enacted to accommodate the three aspects of metropolitan transport systems.

The BMR needs a comprehensive transit authority that oversees all public transport services, including rail, bus, and other informal services. The new authority must prepare an integrated public transport plan for all transport modes with the objectives that are consistent with a Regional Development Plan. It must specify measures of effectiveness to ensure the objectives are attained. The authority must also have financing capability to carry out the plan, and have sufficient resources to supervise the services in the case where they are tendered by private operators. For this to happen, a special Act that grants the power to plan and implement public transport in the BMR to the BMA must be passed by the national legislature.

As for the regulations of informal transport, the existing regulatory regime must be abolished in order to create a tendering system that is both transparent and encourages orderly competition. The new transit authority must consider the informal services, both vans and motorcycle taxis, as an integral part of the public transport system. It must recognize the roles of route associations, and create a system of competitive bidding for the right to operate services out of the win. Some brief details of the recommendations are as follows.

Bangkok Regional Public Transport Authority

The BMR urgently requires a regional level public transport authority with clear policy objectives. The Bangkok Regional Public Transport Authority (BRPTA) should be established as a regulatory body for all public transport services in the region. The BMTA will become one operator amongst many bus and fixed-route transport operators in the BMR. The BRPTA will establish standards for minimum levels of service for all of the BMR. It will also plan the integrated system to meet the



minimum standard. Significant revisions of existing regulatory frameworks must be undertaken, in order to support the move from route-based operator licensing toward a contracting and tendering system.

Adopt competitive tendering for road-based public transport

Perhaps the most out-of-the-box policy recommendation in this report is concerned with the way in which public transport services are delivered. We advocate the move from route-based operator licensing toward a contracting and tendering system. We think that competitive tendering can yield significant operating cost savings by introducing competition in the market where currently entry is controlled either by the formal licensing system in the case of the BMTA bus routes or by the informal institution in the case of van and motorcycle taxi wins.





Since a large number of contractual operators may be required to provide services that cover the BMR, a regulatory agency with sufficient resources would be needed. It is essential that a Bus Control Management Authority (BCMA) be established to take full responsibility of the competitive tendering and contracting process. Although, in the past, the contract enforcement of public bus services might seem a daunting task, today information and communication technology has a great potential as a contract enforcement tool, which not only can reduce human resource requirement, but also can prevent the possibility of corruption in the regulatory agency.

Compared with service provision by the private sector, competitive tendering has many potential benefits. First, because all routes and services can be fully designed by the BCMA, innovative network designs, including trunk and feeder networks can be realized without opposition from individual operators. The authority can also specify the routes and services to meet social objectives, such as routes in low-density areas. Second, the fare system can be controlled and designed to suit social objectives as established by the authority. Fully integrated public transit fares can be introduced, and discounts for the elderly or children – features that are not currently possible. Another important advantage of competitive tendering is the more effective control of service quality. Since operators would not need to compete for passengers under tendering contract, the possibility of destructive competition can be greatly reduced. Lastly, the contracts can be designed to provide incentives to operators to improve service quality.

4. Promoting civil society for public transport

There is currently no NGO or civil society group that specifically tackles mobility issues faced by the poor. Promotion of civic groups that work on this issue should be on a public policy agenda in the near future. Furthermore, because one of the most important issues facing informal transport operators is extortion by public officials and the mafia, it is crucial that their collective bargaining power is enhanced. As in the case of the Motorcycle Taxi Association of Thailand, membership-based organizations (MBOs) could play an important role in increasing the operators negotiation power. This may lead to less rent-seeking and corruption, as collective action could force the authorities to adjust their regulations to become more responsive to the changing demand, thus reducing the operators need for doing



an end run around the law and relying on the mafia. Promotion of MBOs for informal transport operators could also lead to improvement of welfare and livelihoods. MBOs would allow the members to share resources, increase the accessibility to credit, and apply for group insurance that would reduce the costs of operation.

5. Use ICTs wisely

Information and communication technologies (ICTs) can be useful in many aspects of informal transport regulations and quality control. Real-time Locating System (RLS) can be used to monitor driving practices to ensure safe operation. Data from such a system can also be used to better improve service and operation planning. ICT will be very useful in monitoring the services and promoting integration between passenger vans and other modes. Vehicle standards for the concessionaire can require that automatic vehicle location (AVL) system, such as GPS, and electronic fare collection system be installed. Mobile technology and social networks applications can also increase participation, especially by passengers voicing and giving reviews and feedbacks in real-time. This can potentially relieve regulatory burdens on the authority, as well as increase competition. Social networks of informal operators can also change the way informal transport is planned and provided.

In addition, sound policy making requires reliable data. Currently transport planning authorities do not systematically collect and update data on informal transport. Systematic data collection is the first step towards transport policies that take informal transport into consideration. A data collection framework will have to be designed and tested for the purpose of planning and monitoring the informal transport sector. “Big data” technologies that can be utilized to retain and analyze more data should be adopted in the near future.



Chapter 1

Introduction

I. Background

Bangkok's urban transport system is in the process of transforming towards a rail-based system. Mass rail transit has become the core component of urban transport policy and capital investment in the city region in the past ten years. Already the mass rapid transit system in Bangkok covers over 86.52 kilometers and has 61 stations in operation. As of December 2013 an additional 98.62 kilometers and 62 stations are under

construction. According to the "Mass Rapid Transit Master Plan in Bangkok Metropolitan Region" developed by the Office of Transport and Traffic Policy and Planning (OTP) of the Ministry of Transport, by 2029, an additional 330 kilometers and 246 stations will have been developed in the Bangkok Metropolitan Region, extending the whole urban rail system to more than 500 kilometers.

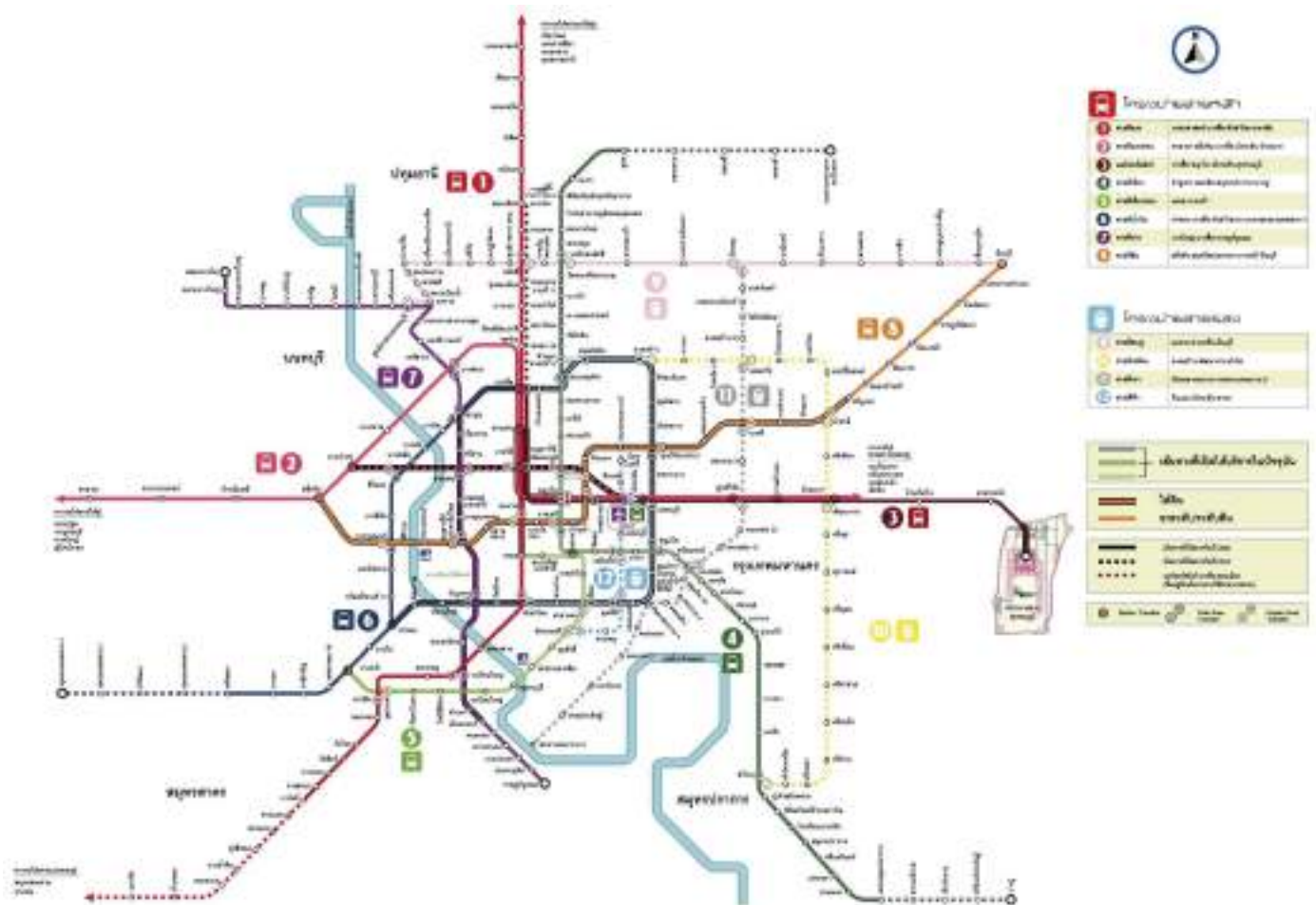


Figure 1: Future Mass Rail Transit Systems in the Bangkok Metropolitan Region
 Source: http://www.otp.go.th/Bkk_mrt/M2_newmap.html

The operation of rail-based transport systems in the past decade has certainly created more options for urban travelers in Bangkok. It has also changed gradually, but surely, the city's urban structure and fabric from automobile-oriented to transit-oriented. An increasing number of condominiums are built close to transit stations. In fact, since 2005 more condominium units have been built in inner areas of the city than detached homes in the suburbs,

suggesting a gradual shift towards transit-oriented development.¹ But those mass transit modes are still “class transits” in that they mainly serve the middle class who can afford to pay the fares that are about two or three times more expensive than the bus fares. Also, since the coverage of rail transit system in Bangkok is still quite limited, only the upper middle class can afford a residence that is most conveniently located to use the system.



While the future seems bright for mass rail transit, the future for public buses, by contrast, seems bleak. The current bus system in Bangkok has been falling into a downward spiral of poor services, old vehicles, inefficient management, and accumulating debt. Bus ridership has been declining steadily at the rate of 5% per year. The debt of the Bangkok Mass Transit Authority (BMTA), the main public bus operator, had accumulated to about THB 82 billion (USD 20 billion) in 2012 with about a 5% increase annually.² Several efforts by the BMTA to rationalize the bus routes and to modernize the bus systems have stalled.

These problems are further complicated by the government's policy for the BMTA to provide free bus services as a way to relieve the financial burden of the poor who were affected by the economic downturn in 2008. Since then the four successive governments and four different prime ministers have renewed the policy 13 times, injecting a total of more than 16 billion baht into the pro-poor transport policy. As of January 2013, 800 buses are allocated daily to provide the free service in 73 routes (Thairath Online. 26 September 2012). Despite the policy, bus service continues to lose its role as the main mode of transport for Bangkok.

While the future seems bright for mass rail transit, the future for public buses, by contrast, seems bleak.

Against the backdrop of the emergence of rail transport and the decline of public buses, other modes of transport in Bangkok continue to co-exist with one another, keeping the city's transport system as mode-rich and diverse as before. In addition to private vehicles, i.e., cars, motorcycles, and bicycles, there are a large variety of public modes in Bangkok, including buses, mass rail transit, bus rapid transit, taxis, tuk tuks

(motor-tricycles or auto-rickshaws), canal and river boats, songtaews and silorleks (converted pick-up trucks), passenger vans, and motorcycle taxis. There are also a small number of cycle rickshaws operating in Nonthaburi and other surrounding provinces, although they have been banned on the streets of Bangkok since 1964. Chartered modes that employers use to transport their workers are also spotted frequently in



various parts of the city, particularly near construction sites and factories. Some of these modes, such as passenger vans and motorcycle taxis, are thriving more than ever before, while others remain relatively unchanged, such as songtaews and silorleks.

The degree to which the government sanctions and regulates the services defines each mode's formality and legality. Those that clearly fall into the category of formal transportation are public buses, mass rail transit, bus rapid transit, canal and river boats, and taxis. Even those that appear like informal transport such as tuk tuks, songtaews and silorleks are also highly regulated by the Department of Land Transport (DLT). Strictly speaking, even passenger vans and motorcycle taxis are somewhat formal and legal. It is true that their services are not necessarily initiated and sanctioned by state agencies and their systems are not planned by the government. But their operational characteristics, such as routes and stops, and fares are currently regulated to some degree. Nonetheless, their levels of service and fares are not entirely regulated by government agencies, and there are de facto governance mechanisms outside the state that determine their operational characteristics. Furthermore, operators

of these transport modes are "informal" as they are not part of any occupation-based welfare systems.

Among these informal modes, passenger vans and motorcycle taxis have now established themselves even more prominently as the key transport modes for Bangkokians. The total number of passenger vans and motorcycle taxis has increased, and certainly so has the ridership. Everywhere in the city you see these two modes of informal transport. At a quick glance, it seems the poor and lower middle class in the city rely on these informal modes as they cannot afford to buy private cars. You also see officer workers waiting in line for passenger vans and motorcycle taxis in downtown areas. At the same time, however, we also see many people still rely on public buses or use private motorcycles, which are much more affordable than private cars.



The institutional landscape of the urban transport sector in Bangkok is as diverse and chaotic as the modal landscape. The planning of the transportation system in the Bangkok Metropolitan Region (BMR) is carried out by the Office of Transport and Traffic Policy and Planning (OTP) in the Ministry of Transport. The regulations of road-based transportation services are under the authority of the Ministry's Department of Land Transport (DLT) and to a lesser extent the Bangkok Metropolitan Administration (BMA) and the traffic police division of the national police. Since the OTP is mainly concerned with rail and bus transit systems, it pays very little attention to the informal transportation sector and leaves it under the control of the DLT.

But since the DLT's main responsibility involves safety and economic regulations, the planning of informal services has never been carried out in an integrated manner, neither among themselves nor in coordination with the formal sector. Worse yet, as far as regulations are concerned, the DLT has left the Bangkok Mass Transit Authority (BMTA), the public bus authority, to oversee passenger vans. This renders regulations in that sector ineffective and chaotic, since passenger vans are the BMTA's direct competitors. The confusing and incoherent organizational and institutional structures are made even more complicated by the fact that there is no regional transportation plan, let alone a governing/coordinating body,



for the whole Bangkok Metropolitan Region. Certain regulations apply only to areas under the jurisdiction of the BMA; once it is beyond the administrative boundaries, the rules, regulations and responsible organizations can be totally different.

Despite that informal transport modes are supporting the growing travel demand in the city, there is considerable room for improvement for modal connectivity between informal and formal modes, not to mention the problems with service quality and safety. But the city's current transport policies and plans do not yet take these issues into account. From a quick overview of the policy landscape, it is clear that policymakers

and politicians alike generally ignore or turn a blind eye on informal transport services in Bangkok. When they do not ignore this, the policy approach and the resulting regulations tend to be either punitive or misaligned. In addition, there is currently little empirical research on transport mobility and accessibility of the poor and vulnerable population and the role of informal transport modes in Bangkok. An empirical study is thus needed to shed light on the issues, so that effective and sound policies and regulations can be developed.



II. Objectives and Scope

The ultimate goal of this study is to ensure that future transport policies and projects that target the urban poor in Bangkok are evidence-based. The first step towards that goal is to conduct a set of empirical studies that provide policy-relevant insights into the informal transport sector of Bangkok. The key assumption here is that the poor rely on informal transport modes for their economic livelihoods. The empirical research is conducted from three distinct though related perspectives: the demand side, the supply side, and the institutions. First, the demand-side studies focus on travel behaviors of the poor and vulnerable population in Bangkok. Second, the supply-side studies focus on informal transport modes, particularly how they are utilized by the poor and vulnerable population. Third, the institutional studies examine laws, regulations, and other practices and norms that govern the informal transport markets. Accordingly, the main objective of the research is threefold:

1. To study the travel behavior of the poor and vulnerable population in Bangkok;
2. To examine informal transport systems in Bangkok; and
3. To examine institutional settings which govern the informal transport systems in Bangkok.

The research team conducted empirical studies during 2012-2013 on the three aspects of informal mobility mentioned above. A number of research methodologies were utilized, including travelsurveysatlow-incomecommunities and at major transport nodes, a series of focus groups with owners and operators of informal modes, interviews with key stakeholders, content analysis, and direct observation.



1. Demand Side: Household Travel Surveys

The research team conducted three city-wide travel surveys: the first survey of households in low-income communities in different areas in the city, the second survey of workers of relatively low-skilled occupations at major transport nodes in the city, and the third one of Myanmar migrant workers. The geographical scope of the study is

not limited to the city of Bangkok itself but covers the Bangkok Metropolitan Region, which includes the Bangkok Metropolitan Administration (BMA) and five surrounding provinces. Similar to many other megacities in the world, the actual urban area extends beyond the BMA administrative boundary.

2. Supply Side: Informal Transportation Modes

The second part of the study examined the supply side, that is, the transport modes that the poor use in their everyday life. These modes range from formal ones, such as public buses and trains, to semi-informal and informal modes, including passenger vans, motorcycle taxis, songtaews and silorleks. There are also chartered modes that some employers use to transport their workers. A few studies have already examined the public modes, e.g., a 2007 World Bank report for transport policy directions for Bangkok,³ so our study focuses on two major informal modes, namely, passenger vans and motorcycle taxis. There is currently very limited systematic

collection and analysis of data pertaining to informal transport networks in Bangkok, especially how they are connected to the formal systems. One aspect of this research aspect is to acquire reliable data on the operation of informal transportation, including routing, frequency, and pricing. Because there is no single authority that is in charge of overseeing the informal sector as a whole, available data are often fragmented and out-of-date. The highly dynamic nature of informal operators also creates difficulties in obtaining useful data.



3. Institutional Side: Institutions and Organizations

The third part of the research focuses on institutional issues, including official laws and regulations, and unofficial norms and practices that govern the behavior of the operators. The main objective is to disentangle the complex role of institutional arrangements in shaping the market decisions that

govern informal transport markets in Bangkok. We analyze stakeholder interests, incentives, institutions, risks and opportunities. Our analysis includes not only formal institutions, such as official laws and regulations, but also informal norms, codes of behavior, and agreements among key stakeholders.



III. Report Structure

This report presents the findings from the study, aiming to provide empirical evidence to national and local decision makers, as well as interested scholars, who wish to understand more about travel behaviors of low-income residents in Bangkok. The report is structured in five chapters, including this Introduction chapter.

Chapter 2, *“The Poor Mobility”*, provides details and results of the travel surveys of low-income communities, low-income workers, and migrant workers in Bangkok.

Chapter 3, *“Passenger Vans: The Indispensable Substitute”*, profiles key features of passenger van services in Bangkok and the regulations that govern the market, presents the results of a van operator survey, and discusses the current regulatory problems and policy implications.

Chapter 4, *“Motorcycle Taxis: the Feeder Army Ants”*, highlights key characteristics of motorcycle services in Bangkok and the ways in which they are organized and regulated by various state agencies and the local Mafia. It discusses issues of monopolized rent and rent seeking activities that are plaguing the services, and provides policy recommendations.

Chapter 5, *“Institutions: The Labyrinthine Landscape”*, weaves through the complexity of organizations and institutions that govern informal transport services in Bangkok, and provides conclusions and policy recommendations.



Chapter 2

The Poor Mobility

I. Introduction

Poverty reduction has long been on Thailand's national development agenda. All national economic and social development plans since 1960 have included a wide range of policies and programs that target the poor, albeit with mixed results. Examples include agricultural land reform, low-income housing development, and more recently, universal health care. Building transport infrastructure, particularly inter-provincial highways and rural roads, has also been the cornerstone of economic development and poverty reduction policies in this country. In this regard, Thailand has been successful, as the total length of roads in Thailand increased to about 212,060 kilometers as of 2012 and of which, only 5,000 kilometers are unpaved.¹

In terms of urban mobility, the key transport policies that specifically have the poor in mind are public bus services,

mainly operated by the Bangkok Mass Transit Authority (BMTA), and to a lesser extent, the rail services operated by the State Railway of Thailand (SRT). The BMTA was established as a state enterprise in 1976, after private bus companies faced financial crisis due to the 1973 Oil Crisis. The government attempted to solve the problem by setting up a public-private joint venture called the Metropolitan Transit Company, but in vain. A state enterprise was considered a more viable solution, so the BMTA was set up under the Ministry of Transport and Communications. As the government considered the BMTA as part of a pro-poor public policy, affordability was always the key operational principle of the service. As such, despite continuing government guarantees and subsidies, the BMTA has suffered a loss of profits right from the beginning. This is partly due to the strict fare control that does not reflect actual costs.



The loss continues to mount to this day. The recent government policy to provide a large number of free bus services underlines the unchanged principle of using the BMTA as the key component for pro-poor urban transport policy. So it seems unlikely in the near future, if ever,

that the BMTA will become a profitable entity. unchanged principle of using the BMTA as the key component for pro-poor urban transport policy. So it seems unlikely in the near future, if ever, that the BMTA will become a profitable entity.





Similarly, the SRT has continued to provide cheap rail service for both commuter and regional services. Established as the Royal State Railways of Siam in 1890, the SRT has a long history of providing rail services to commuters and travelers at affordable fares. But the SRT has operated at a loss, making it one of the worst financially performing state enterprises with an accumulated debt of 10.8 billion baht in 2012.² Despite the mounting loss, the government continues to use the SRT as another way to implement pro-poor public transport policy. Since 2008, the government has given an annual subsidy of about 500 million baht to the SRT for its free daily rail services on 164 commuter trains and 8 regional trains.³

The free and cheap services on the BMTA buses and the SRT trains may have somewhat benefitted the poor in Bangkok and surrounding areas. An average of about 380,000 passengers use the free buses⁴ and about 88,000 passengers use the free trains daily.⁵ Presumably the majority of the passengers are poor, as the middle-class would opt

for more reliable, comfortable, frequent and safe services. But the extent of the benefit to the poor is unknown. The BMTA bus routes have not been revised to accommodate actual demand for such a long time, so the free services may not be actually used by the poor. Similarly, the scope of SRT free train services is limited and may not contribute much to improving urban mobility in the Bangkok Metropolitan Region.

But despite several efforts to provide free and affordable public transport services to the poor, we still know very little about how the poor and vulnerable populations actually travel to work in Bangkok. There exists very little empirical evidence on this matter. Therefore, our demand-side surveys specifically aim to fill in this knowledge gap. We conducted three sets of questionnaire surveys. The first one is a city-wide household travel survey, targeting low-income communities in different areas in the city. The second survey is a travel survey by occupational group in various job locations in the city.

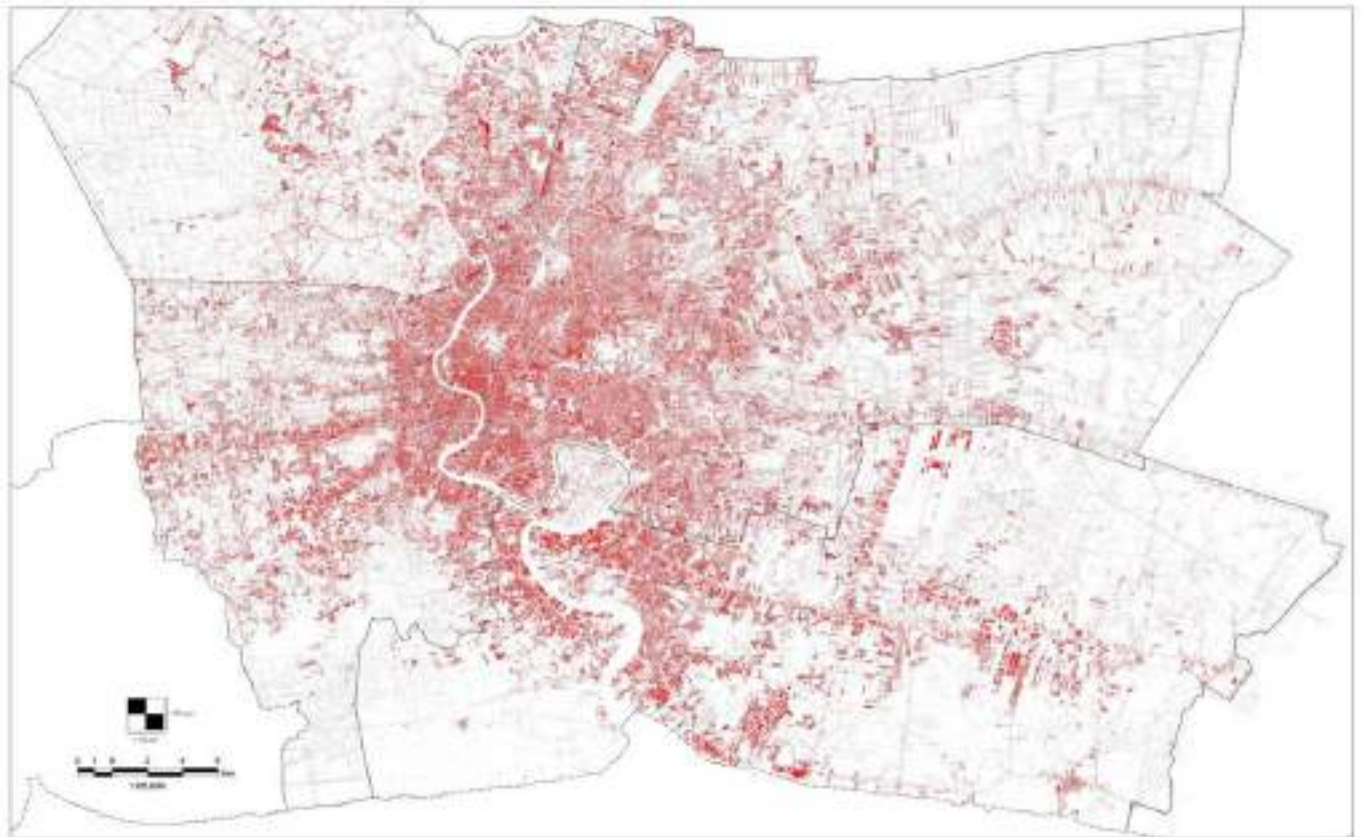


Figure 1: Built-Up Areas in the Bangkok Metropolitan Region in 2008

Source: The authors

And the third one collects information on travel behavior of migrant workers in Bangkok. The geographical scope of the surveys is not limited to the Bangkok Metropolitan Administration (BMA) but covers the actual urban area of the Bangkok Metropolitan Region (BMR), which includes the BMA and five

surrounding provinces, namely Pathum Thani, Nonthaburi, Samut Prakan, Nakhon Pathom, and Samut Sakhon. The selection for such a scope is because the actual urban area extends beyond the BMA administrative boundary.



II. Household travel survey in low-income communities

Methodology

To understand travel behaviors of the poor population in Bangkok, we first conducted a city-wide household survey in July 2013, targeting low-income communities that are registered with the BMA. Table 1 shows the 17 low-income communities surveyed and the sample size in each community. The total number of respondents is 463. Figure 1 shows

the map of the communities where the household surveys were conducted. The communities are distributed over the BMR and represent the central core, inner areas, and suburban areas of the BMR. These communities are also served by different types and levels of public transport services.

	Community	Sample Size
1	Lampa-ong	20
2	Kaeha Chalongkrung	20
3	Chaipattana	20
4	Khongrotfai Yommarat	59
5	Suanpak	55
6	Lakhok Train Station	46
7	Wat Intravitharn	25
8	Wongwianyai/Pranakorn	20
9	Baan Ua-Arthorn Tha-it/Saphanmai	18
10	Sung-ngern	30
11	Bonkai	30
12	Bangbua	30
13	Samakkee	30
14	Lamnoon	30
15	Sangsanpattananakorn Rangsit	30
16	Total	463

Table 1 Low-income Communities and Sample Size of Household Survey



Figure 2: Locations of the communities in the household travel survey

Note: The number on the map corresponds to the number of each community listed in Table 1.



General Characteristics of Respondents

Table 2 shows the average household size in each community. Overall, the average household size is 3.7, with 2.4 workers per household. However, these averages vary widely among communities with no apparent pattern. For example, the average household sizes range from 2.7 in the Sammakhee sample and 5.46 in the Wat Intravitharn sample. Table 3 shows the average household income and expenditure in each community. Overall, the average household income and income per head are 22,691 and 6,565 baht per month, respectively. As for income per employed person, the overall average is 9,058 baht per month. The overall average household expenditure is 15,658 baht per month, indicating that many households have substantial debt.

The survey results on income is striking, as they are much higher than the official poverty line used by the National Economic and Social Development Board (NESDB), which defines the poverty line at 2,910 baht per person per month. There are two ways to interpret this discrepancy. First, the residents in the sample “low-income” communities are no longer poor as they once were when the communities were still

considered “congested communities” or slums. Second, the official poverty line is calculated on the basis of the cost of acquiring food as well as goods and services that are basic necessities. Such definition is based on the concept of absolute poverty, not relative poverty. This means the communities that are covered in our survey cannot be considered low income from the view point of absolute poverty. But they may still be considered poor from the perspective of relative poverty, because their living conditions and income levels are much lower than other communities in Bangkok.



Community	Average household size (persons)	Average employed household members (persons)
Lampa-ong	4.05	2.5
Kaeha Chalongkrung	4.1	2.15
Chalpattana	5.35	2.8
Khongrotfal Yommarat	3.37	2.02
Suanpak	3.04	1.93
Lakhok Train Station	3.93	2.17
Wat Intraviaharn	5.46	3.28
Wongwianyai/Pranakorn	3.69	2.64
Baan Ua-Arthorn Tha-it/Saphanmai	3.62	2.54
Sung-ngern	3.43	2.3
Bonkai	3.17	2.83
Bangbua	2.9	2.3
Samakkee	2.7	2.17
Lamnoon	3.57	1.83
Sangsanpattananakorn Rangsit	2.57	2.23
Average	3.66	2.38

Table 2 Characteristics of Household Size by Communities

Community	Total household income (baht)	Income per person (baht)	Income per employed person (baht)	Total household expenditure (Baht)
Lampa-ong	31,534	7,786	12,614	24,500
Kaeha Chalongkrung	20,950	5,109	9,744	19,300
Chalpattana	22,000	4,112	7,857	18,000
Khongrotfal Yommarat	21,678	7,226	10,839	15,607
Suanpak	19,024	6,341	9,512	16,204
Lakhok Train Station	16,980	4,245	8,490	14,446
Wat Intraviaharn	20,250	3,709	6,174	12,000
Wongwianyai/Pranakorn	19,167	5,194	7,260	15,556
Baan Ua-Arthorn Tha-it/Saphanmai	25,500	7,044	10,039	14,357
Sung-ngern	23,500	6,851	10,217	20,250
Bonkai	21,500	6,782	7,597	13,125
Bangbua	25,333	8,736	11,014	15,667
Samakkee	24,500	9,074	11,290	12,750
Lamnoon	23,783	6,662	12,996	15,875
Sangsanpattananakorn Rangsit	24,667	9,598	11,061	7,230
Average	22,691	6,565	9,058	15,658

Table 3 Average Monthly Household Income and Expenditure by Communities



Travel Behaviors

Concerning travel behavior, as can be seen in Table 4, the average transport-related expenditure, which includes vehicle installment payments, fuel costs, and public transport fares, is 4,021 baht per month. This represents almost half (44%) of the total household expenditure each month. Transport expenditures vary considerably by community location, public transport accessibility, and job location of residents in the community. Communities where residents experience high transport expenditure tend to be located in suburban areas, such as Lampa-ong, Kaeha Chalongkrung, and Lakhok. In these communities, vehicle-related

expenditures, i.e., vehicle installment payments and fuel costs, form the largest fraction of transport-related expenditures. This is so because these suburban communities are distant from central Bangkok, and public transport services are lacking in these areas. These factors necessitate the residents in these communities to rely heavily on private transport, such as motorcycles and cars. It should be noted also that often times these private vehicles are used not only as a travel vehicle but also as transport equipment for certain occupations, such as street vendors and delivery services.



Community	Household transport expenditure (baht/month)	Transport expenditure as % of total expenditure	Transport expenditure as % of total income
Lampa-ong	4,965	20%	16%
Kaeha Chalongkrung	7,380	38%	35%
Chaipattana	3,295	18%	15%
Khongrotfai Yommarat	3,826	25%	18%
Suanpak	3,265	20%	17%
Lakhok Train Station	3,702	26%	22%
Wat Intraviaharn	2,100	18%	10%
Wongwianyai/Pranakorn	2,236	14%	12%
Baan Ua-Arthorn Tha-it/Saphanmai	3,933	27%	15%
Sung-ngern	5,125	25%	22%
Bonkai	4,667	36%	22%
Bangbua	2,625	17%	10%
Samakkee	5,000	39%	20%
Lamnoon	4,708	30%	20%
Sangsanpattananakorn Rangsit	3,500	48%	14%
Average	4,022	27%	18%

Table 4 Summary of Monthly Household Transport Expenditure



Table 5 shows the breakdown of household transport expenditures by communities. As for older communities that are located near central Bangkok, such as Wongwinyai and Pranakorn, public transport fare expenditures represent a large part of total transport expenditure. This is expected, as the residents in these communities tend to utilize public transport services which are typically more comprehensive than in suburban areas. In addition, job locations are often closer to home communities, thus allowing for access by public transport. Expenditures related to private vehicle ownership and operation represent a much larger share of total household expenditure than public transport fare in communities in suburban areas, such as Kaeha Chalongkrung and Lakhok. Such distribution could be attributed to the fact that public transport services were not well organized in suburban areas,

so the residents are forced to rely more on private transport, and incurred a greater amount of expenditures related to private transport.

There are some exceptions to the role of public transport availability on travel behavior and household transport expenditure in some communities. For example, in Khongrotfai Yommarat, which is located in central Bangkok and has good public transport service coverage, the residents' transport expenditures are closer to those of residents living in the suburban communities in our survey. This result is attributable to the fact that many respondents in the sample are motorcycle taxi drivers, who mostly own their private vehicles, work in their home communities the whole day, and sometimes also have a delivery service as a side job.



Community	Vehicle Installment	Fuel Expenditure	Fare Expenditure
Lampa-ong	2,617	1,163	1,185
Kaeha Chalongkrung	4,560	2,670	150
Chalpattana	1,379	1,203	767
Khongrotfai Yommarat	1,711	2,019	171
Suanpak	1,265	1,470	530
Lakhok Train Station	1,230	2,353	52
Wat Intravitharn	700	900	500
Wongwianyai/Pranakorn	375	375	1486
Baan Ua-Arthorn Tha-it/Saphanmai	552	937	968
Average	1,599	1,454	645

Table 5 Breakdown of Household Transport Expenditures

Community	Proportion of household (%)		
	No vehicle	Motorcycle	Car
Lampa-ong	25	45	30
Kaeha Chalongkrung	5	55	40
Chalpattana	40	35	25
Khongrotfai Yommarat	23	72	5
Suanpak	20	56	24
Lakhok Train Station	0	54	46
Wat Intravitharn	43	43	14
Wongwianyai/Pranakorn	67	19	14
Baan Ua-Arthorn Tha-it/Saphanmai	30	40	30
Sung-ngern	33	13	54
Bonkai	23	60	17
Bangbua	37	40	23
Samakkee	13	67	20
Lamnoon	23	70	7
Sangsanpattananakorn Rangsit	20	40	40
Average	27	47	26

Table 6 Households Vehicle Ownership



The proportions of households by vehicle ownership group are reported in Table 6, and are relatively consistent with the breakdown of household trip expenditure. For example, in Wongwianyai and Pranakorn, the proportion of households that own motorcycles and cars is small compared to those with no vehicles. As a result, the average expenditures related to vehicle ownership in these communities are small, compared to the average public

transport fare expenditures. Contrarily, in Khongrotfai Yommarat, the proportions of household with and without vehicles are reverse to those of Wongwianyai and Pranakorn. Therefore, the average public transport fare expenditures are much smaller, compared to the expenditures related to owning and operating private vehicles.



Summary of Findings

The evidence from the household survey in low-income communities suggests that travel behaviors of the urban poor depend not only on income, but also other factors, such as public transport access, job location, and home community location. Together, these factors determine different trip-making behavior in the surveyed communities. Residents in low-income communities that are located in the suburban areas where public transport services are inadequate understandably tend to travel by private motorcycles. Therefore, a large portion of household transport expenditures in these households is

devoted to vehicle and fuel costs. On the other hand, in communities that are located where public transport services are more comprehensive, residents are more likely to depend on public transport and a large share of household transport expenditures is devoted to public transport fares. However, there is no significant difference in household transport expenditures between the two groups of communities, probably due to the ability to trade-off between expenditures spent on public transport and private transport in each low-income community.

Where public transport services are more comprehensive, residents are more likely to depend on public transport.



III. Travel survey by Occupational Group

After conducting the household travel survey in the targeted low-income communities in Bangkok, we found that many households located in registered low-income communities were not actually low-income, as defined by the Thai government. Certainly, many households were low-income at one

point when their communities became the target of government intervention during the 1970s. But for many, the situation has improved and should now be categorized as lower middle-class or even middle-class, since their household income is well above the official poverty line of 8,000 baht per month.

Methodology

To explore this issue from a different angle, we take into consideration the occupations of the urban poor. The National Statistical Office (2010) reported that occupations most common among the urban poor are primarily unskilled labor jobs. Employment of the urban poor is commonly found in factories, shops, construction sites, and curbsides. Therefore, we decided to target the urban poor by surveying individuals who belong to seven selected occupational groups that are common among the urban poor, namely:

1. Security guard
2. Street vendor
3. Transport operator
4. Factory worker
5. Construction worker

6. Maid
7. Miscellaneous group

We hypothesize that mode of commute and trip characteristics are dependent on several factors, including occupation, gender, age, residential and job locations, among others. The success of the government's transport policies that are intended to assist the urban poor, particularly free public buses in certain routes in Bangkok, can also be reflected by the popularity of public buses among the urban poor and commuting expenses of those who utilize them. Both of these points can be verified by the survey data.



We adopted the simplified cluster sampling method and conducted an interview survey of individuals in the selected occupational groups in June and July 2013. The two-staged sampling method involves random selection of 44 locations in the city to be surveyed, followed by the random selection of 7 to 14 individuals in the seven occupational groups above, who would be interviewed about their travel behavior as well as their socio-economic characteristics. As is the case with the household travel survey, the geographical scope of the survey is not limited to the BMA

administrative boundary but covers the Bangkok Metropolitan Region, which includes Bangkok and five surrounding provinces. The 44 selected locations represent different types of land use, including a Central Business District, Secondary Business District, Suburban Commercial Center, and an Industrial Area. Table 7 shows the summary of survey locations by land use types, and the number of individuals surveyed in each location. Figure 1 shows the survey locations on the map of Bangkok and three surrounding provinces.



No.	Survey Location	Frequency	Percent
Central Business District			
1	Asok	13	2.34
2	Ploenchit	13	2.34
3	Siam	12	2.16
4	Silom	12	2.16
5	Sipraya	14	2.52
6	Surawong	12	2.16
Industrial			
7	Bangohli	13	2.34
8	Samrong	14	2.52
9	Teparak	11	1.98
Secondary Business District			
10	Charoenkrung	13	2.34
11	Klongtoey	11	1.98
12	Nontaburi	11	1.98
13	Petchburi	12	2.16
14	Prompong	17	3.06
15	Sanampao	12	2.16
16	Sukhumvit	11	1.98
17	Surasak	15	2.7
18	Taprachan	12	2.16
19	Taves	13	2.34
20	Thonglor	15	2.7
Suburban Commercial Center			
21	Bangbuathong	11	1.98
22	Bangkapi	11	1.98
23	Bangmod	11	1.98
24	Bangna	14	2.52
25	Bangyai	14	2.52
26	Donmuang	13	2.34
27	Kaset	11	1.98
28	Kaset-Nawamin	12	2.16
29	Kingkaew	13	2.34
30	Krungthonburi	13	2.34
31	Laksi	13	2.34
32	Narathiwas	12	2.16
33	Nawamin	13	2.34
34	Ngamwongwan	13	2.34
35	Pakkred	14	2.52
36	Paknam	12	2.16
37	Prapradang	12	2.16
38	Rama 2	14	2.52
39	Rama 3	14	2.52
40	Rama 9	11	1.98
41	Rangsit	12	2.16
42	Ratchapreuk	13	2.34
43	Sapanmai	12	2.16
44	Vacharapol	11	1.98

Table 7 Summary of Survey Locations

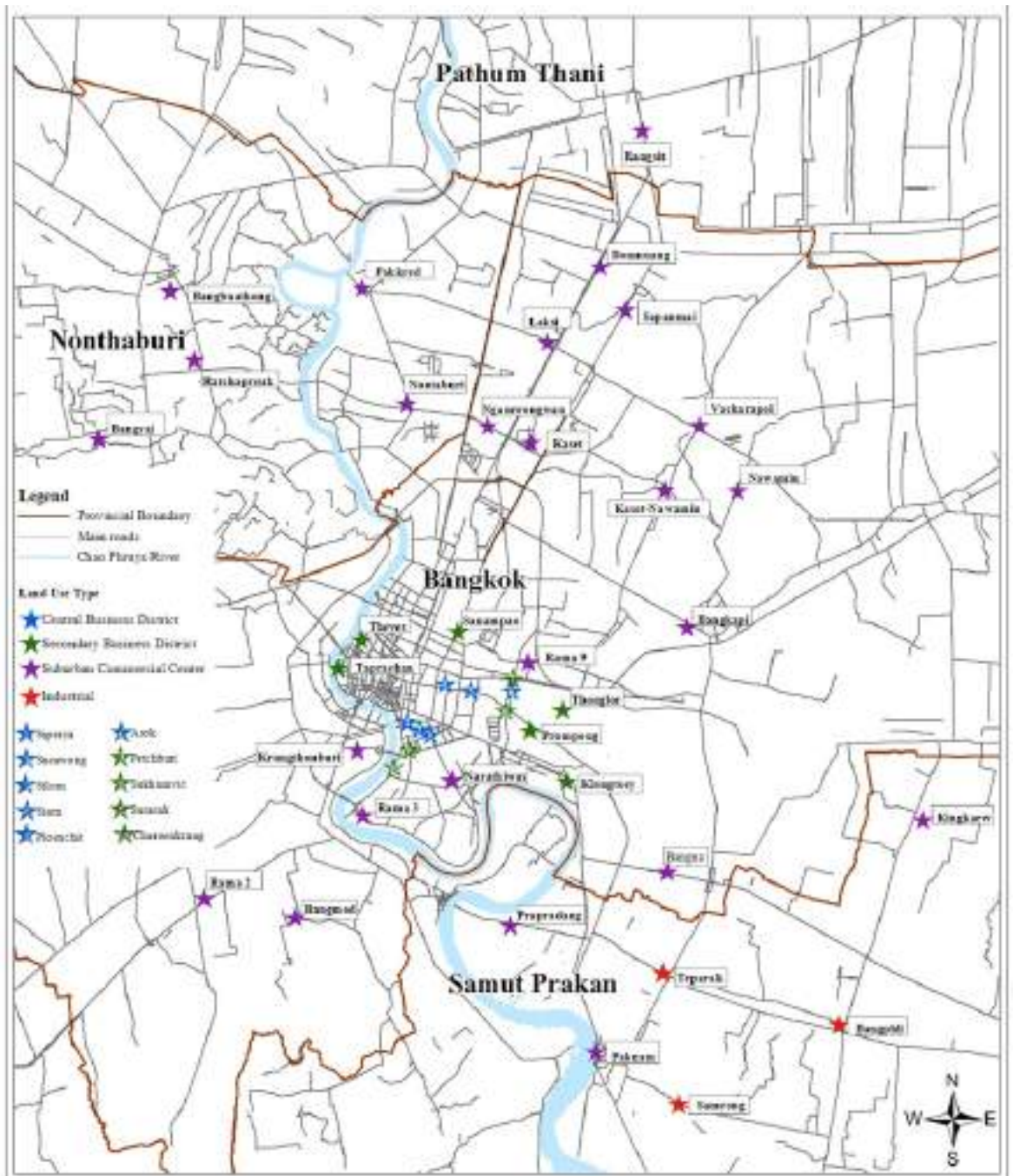


Figure 3: Locations of Occupation-Based Travel Survey



General Characteristics of Respondents

Summary statistics of the travel survey data are provided in Tables 8 and 9. The total number of interviewed individuals is 555. The largest occupational group, representing over 40% of the sample is the transport operators, which include public bus drivers and conductors, conventional taxi drivers, passenger van drivers, and motorcycle taxi drivers. Street vendors and construction workers each represent approximately one fifth of the sample, and security guards approximately one tenth. Other

occupational groups that are not well represented include factory workers and maids, who do not work in publicly accessible places, and are more difficult to seek out by surveyors. As far as socioeconomic characteristics of the sample are concerned, a majority of the sample, about three quarters, is male. The average age is 38.5 years and the average income is 10,831 baht per month, with no significant difference between gender groups.

Categories	Frequency	Percent
Total number of interviewed individuals	555	
Occupation		
Transport operator	210	38.18
Street vendor	111	20.18
Security guard	68	12.36
Construction worker	59	10.73
Other occupations	55	10.00
Factory worker	30	5.45
Maid	17	3.09
Gender		
Male	382	69.08
Female	171	30.92
Marital Status		
Married	358	67.67
Single, widowed, or divorced	171	32.33

Table 8 Summary Categories of the Sample of Urban Poor in Bangkok

Note: The total number for each category does not add up to 555 because of missing values.



Again we are surprised at the number of respondents whose income level is higher than the official poverty line. The average income of more than 10,000 baht per month may not be much, but it is still higher than the official poverty line, even when taking into account the survey result that the average number of dependents is less than 1. This means the survey respondents are not the poorest of the poor in the city, but they are by no

means in the middle class. Besides, the respondents' occupations are mostly in the informal sector, in which economic livelihoods are generally insecure and little state welfare is provided. From the perspective of relative poverty, these groups of workers are still considered to be the urban poor of Bangkok.

Variable	Obs.	Mean	S.D.	Min.	Max.
Age (Year)	551	38.79	9.57	16	80
Income (baht/month)	353	10688.95	3218.68	0	20000
Tenant duration (Year)	465	9.84	9.12	0.25	55
Housing expenditure	207	2981.11	2246.42	0	15000
Household size	527	3.02	1.54	1	10
Dependent household members	427	0.98	0.98	0	6
Commute time (Minute)	355	27.86	18.21	0	120
Commute cost (baht/trip)	170	23.70	25.48	0	200
Motorcycles owned by household	384	1.11	0.66	0	4
Cars owned by household	303	0.49	0.73	0	4

Table 9 Summary Statistics of the Sample of Urban Poor in Bangkok Metropolitan Region



Commute Trip Characteristics

Mode of Commute

Table 10 shows the mode split of the sample. The statistics suggest that motorcycle, both self-owner driven and passenger ridden, dominates the mode of commute of the urban poor in Bangkok, representing 41.25% of the sample. Employer-provided transport, which is provided through the low-cost and unsafe form of converted pick-up trucks, or the more costly and safer,

but less commonly available, buses, constitutes a significant share of one-quarter of the entire sample. The shares belonging to public buses and walking are 20% and 8.75%, respectively. Motorcycle taxi and rail constitute small shares of commute trips, with 3.75% and 1.25% of the sample, respectively.

Mode of Commute	Frequency	Percent
Motorcycle (owner-driven or passenger)	274	55.24
Employer-provided transport	90	18.15
Bus	72	14.52
Walking	26	5.24
Vans	13	2.62
Motorcycle taxi	12	2.42
Other informal modes	8	1.61
Rail	1	0.2

Table 10 Mode of Commute of the Urban Poor



Mode and Gender

Table 11 shows mode share in the two gender groups. Motorcycle is the dominant commute mode in both groups, with nearly two-thirds of the male respondents and just over one-third of the female respondents commuting by motorcycles. However, the female respondents are more dependent on non-private transportation than are the males, and are particularly dependent

on public buses, employer-provided transportation, and walking. Apart from motorcycle, one-fifth of the male respondents commute by employer-provided transport. Other modes of transport play relatively limited roles in the commute trips of both gender groups.

Gender Group	Mode								Total
	Motor-cycle	Employer provided	Bus	Walking	Vans	Motor-cycle Taxi	Other informal	Rail	
Female	54	20	49	13	6	6	5	1	154
Row %	35.06	12.99	31.82	8.44	3.9	3.9	3.25	0.65	100
Male	219	70	22	13	7	6	3	0	340
Row %	64.41	20.59	6.47	3.82	2.06	1.76	0.88	0	100
Total	273	90	71	26	13	12	8	1	494
Row %	55.26	18.22	14.37	5.26	2.63	2.43	1.62	0.2	100

Table 11 Commute Mode by Gender Group



Mode and Age

Table 12 shows mode split in three different age groups. As can be noted, dependence on motorcycle increases with age, whereas dependence on employer provided and public bus decreases with age. There is no distinct pattern of shares of other modes among different age groups.

Gender Group	Mode								Total
	Motor-cycle	Employer provided	Bus	Walking	Vans	Motor-cycle Taxi	Other informal	Rail	
Over 50	41	6	6	2	3	1	3	0	62
Row %	66.13	9.68	9.68	3.23	4.84	1.61	4.84	0	100
30 to 50	209	53	46	21	10	8	5	0	352
Row %	59.38	15.06	13.07	5.97	2.84	2.27	1.42	0	100
Under 30	24	31	20	3	0	3	0	1	82
Row %	29.27	37.8	24.39	3.66	0	3.66	0	1.22	100
Total	274	90	72	26	13	12	8	1	496
Row %	55.24	18.15	14.52	5.24	2.62	2.42	1.61	0.2	100

Table 12 Commute Mode by Age Group



Mode and Housing Type

Most individuals in the sample of urban poor live in dormitory or apartment rental units, followed by self-owned housing units, as shown in Table 13. Among those living in rental units, more than half commute by motorcycle, followed by employer-provided transportation and public bus. For those who own a housing unit, more than 70 percent commute by motorcycle, followed by public bus. It should be noted that for those whose

accommodation is provided by their employer, an overwhelming majority commute by employer-provided transportation. Since the sample of individuals who reside in other types of housing is small, no distinct pattern can be drawn as far as the relationship between commute mode and housing type.

Housing Type	Mode								Total
	Motor-cycle	Employer provided	Bus	Walking	Vans	Motor-cycle Taxi	Other informal	Rail	
Dorm & Apartment	178	56	45	22	8	7	3	1	320
Row %	55.63	17.5	14.06	6.88	2.5	2.19	0.94	0.31	100
Employer-provided	0	24	0	0	0	2	0	0	26
Row %	0	92.31	0	0	0	7.69	0	0	100
Self-owned	73	4	14	2	5	2	2	0	102
Row %	71.57	3.92	13.73	1.96	4.9	1.96	1.96	0	100
Family-owned	14	1	10	1	0	0	0	0	26
Row %	53.85	3.85	38.46	3.85	0	0	0	0	100
Friends-relative	2	0	0	0	0	1	3	0	6
Row %	33.33	0	0	0	0	16.67	50	0	100
Others	0	2	0	0	0	0	0	0	2
Row %	0	100	0	0	0	0	0	0	100
Total	267	87	69	25	13	12	8	1	482
Row %	55.39	18.05	14.32	5.19	2.7	2.49	1.66	0.21	100

Table 13 Commute Mode by Housing Type



Mode and Occupation

As can be noted in Table 14, some modes of commute are determined largely by occupational groups. For example, all construction workers commute trips are done by employer-provided transport. Also, construction workers' bare-bone accommodations are usually provided by employers, which make transport arrangement quite simple. The vehicles used for the transport of construction

workers are usually pick-up trucks or trucks that are normally used for construction work during the working hours, which are unsafe for transporting passengers. However, construction workers in Bangkok, most of who are immigrants from neighboring countries are in no position to demand for safer vehicles.

Occupational Group	Mode								Total
	Motor-cycle	Employer provided	Bus	Walking	Vans	Motor-cycle Taxi	Other informal	Rail	
Security guard	46	0	13	2	2	0	0	0	63
Row %	73.02	0	20.63	3.17	3.17	0	0	0	100
Street vendor	38	3	23	23	5	0	4	1	97
Row %	39.18	3.09	23.71	23.71	5.15	0	4.12	1.03	100
Transport operator	162	0	11	0	0	0	6	3	182
Row %	89.01	0	6.04	0	0	0	3.3	1.65	100
Factory worker	1	19	2	0	1	0	1	4	28
Row %	3.57	67.86	7.14	0	3.57	0	3.57	14.29	100
Construction worker	0	53	0	0	0	0	0	0	53
Row %	0	100	0	0	0	0	0	0	100
Maid	6	1	7	0	0	0	0	3	17
Row %	35.29	5.88	41.18	0	0	0	0	17.65	100
Others	18	13	15	1	0	1	1	2	51
Row %	35.29	25.49	29.41	1.96	0	1.96	1.96	3.92	100
Total	271	89	71	26	8	1	12	13	491
Row %	55.19	18.13	14.46	5.3	1.63	0.2	2.44	2.65	100

Table 14 Commute Mode by Occupational Group



Employers of factory workers also routinely provide transport for their employees. However, they do not provide accommodations like employers of construction workers do. Factory workers usually live in private apartments or dormitories. Transport to work is usually

arranged in the form of shuttle services that pick up and drop off passengers at certain meeting points. Factory workers' transport services tend also to be of higher quality than those of construction workers. The vehicles used are usually large buses similar to public buses.



Photo credit: Jack Kurtz

In some occupational groups, the nature of work almost completely determines the mode of commute. For example, some street vendors, such as those who use push-carts to sell their products, tend walk to work. Although

some street vendors use some form of informal transport, such as a Tuk-tuk (motor-tricycle), to carry their goods from markets to be processed at home, those kinds of trips are not considered part of the commute trip.



There are no distinct patterns related to occupational groups for other modes of commute, including public buses, rail, and motorcycle taxis. Public buses are popular among many urban poor despite their poor quality of service in terms of coverage, frequency, speed, and reliability. This is mainly because they are cheap or free in some routes

thanks to the government's free bus policy. However, as will be described in the next section, most individuals reported that they paid fare for using public buses, which implies that the impact of government's free bus policy is quite limited in benefiting the urban poor.

Informal modes of transport account for relatively small a share of commute trip of the urban poor.

One of our main hypotheses is that the urban poor rely primarily on informal transport, such as motorcycle taxi, songtaew, and passenger van, as their mode of commute, however, our survey results suggest otherwise. Informal modes of transport account for a relatively small share of commute trip of the urban poor in our sample. A private mode, specifically, driving or riding a motorcycle, is by far the dominant mode of commute among the urban poor, accounting for over half of the sample.

This mode is particularly popular among transport operators and security guards. Apart from motorcycle, employer-provided transport and public bus have the combined share of approximately one-third of the interviewed individuals. It should be noted that a large proportion of the sample are those who work in the informal transport sector themselves, and do not consider their commute trips as provided by informal modes, but rather made by their own vehicles.



Mode and Job Location

There do not seem to be distinct mode split patterns among individuals in different job locations, as can be seen in Table 16. Motorcycle is dominant in all zones, including in the Central Business District (CBD) area. Employer-provided transportation and public bus are

important commute modes of workers in all job location types. With an exception of walking, shares of other commute modes are relatively small among the urban poor in the sample.

Job Location	Mode								Total
	Motor -cycle	Employer provided	Bus	Walking	Vans	MC Taxi	Other informal	Rail	
Central Business Dist.	39	12	10	4	0	4	1	1	71
Row %	54.93	16.9	14.08	5.63	0	5.63	1.41	1.41	100
Industrial Area	17	4	5	3	1	0	1	0	31
Row %	54.84	12.9	16.13	9.68	3.23	0	3.23	0	100
Secondary Business Dist.	71	23	19	8	5	2	0	0	128
Row %	55.47	17.97	14.84	6.25	3.91	1.56	0	0	100
Suburb. Comm. Area	147	51	38	11	7	6	6	0	266
Row %	55.26	19.17	14.29	4.14	2.63	2.26	2.26	0	100
Total	274	90	72	26	13	12	8	1	496
Row %	55.24	18.15	14.52	5.24	2.62	2.42	1.61	0.2	100

Table 15 Commute Mode by Job Location



Commute Travel Time and Cost

We examine how commute travel time and cost vary among different groups of individuals in the sample of urban poor. The results are shown in Table 16 through Table 18. Concerning commute time by mode, the average travel times, range from the low of 14.75 minutes by informal modes other than passenger vans and motorcycle taxis, to the high of 35 minutes by rail. In addition, among modes with larger sample sizes, average travel times are quite similar, ranging from 21.50 minutes by motorcycle taxi to 34.80 minutes by bus.

Average travel times are similar between both gender groups. In addition, among occupational groups, the average travel times are also quite similar. Regarding commute cost, however, the average commute costs among groups differ widely. For example, Table 17 shows

that individuals who commute by employer-provided transport paid only 5.62 baht per trip on average, which reflects the fact that many employers provide the transport at no charge. On the other hand, individuals who commute by other modes pay four to nine times as much as those who use employer-provided transport. Female individuals bore slightly lower commute expense on average, as shown in Table 18. Individuals in different occupational groups also bore different levels of commute expenses, ranging from the low of 2.73 baht per day among construction workers to the high of 38.31 baht per day among transport operators. As mentioned earlier, these results reflect the average expense by the mode that is most utilized by specific occupational group.

Mode	Travel Time (min. per trip)			Travel Cost (Baht per day)		
	Obs.	Mean	S.D.	Obs.	Mean	S.D.
Motorcycle	172	26.28	15.36	61	34.51	30.31
Employer-provided	66	27.85	23.58	29	5.62	15.20
Bus	50	34.80	20.10	42	20.37	13.12
Walking	22	28.41	15.38	6	-	-
Other Informal modes	4	14.75	10.84	5	10.00	5.61
Vans	13	31.54	15.60	10	24.00	6.15
Motorcycle Taxi	10	21.50	13.75	12	30.42	29.58
Rail	1	35.00	-	1	70.00	-
Uncaptured	17	26.47	20.90	4	45.00	41.23

Table 16 Commute Travel Time and Cost by Mode of Commute



Gender	Travel Time (min. per trip)			Travel Cost (Baht per day)		
	Obs.	Mean	S.D.	Obs.	Mean	S.D.
Male	245	28.38	19.33	98	25.10	22.74
Female	109	26.79	15.51	70	22.05	29.23

Table 17 Commute Travel Time and Cost by Gender

Occupational Group	Travel Time (min. per trip)			Travel Cost (Baht per day)		
	Obs.	Mean	S.D.	Obs.	Mean	S.D.
Security guard	45	33.78	21.00	27	27.33	11.72
Street vendor	74	29.24	14.70	42	23.60	35.27
Transport operator	122	24.47	14.34	31	38.31	28.30
Factory worker	19	20.26	18.22	11	14.18	11.25
Construction worker	45	30.69	25.48	22	2.73	10.77
Maid	11	24.55	16.04	7	16.43	13.45
Other occupations	36	31.44	20.35	27	25.96	17.49

Table 18 Commute Travel Time and Cost by Occupational Group



Summary of Findings

In this section, we report the results of travel behavior survey of the poor population in the Bangkok Metropolitan Region. The cluster-based random sampling by seven occupation groups that are considered common among the poor population yielded the sample of 555 individuals at 44 locations throughout the metropolitan area. The analysis of these survey results reveals that privately-owned motorcycle is the most popular mode of transport in our sample of the urban poor in Bangkok. This is particularly so among certain occupation groups, such as transport operators and security guards. Employer-provided transport is the second most popular mode of commute overall, but it is utilized mostly by construction and factory workers. The third most popular mode of commute is public bus, which is utilized by individuals in almost all occupation groups. The survey results also show that informal modes of transport, including passenger vans, motorcycle taxis, and other informal modes constitute a small share among the mode of transport of individuals in the sample, accounting for less than 10% combined.

We also analyze the impacts of a variety of factors that potentially influence the pattern of commute mode share, such as land use type, gender, age, and housing type. We find that the patterns of mode distribution are similar across types of land use in areas where jobs are located, including central business districts, secondary business districts, suburban commercial centers, and industrial areas. Male commuters are clearly more dependent on private motorcycles and less on public transport, and the pattern is reverse for female commuters, who are more dependent on public buses. In addition, informal modes of transport play limited role in both gender groups. Dependence on private motorcycles increases, whereas dependence on public transport decreases with age. Lastly, there is a significant relationship between housing type and mode of commute, i.e. individuals whose accommodations are provided by employers are highly likely to travel by employer-provided transport.



As for commute trip characteristics, the average commute time is 28 minutes and the average commute cost is 24 baht per trip. Average commute times do not vary significantly among occupational groups, ranging between 20 and 34 minutes per trip. As can be expected, average commute costs are largest among groups that are highly dependent on private modes (transport operators and security guards, 27 to 38 baht per trip), followed by groups that are dependent on public modes (maids and street vendors, 16 to 24 baht per trip), and lowest among groups dependent on employer-provided transport (construction workers and factory workers, 3 to 14 baht per trip). Since there is a small sample of individuals who commute by informal modes, the estimates of average commute time and cost in this group are not reliable. For comparison purposes, however, it should be noted the average commute costs of informal modes, specifically motorcycle taxis and vans, are higher than the average cost of public buses, and are closer to the average cost of private motorcycles.

The small share of informal modes in our sample of the urban poor in Bangkok is surprising. However, this finding could

be explained partly by the relatively high cost of commute by informal modes in Bangkok. The fare structures of both motorcycle taxis and passenger vans are regulated by the Department of Land Transport, under the Ministry of Transport. In the case of motorcycle taxis, the maximum fare is 25 baht for the first 2 kilometers and 5 baht for each additional kilometer, according to the Ministerial Regulation B.E. 2548 (A.D. 2005). As for passenger vans, the graduated-fare structure is 2 baht plus 1 baht per kilometer for the first 10 kilometers and 0.60 Baht for each additional kilometer. Vans that run on expressways can also charge up to 5 baht in addition to the fare to cover the toll charge. Since most of the van routes are over 20 kilometers long, an average van passenger has to pay 30 baht or more per trip. It can be noted that fares of motorcycle taxis and vans are not much different from the average cost of private motorcycles that we calculated from the sample data. And they are somewhat higher than bus costs. For this reason, the urban poor who can afford to use these informal modes of transport may choose private motorcycles, and those who cannot may have to resort to lower-quality but cheaper public buses.



IV. Travel Survey of Migrant Workers

As soon as we started conducting the two travel surveys described above, we realized that we were ignoring a significantly large group of the urban poor: that is, migrant workers who live in various part of the city and work in mostly unskilled, low-pay occupations. According to the latest Population and Housing Census in 2010, there are as many as 3.3 million residents in Thailand who hold foreign citizenships, account for 5.1% of the total population of 65.4 million. Although there are certainly high-income foreigners living in Thailand as a substantial number of expatriates and retirees living in Thailand now, the majority of foreign residents are migrant workers from mainly three neighboring countries, namely Myanmar, Cambodia, and Laos. According to the Ministry of Labor, there are about 1.3 million migrant workers in Thailand as of 2010. About one million of them, or 82%, come from Myanmar. This is of course the official statistics, which does not include unregistered migrant workers. The large

majority of the foreign migrants are registered to work in Bangkok (329,079 persons – 25.3% of the total) and in five surrounding provinces (284,881 persons – 21.9%). The economic livelihoods of migrant workers and their families are generally more vulnerable than the poor who are Thai, because they do not receive state welfare and are not protected by labor laws.

The sheer number of migrant workers in Thailand is so large, and their livelihoods are so vulnerable, that future public policies, including those on transportation, will have to take them more seriously into consideration. Although there have been a number of empirical studies on various aspects of migrant workers' lives in Thailand, to the best of our knowledge, there has not been one on their travel behaviors. So we decided to add another travel survey to our demand-side study.



Methodology

Our plan was to conduct a similar travel survey as the surveys described in the previous sections. However, it is not easy to identify residential locations of migrant workers that could be used for conducting travel surveys. There are of course some locations in the Bangkok Metropolitan Region where there is large agglomeration of Burmese workers. The largest is Mahachai, a fishing port city in Samut Sakhon province, where hundreds of thousands of Burmese migrants live and work. These migrants tend to work in the proximate areas and use songtaews and silorleks. Our interest is on those who live and work in more central locations of the BMR. From our quick primary fieldwork, we find that these workers tend to rent apartments in various parts of the city. This makes it difficult to collect travel data at residential origins and use cluster sampling or other methods that require geographical specification. We thus have to rely on the accidental sampling method, selecting the sample that it is readily available and convenient to surveyors

We selected migrant workers from Myanmar as our survey target, because they constitute the largest group. We adjusted the questionnaire that we had used for the other two surveys described in the earlier sections, and translated it into the Myanmar language. Our surveyors were from Myanmar, so they were able speak the language and were able to identify locations where they could easily find Myanmar workers, including the Immigration Office and their workplaces. Many of the respondents were gardeners, cleaners at canteens, workers in food processing factories and restaurants, street food vendors, and so on. The total number of respondents was 104. We acknowledge that the sample size is small and the sampling method used in this survey would not allow us to conduct inferential statistical analyses. Nonetheless, we hope that the descriptive statistics is useful in laying some ground work for more systematic analyses in the near future.



General characteristics of the respondents

Table 19 summarizes basic characteristics of the respondents. There are almost equal proportions between male and female and between married and single. A large majority of them are younger than 35 years old and live in small households. Almost all of them work as temporary workers, both for daily or monthly pay, and as street vendors. Their economic livelihoods are usually less secure than full-time workers in formal settings. Two-thirds of them receive less than 15,000 baht per month, while another 20% earn between 15,001-20,000 baht.

Categories	Frequency	Percent
Total number of interviewed individuals	104	
Gender		
Male	58	55.24
Female	46	43.81
Age		
15-25	41	39.42
26-35	45	43.27
36-45	16	15.38
Marital Status		
Married	56	53.33
Single, widowed, or divorced	48	46.67
Household size		
1-3	88	84.62
4-6	13	12.50
7-9	3	2.88
Occupation		
Temporary worker (daily)	58	55.77
Temporary worker (monthly)	37	35.58
Vender/Street vendor	5	4.80
Employees (state and private enterprises)	3	2.88
Individual Income (baht/month)		
Less than 15,000	77	74.04
15,001-20,000	21	20.19
20,001-25,000	3	2.88
25,001-30,000	0	0.00
More than 30,001	3	2.88

Table 19 Summary Categories of the Sample of Myanmar Migrants in Bangkok



Travel characteristics

In terms of vehicle ownership, two-thirds of the respondents do not own any vehicles, while about 21% of them own private motorcycles. About 40% of the respondents travel more than 15 trips a week. This may be because many of them have more than one job. For instance, house maids sometimes work in one place in the morning and go to work at another place in the afternoon or evening. In terms of mode choice, a majority of the respondents commute by bus. The next popular mode is private motorcycles. All except two of motorcycle owners use their vehicles to commute. About 10% of the respondents use motorcycle taxis. From the survey results, it is clear that those who use motorcycle taxis have to spend more for commuting than those who use buses.

Interestingly, almost 90% of the respondents have only one transfer to reach the destinations, while the rest have only two transfers. This should not be surprising, as the travel cost would expect to increase with the number of transfers. So they naturally want to minimize the number of transfers to control the travel cost. In terms of travel time, about 40% the respondents spend between 30-60 minutes to commute to work, another 20% spend about 21-30 minutes, and another 10% between 11-20 minutes. Calculating the mean from the frequency table, we find that the average travel time is about 35.91 minutes.



Categories	Frequency	Percent
Total number of interviewed individuals	104	
Vehicle ownership		
None	80	76.92
Motorcycle	22	21.15
Bicycle	2	1.95
Number of trips per week		
Less than 10	21	20.19
11-15	13	12.50
More than 15	43	41.35
Mode choice (home-based trip)		
Private motorcycle	20	19.80
Bus	61	60.40
Motorcycle taxi	12	11.88
Walking	5	4.95
Songtaew/Siloriek	2	1.98
Bicycle	1	0.99
Number of transfer (home-based trip)		
1	92	88.46
2	9	8.65
Commute time (home-based trip, minutes)		
Less than 10	9	8.65
11-20	12	11.54
21-30	22	21.15
31-60	43	41.35
60 -120	7	6.73

Table 20 Vehicle ownership and travel characteristics of the sample migrant workers



V. Conclusions

- Buses remain an important mode of transportation for the poor and the lower middle class. These groups of people rely less on informal transport modes, as the fares are generally more expensive than buses.
- Informal modes are used by the middle class, who live in the suburbs and/or have a greater value of time.
- The average commute time is about 30 minutes, indicating that they do not live very far from job locations. This means they are not likely to use passenger van services, which tend to serve long distance and cost more than buses. For those who can afford, private motorcycles become a better alternative than public buses and informal modes.



Chapter 3

Passenger Vans: The Indispensible Substitute

I. Introduction

Passenger vans are now one of the most important modes of public transport in Bangkok. When the service started around 1992, it was limited to only a few suburban residential areas of Bangkok where urban sprawl was not accompanied by adequate provision of public transport services. Passenger vans became popular immediately among suburban commuters who could not afford private vehicles. Owners of private vans saw niche business opportunities and began picking up

passengers without fixed routes and with flexible scheduling. With increasing popularity, the services became more rationalized soon after, with more fixed routes, fixed origins and destinations, and fixed stops. Starting as an informal mode with limited regulatory oversight, passenger vans have become more formalized and regulated over the years, although there are several aspects of the service that still remain informal to this day.



The literature on passenger van services in Bangkok is rather limited. Most of the studies are Masters' theses written in Thai. Eamsupawat (1999) conducts a survey of van services in Northern Bangkok and examines factors that determine the use of van services in the area. Ratanawaraha (2000) outlines the options for the government to adopt as it considers ways to regulate and manage informal transport services, including passenger van services. A few theses, such as Panyasutti (2001) and Boonrawdpanich (2006), focus on the political economy of the passenger van business. In addition, a report by Longji (2001) extensively investigates bribery issues in passenger van businesses in Bangkok. Another report by Chulalongkorn University's Transportation Institute (2005) examines the characteristics of van operators in Bangkok. There are very few papers written in English on this matter. As part of their survey of informal transport at the global level, Cervero (2000) and Cervero and Golub (2011) mention Bangkok's passenger van services. Another study by Leopairojna and Hanaoka (2007) examines the market passenger van services in Bangkok and suggests regulatory reform.

In this study, we aim to provide more updated information about the passenger van market in Bangkok and to examine the regulatory and institutional settings that govern the market. This is done in order that we can suggest policy recommendations for improving passenger van services in particular and more generally informal transportation in Bangkok. The focus is on intra-urban passenger vans. We do not include fixed-route, inter-urban passenger vans for those who travel between Bangkok and other provinces, nor do we examine charter van services with a driver. This chapter first gives an overview of the characteristics of passenger van services in Bangkok. We then discuss the regulations and institutions governing the services, paying particular attention to the roles of route associations. The last section concludes the chapter with policy recommendations.



II. Overview of passenger van services

In this section, we provide an overview of general characteristics of passenger van services in Bangkok, including the routes and coverage, the types of services (i.e, point-to-point and feeder), and the operators.

Routes and coverage

According to the Department of Land Transport (DLT), the de jure regulator of road-based public transport operators, as of June 2013, there are 115 licensed passenger van routes. Most of these have operated since the legalization of passenger vans in 1999. Since then, ten routes were canceled due to low ridership, and ten new services to Suvarnabhumi International Airport, which was opened in 2006, were added. Therefore, at least on paper, passenger van services, in terms of routes and coverage, have been largely unchanged since 1999.

Passenger van services can be categorized by their terminal points and the routes on which they are operated. The first type of service operates on main arterial routes, such as Ladprao and Petchkasem, between city centers and suburban areas. Passengers may be picked up and dropped off along the routes. The second type of service, with

the largest number of vans in operation, is similar to the first but operates on routes between suburban areas. The third type of service operates on expressways. They pick up and drop off passengers only at the specified terminal stops, mainly major urban and suburban centers and intermodal transport hubs. These services are most concentrated around Victory Monument, Chatuchak and Rangsit. Other services operate only on local roads, picking up and dropping off passengers at bus stops along the routes. There are also some hybrid services, which are operated on both expressways and local roads. Table 1 shows the classification of passenger van services according to the type of routes.



Route type	Number of routes	Number of vans
City-suburban	34	1,527
Suburban	45	2,051
Expressway	41	975

Table 1 Classification of passenger van services by route types

Passenger vans as point-to-point services

The majority of passenger van services are of point-to-point nature, serving to connect suburban centers with central business districts or between suburban centers. The actual ridership of passenger vans is not known since no government agency collects passenger data on a regular basis. However, the ridership may be estimated based on the number of vans registered under the Bangkok Mass Transit Authority (BMTA) joint-service contract.

According to the van operator survey that we conducted in August 2013, the average number of trips is 4.9 per day. Assuming that vans depart from their origin only when they are fully loaded (15 passengers), that the vans run empty in the non-peak direction, and that no passenger is picked up along the route (load factor = 1), the total number of

passenger is estimated to be 394,800 per day. Note that this estimate is highly conservative for many reasons. First, in some routes, there is no clear peak direction, and the vans may carry a full load of passengers in both directions. Second, vans operating on local streets sometimes pick up and drop off passengers along the routes, and the load factor may be much higher than 1. Last but not least, a large number of passenger vans currently in service are not registered with the BMTA. According to the DLT's estimate, there might be as many unregistered as registered vans that are currently operating in Bangkok area. Hence, the actual ridership of passenger vans in Bangkok could be as large as one million per day.



The actual ridership of passenger vans in Bangkok could be as large as one million per day.

Passenger vans as feeder services

A substantial number of passenger vans serve as feeder services to rail transit systems in Bangkok. The results from a rail passenger survey that we conducted in March 2013 confirm such an important role. In the survey, we asked passengers who used the Bangkok Transit System (BTS) and the Metropolitan Rapid Transit (MRT) how they accessed the rail stations. The results show that a large number of rail passengers use passenger vans, particularly in major BTS and MRT stations. At Victory Monument BTS station, the major intermodal transport hub of Bangkok, as much as 41.3% of the BTS passengers access the

station by vans. Similar results are observed in other major transit stations, although with lower percentage points. These include MRT Chatuchak station (21.3%), BTS Mochit station (14.3%), MRT Phaholyothin station (14.3%), MRT Samyan station (8.7%), and BTS Saphan Taksin station (7.0%). The average share of passengers who access the rail stations by vans are 7.5% for BTS and 5.8% for MRT, respectively. Based on these results and the daily ridership of the BTS and MRT systems in 2012, we estimate the number of van passengers who transfer to the rail transit systems in Bangkok to be in the neighborhood of 100,000 passengers per day.



Figure 1 Passenger vans lining the roundabout at Victory Monument



Operators

According to the BMTA's registration records, as of June 2013, there are 4,058 unique passenger van operators, who are registered under the joint-service agreement contract with the BMTA. The majority of operators (3,527) are individuals who own and drive a single van. However, there are also a substantial number of operators (518) who own multiple vans. One operator

owns as many as 21 vans. (See Table 2.) There are also 17 companies that entered the BMTA joint-service contract to operate vans. In all, 5,363 vans are registered and contracted to operate, 3,527 belonging to an owner-driver, 518 to individuals who own multiple vans, and 341 to companies (See Table 3.)

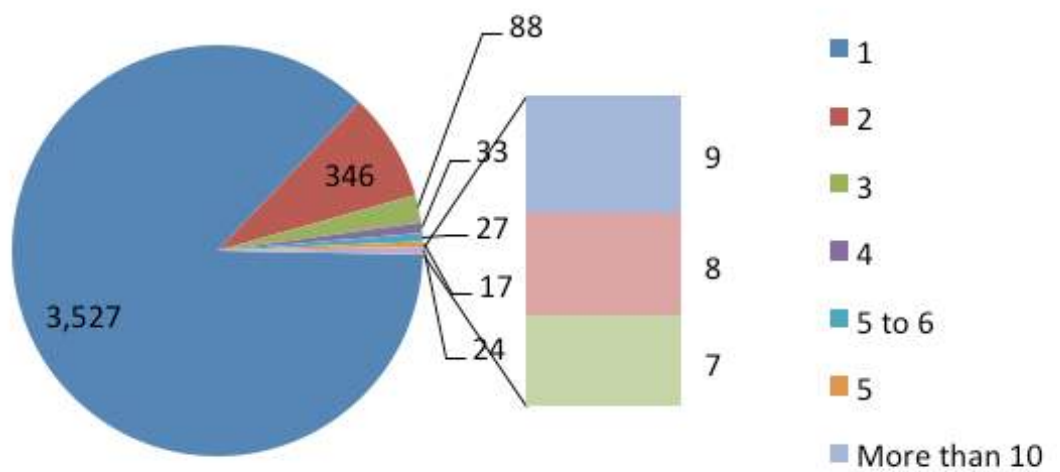


Figure 2 Summary of individual operators by number of vans owned

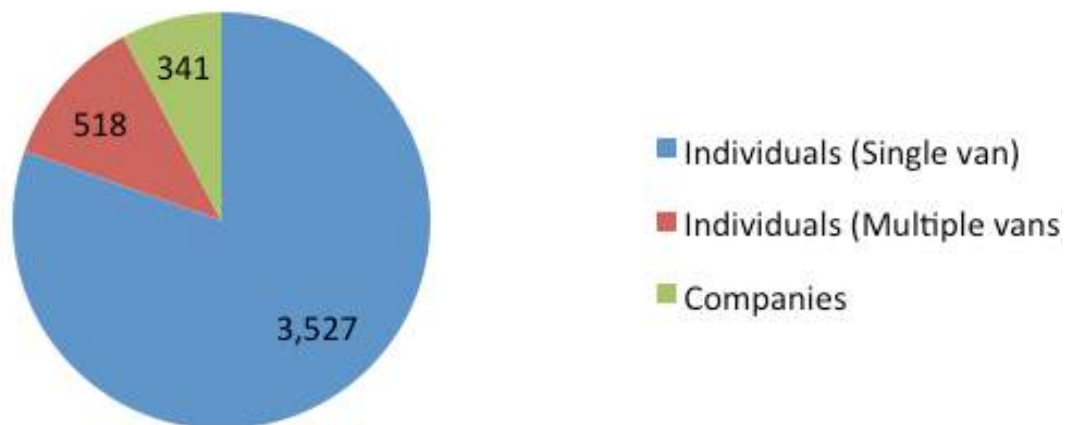


Figure 3 Number of vans by ownership



III. Passenger Van Regulations

As in the case with any informal transport in Bangkok, passenger van services started from “petite entrepreneurs” seeing niche business opportunities. There were created by the gap in suburban transport markets, which was caused by rapid residential suburbanization and inadequate public transport services. Over the years, as the services became more popular and the demand increased, the services became more standardized and fixed. Because passenger vans and other

informal modes were not part of any policies and plans of the government, the regulations and institutions that govern the services would later be developed reactively, never proactively. This usually happens only after there are concerns about safety and quality of the services. In order to disentangle the complex institutional landscape that governs the passenger van services in Bangkok, we need to understand the ways road-based public transport operations are regulated in Thailand.

BMTA as the Sole Licensee for Bus Services in Bangkok

All fixed-route road-based public transport operations in Thailand are regulated by the Land Transport Act B.E. 2522 (A.D. 1979). All public transport operators must be licensed to operate in specific routes and must comply with operating conditions as approved by the Central Land Transport Control Board (CLTCB), the regulatory board established by the Land Transport Act. The Bangkok Mass Transit Authority (BMTA) was established in 1976 as a state enterprise to operate public bus services in the Bangkok Metropolitan Region (BMR). In 1983, the Thai

government issued a cabinet resolution that granted operating licenses of all bus routes within Bangkok and five neighboring provinces to the BMTA. Since the BMTA did not have sufficient capacity to provide services in all routes, for which it held operating licenses, it subcontracted services in some routes to private operators, which are normally referred to as “joint-service bus operators.” These operators pay joint-service fees to the BMTA in exchange for the right to operate the designated routes that sometimes overlap with the BMTA routes.



Legally, the BMTA is only a bus operator, albeit a state-owned one, and is de jure regulated by the DLT. But the DLT does not actively regulate the BMTA's bus operations. In addition, the BMTA, as the sole licensee of bus services in Bangkok, acts on the DLT's behalf as the de facto regulator of the privately owned joint-service bus operators that operate under contract agreements with the BMTA. The CLTCB regulates fares that are allowed to be charged by the BMTA and its joint-service operators. The fares are heavily controlled; for example, the current flat fare for non-air-conditioned buses operated by the BMTA is only 6.50 baht (US\$0.18). This is extremely low compared to the per capita income of Bangkok population, which is 361,243 baht (US\$12,000) in 2010.¹ For this reason, the BMTA suffers continuing operating losses. The government, blaming the losses on mismanagement, does not directly subsidize the transit authority, but simply orders it to borrow funds through bond issuance to finance its operations. Currently, the total debt of the BMTA stands at around 80 billion baht (US\$ 2.6 billion).²

The debt-ridden, undercapitalized, highly regulated, and highly unionized BMTA has always been slow to adjust its services in response to changing travel demand in the rapidly expanding city of Bangkok. Taking advantage of the BMTA's inertia, entrepreneurs set up passenger van operations to serve fast growing residential and commercial centers in Bangkok's suburbs, linking them with the city's Central Business Districts (CBD). These passenger van operations, however, were unlicensed and hence illegal under the Land Transport Act. Only in 1999 were the passenger vans legalized and regulated as fixed-route transport services under the Land Transport Act. This came after intense pressure on the government from various sides, including the van operators who were subject to prosecution by law enforcement and the existing joint-service private bus operators whose ridership was "stolen" by the illegal vans. Complaints from passengers were rampant about poor quality of service, irregular fare, substandard vehicle condition, and unsafe driving practices. But little attention was paid to these aspects of service during the process of van legalization.



Legalization

As an attempt to resolve the illegal passenger van problems outlined above, in July 1998, the Minister of Transport ordered the DLT and the BMTA to collaborate in registering passenger van operators that were providing services in the BMR. Since only the existing operators in the existing van routes that were registered would be allowed to operate legally in the future, the passenger van legalization process was complicated, lengthy, and contentious.

The process began with the surveys of existing van routes with the objective of legalizing them as fixed-route passenger services under the Land Transport Act. Operating licenses for these van routes would be awarded to the BMTA. Then, van operators could apply for joint-service agreements to operate legally under the BMTA's licenses. In the 1998 survey by the BMTA, 116 routes were identified, while only 90 routes were reported in the DLT's survey in the same year. Route modification and addition of new routes were negotiated among operators, the BMTA, and the DLT. However, after the lengthy process of negotiation, the CLTCB approved a total

of 116 operating licenses for passenger van routes, that is, 90 routes in 1999 and 26 more routes in 2000. The BMTA continues to be the sole licensee for these routes.

The other critical and complicated part of the legalization process was the registration of passenger van operators. The Minister of Transport appointed a task force to conduct surveys and prepare a list of existing van operators in each route. In June 1999, the van registration task force determined that there existed 3,238 van operators. In August 1999, the BMTA called for van operators to register their vans to be eligible for rights to operate legally as BMTA joint-service providers. However, less than half of van operators who were officially listed came to register with the BMTA. The rest of operators either belonged to the licensed routes but were not on the official list or operated in the unlicensed routes. This created a problem for the BMTA as it could not field a sufficient number of vehicles to operate on the licensed routes as stipulated in the operating license.



Conflicts and political bargaining plagued the registration process since only registered operators were allowed to operate legally under the BMTA joint-service agreements. Some operators could not be registered because their vans were not owned by themselves but by the banks that loaned funds for the purchase. Normally, the terms of the loan were intended for purchasing vehicles for personal use, and thus the banks objected to registering the vans as commercial vehicles, which would depreciate rapidly in value. In addition, several operators were left out from the

survey and did not appear on the list of operators produced by the survey and were not eligible to apply for the BMTA joint-service agreement. Others who had not actually operated vans prior to the survey falsely claimed that they did in order to gain the rights to operate vans legally in the future. Yet, other operators who were on the list of eligible operators sold their rights to new operators for a large sum of money. Due to these complications, talks of corruption within the BMTA and the DLT abounded.³



Current Status

There are currently two broad sets of regulations that control various aspects of passenger van operations. One set is under the passenger van regulations set by the DLT under the Land Transport Act, and the other is under the joint-service agreements with the BMTA. Under the passenger van regulations, the operators have to acquire the Transport Operating Licenses under the terms established by the CLTCB. The terms are very detailed, including route alignment, stops, origin and destination, minimum and maximum number of vehicles to be used, types and liveries of vehicles, fares, etc. The DLT is responsible for enforcing these terms of regulations. As joint-service operators of the BMTA, van operators must comply with these rules, which partially overlap with the terms of the operating license, including:

- Route alignment, origin and destination;
- Passenger van quota on each route, with a minimum and a maximum range of passenger vans;
- Type and color of the van that follow the standards set by the DLT, and capacity of not more than 12 seats;

- Daily work time, which requires that the head office and the local office of the operators must be open from 8.30am to 4.30pm on business day;
- Operating hours from 6.00am to 10.00pm, with minimum total daily trips. The detailed timetable and headway are to be set by a passenger van company of each route; and
- Maximum fares for each route. For instance, passenger vans on route 1 can charge not more than 15 baht/person/trip. Fares are fixed at not more than 1 baht/km for the first 10 kilometers and not more than 0.60 bath/km for each additional kilometer. An additional fare of not more than 5 baht/person/trip is allowed for routes operating on expressways and Tollways.

On the other hand, under the terms of the joint-service agreement between van operators and the BMTA, van operators are required to comply with the rules established by the terms of operating license under the Land Transport Act. In addition, the agreement requires that the van operators pay a monthly joint-service fee to the BMTA and adhere to the following BMTA regulations:



- They are allowed to pick up passengers only at the origins, and drop them off at bus stops along the route or at the destinations. They are not allowed to ask passengers to disembark before arriving at their destinations;
- To operate van services outside regular routes, drivers have to acquire official permission from both the DLT and the BMTA;
- To stop temporarily for repairing or other reasons, drivers have to inform the BMTA;
- A monthly concession fee of 1,070 baht must be paid to the BMTA;
- Operators have to have motor and compulsory third party insurances in case of accidents; and
- Drivers have to follow the Land Transport Act B.E. 2522 (A.D. 1979) for driving disciplines;



Vehicle standards

The majority of vehicles used for passenger van services are the 15-seat Toyota Hiace Commuter. Most of the vans are powered by a diesel engine and are equipped for Natural Gas for Vehicle (NGV). The registered vehicles are attached with yellow license plates and painted with white color with purple livery and the BMTA-joint service logo. Route numbers and route names are

also marked on the side on the vehicles. Under the Land Transport Act, the vehicles must be inspected twice a year by the DLT for their road readiness, engine performance, emission, safety equipment, and so on. Vehicles that fail the inspection are not allowed to operate until proper corrections are made.



Figure 4 Passenger van with BMTA logo and livery



Figure 5 Passenger van with yellow plate



IV. Van Operator Survey

To understand the current situation of passenger vans in Bangkok, we first organized a focus group meeting with approximately 15 van operators in Bangkok in June 2013. With the information that we gathered from the focus group, we then conducted an interview survey of van operators at major terminals of van routes, including Victory Monument, Minburi, Pinklao, Chutuchak, Ramkhamhaeng, Rangsit, and Ngamwonwan in August 2013. The objective was to learn more about the supply-side characteristics of passenger vans in Bangkok. Drivers were

interviewed about their van operation, vehicle registration and ownership information, investment and operating costs, etc. The interview took place between 10.00am and 3.00pm on weekdays, during which time most drivers parked their vans, resting and waiting for the evening peak-hour operation. Out of 274 drivers who were interviewed, 117 of them (43%) operate within city-to-suburb routes, 94 (34%) within suburban routes, and 63 (23%) within expressway routes. A summary of the operators' characteristics is as follows.

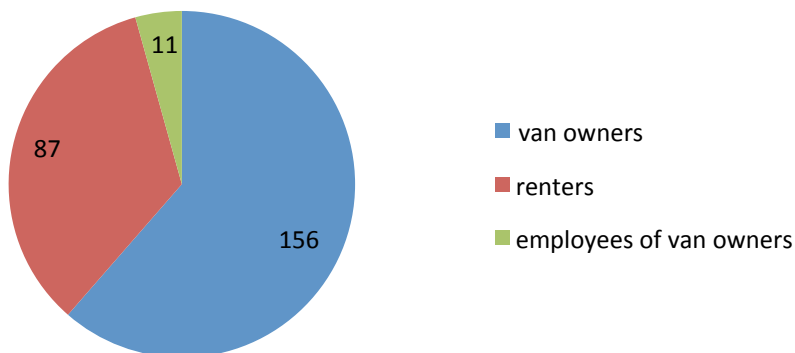


Ownership

Among the 274 drivers, 156 of them (57%) are van owners, 87 (32%) are renters, and 31 (11%) are employees of van owners. Among the owner-operators, a great majority (93%) own a single van and the rest own two or more.

Every single driver
has to belong
to a “Win”.

Number of vans by ownership type



Route Association

The survey confirmed that every single driver has to belong to a route association, also known as “win.” The term win is also used to describe the organization of motorcycle taxis. Services in a route may be provided by a single win or more.⁵ The term “association” may be slightly misleading, as wins are not officially

registered with any state agencies and do not have legal backing. Nonetheless, most wins are relatively organized, with clear roles and responsibilities among win members, which include drivers, managers, and assistants.



Win managers and their assistants are responsible for a wide range of management tasks, including scheduling services, dispatching vans, calling for passengers to board vans, selling tickets, settling disputes with operators from other wins, settling legal matters brought by the police or other officials, and so on. To join a win, van operators must pay a one-off entry fee, which is similar to the case of motorcycle taxis, to the win owner, who has control of all van operators that belong to the win. The sample average win entry fee

is 156,855 baht per van. A win owner sometimes also acts as a win manager, or alternatively hires a manager to manage the win on his or her behalf. Van operators also make daily payment to win owners in the amount ranging from 100 baht to 200 baht per van per day. The proceeds are used to pay for win administration, including paying off the local mafia or public officials in exchange for protection or leaving them alone.





Cost Structure

Table 4 shows the cost structure of passenger van operators by route groups. All costs are calculated as average daily cost per passenger van. Fixed costs are costs that do not vary with the number of trips operated, consisting of vehicle cost (i.e. loan installment payments) and the route association joining fee. Variable costs are costs that vary with the number of trips made,

including fuel (diesel and NGV), labor costs (driver and sales), maintenance/replacement cost (engine oil, tires, air-conditioning system, transmission, etc.). Administrative costs include route association daily payments, BMTA joint-service fees, annual registration fees, insurance premiums, etc. Finally, other costs include traffic fines as well as bribery payments.

Costs	City-suburb routes		Suburban routes		Expressway routes	
	Daily average (baht/day)	%	Daily average (baht/day)	%	Daily average (baht/day)	%
Fixed costs	856.52	39	864.70	41	888.79	40
Variable costs	1,112.97	50	1,005.46	47	1,131.86	50
Administrative costs	224.16	10	235.57	11	201.01	9
Other costs	25.16	1	14.05	1	17.99	1
Total Costs	2,218.81	100	2,119.78	100	2,239.64	100

Table 2 Passenger van cost structure by route groups



Effectiveness of Regulations

The survey results reveal that regulations are neither effectively nor uniformly enforced. In some areas, particularly in the suburbs, illegal black-plate vans are operated side-by-side with yellow-plate ones. For example, in Minburi area, the majority of passenger vans in service are not registered as BMTA-joint service operators. These van operators feel that yellow-plate vans are at a disadvantage compared with black-plate ones. Van operators wishing to obtain a yellow plate, the number of which is limited by law, must buy the plate at a very high price. They must also pay the BMTA joint-service monthly fee in the amount of 1,070 baht. In addition, owners of yellow-plate vans, which are registered as a commercial vehicle by law, must pay a hefty insurance premium, compared with those for black-plate vans, which are registered for personal use and deemed to have lower risk of accident. Black-plate van operators can enter the route association by paying a joining fee and a daily fee in the amount similar to those paid by yellow-plate van operators. The proceeds of these fees are used for payments to public officials and “influential persons” in exchange for protection from law enforcement. In the case where a black-plate van is

fined, which is normally 5,000 baht for violating the Land Transport law, the fine will be jointly absorbed by members of the win.

In some route associations where yellow-plate vans are in the majority, the vans that operate in a certain route may not necessarily be registered to operate in that route. The reason for this type of violation is that the number of vans allowed to operate in certain routes is fixed and difficult to change, due to government bureaucracy. As demand grows and supply cannot keep pace in certain routes, van operators registered in less lucrative routes may move to operate in more profitable ones without permission from the authority. In any case, they must also pay the joining fee to the new route association as well as the daily fee. With yellow-plates, operators of these vans are not as at a high risk of being fined by the police as those of black-plate vans. However, they can still be fined for breaching the operating license conditions. Bribery payments are thus necessary to protect them from law enforcement. The use of vans registered to operate in different routes is quite common.



As an example from our survey, for route number 96, 28 vans are registered with the BMTA for joint services. But we find that there are as many as 130 members in this route association, and each of them owns a yellow-plate van. This means more than 100 of them operate outside their legally assigned routes. Each member pays a joining fee of 100,000 baht and a daily fee of 180 to a registered company that has the joint-service contract with the BMTA to operate in this route.

Even yellow-plate van operators that are correctly registered with the BMTA and hold a joint-service contract must pay the route association fees. Thanks to several layers of regulations, van operators are prone to being fined for

various kinds of violations, ranging from speeding, parking violations, breaching of joint-service agreement terms, failure to adhere to vehicle standards, etc. The police, DLT and BMTA officials are all legally authorized to impose some form of penalty or another on the van operators. The funds from the route association membership fees are normally used to pay these officials to appease them and keep them from prosecuting van operators. There are, of course, some renegade yellow-plate van operators who refuse to pay the route association fees. These operators believe that they are rightful operators by law and need not pay bribery for protection. They remain the small minority in the corruption-laden passenger van business.



Regulation Infringement and Fines

More than half of the van operators in the survey sample reported that they were fined for a regulation infringement at least once in the past year, with the average of 4.3 times. Table 5 shows the average frequency of each type of regulation infringement and the average fine. The most common type of infringement is not driving in the left lane, which has been committed by almost half of the drivers in the sample. As fixed-route public transport vehicles, such as buses, are required to be driven in the left (inner most) lane only by traffic regulation, yellow-plate passenger vans, which are registered as public transport vehicles must also comply with this rule. The drivers reported that they were fined for this type of infringement 2.44 times on average over the past year, with the average fine of 318 baht.

The second most common type of regulation infringement is speeding.

Due to a high-profile fatal accident involving a passenger van operating on Don Mueng Tollway in 2010, passenger van speeding has received much public attention since then. The DLT requires that all registered passenger vans be equipped with an RFID device for speed control, and RFID sensors have been installed on Bangkok expressways. Speeding vans are fined up to 5,000 baht and repeat offenders' licenses will be suspended or revoked. Thanks to the RFID systems, a large number of speeding van operators have been cited and fined. The average fine for speeding is 3,515 baht, the highest among all types of infringement. Unfortunately, the RFID systems can be used to enforce speeding of yellow-plate vans only. The black-plate vans that are registered for private use but are used for commercial services are not required by law to be equipped with an RFID. So they are less likely to be caught for speeding violation.



Type of regulation infringement	Number of fined operators	Average frequency	Average fine (B/time)
Not driving in the left lane	117	2.44	318
Speeding	41	1.29	3,515
Improper driver uniform	31	1.42	338
Operating out of route	25	2.28	1,513
Incorrect route	8	1.5	1,157
Expired van license	3	1	1200
Overloading	3	1.33	600
No public driving license	2	5.5	300

Table 3 Average fine and frequency experienced by passenger van operators

The third most frequent type of infringement is improper driver uniform, with the average fine of 338 baht. The driver uniform code is stipulated in the BMTA joint-service contract and BMTA officials strictly enforce this term of contract. A number of van operators also faced fines for route-related infringements. Since yellow-plate vans must operate in the routes for which they are registered only, operators who drive out of the specified route can be fined. Approximately 10% of the operators (25) reported of being fined for operating out of the specified route and paid 1,513 baht on average in fine. Yellow-plate vans registered for one route but operated in another route also violate the term of joint-service contract. However, a smaller number of operators in the sample (8) reported that they were fined for this type of infringement and interestingly reported paying 1,157

baht on average in fines, a lower amount of fine than the seemingly less serious charge of operating out of route.

Less frequent violations include expired van licenses, overloading, and lack of public driving licenses. Only a few van operators reported they had paid fine for these infringements, and the average fine are 1,200, 600, and 300 baht, respectively. It should be noted that in most cases, black-plate passenger van operators, which are illegal since they use the vehicle for different purposes than what they are registered for, do not risk being fined and penalized for most of the infringements discussed above. Therefore, they have a significant competitive advantage over the yellow-plate van operators who must comply with the conditions established by the BMTA joint-service contract.



V. Analysis of Current Situation

This section provides a set of insights into the current situation of passenger van services in Bangkok, including the significant contribution to Bangkok's public transport system, the arbitrary

restriction of supply due to excessive regulations, and the problems with black-plate vans due to lax regulatory enforcement.

Significance of Passenger Vans

Bangkok's formal public transport services, which include the BMTA buses and the BTS, MRT, and Airport Rail Link (ARL) rail transit systems, provide limited geographical coverage of the city, with combined daily ridership of less than two million passengers. Thus, passenger van services are an indispensable component part of public transport system in Bangkok. The vans provide point-to-point services between residential areas and commercial centers, as well as feeder services connecting areas underserved by public transport to rail transit systems. While the official number of passenger vans registered with the DLT is around 5,000, our conservative estimate of the actual number of vans currently serving

Bangkok is well over 10,000. The total number of passengers carried by vans is estimated to be more than one million per day.

Passenger van services have become increasingly more popular because they are highly demand responsive and flexible in ways that cannot be expected from formal public transport services. Because setting up van services requires relatively low capital investment, a large number of passengers are not necessary to achieve an acceptable return on investment. Passenger vans can also navigate in narrow streets at satisfactory speed compared with full-sized buses.



This is suitable for sprawling cities like Bangkok where it is difficult to plan and deliver formal public transit services to satisfy the rapid growth in travel demand in low density areas with poor road networks. Because of the slow pace of development of the formal public transport systems, passenger vans will continue to be an essential part of Bangkok's public transport system in the foreseeable future.

Passenger vans will continue to be an essential part of Bangkok's public transport system in the foreseeable future.

Supply Restriction by Excessive Regulations

The DLT regulations that put a quota on the number of passenger vans in effect restrict supply, which cannot easily be adjusted to meet the growing demand. Long lines of passengers waiting for vans during morning and evening peak hours are a norm, particularly at residential and commercial centers. Fare regulations may also play a role in the capacity shortage during the rush hours. Despite the huge increase

in demand, the number of registered vans that are allowed to operate legally as BMTA joint-service operators has remained constant over the past decade. This quantity regulation means that the number of yellow license plates allowed as passenger vans for legal operation in Bangkok is fixed. As a result, the yellow plates became highly prized, and sometimes sold for several hundred thousand baht.



Lax Regulatory Enforcement and Proliferation of Black-plate Vans

The regulations of passenger vans are multi-layered and enforced by three government agencies, including the police, the DLT, and the BMTA. Enforcement of the different aspects of the regulations is uneven. Despite the DLT regulation on market entry as described above, many van operators use black-plate vans to provide services, especially in newly developed areas or in routes in which excess demand cannot be met by existing capacity. This situation is made possible and complicated by the regulatory complexity. Citations of vehicles registered for personal use but are used to provide public transport service can only be done by the police. The DLT and BMTA have no legal authority in this area. For this reason, even though the DLT can control the number of vans that operate as a joint-service with the BMTA, i.e., yellow-plate vans, the agency has no control over the black-plate vans which are controlled by the police. If, for example, black-plate van operators choose to bribe the police to allow them to operate freely, they can set up operations to compete with the legally registered yellow-plate vans. And the DLT and the BMTA can do nothing about it.

In reality, black-plate vans are prevalent in Bangkok. We estimate the number of vans registered for other purposes but used for fixed route transport services to be roughly equal to the yellow-plate vans. Since these black-plate vans are not registered for public transport services under the Land Transport Act, the operators of these vehicles are not bound to comply with the passenger van regulations established by the law. For example, they are not required to purchase an insurance policy for commercial vehicles; they normally just purchase basic insurance for personal use vehicles, which is a lot less expensive but has more limited coverage. They can operate wherever they wish or in the unassigned routes without the risk of being fined. They can charge any fare, and are subject to less strict vehicle inspection. Their drivers are not required to hold a driving license for public vehicles. Consequently, operators of black-plate vans are deemed to have certain competitive advantages over the operators of the legally registered yellow-plate vans.



One objective of regulating passenger van services is to prevent the problem of “skimming the cream.”⁶ Before the legalization effort in the late 1990s, informal van operators offered services only along lucrative routes and during profitable times, while the BMTA had to cover all bus services, including high-cost, unprofitable routes and during off-

peak times. Under the BMTA regulations, yellow-plate vans are not allowed to operate on the routes that overlap with those of the BMTA buses. In addition, they can pick up passengers only at the terminal points. Along came black-plate vans, which can just bypass all these regulations and skim the cream freely.

Multi-Layers of Regulatory Agencies

In addition to regulations that are enforced by the police, other aspects of regulations are enforced by two other regulatory agencies: the DLT and the BMTA. Among others, citations of vans that are registered to operate in one route but are actually operated in another route can be done by either by the DLT or the BMTA. The DLT has legal authority conferred by the Land Transport Act as the regulator of all road-based public transport operators. However, the DLT considers the BMTA a fellow government agency and thus does not actively enforce the regulations with BMTA operations. As for private operators, the DLT has full legal authority

to enforce regulations on them, but at times lets the BMTA act as its proxy. Although the BMTA is not the regulator by law, as the sole holder of the license to operate public buses in Bangkok, it acts as the de facto regulator of private operators who provide services under the BMTA joint-service contract. This means that private operators, including van operators, are regulated by both the DLT and the BMTA. This additional layer of regulatory power increases the risk of corruption by government officials.



Uneven Enforcement of Regulations and Corruption

Despite the complex layers of regulations, some aspects of regulations are somewhat effectively enforced, while others are less so. Vehicle and equipment standards, for example, are regularly inspected by the DLT for most passenger vans. Similarly, traffic infringements by van operators, such as speeding, parking violations, etc., are enforced by the police, with particular emphasis on violations that cause traffic congestion, such as idling and waiting to pick up passengers. Additionally, the authorities pay particular attention to some types of violations that are not very critical to the quality of service or public concerns, such as the BMTA's strict enforcement of drivers' uniform codes. Another traffic regulation that is actively enforced by the police is one that requires passenger transport vehicles be driven in the left (inside) lane only. This traffic regulation is aimed at the slow-moving large passenger vehicles, such as buses, but is enthusiastically enforced with passenger vans.

The current enforcement of passenger van regulations is done partly to protect the public interest and safety. But for the most part, it provides opportunities for government officials to extract bribes from van operators. This is an act of rent-seeking, which is defined as an effort to gain economic rent by manipulating social or political conditions in which economic transactions occur, without creating new wealth. The side effects of such uneven enforcement are that passengers pay in the form of expensive fares, poor quality of service, and unsafe operations.



Dominance of Route Associations

Despite the layers of regulations introduced with the intention to maintain order among van operators, there is no denying that the route association (win) system plays a key role in keeping the passenger van operations going. Since the majority of van operators are owner-drivers of single vehicles with limited legal knowledge, they lack necessary knowledge and skills to navigate through the complex bureaucracy and obtain the required operating license. Instead they pay a hefty premium to the win owners, who hold the license, in exchange for the right to operate. Often times, entrepreneurs who have connection with high ranking officials set up a win in a new area and recruit black-plate van owners to form a new route association. The van owner-drivers pay the entrepreneur in exchange for protection from possible persecution by the authorities.

It is also common knowledge that even legitimate operators with operating licenses must pay daily or monthly fees to win owners. The proceeds are used not only for paying off government officials but also for the day-to-day operations administration, including rental of parking spaces, dispatcher's salary, advertising, etc. It is clear that the BMTA, or the public sector in general, lacks the capacity, technical resources or manpower for planning and administration of passenger vans at the current scale. Admittedly, the existing route association system creates rent and rent seeking opportunities, and together with uneven enforcement of regulations, creates burdens to passengers and the public in general. However, given the existing circumstances, the win system may remain the only mechanism that can most reliably, if not efficiently, drive the passenger van industry in Bangkok.



VI. Conclusion and Policy Implications

Passenger vans play a crucial role in the public transport system in the Bangkok Metropolitan Region. They provide fast, affordable, and reasonably safe services that are well utilized by the middle and lower-middle class. Government agencies play a limited role in service planning and operation of passenger vans services. The quantity and route regulations established by the land transport law were designed with the objective of maintaining order, protecting existing public transport operators, and prevent destructive competition among van operators. However, attempts to modify existing routes or add new routes to serve growing demand have been obstructed by registered van operators. The planning and implementation of an integrated public transport system that would incorporate passenger vans has not been successful because of the lack of technical, human, and financial resources on the part of relevant government agencies.

The excessive and complex regulations by three different government agencies, i.e., the police, the DLT, and the BMTA, render the passenger van operation prone to redundant regulatory enforcement. Every van operator, regardless of whether his van is legally registered to provide service, must join a route association, which has some kind of connection with the authority and often liaises with officials from the authorities on the operator's behalf, at a price. The authorities, in turn, play an important role in conflict resolution for van operators. Such interrelationship among individual operators, route association managers, and the authorities has been in place for almost two decades. Given the established law and vested interest groups in the passenger van and other related industries, the existing system of passenger van operations cannot be reformed easily.



While passenger vans are working reasonably well in Bangkok's public transport system, a number of adjustments should be made in order to raise the level of service quality, enhance competitiveness, and improve integration and coordination between van services and other modes of public transport.

First, certain aspects of regulation should be modified. The vehicle registration requirement that mandates all vans to be licensed to operate in a specific route before getting a yellow license means that some operators will simply use the black-plate vans for van service operation. Therefore, it would make more sense to eliminate this requirement. All passenger vans should be allowed to apply for a commercial license plate, just like the way taxis do. However, they must be required to be a member of a route association or win, which in turn, must report the route and operation plan of all vans that belong to the association. The association is liable to ensure that their vans adhere to the reported operation plan and is subject to fine if the van operators in their association fail to follow the plan.

Second, since the win or route association becomes an important mechanism in governing most key aspects of the van operation, it must have a legal status. The route association should be legally responsible for planning a new route or new service. It should be allowed or even required to submit an operational plan, which includes frequency, fares, vehicle requirements, etc. directly to the DLT, without having to go through the BMTA. The DLT does not approve the plan, but simply checking whether the operation has been implemented effectively according to the plan. If any van operator fails to adhere to the plan, the association to which he belongs will be penalized. In this way, the complicated layer of regulation and bureaucracy associated with it can be reduced. Self-regulation by the win will also reduce the administrative burden of the DLT, which lacks resources and manpower to effectively regulate the large number of vans in operation.



Third, the framework for conflict resolution among route associations must be established. Since public disorder due to cut-throat competition among public transport operators was of critical concern to the government, it is necessary that appropriate preparation is taken to prevent such likely problems. For example, if a new route association is set up to operate in the route that already has an existing association, there must be some rules that regulate competition between the two associations. An arbitration panel may need to be set up in order to resolve any conflicts among van operators.

Finally, some aspects of the existing regulations should be maintained or modified. For example, vehicle standards and driver qualification requirements should be maintained and enforced by the DLT and the police. The role of the police in ensuring traffic safety also remains vital, but some traffic regulations should be amended so that they cannot be abused by the police. The role of the BMTA as a de facto regulator should be removed. The BMTA's participation in this market should be at the same level as a route association, that is, just another operator that has to compete with other operators and has to offer the best services to the passengers.



Chapter 4

Motorcycle Taxis: The Feeder Army Ants

I. Introduction

Motorcycle taxis have been an essential element of Bangkok's public transport systems for a few decades now. They critically serve as an "informal" feeder system that provides travelers with accessibility to the main trunk systems, that is, the buses, passenger vans, and mass rail transits. They fill the accessibility void created by rapid urban expansion that is not matched by the supply of public transport systems, particularly the feeder services. The continuing lack of integration between land use and transport policy and planning makes motorcycle taxis even more indispensable as a feeder transport mode in Bangkok and the surrounding provinces.

The growing importance of motorcycle taxis for Bangkok is reflected in the number of operators. It is estimated that there are as many as 110,000

motorcycle taxi operators in Bangkok in 2010. This number has increased significantly from just about 100 in 1986 to 16,000 in 1988, and 37,500 in 1994. As the built-up areas keep expanding horizontally outward, the number of motorcycle taxis increases to serve the growing demand for feeder services from residential areas to the main roads where the main systems operate. The number is very likely to grow even further in the next few years, when more mass rail transit systems are completed. Because walking and riding bicycles are not considered comparable alternatives by many Bangkokians, motorcycle taxis will likely remain the essential feeder transport system in the city.



A few papers have been written in Thai about motorcycle taxis in Bangkok. For instance, Puapongsakorn (1994) discusses the reasons for the growing number of motorcycle taxis in the Thai capital. Ratanawaraha (2000) outlines the options for the government to adopt as it considers ways to regulate and manage informal transport services, including motorcycle taxi services. There are a few Master's theses written in Thai on this subject. For example, Kasemsukworatat (1990) examines the economic aspects of motorcycle taxi services in Bangkok. Prayochvnich (1992) analyzes the appropriateness of motorcycle taxi services in Bangkok from the perspective of urban development and planning. Sala-anan (2005) analyzes the effects of regulations on the economic livelihoods of motorcycle taxi drivers. There are fewer papers in English on motorcycle taxis in Bangkok. Oshima et al. (2007) examine the effect of government regulations on the behaviors of motorcycle taxi operators and the services. Another study by Sopranzetti (2012) explores the connections between spatial mobility and political mobilization among

motorcycle taxi drivers in Bangkok during the Red Shirts demonstration in 2010. But we still know little about how regulations and other institutions affect the market of motorcycle taxi services in Bangkok, which could have important efficiency and equity implications for the motorcycle taxi services and the general transport policy and planning.

Against that backdrop, this chapter aims to examine the market of motorcycle taxi services in Bangkok with particular attention to regulatory institutions that govern the market. We apply the concept of economic rent and rent-seeking to the analysis. We utilize various methods to collect the information for this chapter, including interviews with motorcycle taxi operators, a focus group meeting with the president and other representatives of the Motorcycle Taxi Association of Thailand, online search for information on sales of motorcycle taxi vests, and a questionnaire survey at motorcycle taxi stands in various areas of Bangkok.



The chapter is organized as follows. In the second section, we give an overview of how motorcycle taxi services in Bangkok are organized, managed, and regulated. In the third section, we review a related set of concepts on rent, including economic rent, locational

rent, monopoly rent, and rent-seeking activities. The fourth section discusses the issues of value capture with regards to motorcycle taxis. The last section concludes the paper by recommending a set of policy options and topics for further research.

II. Organization and Regulation of Motorcycle Taxi Services

In this section, we provide an overview of how motorcycle taxi services are generally organized, managed, and

regulated, as it significantly affects the ways in which economic rent from the services are generated and created.

Organizing a Motorcycle Taxi win

Almost all motorcycle taxi services in Bangkok, or in Thailand for that matter, are organized as a “win”. The term “win” came from the betting system in horse racing, in which a win bet is placed on a horse expected to be the first to reach the finish line. Similar to a win horse, the first motorcycle taxi to reach the passenger is a win motorcycle. The term’s usage has evolved, and now it indicates both the organization of motorcycle taxis and the locations of motorcycle taxi stands. Each win operates within its own service

area, for instance, on their own streets and lanes, or soi in Thai, to prevent the conflicts among wins. Motorcycle taxi wins are normally located at specific spots, including the end of a side street on a main road, the beginning of a dead-end lane, or at the gate of a large residential complex, a fresh market, a supermarket, or a shopping mall. Practically anywhere that there is enough demand for a short ride, one can expect a motorcycle taxi win.



As mentioned earlier, the number of motorcycle taxis in Bangkok has constantly increased in the past few decades. So has the number of wins. According to the Traffic and Transportation Department of the Bangkok Metropolitan Administration (BMA), there were 1,570 wins and 16,000 operators in 1994, 4,400 wins and 108,506 operators in 2003, and 5,598 wins and 103,797 in 2011. Note that the number of wins increased between 2003 and 2011, but the number of operators decreased. However, the number of operators is larger than that of motorcycles registered for public transport. According to the Department of Land Transport, 181,797 motorcycles

are registered for public transport as of June 2013: 85,272 of them are in Bangkok and 96,525 in other provinces. The discrepancies in number may be attributed partly to the changes in rules regarding registration of motorcycle taxis and partly to the fact that motorcycle taxi wins have become more organized and are able to decide how many operators there should be in their wins. Before the registration function was transferred from the BMA District Offices to the Department of Land Transport (DLT), the operators could register themselves as operators without registering the vehicles for public transport at the DLT.



Of course, these are official figures that count only registered operators. There are many more unregistered or “black-plate” operators who are not part of the registered wins. Also, the figures do not include motorcycle taxi operators and wins in the surrounding provinces of Bangkok, where urban development is

happening rapidly but without adequate public transport services. A recent estimate puts the number of motorcycle taxis in the whole Bangkok Metropolitan Region at more than 300,000.



Organizational management of a win varies across locations, even though there is a typical organizational structure. There are usually four key groups of people in a motorcycle win.

1. Win superintendents, or *pôo doolae win*, serve as the de facto decision makers on behalf of the win owners or investors. Win superintendents, most of them are male, play important roles in managing the win, including enforcing the rules and norms, and resolving conflicts between win members and between wins particularly in areas where there is fierce competition. These win superintendents are often subordinates of local influential people.

2. Win leaders, or *huana win*, serve various roles, ranging from organizing the win, enforcing rules, and representing the groups in external affairs, to paying the protection fee to the local “influential people” and negotiating with the police for leniency in giving fines or penalizing traffic violations committed by win members. When the members violate traffic rules and their drivers’ licenses are taken away by the police, the win leader would take charge by going to the police station and “clear” the cases with the local police. In some wins, the members are allowed to violate the traffic rules only once a month; when it is

more, they have to go the police station and deal with it by themselves. In areas where there are no win superintendents, win leaders play several roles that win superintendents would do. win leaders are often selected by win members. In some cases, win members would elect a number of people to serve as the win committee, and the chair of the committee also serves as the win leader.

3. Win committee members, or *gam-má-gaan win*, are elected by win members and assist the win leaders in making decisions on various issues, such as adding win members and disciplining members who violate the rules. In some wins, important decisions are made by the committee, while in others important decisions always have to be decided by all members. Win committee members develop and enforce internal rules that control the quality of service.

4. Win members are operators who are registered with the District Office of the BMA. In some cases, only the operators who are registered and own numbered vests are allowed to be the voting members; some operators do not own but rent the vests for the right to operate. Other wins are more inclusive and allow operators to be voting members but not committee members.



The structure of a motorcycle win is very similar to that of passenger vans. But motorcycle wins are in general more organized, and the relationships among win members tend to be more horizontal than vertical. It is common for registered motorcycle wins to have win committees, but this is not usually the case with passenger van wins. One possible explanation is that motorcycle taxis require less capital investment than passenger vans. Owner-operators in the same win tend to share a similar

economic status, thus allowing the organization to be more flat and the decision making more democratic. Passenger vans, on the other hand, require more capital investment, notably in purchasing the vans, and the ability to acquire operating licenses from the DLT. These conditions favor entrepreneurs who have some capital over independent operators who have fewer resources and connections with public officials.

The Three Regulatory Musketeers

The regulatory and institutional landscape of motorcycle taxi services is as complex as that of passenger vans. Similarly, there are three key regulatory bodies involving in the business of motorcycle taxis: the Department of Land Transport (DLT), the Bangkok Metropolitan Administration (BMA), and

the Royal Thai Police. Each of these three state agencies is backed by different legal authorities for different aspects, as well as the associated geographical spaces, of motorcycle taxi services.



From the focus group meetings and interviews that we conducted with motorcycle taxi operators and a few officials in the three responsible state agencies, the general opinion is that having three different agencies dealing with different aspects of regulating and managing motorcycle taxi services only creates inefficiency and wastes everybody's time and money. From the operators' perspectives, it takes unnecessary efforts and resources to deal with different agencies for different issues that could be streamlined in one place. This view is shared by a few officers from the City Law Enforcement Department of the BMA, whom we interviewed. The agency is responsible for enforcing laws applicable to the sidewalks in Bangkok but not most of the roads. To them, it is difficult to coordinate with other state agencies that issue operator's licenses and enforce traffic laws. A police officer from the Metropolitan Police Bureau agreed with this point, saying that it would probably be better to have one agency dealing with all aspects of regulating motorcycle taxi services. However, he argues that it

should remain the role and responsibility of the police to enforce traffic laws and regulations, because it is within the legal authority of the police to discipline and arrest those who violate traffic laws.

Because safety remains a major concern with motorcycle taxi services, there is a legitimate reason for the involvement of the police. There are currently no official data as to how many accidents are attributed to motorcycle taxis. But a 2012 survey by the ABAC Poll Research Center shows that as much as 57.9 percent of motorcycle taxi operators have experienced accidents, which is slightly higher than the rate of 52.6% for individual riders of private motorcycles. Moreover, 72.1% of the motorcycle taxi drivers and 94.3% of the passengers say they never or seldom wear helmets. These figures are particularly alarming when taking into account that only 83.5% of the child passengers wear helmets. The authority to enforce these rules rests with the traffic police.



Organizing the Space

While some of the motorcycle taxi stands in Bangkok use privately-owned space, such as parking lots of supermarkets, most wins occupy public space. The stands usually occupy minimal space on public streets and sidewalks, just enough to park the vehicles that are waiting for passengers and for the drivers to rest. Some wins require more space than others, depending on the level of ridership and the number of vehicles. But in general, the required space is not more than a few square

meters. Economic rent in this case is thus derived from two types of resources that are intertwined, namely, the location and the land. Because the space required is minimal, the locations of the stands are likely to matter more than the actual amount of space used in terms of sources of economic rent. As for the wins that use privately-owned space, they either pay rent directly to the owner of the plot or pay a fee to the security guards to turn a blind eye to their use of space.





To clearly define the boundary of the service area, the win owner or leader provides win-specific, numbered vests to the operators who belong to his win. Sometimes the owners are local influential persons with strong ties to local governmental officers, policemen, politicians or soldiers. This boundary setting effectively creates a geographical monopoly for motorcycle taxi services within the bounded areas. The territorial arrangement is done within a complex web of institutions that govern different spaces of the road.

The roads are maintained by the BMA, the Department of Highways, or even the Department of Rural Roads, but the enforcement of the rules and regulations related to motor vehicles are under the authority of the police. The sidewalks, however, are under the authority of the City Law Enforcement Department of the BMA. Depending on where they park the vehicles and pick up/drop off passengers, motorcycle taxi operators have to deal with several regulating agencies at the same time.

Regulating Motorcycle Taxis

Although motorcycle taxis are considered a type of informal transport service, they have been subject to several efforts of the Thai government to formalize and regulate the operation. There have been roughly four major waves of attempts to regulate motorcycle taxi services in Bangkok. The first attempt was around 1979 when the Police Department was the responsible agency in controlling motorcycle taxi services according to the Motor Vehicle Act, B.E. 2522 (A.D.

1979). There was a discussion whether motorcycle taxi services were illegal, and the final legal review was conducted by the Council of the State, an agency that renders legal advices to state agencies and state enterprises. It was determined that since there was not yet a law that restricted or prohibited the use of motorcycles to transport passengers, motorcycle taxi services were therefore not illegal.



Before the revision of the 1979 Motor Vehicle Act, motorcycle taxis were first organized informally as operators formed their own groups to manage the services. The revision of the Motor Vehicle Act introduced some regulations on motorcycle taxi services. The key issue with the revision was that informal wins had to register with the district station of the Metropolitan Police Bureau. The win founder or leader would have to receive permission from the Superintendent or the Traffic Inspector of the police station in the district where the win is located. They would have to declare the locations of the wins, the profiles of operators and their vest numbers, and the types of motorcycles they use. The permission was up to the discretion of the police. Nonetheless, other issues revolving around regulations of motorcycle taxi services remain unclear, such as registration of motorcycle taxis for public transport purposes and issuance of operator's licenses.

The second wave of regulations came in 1988 when the responsibility of controlling motorcycle taxis was transferred from the Police Department, then under the Ministry of Interior, to the Department of Land Transport, Ministry of Transport. During this time, there were continuing problems with motorcycle taxi services, particularly about the fares and safety.

There were discussions about how to manage and regulate the services, for instance, about the use of private driver's licenses and the registration of vehicles for public transport. The Motor Vehicle Act, B.E. 2522 (A.D.1979) was soon later revised with additional rules on vehicles allowed for public transport and the requirement of an operator's license for any public transport service.

In 1998, another request was submitted by the Cabinet to the Council of State to review the legality of motorcycle taxis as a type of public transport service. The general perception of the Ministry of Transport back then was that motorcycle taxis are a risky mode of transport, compared to other urban transport modes such as buses and taxis. The agencies were hesitant to acknowledge motorcycle taxis as a formal mode of public transport.



After the responsibility to regulate and control motorcycle taxis was transferred from the Police Department to the Department of Land Transport in 1988, motorcycle taxi services were supposed to be registered as a type of public transport service, for which each vehicle would receive a yellow plate. There were also regulations on the number and routes of motorcycle taxi services in Bangkok, but the request for permission to establish a motorcycle win still had to be submitted to the District Station of the Metropolitan Police Bureau.

The third wave of formalization attempts started in late 2004, as part of the national policy to eradicate “influential people” by the Thaksin Shinawatra Administration. Starting in May 2005, the government implemented a number of initiatives to formalize motorcycle taxi services. Roles and responsibilities of related agencies were somewhat clearly defined, as follows:

- The Department of Land Transport (DLT) issues the “yellow-plate” licenses for public transport operators to motorcycle taxi drivers who have already registered with the District Office of the BMA, according to the DLT Regulation on Registration of Public Motorcycle Taxis, B.E. 2548 (A.D.2005);
- Each of the 50 District Offices of the BMA is responsible for registration of motorcycle taxi operators whose wins are located in the district. It has the responsibility and authority to give permission to the operators to establish a new win, and to coordinate between relevant government agencies and motorcycle taxi operators. However, since May 2013, the BMA has transferred the responsibility of registering motorcycle taxi services to the Department of Land Transport;
- Each district office of the Metropolitan Police Bureau is responsible for enforcing traffic laws and disciplining and arresting violators, according to the Land Traffic Act, B.E.2522 (A.D.1979).



Such formalization was initiated as part of a combination of two policies implemented by the Thaksin Administration during 2004-2006. One policy was to eradicate the power of local “influential people” who benefited from Thailand’s large informal economy. The other was the asset capitalization policy, which was based on the idea proposed by the Peruvian economist Hernando De Soto that assets of the poor could be used as collateral for to secure loans from financial institutions. By formalizing motorcycle taxi services, the vests and vehicles would have monetary value which could potentially be used as collateral for bank loans.

Another round of attempts to formalize motorcycle taxis was in 2010, when the Democrat government attempted to implement several policies to improve economic livelihoods of the informal workers. Responsible state agencies, including the DLT, mobilized resources again to register motorcycle taxi vehicles and operators. The implementation of the policies did not materialize as the parliament was dissolved in 2011. Even though the subsequent government did not follow the same set of policies, the DLT and related state agencies has continued working on the formalization efforts albeit somewhat intermittently and passively.



The Costs of Operating Motorcycle Taxis

There are various capital and operating costs associated with the provision of motorcycle taxi services. To start with, prospective operators have to buy or rent a motorcycle. For the types of motorcycles they use, the cost varies from 30,000 to 80,000 baht, depending on the brand and model. But, unlike the case of passenger vans where vehicle costs are high, purchasing a motorcycle may not be the most expensive investment item in the case of motorcycle taxi operators. Most operators have their own motorcycles, which cost between 30,000 to 80,000 baht. Most operators pay for their vehicles in installments usually for a period of 24 months, depending on how much they can afford the monthly payment. After having their vehicles registered, the operators have to have the annual inspection for using the vehicles for public transport, and have to pay 300 baht for renewing the operator's license.

The next step to legally become a motorcycle taxi operator is to have the vehicle registered for public transportation, that is, one with a yellow-license plate. Then s/he has to apply for a license for operating public transportation. Both procedures are done at the Department of Land Transport.

Then s/he has to find an empty slot in an existing win. There are sometimes empty slots or available vests, as the previous operators have either left Bangkok to go back home in rural towns or have changed jobs. It is not uncommon to find somebody that the win members already know so that trustworthiness is somewhat guaranteed. While the cost of making the actual, numbered vest is as little as 250 baht or so, the cost of acquiring the right to wear the vest could be very expensive, usually even more expensive than the cost of buying a motorcycle.

There are various vest colors, the most common being orange as it was the original color used over all over the city. But several districts now require that motorcycle taxi operators wear the vests with the color that is specific to the district for law enforcement purposes. Once the win has been registered with the District Office of the BMA and have received approval from the local police station, the win leader would order the vests made for his win.



In addition to the cost of the vest itself, prospective operators have to make two additional types of payment. One is for win membership, which is equal to paying for market entry. A new operator would have to pay the win's owner to be able to use the vest that indicates win membership. S/he have to pay a joining fee, which could be used for various purposes, such as an emergency fund for win members to use or borrow from. The amount of the joining fee varies from one win to another, depending on the agreement of the win members. From our survey of 142 wins located along the BTS Skytrain lines, the joining fee varies from 400 to 6,000 baht. The mode is 4,000 baht.

The other fee is for daily operation, that is, a fee paid to the win's leader, who makes regular payments to the local "influential people." In turn, the operators would receive protection from the influential people in terms of protection of service areas against independent operators or other wins that were not under the protection.

According to the interviews with motorcycle taxi drivers in the Ladprao subcenter areas of Bangkok, the cost of entry was about 4,000 baht about 20 years ago. Each month, the operator had to pay 1,500-2,000 to the win

leader, who would in turn pass a portion of that money to the local police. It is the responsibility of the win leader to make sure the de facto operation fee is paid. If a member cannot pay, the indebted fee will be accumulated. Eventually those who refuse or cannot afford to pay will lose their win membership. If the win leader does not pay the fee to the local influential people, his win members will face various sorts of harassment and extortion. They will likely be fined for various charges, such as traffic obstruction, driving without proper licenses, etc.

As part of the formalization efforts in 2005, the Department of Land Transport issued yellow plates for motorcycle taxis that could operate legally for passenger services. But this initiative did not solve the problem of local influential people and extortion. Motorcycle taxi operators still had to pay the protection fee, in addition to the general operation fee. But the amount was reduced somewhat. According to an interview with the leader of a win in the central area of Bangkok, the monthly fees that win members had to pay were reduced from 1,500-2,500 baht per month to about 450-500 baht.



However, after the Thaksin administration was toppled by a military coup d'état in 2006, the influential people came back. There was less enforcement of the regulations on registration, and there were reportedly more “informal” unregistered black-plate motorcycle taxis in the city. This situation seems to remain in January 2014, even though the authorities have attempted to regulate the services even more strictly in the past year or so. The government's regularization efforts in the past decade have registered a large number of formal wins throughout Bangkok. In spite of that, new illegal and unregistered wins continue to be formed in every corner where there is a new development project.

We interviewed a few operators who belonged to a motorcycle taxi win in Bangkhae, a subcenter district in the middle areas of Bangkok, about the payment situation. We were told that, as of August 2013, they had to pay about 600 baht per month per vehicle to a local influential person. In this case, it was alleged that a former policeman was the influential person. This win has been in operation for more than 30 years, and has officially registered with the local BMA District Office for about 8 years. There are 82 motorcycle taxis registered with the district office

and they all have yellow plates. But an additional 70 vest numbers have been allocated to motorcycle taxi operators who are not registered with the district office. These numbers are under the protection of the said influential person. Each vest has been sold at the rate of about 50,000 baht. Those who cannot afford to buy the vest outright can also pay by installments, that is, 6,000 baht per month for 9 months. According to the operators, after the unregistered black-plate motorcycle taxis started offering services, their daily income reduced significantly from 500-1,000 baht per day to less than 500 baht per day.

Although the exact number of motorcycle taxis in Bangkok is unknown, there are as many as 110,000 motorcycle taxi operators registered to operate in Bangkok in 2010. The number does not include black-plate motorcycle taxis, which are reportedly popping up all over Bangkok. The increase could be attributed to the growing demand for feeder transport service in suburban areas where formal public transport cannot catch up with new subdivision developments, as well as in central areas near transit stations, where condominiums are being built on side streets and lanes that are often dead-end and too narrow for public buses to



operate efficiently. Meanwhile, the existing wins are hesitant to increase the number of members, as they do not want to lose the passengers and revenue to new members. Because there is no state agency that regulates the number of motorcycle taxi operators in each win, it is left to the discussion and negotiation among the existing operators whether to increase the number of members. Naturally, there is tendency not to accept more members so that the current members can enjoy the current level of ridership.

But enforcing a quota in such an informal market is a tricky and risky business, as it relies on the informal power of the

influential people. In some areas, new black-plate operators provide services with protection from the local influential people despite the opposition from the existing operators. In other areas, the local influential people themselves set up new wins to offer services nearby the existing wins, chipping away some of the demand. This is particularly the case in areas where the demand has increased significantly, such as those close to transit stations. This means the local markets for motorcycle taxi services could be quite contestable, depending on the behaviors of local influential people.



A Vest is More than Just a Vest

Motorcycle taxi drivers in Bangkok are required to wear a vest which identifies the location for their home wins where they can base their operations. The vests have a unique color and a number in the back, thus indicating the routes and areas the drivers can cover. A vest is therefore more than a vest; it is an asset

that can be bought, sold, rented, and bequeathed like other types of property such as land. A vest is a physical representation of the economic rent that could be created from the location and space of a win.





To learn more about the vests and other characteristics of the operation, we conducted a non-statistical survey by interviewing operators in motorcycle wins in various parts of Bangkok. We focus primarily on locations along the BTS transit lines, most of which are in inner areas of the city. We were able to collect data from 142 wins along the BTS lines. We also collected information for other locations in middle and outer areas of Bangkok, so that we could compare the data across locations. In addition, we conducted an online search for advertisements for sales of motorcycle taxi vests during May-June 2013. We found advertisements for selling the vests for as many as 20 wins in Bangkok.

For sure, the number is miniscule compared to the sheer number of wins in Bangkok and surrounding provinces. But the fact that there are online advertisements for motorcycle taxi vests indicates that there is indeed a secondary market for motorcycle taxi vests. The potential operators could be anyone who is willing to pay for the vests and commute to the locations of the wins where the vests belong to. A few motorcycle taxis whom we interviewed commute more than 30 kilometers from their residences to the locations where they work as motorcycle taxi operators.

The prices for motorcycle taxi vests vary across locations. There is generally a “market” rate of a vest in each win, although the prices vary slightly within a win based on the timing of the sale and rental. Most motorcycle taxi drivers are owner-operators. They are owners in the sense that they own not only the motorcycles they ride but also the vests they wear, which represent the right to operate as part of the win any time of day they wish. This arrangement allows the owners to rent out either their motorcycles or vests, or both, to temporary operators for certain times and days when they do not operate the service by themselves. There are also a small number of vest owners who never operate by themselves but just rent out the right to operate to someone else on a daily or monthly basis. These petite bourgeoisies earn the rental fee for the ownership of the vests they have either bought from previous win members or inherited from their family members.



Area	Price		Location of "win"	
	w/ registration	w/o registration	main street	side street
Inner areas				
Siam Theater		45,000		*
Thonglor	400,000		*	
Thonglor	150,000-200,000	150,000-200,000	*	*
Suthisarn	150,000-200,000		*	
Suthisarn		45,000		*
Horwang	85,000		*	
Horkarnka	50,000	50,000	*	
Horkarnka	30,000	30,000		*
Middle areas				
Bankaen	30,000	30,000	*	*
Ladprao	100,000-150,000		*	
Ladprao		70,000	*	
Ladprao		50,000		*
Outer areas				
Sapanmai	100,000		*	
Klongkud	60,000		*	
Udomdej	85,000		*	
Bangkae	50,000	50,000	*	
Pravej	37,000		*	*
Prachanivej	45,000		*	
Petchakasem		38,000		*
Romklao	30,000		*	*

Table 1: Prices of motorcycle taxi vests in various locations in Bangkok



Not all locations in the city center are equally expensive. At a win for Sukhumvit Soi 55 or Thong Lor, which is an affluent and chic area of Bangkok, a vest could cost as much as 400,000 baht. A number of suburban locations with high ridership are more expensive than other central locations with lower ridership. The vest price simply reflects the demand for feeder services in the capture area as well as the accessibility of the motorcycle taxi stands. These are micro markets for the capture areas for motorcycle taxi services, which are somewhat clearly defined by operating wins and enforced by the influential people. There is also a rent gradient at the local level, as some locations are more desirable than others, such as those that are located close to transit stations and on main streets versus those on side streets. In effect, a motorcycle taxi stand has some characteristics that are similar to a plot of land, in that it has a specific price attached to the location, albeit not so much to the size and shape of the plot.

In some cases, a motorcycle taxi operator may decide to rent out his vest instead of selling it out right. The daily rental rate is about 200-250 baht. During the periods of rice sowing and harvesting, the vest

could be rented monthly, as the vest owners may go back to their villages to work in the fields. The monthly rental fee ranges from 1,500 to 10,000 baht. From the operators' perspective, renting the vest is a normal and legitimate economic option to earn additional income when they themselves cannot operate the service. But the officials from the BMA City Law Enforcement Department and the Department of Land Transport see it differently. According to the interviews with these officers, the license to operate a motorcycle taxi is given to an individual, taking into account the qualifications and capabilities of the service operator. It is therefore not appropriate to rent out the vest and let other people provide the service, as the renter may not have adequate qualifications for the job, which could have serious safety implications for the passengers. Law enforcement is another issue, as it is more difficult to track down vest renters who have caused problems but are not officially registered with the authorities.



III. Economic Rent and Rent Seeking in the Motorcycle Taxi Business

The business of motorcycle taxi services in Bangkok can be analyzed in terms of economic rent, as the concept captures the essence of governance and corruption issues that constantly plague the services. Any serious reform of the motorcycle taxi businesses would not be successful without tackling the issues of

economic rent and rent seeking. This section briefly reviews the concepts of economic rent and rent seeking so as to lay a conceptual foundation for the subsequent analysis of the governance aspects of motorcycle taxi businesses in Bangkok.

Economic Rent and Rent Seeking

An economic rent is defined as an excess return above the normal level in a competitive market, i.e., a return that is greater than the opportunity cost of the resource owner.¹⁰ An economic rent arises because of market imperfections. If markets were perfect, competitive pressures would lower down prices to the extent that economic rents would become zero. Economic rent thus results from exclusivity in the use of factors of production, either due to natural scarcity of resources, such as land, or due to contrived scarcity induced by the resource owner's action.

The concept of rent dated back to the time of Johann Heinrich von Thünen, a German economist and landowner, who

in 1826 explored the theory of rent and how agriculture land-use patterns vary across locations. The work became the basis for the concept of von Thünen rent as a type of economic rent that is created by spatial variation or location of a resource. According to this theory, locational rent is the money a farmer gains for growing his crops on any particular piece of land, which is basically a profit from the production. Monopoly rent, on the other hand, is associated with monopolies that are created and/or enforced either by law, by custom, or sometimes by force. Classic examples of monopolies enforced by law are patents and copyrights. Guilds and professional associations also restrict the supply of artisans and certified workers so that



they can maintain the levels of income for people in such professions. Monopoly rent is created when goods or services are sold at monopoly prices in excess of their value.

In some instances, monopoly rent and land/location rent are inextricably linked. In the case of agricultural land, monopoly rent is derived from land plots on which land owners can cultivate specific and unique crops that cannot be grown elsewhere or can be grown but with lower quality. In the case of an extractive industry, such rents are generated by the existence of rare-earth elements that are in demand. Monopoly rents arise as there is demand for the specific metals that could only be produced from such locations. Because of the limited supply of such land, producers of the crops or metals can market the products at prices above the real value. As explained concisely by David Harvey: “all rent is based on the monopoly power of private owners over certain assets. Monopoly rent arises because social actors can realize an enhanced income stream over an extended time by virtue of their exclusive control over some directly or indirectly tradable item which is in some crucial respects unique and non-replicable.”¹¹

Meanwhile, rent-seeking refers to an effort to gain economic rent by manipulating social or political conditions in which economic transactions occur, without creating new wealth. The concept was originated by Gordon Tullock¹² and was later labeled and popularized by Anne Krueger.¹³ Rent-seeking is considered unproductive, as it does not create new wealth but rather just transfers wealth and resources from productive individuals and firms to rent-seekers. Using personal connections to obtain government subsidies and bailouts is a classic example. By the definition, professional guilds and associations are also rent seekers if they issue certifications and licenses that in effect limit the supply of new artisans and professional workers who could make the market more competitive. The counter-argument here is that these professional associations are protecting the creation of new wealth by guaranteeing public safety and improving the quality of products and services. Rent-seeking also refers to the efforts to capture various monopoly privileges stemming from government regulation of a market. Examples include political lobbying for state regulations and laws that enforce barriers to entry.



Public Land and Economic Rent

In principle, all public land in Thailand belongs to the general public, with the government being the guardian who controls and allocates the use of public land according to the need and desire of the citizens. This principle defines the use of public streets and sidewalks for public purposes, subject to social and economic regulations that define the scope of the term “public.” According to this principle, the ultimate owner of public space is the general public, while the government is the de jure land owner.

But in reality the de facto landowners are not necessarily the government. In Bangkok and most cities in developing countries, public streets and sidewalks are not controlled by the government. When it comes to the space used by motorcycle taxis, the de jure landowners are the national and local governments. They are in charge of controlling, regulating and maintaining the space. However, the de facto landowners are the local influential people, often the police or military men. This means any locational and monopoly rent that is generated from the production and provision of goods and services in such locations would not be captured by the

government, and hence not the general public who are the ultimate owners of the land. If the capture areas of motorcycle taxi services were mapped, we would see a decentralized and fragmented system of informal governance in the city. Each win has its own space of power as if it were governed by a warlord who can capriciously dictate the level of monopoly that the existing motorcycle taxi wins can enjoy.

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Locational and Monopoly Rents from Motorcycle Taxi Services

Monopoly is generally considered to be an inefficient and undesirable market structure than a competitive market, because the monopolist can attain maximum profit while consumers are paying overly high prices for an insufficient quantity and inferior quality. But there is a general argument for a specific case of monopoly in providing transport and other infrastructure services, that is, the case of natural monopoly. Such monopoly arises when the technology for producing a good or service allows one producer or operator to meet the entire market demand at a lower price than two or more firms could. A classic example is the rail road industry, in which one company can presumably meet the market demand for rail travel at a lower cost than two or more firms could. Other examples include public utilities such as electricity and water services where initial, capital costs are high. As such, economies of scale could be large in relation to the size of the market, hence creating high barriers to entry for other producers or service providers.

In the case of motorcycle taxi services in Bangkok, the barrier of entry should be low, as the initial capital costs are low. There are no structures to be built and no expensive technologies to be sourced. In principle, the only capital cost should be the purchase of a motorcycle, which costs around 30,000 Baht (approximately US\$ 1,000). This price is still high for the poorest of the poor, whose household income is lower than 10,000 baht per month per household. But motorcycles in Thailand are still affordable, as evidenced by the total number of motorcycles in Thailand. According to the Department of Land Transport, there are as many as 19.7 million motorcycles registered in Thailand as of September 2013, which is about 1 vehicle per 3.4 persons. Based only on this crude criterion, the barrier of entry for a motorcycle taxi market should be relatively low.



However, as described earlier, there is an entry fee that a prospective operator has to pay before being allowed to operate in a specific location. The emergence of such a fee is related to how the organization of motorcycle taxi services evolves. At the beginning, motorcycle taxi operators form a team and provide services to residents in their neighborhoods. As more operators join the wins, there are needs to self regulate for various reasons. One reason is to make sure that there will not be too many operators providing the service in the same route, lest the incumbent operators would have less income, provided that the demand and costs stay the same. For this purpose, most wins would set a quota of operators for their routes.

The quota could be adjusted according to changes in demand. In some wins, the owner or leader of the group uses his knowledge, wisdom, or gut-feeling to decide. In other wins that are more democratic and participatory, the win members deliberate and decide whether to increase the number of vests allowed to operate on the same route in case of increasing demand and ridership, or reduce it in the opposite scenario. It is normal, however, for the wins not to increase the number of operators, as this could cut into their revenue and profit.



In general, the most critical issue with setting a quota of operators in a supposedly free market is the enforcement power that prevents other potential competitors from offering the same or similar services. In formal public transport and other public services, enforcing a quota usually relies on the government's ability to maintain law and order. A classic example is setting a quota for taxi cabs in many cities around the world. In Bangkok there are no laws and regulations that specify a quota for motorcycle taxi services. Therefore, motorcycle taxi operators can only enforce their arbitrary quotas by relying on non-legal powers, specifically, the local influential people who are sometimes law enforcement officers themselves. The payment to own a vest, the initial entry fee, and the daily operating fee all contribute to the enforcement of such arbitrary quotas. The price of a vest, therefore, indicates the level of entry barrier that a new operator has to face if he wants to become part of the group. It also indicates the level of locational rent for that particular location. The

more expensive the price of vests is, the higher the locational rent is. Based on the results of a survey of motorcycle taxi services, we can say that locational rents are partially represented by the amount of fees that motorcycle taxi operators pay to their informal organizations and/or to the influential people in exchange for permission to operate in the locations.

In effect, setting an arbitrary quota of operators by existing win members is a type of monopoly rent seeking behavior. Such a rent-seeking activity is territorially enforced with the power of local influential people. However, because the local influential people do not have to be accountable to motorcycle taxi operators, their attitude can easily change. The local influential people may decide to set up another win next to the existing wins, effectively making the market contestible. They may decide in a capricious manner to support black-plate operators who do not belong to any wins as well.

The local influential people may decide to set up another win next to the existing wins, effectively making the market contestible.



The data on vest prices from the survey indicate that there is not just one single rent gradient for the whole city, as the standard Land Rent theory may suggest. A rent gradient represents the decline in rent with distance from a center. In the case of motorcycle taxis in Bangkok, each win has its own rent gradient. Locations that are close to transit stations supposedly yield higher rents, as the levels of accessibility are better than other locations further away. Nonetheless, there are a number of locations in the middle and outer parts of the city where the prices of vests are more expensive than some locations in the inner areas. This is not surprising. Many densely populated areas in the middle and outer areas of Bangkok are not covered by buses and other public transportation. Many people living in these areas cannot afford to buy automobiles or motorcycles. Many of them may be able to afford private vehicles but choose not to own one for various reasons, such as safety risks, and commuting distance that is too far for riding a motorcycle. In these areas, the demand for motorcycle taxis is high, and many operators are willing to offer services there.

So the vest prices vary across locations in the city but are not always related to the distance from the city center. Rather the level of locational rent corresponds to the level of local accessibility in each of the service locations. There is also limited competition in each of the location. Generally only one group of operators is allowed to provide services in one location, even though there are often unregistered operators who are not part of the existing group. Such monopolistic nature of the services indicates the existence of monopolistic rent that is distinct from the locational rent itself.



Unearned Increment and Value Capture

Furthermore, the locational value of a win can appreciate due to the recent construction and operation of mass rail transit in the city. Most motorcycle taxi wins near the BTS and MRT stations had already existed before the transit services started the operation in the early and mid-2000s. Back then, they were accommodating the needs of those people who ride public buses. However, as the level of transit ridership increases and urban development intensifies in areas around transit stations, the value of the motorcycle taxi win locations also appreciates. The increase in the locational rent is captured by the local influential people, as the government

does not have any mechanisms to deal with the rent seeking activities. The “informal” unearned increment is appropriated by the local influential people, not the community as a whole. Economic rents generated by transit systems are thus captured by the influential people. Because of the monopolistic nature of the service provision, coupled with the lack of value-capture mechanisms, the local influential people gain even more windfall from the development of rail transit systems. And the value keeps increasing as the transit ridership increases.

The “informal” unearned increment is therefore appropriated by the local influential people, not by the community as a whole.

The high prices for the vests would become a major obstacle for any major reform. Many operators have been willing to pay a large sum of money for the vest. Many of them took out loans from informal moneylenders, thinking that they would be able to recoup the

investment by operating the service. Even if they change their mind later on, they could still sell the vests to other people. Because the vests are already of substantial value, any reform that could potentially reduce the value of the vests would face fierce opposition.



No Skimming the Cream

One possible negative effect of informal transport that concerns transportation planners is the issue of “skimming the cream”¹⁴ This problem occurs when informal operators offer services only along lucrative routes and during profitable times, while the government has to shoulder high-cost, unprofitable routes and during off-peak times. This leaves public operators with few or no money-making routes to generate

enough income for cross-subsidization. This is arguably the case with passenger vans in Bangkok, which compete with public buses. The case of motorcycle taxis in Bangkok, however, seems to be more deficit-skimming than profit-skimming. If the government were to provide public transport services in the routes and areas that motorcycle taxis currently operate, it would likely incur substantial loss.

Civil Society and Political Organizing

Non-governmental organizations (NGOs) and civil society in Thailand are relatively active in the areas of the environment, social protection, human trafficking and health (ADB 2011). But there are very few civil society groups that focus on transport issues in general, and those working on informal transportation in particular. The existing civil society groups for transport issues are more concerned with promotion of bicycles, such as the Thai Cycling for Health Association, members of which tend to be from the middle class. To the best of our knowledge, there is no

single NGO or civil society group that tackles mobility issues faced by the poor. On the other hand, NGOs and civil society groups that work with informal workers have done relatively little work with informal transport operators. One very recent exception is the Foundation for Labor and Employment Promotion (Homenet-Thailand), which started to work on inclusive mobility issues with relatively low-income communities in the suburbs of Bangkok in 2013.



An important development in recent years is the establishment of a membership-based organization (MBO) for motorcycle taxi operators in 2010. The Motorcycle Taxi Association of Thailand currently has more than 1,000 members, albeit still very small compared to the total number of motorcycle taxi drivers in the country. According to Mr. Chalerm Changthongmadan, the President and co-founder of the Association, one key motivation behind the effort to establish the association was to increase collective, negotiation and lobbying power of the operators. After the Thaksin Shinawatra administration was toppled by a military coup d'état in 2006, several

efforts to formalize motorcycle taxi services and to clean up corruption, bribery, and extortion had stalled and the local influential people returned. A number of motorcycle taxi operators decided to form a group and set up an official association. Another reason for setting up an official association is to improve the livelihoods and welfare of the members. Because motorcycle taxi operators are informal workers, they are not eligible for a number of welfare benefits that are available to workers in registered entities. Another potential benefit of having a formal group is the access to group insurance for accidents.





The Association since then has become the node and contact point for several initiatives of government agencies, including the DLT, the BMA, and the police. The Association has also made a few news headlines in the past few years for its involvement in national politics, although its partiality has been subject to scrutiny and criticism.¹⁵ The Association's leaders have also been lobbying with politicians and policymakers in the Ministry of Transport and the Department of Land Transport to modify rules and regulations that would lead to official recognition of the services and professions. But they face ominous obstacles. According to the Association president and other members of the Association, the Association still has limited negotiation power with government agencies, not to mention influential people. Representatives of the Motorcycle Taxi Association of Thailand drivers and other operator

representatives were once included as members of the Provincial Committee for Registration of Public Motorcycle Taxis. However, the regulations were changed in 2013 and the registration function is now under the Department of Land Transport. The above committee for Bangkok now includes only government officials and no longer includes operator representatives.

Even though there is so much more for the motorcycle taxi group to increase their negotiation power, it is still more advanced than other informal transport groups. A clear contrast is passenger van operators, who may have small ad hoc gatherings once in a while, but not the extent that leads to formal organizing for collective purposes.



V. Conclusions

We have examined the market characteristics of motorcycle taxi services in Bangkok, paying particular attention to the issues of economic rent and rent-seeking in particular. We identify two sources of economic rent generated from providing motorcycle taxi services. One is the locational rent that is attributed to the level of accessibility specific to the location of a motorcycle taxi stand. The other is the monopoly rent created by rent-seeking activities by the operators' group by way of setting a quota on the number of operators in each location. The behaviors of local influential people could either enforce or erode the monopoly and thus the economic rent.

From the discussion above, a few implications arise with regards to allocative efficiency and equity. The first issue concerns unearned increment and value capture. As more mass rail transit lines are constructed and are due to be completed in Bangkok in the next few years, it is rather certain that motorcycle taxis will continue to serve as an important feeder mode for those who live and work relatively close to transit stations. The implication is that without value-capture mechanisms,

the additional economic rent created by new transit systems will continue to be unfairly captured by the operators' groups and influential people. In principle, the government has to devise and implement a mechanism to capture such an increase in economic rent. This is to create fairness based on the beneficiary-pays principle. It is therefore important that the government creates a competitive market for motorcycle taxi services, while adopting value-capture measures, so as to create a more efficient and fair feeder transport system.

The second issue regards the economic livelihoods of motorcycle taxi operators, who are squeezed by two opposite forces. On the one hand, the government wants to formalize and regulate the services. On other hand, the local influential people want to keep the services as informal as possible so as to continue reaping the economic rent. Because the motorcycle taxi drivers are legally considered as informal workers, they receive very little welfare support from the state. More consideration needs to be given to the welfare of these operators.



Policy Recommendations

There are a number of policy recommendations to be considered for improving efficiency and fairness in the motorcycle taxi market in Bangkok.

- Formal recognition of motorcycle taxis. Transport policy makers, planners, and scholars have to change their mindsets about motorcycle taxis and recognize their importance as an essential feeder service of the urban public transport system and contribution to the overall mobility of the people in Bangkok;
- Move beyond playing the role of passive regulators. Relevant state agencies should play an active role in developing and adopting the policies and plans that include ways to integrate motorcycle taxis as part of the overall system. This should happen now as the government is pursuing mass transit systems and transit-oriented urban development. Motorcycle taxis are already a key feeder system to bus and rail transit systems, and their importance is likely to increase. This means the Committee for Land Transport Policy should meet and develop the policy.
- More state involvement in economic regulations. The focus of the state's involvement in the motorcycle-taxi market has been mostly on social regulations, e.g., safety. The only economic regulation has been about fare levels. Because the markets are not natural monopoly by nature and are relatively contestable, the state should monitor the level of competition.
- Adopt ICT. More advanced information technologies (ICT) should be adopted to improve the quality of service by exploring ways to integrate motorcycle taxis with other public transport systems, and to monitor the level of service and enforce rules and regulations;
- Improve the economic livelihoods of the operators. Informal transport is not just about passenger mobility. There are a large number of operators and workers who receive limited support from the state. Enhancing their economic livelihoods and security has to be part of the policy to improve the public transport sector;
- Empower the operators. The key objective is to increase their collective bargaining power against the influential people by supporting membership-based organizations; and



- Promote inclusive urban design. This includes parking and pick-up/drop-off areas for motorcycle taxis, particularly when designing new transit stations.

Future Research

More issues remain to be explored conceptually and empirically in future research. One question is how the government can impose social regulations for public safety while implementing economic regulations that deal with a monopoly that affects public welfare. Conceptually, a solution to this problem is to create a market for each of the win locations. One possible way is to arrange for concessions either to operators' groups or any interested party, with specific performance criteria and standards. We may also need to explore the pros and cons, as well as the possibility and difficulty, of competitive tendering.

There are also a number of issues related to the secondary market for motorcycle taxi vests that deserve further inquiry. For instance, how much the potential buyers of the vests know about the win they are about to be affiliated with, specifically the market conditions of the win that affect the profitability of the vest. An empirical study on the cost structure and the potential ridership

of the services would be beneficial to the prospective operators, as well as policymakers when considering policy options for intervention.

The general strand of literature on informal urban transport deals primarily with travel-related issues, such as characteristics and determinants of travel behaviors and transport services. Another distinct, albeit small, group of literature describes economic livelihoods of transport operators. The distinction between the two bodies of knowledge is also evident in the world of practice, where transport policies and plans take very little consideration of economic livelihoods of transport operators. Arguably, the quality of life of transport operators could not and should not be separated from the services that they provide to the public. Operators and drivers who are happy with their jobs may be more likely to provide better services, other things being equal. This hypothesis will have to be tested empirically in future research



Chapter 5

Institutions: The Labyrinthine Landscape

I. Introduction

Institutional problems lie at the heart of informal mobility issues in Bangkok, or for that matter at the core of all transport problems in Thailand. Compared to technical and engineering issues, institutional and governance factors are much more complicated and difficult to resolve because they often involve existing vested interests and deep-rooted organizational cultures. But without tackling institutional issues, any ideas and initiatives to improve public transport systems and services in Bangkok, however innovative and creative they are, will achieve limited results. Because the existence of informal transport itself is attributable to the inadequacy and ineffectiveness in providing formal public transport, it would be incomplete to examine only

institutions and organizations that are directly related to informal transport. In this chapter, therefore, we focus on key institutional issues that plague the efforts to improve urban transport services in Bangkok as a whole, and wherever possible, identify how those issues affect informal transport. In the following section, we review general institutional issues that have already been identified by other studies. The discussion in the third section digs deeper into each relevant agency that is involved in public transport services in Bangkok. Our focus is on their roles and responsibilities, and the obstacles that prevent them from contributing to the improvement of public transport services in the Bangkok Metropolitan Region (BMR).



2. General Institutional Issues

The key institutional problems in the urban transport sector in Thailand are twofold. One part relates to organizational fragmentation and misalignment in the chain of policy making, planning, development, implementation, and monitoring. The other part is the legal framework that gives these organizations the authority to regulate public transport services. The general picture of the problems is relatively well known. A number of academic papers and consulting reports have already documented institutional issues that obstruct effective transport planning and implementation. One notable publication writing was a 1995 paper by Amrita Danieri on transport planning and implementation issues in Bangkok.¹ In the paper, she identified a few institutional obstacles for implementation of transport plans in Bangkok, namely, inadequate technical capacity, difficulty in land acquisition, cumbersome bidding processes, and a general lack of institutional will. We briefly review these points below.

To begin with, there was a general lack of technical capacity in the preparation and design work. Even though Thailand had somewhat adequate engineering skills for large construction projects

even 20 years ago, the public sector was not able to attract qualified professional and technical staff, due to low salaries and limited career prospects compared to the private sector and the limited capability of Thai universities to produce qualified transport engineers and planners. The problem was not solved by just hiring external consultants.

The next obstacle was that land acquisition for project implementation was difficult due to the 1987 Expropriation of Immovable Property Act. The land acquisition process could be accelerated, provided the land is urgently required for “the economic and social development or other important benefit of the state.” But this approach was used mainly by agencies that built expressways and arterial roads, such as the Expressway Authority of Thailand (EXAT), formerly known as the Expressway and Rapid Transit Authority (ETA), not the Bangkok Metropolitan Administration (BMA), which was responsible for building secondary roads. In addition, the authorities would try their best to avoid confrontation with the public and would not use the authority to expropriate the land they need.



The Daniere paper did not link the issue of land acquisition to informal transport. But we can easily relate the existence of motorcycle taxis to the inability of the government to build secondary roads. The hierarchy of road networks in Bangkok is not complete, as the government focused on building arterial roads, and private land owners or developers would build distributor roads or 'sois' (Thai translation) by themselves. This was to create direct access to arterial roads, so as to develop their plots of land. Bangkok seriously lacks secondary roads that would make the road system more connected, with an appropriate hierarchy of roads.

Unfortunately, at present, the central and local governments do not allocate enough effort and resources to build secondary roads. One key reason is the inability and reluctance to appropriate land from existing owners. Although building secondary roads is under the responsibility of the BMA, the agency has been unsuccessful in this regard. The BMA has implemented some projects that connected dead end roads, but the efforts are limited. Land readjustment may be a solution that can help to improve the hierarchical development of road networks, but it is extremely difficult to implement under the existing laws. As of 2013, only one

land readjustment project has been successful within the BMA. Without proper networks of roads, efficient formal public transport services are not feasible. This gives rise to more flexible and informal feeder systems, notably motorcycle taxis, that can manage to provide transport services relatively efficiently despite the inadequate road networks.

The third obstacle described was that mandatory bidding procedures were cumbersome, as public agencies had to estimate a ceiling bidding price for projects offered to tender. No construction bids were accepted for higher than the predetermined, and secret, ceiling price. But the predetermined figure could have been unrealistic and could have delayed the project for a long time.

A lack of institutional will among relevant agencies to comply with transport plans unless a higher authority, such as the Prime Minister, instructed them to do so, was the fourth roadblock Daniere discussed. Each agency still gave priorities to their own projects rather than those identified by some national plans and/or recommended by studies conducted by agencies outside their own. Many agencies were involved in transport planning and development in



Bangkok, and each one of them had its own objectives and approaches due to organizational missions and cultures. There were no incentives for the agencies to coordinate and work together.

Daniere also added political barriers and the role of the ruling elite as another set of factors that would determine the future of transport infrastructure in Bangkok. Her argument was that many Thai elite supported laws or policies which facilitated economic growth with little consideration of the negative impacts on the environment and the lives of the urban masses. In the transport sector, the Thai politicians appeared to have little concern for societal well-being and the quality of life of the general public. A case in point was that the legislature often prioritized laws and regulations that aimed to improve the prestige, power, and wealth of the ruling class, but not the ones that would quickly and inexpensively improve bus services. Low level of citizen participation in any type of politics was cited as one reason for the attitude and action of the ruling class.

It is strikingly ironic and sad that most of the points raised in the paper remain true to this day despite that it has been almost 20 years since publication and a

number of reforms have been initiated. Even though her analysis focused primarily on transport infrastructure development, it is also applicable to public transport service delivery. In the past two decades, there have been a few organizational reforms in the transport sector, focusing on agencies that are responsible for infrastructure planning and development. But the reforms have had little impact on the performance of public transport agencies, particularly those that are responsible for operating and regulating the services.

Similar issues have been discussed in various other reports. The most recent one was published by the World Bank in 2007.² The report identifies mode-specific issues for strategic transport planning and development in Bangkok, focusing on two key public transport modes, namely mass rail transit and buses. With regards to mass rail transit systems, the report pays particular attention to the development and integration of technical, engineering, and services aspects of the transport system, but less on institutional and organizational issues of the rail transit systems. As for the bus system, the report emphasizes that the city needs to reform and modernize the whole bus sector. Substantial institutional change



is direly needed. One strategic, institutional direction is to separate policy, regulatory, sector management and operational activities in the bus sector.

In general, the World Bank report advocates a more appropriate distribution of transport responsibilities between levels of government and between government and the private sector. It argues that the direct involvement of the national government in Bangkok transport should reduce over time. Another key issue is the separation of policy and management functions of public transport operations. It is recommended that operations be provided on a contractual basis. In terms of transport organizations, the report suggests a drastic reform by consolidating the management of public transport under a single authority. Such an organization would lead to better integration of development and management functions of public transport services, as it will be held accountable for the sound functioning of the public transport system. In order to ensure accountability, there needs to be a clear policy framework, performance standards and requirements, and monitoring and reporting mechanisms.

We think that the system and institutional analyses in the World Bank report are sound and solid, and we agree with most of the policy recommendations. However, the report obviously lacks a discussion of informal transport services. As we have argued throughout this report, discussion and recommendations of urban transport systems in Bangkok cannot be complete without consideration of informal transport modes, especially passenger vans and motorcycle taxis.



II. Organizational Structure before and after Reform

Currently, there is no single agency that is accountable and equipped with resources and capacity for effective delivery of public transport services in the BMR that meets the needs of the society in general, and the poor and vulnerable populations in particular. The existing institutional and organizational arrangements are the result of historical development that has been gradual, piecemeal, and highly centralized. In this section, we outline organization-specific issues that prevent the transport agencies from improving public transport services in Bangkok.

The first issue is with the organizational structure of state agencies involving in policymaking, planning, implementation, and regulating transport infrastructure and services in the BMR. The key problem here is significant organizational misalignment, which was already identified by Amrita Daniere in 1995.³ Table 1 shows a list of transport-related agencies for the BMR in 1995, including the minister to which the agencies report and the agencies' responsibilities. Several problems arose from the organizational structure. Many agencies that must work together report to different ministers. For example,

the Department of Highways (DOH), which reported to the then Minister of Transport and Communications, had their own budget and plan of highway development that are not necessarily consistent with the land use plan prepared by the Department of Town and Country Planning, which reported to the Minister of Interior.

In addition, due to the fragmented organizational structure, inter-organizational competition was widespread, particularly competition for capital-intensive projects. For example, the DOH, which reported to the Minister of Transport and Communications, and the Expressway and Rapid Transit Authority (ETA), which reported to the Minister of Interior, aggressively competed to build major highways in some heavy-traffic corridors, resulting in the waste of resources. One of the main reasons for the inter-organizational overlapping responsibilities, competition, and oversights is the fact that there is no overarching plan which requires every agency to act in a concerted manner. It should be noted that there was no competition in other areas of responsibility with little capital requirement, such as planning initiatives



and regulatory improvement of public transport services. The standard explanation is that there is much more money for the politicians and policymakers to corrupt for in capital-intensive infrastructure project.

Agency or committee abbreviation	Agency or committee	Reports to	Responsibilities
BMA	Bangkok Metropolitan Authority	Minister of Interior	The local government of Bangkok. The sub-committees listed below have the specific responsibilities: <ul style="list-style-type: none"> City Planning Division prepares land-use plans including transportation networks for BMA area. Public Works Department plans, designs, builds, and maintain roads in the BMA area. Traffic Engineering Division designs and implements traffic engineering schemes and minor road improvements in the BMA area.
BMTA	Bangkok Mass Transit Authority	Minister of Transport and Communications	State enterprise responsible for operating bus services in greater Bangkok, including Nonthaburi, Samut Prakan and Pathumthani.
DOH	Department of Highways	Minister of Transport and Communications	Planning, design, construction, and maintenance of major highways in Thailand
DLT	Department of Land Transport	Minister of Transport and Communications	Regulation of bus, informal transport, and truck operations. Motor vehicle registration.
DPW	Department of Public Works	Minister of Interior	Planning, design, construction, and maintenance of major bridges across the Chaopraya River
DTCP	Department of Town and Country Planning	Minister of Interior	Preparation of land-use plans, including transport networks of all cities in Thailand
ETA	Expressway and Rapid Transit Authority	Minister of Interior	State enterprise responsible for planning, constructing, and operating expressways (as toll roads) and rail mass transit in Thailand
HD	Harbor Department	Minister of Transport and Communications	Planning and regulation of inland waterways and coastal transportation, including ferry services
OCMRT	Office of the Committee for the Management of Road Traffic	Minister of Interior	Prepares traffic analysis, traffic policies, and traffic management schemes for cities in Thailand



SRT	State Railway of Thailand	Minister of Transport and Communications	State enterprise responsible for planning, building, and operating the national railway
TPD	Traffic Police Division	Minister of Interior	Enforcement of traffic law and regulations
BMRDC	Bangkok Metropolitan Region Development Committee	Cabinet	Powerful advisory committee on issues affecting the development of the Bangkok Metropolitan Region
CCCERC	Committee to Consider Construction of Elevated Roads Over Canals	Cabinet	Investigation of possibilities of building elevated roads over canals
CMRT	Committee for the Management of Road Traffic	Cabinet	Establishment of transportation policies to promote safe and efficient movement of vehicles and pedestrians; preparation of transportation plan for the operation and coordination of projects approved by related government agencies; initiation of traffic-improvement measures
LTPC	Land Transport Policy Committee	Cabinet	Formulation of land transport policies
CLTCB	Central Land Transport Control Board	Cabinet	Controls the numbers of public transportation operators and vehicles in the BMA area and between provinces; fixes bus routes; sets transportation charges; regulation of transportation stations; vehicle registrations

Source: Daniere (1995)

Table 1 Organizations for Transport Planning and Implementation in Bangkok in 1995



Post Reform

In 2002, under Thaksin Shinawatra's administration, the Thai government underwent major organizational reforms, which included reorganization of the myriads of transport agencies, as outlined by Daniere. As shown in Table 2, the reforms transferred all transport infrastructure-related agencies or divisions of agencies from other ministries to the Ministry of Transport, the new name of the former Ministry of Transport and Communications. All telecommunication-related departments under the previously named Ministry of Transport and Communications were transferred to the new Ministry of Information and Communication Technology. Most prominently, road building divisions under the Ministry of Interior, including those under the Department of Public Works and the Office of Accelerated Rural Development were transferred to the newly created Department of Rural Roads under the Ministry of Transport. The Expressway and Rapid Transit Authority (ETA) was split into the Expressway Authority of Thailand (EXAT) and the Mass Rapid Transit Authority of Thailand (MRTA), and transferred to the Ministry of Transport. The Office of the Committee for the Management of Road Traffic (OCMRT) was renamed the Office of Transport and

Traffic Policy and Planning (OTP). The OTP's responsibilities were extended to include all modes of transport, and the office was transferred from the Office of the Prime Minister to the Ministry of Transport.

Despite the major reorganizations of several transport-related agencies, little was done to shake up the organizations that were responsible for public transport services. The scope of responsibilities of the Department of Land Transport (DLT), the Central Land Transport Control Board (CLTCB), and the Bangkok Mass Transit Authority (BMTA) all remained largely unchanged after the reforms. With the newly created OTP, the Land Transport Policy Committee (LTPC) that was created by the Land Transport Act B.E. 2522 (A.D. 1979) became irrelevant. The OTP is responsible for preparing an integrated transport plan, including rail and bus transit route planning, which must be followed by other agencies. But the OTP has no real control over these other agencies, because each agency also has their own plans and priorities. They also must have their budget approved by the cabinet and the parliament independently. As a result, although the OTP conducted several studies about



bus route rationalization and proposed several plans to improve bus services in Bangkok, the BMTA has been unwilling or unable to implement those plans. The reasons include the lack of budget, and possibly the lack of institutional will.

Another major institutional issue is the policy to decentralize transport-related functions from central government agencies to local governments. Even though the policy has been on the national agenda since 1999, little progress has been made. According to the Act on Plans and Process of Decentralization to Local Government B.E. 2542 (A.D. 1999), transport-related responsibilities, including infrastructure maintenance, public transport management, and road traffic control, must be transferred to the Provincial Administration Organizations. However, in the case of the Bangkok Metropolitan Administration (BMA), only road infrastructure maintenance work was decentralized from the national government. Public transport operations and regulations remain the responsibilities of the DLT, the BMTA, and the MRTA, all of which are central government agencies. Road traffic remains under the control of the Traffic Police Division of the Metropolitan Police Bureau under the central government. As noted in earlier chapters, passenger vans are controlled by the DLT and the

BMTA. Likewise, the registration function of motorcycle taxis in Bangkok is now under the DLT, after such a function was transferred from the BMA in 2013. Also, the Bangkok Mass Transit System Public Company Limited (BTSC), which runs the largest network of urban rail in Bangkok, is a concessionaire under the BMA. With the complex organizational structure, it is easy to understand why there is no common fare system in any public transport services in the BMR and why a series of initiatives to improve the services, particularly those of non-rail modes, have been futile.



Agency or committee abbreviation	Agency or committee	Reports to	Responsibilities
BMA	Bangkok Metropolitan Administration <ul style="list-style-type: none"> - Department of City Planning - Public Works Department - Traffic and Transport Department - BTSC - Krungthep Thanakom Co., Ltd. 	Minister of Interior	<ul style="list-style-type: none"> • Department of City Planning prepares land-use plans including transport networks for BMA area. • Public Works Department plans, designs, builds, and maintain roads in the BMA area. • Traffic and Transport Department designs and implements traffic engineering schemes and minor road improvements in the BMA area. BTSC operates urban rail transit services under concession from BMA. • Krungthep Thanakom Co., Ltd., business arm of the BMA, operates the Bus Rapid Transit and BTS extension.
BMTA	Bangkok Mass Transit Authority	Minister of Transport	State enterprise responsible for operating bus services in Greater Bangkok, including Nonthaburi, Samut Prakan and Pathumthani. BMTA, as the solely licensed fixed-route bus operator, also oversees private joint-service buses and passenger vans.
DOH	Department of Highways	Minister of Transport	Planning, design, construction, and maintenance of major highways in Thailand
DLT	Department of Land Transport	Minister of Transport	Regulation of bus, informal transport, and truck operations. Motor vehicle registration.
DRR	Department of Rural Roads	Minister of Transport	Planning, design, construction, and maintenance of major bridges across the Chaopraya River
DPW	Department of Public Works and Town and Country Planning	Minister of Interior	Preparation of land-use plans, including transport networks of all cities in Thailand
EXAT	Expressway Authority of Thailand	Minister of Transport	State enterprise responsible for planning, constructing, and operating expressways (as toll roads) in Thailand
HD	Harbor Department	Minister of Transport	Planning and regulation of inland waterways and coastal transport, including ferry services
OTP	Office of Transport and Traffic Policy and Planning	Minister of Transport	Prepares transport policies, infrastructure planning, transport and traffic analysis, and traffic management schemes for cities in Thailand
SRT	State Railway of Thailand	Minister of Transport	State enterprise responsible for planning, building, and operating the national railway
RTP	Royal Thai Police: Metropolitan Police Bureau's Traffic Police Division	Prime Minister	Enforcement of traffic law and regulations in Bangkok Metropolitan Region



MRTA	Mass Rapid Transit Authority of Thailand	Minister of Transport	State enterprise responsible for planning, constructing, and operating rail mass transit in Thailand
CMRT	Committee for the Management of Road Traffic	Cabinet	Establishment of transport policies to promote safe and efficient movement of vehicles and pedestrians; preparation of transport plan for the operation and coordination of projects approved by related government agencies; initiation of traffic-improvement measures
LTPC	Land Transport Policy Committee	Cabinet	Formulation of land transport policies
CLTCB	Central Land Transport Control Board	Cabinet	Controls the numbers of public transportation operators and vehicles in the BMA area and between provinces; fixes bus routes; sets transportation charges; regulation of transportation stations; vehicle registrations

Table 2 Organizations for Transport Planning and Implementation in Bangkok in 2013



III. Planning and Regulatory Issues

Another key institutional issue relating to informal transport is concerned with the disjointed roles and responsibilities across various agencies in term of planning, operating, and regulating public transport in general and informal transport in particular. Tables 3 through 5 summarize the roles of different government agencies in planning, operating and regulating various modes of public transport in the BMR. The OTP is the main planning authority of all public transport modes, but it is active only in formal modes, including buses, bus rapid transit (BRT), and rail systems. The OTP's roles in planning of informal modes, including motorcycle taxis, passenger vans, songtaew, and silorlek, are virtually non-existent. These informal modes are not considered part of the publicly provided services, and private operators are free to do as they wish as long as there are no conflicts with the publicly-provided services. However, excessive competition amongst different private operators and between private and public operators caused the government to intervene and impose regulations on them. In most cases, these responsibilities usually fall on the DLT, since it is their duty under the Land Transport Act B.E. 2522 (A.D. 1979) to

regulate all road-based public transport operations.

The regulatory framework established by the Land Transport Act B.E. 2522 (A.D. 1979) is very rigid, and the details of regulations must be approved by the highly centralized and bureaucratic Land Transport Control Board (LTCB). Since the DLT has limited financial and human resources, they are unable to enforce the regulations by themselves. Hence, some regulatory enforcement power has been delegated to other agencies. For example, the BMTA enforces regulations on passenger vans through joint-service contracts, as already discussed in length in Chapter 2. Another example is the BMA's registration of motorcycle taxis before 2013. In both cases, the BMTA and the BMA can control only the operators that are officially registered with the DLT as public transport vehicles with yellow license plates, but not operators who use vehicles that registered as private vehicle with black license plates. Although these unregistered informal operators are illegal, they can be charged and fined by the Police, but not by the DLT nor the BMTA. However, if officially registered informal operators



violate certain regulations, however minor, they can be fined by all three agencies. This arrangement of regulatory agencies creates unfair disadvantage to informal operators who are officially registered, as well as bribery opportunities for corrupt officials.

Mode	Planning		
	systems	routes/stops	levels of services
Bus			
Central gov't.	OTP (only main bus routes)	OTP	OTP
		DLT (secondary <i>songtaew's</i> and <i>silorlek's</i>)	DLT
Local gov't		BMA (approval of bus stops)	X
BRT			
Central	OTP	OTP	OTP
Local gov't	BMA	BMA	BMA
Rail			
Central gov't	OTP	OTP	OTP
Local gov't	x	BMA (up until circa 2000)	BMA (up until circa 2000)
Passenger vans	x	x	X
Motorcycle taxis	x	x	X
taxis/<i>tuk tuks</i>	x	x	X

Table 3 Roles of transport-related agencies in the BMR – policy and planning



	Operation	public	private
Bus			
Central gov't.		BMTA x -	X Private co-operators of BMTA Private licensees
Local gov't			
BRT			
Central Local gov't	BRT	KT (BMA subsidiary functions as the concession granter)	BTSC (hired operator)
Rail			
Central gov't	SRT (national & suburban rail) SRT (airport rail link) MRT	SRT SRT subsidiary	
Local gov't	BTS initial system extension	x x KT (BMA subsidiary for extension to the initial system)	BMCL (private concessionaire) BTSC (private concessionaire) BTSC (hired operator)
Passenger vans			
	Registered vans ("yellow plates")	x	Private co-operators of BMTA (individual, private operators (associated with influential people)
	non-registered vans ("black plates")	x	
Motorcycle taxis			
	Registered motorcycle taxis	x	private (individual)
	Non-registered motorcycle taxis	x	private (individual, renters, hired)
taxis/tuk tuks			
	Registered taxis (yellow plates)	x	private (drivers w/o vehicles, owner-operators)
	Non-registered taxis (black plates)	x	private (individual, renters, hired)

Table 4 Roles of transport-related agencies in the
BMR – Operation



	Fare (de facto)	Fare (de facto)	Level of service (de jure)	Level of service (de jure)	Level of service de facto	Level of service de facto
Bus			Vehicle standards	Operation hours/ frequency/ route	Vehicle standards	Operation hours/ frequency/ route
Central gov't.	DLT	cabinet	DLT (transport law)	DLT (transport law)	BMTA	BMTA
	DLT	BMTA	DLT (transport law)	DLT	BMTA	BMTA
	DLT	x	DLT (transport law)	DLT	DLT	DLT
Local gov't	x	x	x			
BRT						
Central	BMA	BMA	DLT	BMA	BMA	BMA
Local gov't						
Rail						
Central gov't	x (self by board, with cabinet approval)	cabinet	x	x	self	Self
	x (self by board, with cabinet approval)	cabinet	x	x	self	Self
	x (self by board, with cabinet approval)	contracts	x	x	self	Contract
Local gov't	BMA (under contract, with negotiation)	contracts	x	x	self	Contract
Van						
Registered vans	DLT	BMTA	DLT (transport law)	DLT	BMTA	BMTA
non-registered vans	x	market/mafia	DLT (vehicle law)	market	self/mafia	self/mafia
Motorcycle taxis						
Registered motorcycle taxis	DLT	market/mafia	DLT	BMA (ceiling)	x	District (office)
Non-registered motorcycle taxis	x	x	DLT (vehicle law)	x	self/mafia	self/mafia
taxis/tuk tuks						
Registered taxis (yellow plates)	DLT	cabinet	DLT (transport law)	DLT		
Non-registered taxis (black plates)	x	x	DLT (vehicle law)	x	self/mafia	self/mafia

Table 5 Roles of transport-related agencies in the BMR – Regulation



Another problem is that many state agencies that have the legal mandate to act as regulators do not function as such. Instead, there are de facto regulators who have the actual power to govern a certain public transport market. And in the case of informal transport services,

the de facto regulators are often the mafia. In the following sections, we discuss institutional issues specific to the key state agencies that are supposedly involved in governing the public transport markets in Bangkok.



Office of Transport and Traffic Planning and Policy (OTP)

The OTP is the planning agency of the central government's Ministry of Transport. It has an extensive legal power that covers not only policy and planning functions at the national level, but also at the local level, specifically the BMR. From our extensive review of the OTP official policies and plans in the past ten years, we cannot find any specific policies and programs that consider informal transport to be part of the BMR urban transport system. No OTP policies and plans ever explicitly mention passenger vans and motorcycle taxis, let alone other minor modes, such as songtaews and silorleks. Even when there is reference to passenger van services, it is usually about making sure the routes and operations are enforced according to the DLT regulations. As such, we can categorically conclude that there is no clear official policy about informal transport in the BMR. This is so because the OTP considers passenger vans to be under the authority of the DLT and the BMTA, while motorcycle taxis are under the DLT and the BMA.

It is also evident that the main concern of the OTP policies and programs has always been capital-intensive

infrastructure development. While the OTP's focus had been on road infrastructure, they have, over the past decade, become more interested in developing rail mass transit systems. But little attention and resources are given to service planning and improving the transport governance systems, indicating a general lack of clear policy objectives in this regard. An explanation for this unbalanced prioritization on the part of the OTP is that there is no clear assignment and delineation of responsibilities among the key agencies, namely the OTP, the DLT, the BMTA, and the BMA. The tasks to plan and implement new transport services to serve new communities are not well defined and assigned to specific agencies.

One of the key objectives of establishing the OTP in 2002 was to streamline the once disparate policy and planning functions in the transport sector, so that there are master plans that integrate all key components of transport systems. As a result, the OTP has produced a number of master plans for urban transport systems in



Thailand, including the Urban Rail Transit Master Plan (M-MAP) for the BMR. However, the OTP does not have commanding authority over other transport agencies to ensure that the plans are followed and adhered to. Other transport agencies consider themselves as equals with the OTP and often have their own priorities for implementation, not in line with the OTP.

In addition, there is no integrated capital investment program that supports an integrated plan. Each agency applies for their own budget, to be used for its own priorities, so they do not follow the master plan developed by the OTP. Since the OTP does not have full control over the budget, there may be no implementation of the policies and plans that they have spent time and money

in developing. A recent example is the Airport Rail Link, owned and operated by the State Railway of Thailand (SRT). The problem here is that the access roads to the rail stations are under other agencies, including the EXAT, the BMA, and the DOH. But these agencies do not cooperate well with one another, resulting in a lack of access roads to the stations even long after the system opened in 2010. There are no plans to provide feeder services to the Airport Rail Link stations either, which are under the responsibility of the BMTA and the DLT. It is clear that institutional fragmentation remains the key problem for implementation of an integrated public transport system in Bangkok.



Department of Land Transport (DLT)

The DLT is a department under the Ministry of Transport that is responsible for regulating road-based transport, including vehicle registration and transport operations. According to the Land Transport Act B.E. 2522 (A.D. 1979), the DLT is the secretariat of the Land Transport Policy Committee (LTPC), which is responsible for formulating road-based land transport policy, including the planning of public bus services. In practice, the LTPC has not exercised this power and when the OTP was established in 2002, the LTPC effectively ceased to function altogether.

The task of planning road-based public transport services is still considered under the responsibility of the DLT. But there is currently no mechanism and responsible organization that anticipates and responds quickly to growing demand for planning and implementing public transport services. Currently, it is a reactive approach. In Bangkok, residents file complaints or request to the BMTA to provide services in needed areas. The BMTA then considers the request primarily based on whether they have sufficient resources to provide the service, and if so, files for approval of route modifications to serve the new areas from the LTCB. This process

takes a long time. And in many cases, the proposed new services are not approved because of fierce lobbying by existing private BMTA joint-service operators, including van operators, who stand to lose passengers to the new services.

In provinces outside of Bangkok, residents in newly developed areas have to complain or make requests to their local DLT offices to open new routes. The DLT then calls for proposals from private transport operators to request licenses to operate in new routes. In many areas where the demand is predictably low and there is no guarantee for financial viability, no operators will request the license, and the services will not be provided. Another channel is for entrepreneurs that see business opportunities to offer services in new routes. They will request operating licenses from the DLT. The problem is that sometimes when there is overlapping with existing routes, even partially, the DLT will be reluctant to grant the licenses as they fear this could create conflicts and problems with the existing licensees. To make matter worse, the DLT does not have financial instruments to carry out service planning and implementation.



So they have little incentive to become more pro-active in terms of preparing new routes that respond to increasing travel demand.

Currently, under the Land Transport Act B.E. 2522 (A.D. 1979), the DLT's main mission is the regulation of all fixed-route, road-based public transport operations in Thailand. This legal authority covers informal transport services, including passenger vans and motorcycle taxis. However, the DLT has delegated some of the regulatory functions to other agencies. For passenger vans, the BMTA is now the de facto regulator. For motorcycle taxis, the responsibility of operator registration was under the BMA and the local police station for a long while until 2013.

The regulatory approach of the DLT is generally more punitive and reactive than supportive and proactive. Regulations on passenger vans and motorcycle taxis usually come only after there have been problems and complaints about the services. The primary objective of the DLT's regulations seems to be to prevent destructive competition among operators, while the quality of public transport service seems to be a secondary objective. The focus on this aspect of regulation may be explained by the fact that historically DLT officials were

transferred from the Ministry of Interior and their educational background is in political science. Political jurisdiction has always been the main basis for defining geographical areas for regulating bus routes, regardless of the actual demand patterns, as well as road and other transport networks. There is little sense of transport geography and networks in their decision making. This is perhaps due to the history of the organization, which is in line with the general Thai governmental bureaucracy; the reason d'être of government agencies is to "govern" the citizens and the private sector so that they do no harm to the society. Not yet have the DLT and other transport agencies moved from the old paradigm of public administration to a newer model of pro-active partnerships and collaboration with the private sector and the civil society.



Bangkok Mass Transit Authority (BMTA)

The BMTA was established in 1976 as a state enterprise that provided bus services in the BMR, including Bangkok and the five neighboring provinces of Nontaburi, Pathumthani, Nakorn Pathom, Samut Prakarn, and Samut Sakorn. Its establishment was ill conceived, with the objective to salvage bankrupt private operators. It had paltry resources right from the beginning, including old vehicles and huge debt that were transferred from the bankrupt operators. Unlike other transport-related state enterprises, such as the EXAT and the MRTA, which were established by National Acts that were passed by the Parliament, BMTA was founded by the Royal Decree, a lower hierarchy law. This means that the BMTA can be easily dissolved with only the approval of the cabinet. Therefore, the BMTA has always been considered a second-class state enterprise, lacking in prestige compared to the rail agencies, such as the modern-looking MRTA or even the debt-ridden but land-rich SRT.

The Royal Decree that established the BMTA does not grant it an exclusive right to run public buses in the BMR. Rather, its bus operations are subject to be licensed and regulated by the DLT. In 1983, the cabinet passed a resolution to

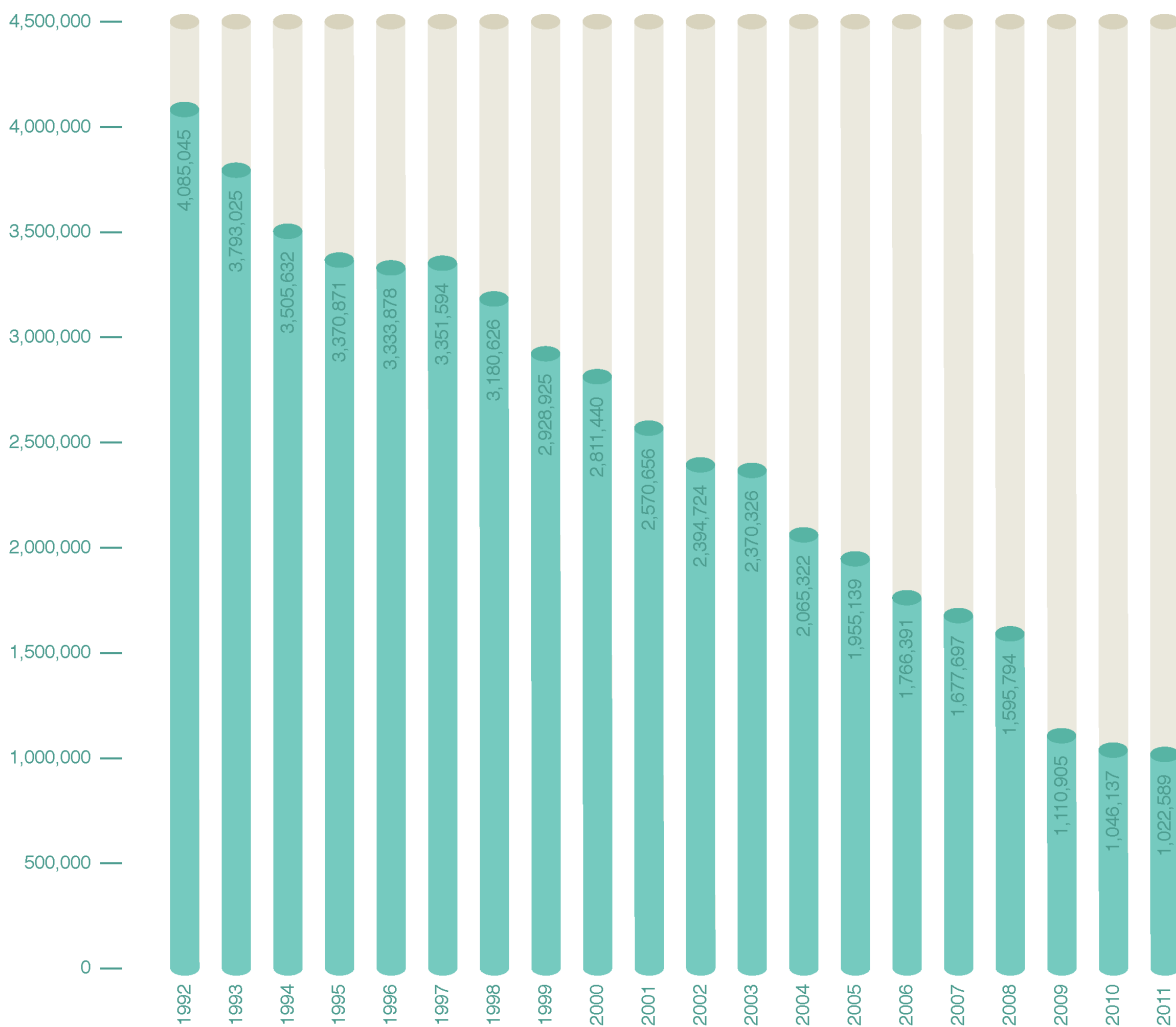
grant the BMTA the sole operating license in the BMR. However, with insufficient resources to provide services that cover the area under this jurisdiction, the BMTA had to allow for private operators to provide joint services in a number of routes. Joint-service operators may be a short term solution, but have long term implications. They have since become powerful vested interests that obstruct any reform in bus operations, such as route rationalization, fare collection and integration. Even though on paper the licenses to operate are good for seven years, the markets are not contestible enough for potential competitors, and the same operators continue to get their joint-service contract renewed for decades.

But this does not mean that joint-service private operators are fully satisfied with the current regulatory regime either, as they are under strict fare control by the LTCB. The regulated fare usually does not reflect operating costs. In fact, the fare negotiation process is highly political. The permanent secretary of the Ministry of Transport chairs the LTCB, and the Secretary is often instructed by the Minister to limit the fare increase as much as possible, since it might affect the popularity of the government.



The private operators do not receive any financial support from the government despite the fare control. To increase their negotiation power against the government, the private bus operators have formed an association to continually negotiate for fare increases. But more often than not the association fails to

do so, in spite of the ever increasing operating costs. As a consequence, their services tend to be of poor quality. The vehicles are old and under maintained, and the drivers are not well behaved and drive recklessly as they have to make rounds to make money.



The Average Daily Bus Ridership (Source: BMTA 2011 Annual Report)



To make matters worse, the BMTA bus routes are outdated, and do not reflect changing demand. Consequently the ridership of BMTA has continued to decline for decades. The BMTA has very little room to modify services by itself for two main reasons. First, it has no authority; everything has to go through the LTCB. The BMTA doesn't have the final say to route and service planning, while the LTCB tends to be

slow in responding to changing needs and is subject to pressure by vested interest groups, such as the joint-service operators and the labor union. Second, the BMTA is debt-ridden and has no financial and human resources to prepare a new service plan. More importantly, even if there were a plan, they don't have adequate resources to carry it out.

Bangkok Metropolitan Administration (BMA)

Another key actor in the myriad of transport institutions in Bangkok is the BMA. The BMA is the local government authority of Bangkok with jurisdiction over Bangkok only – the five neighboring provinces are not under the jurisdiction of the BMA. The local government has a limited and indirect role in planning and delivery of public transport services in Bangkok, mainly because of its limited jurisdiction. Regional transport planning is the responsibility of the OTP, which hires private consultants to run regional transport modeling that is used to

prepare the regional transport plan. The BMTA is responsible for operating public buses in the BMR. There have been a series of talks and negotiations between the BMA and the central government about transferring the BMTA to the BMA, but the two authorities have been unable to strike the deal thus far. This is primarily because of the BMTA's insurmountable debt, which the central government insists on transferring to the BMA as part of the deal.



Currently, the BMA directly controls two public transport systems: the Bangkok Transit System (BTS) and the Bangkok Bus Rapid Transit (BRT). In the case of the BTS, the BMA granted a 30-year concession to the Bangkok Mass Transit System Company Limited (BTSC), a private company, to run the BTS sky train in Bangkok. The concession deal was struck in 1992, before the establishment of the central government's MRTA. Since the BTS deal, however, the role of the BMA in public transit development has been greatly restricted. Planning of, and investment in, new transit lines and extensions are now handled almost entirely by the central government's OTP and the MRTA. For example, in 2000, the MRTA awarded a concession of Bangkok subway to a different private operator, the Bangkok Metro Company Limited (BMCL). The extension of the BTS to the neighboring provinces is also the responsibility of the MRTA because of the BMA's limited jurisdiction.

As for the BRT the BMA planned, built, and directly controls the transit system. The BRT was open in 2010 and currently carries approximately 20,000 passengers per day. The BMA hired the BTSC to operate the BRT system, and for this reason the fare payment systems of the BTS and the BRT are fully compatible. The BMA also built transfer

facilities that effectively integrate the BTS and the BRT interchange stations. It should be noted that the fare payment and transfer facilities between the BTS sky trains and the MRT subway are not nearly as convenient as those between BTS and BRT, despite a long-drawn effort by the OTP to broker system integration. This delay is less attributed to technical difficulty than institutional fragmentation and limited inter-agency co-operation.

The BMA has an indirect role in public bus services. The Governor of Bangkok sits on the LTCB, which regulates bus routes, stops, and fares. The governor has one vote in the board of 12 members, most of whom are heads of central government agencies, such as the Permanent Secretary of the Ministry of Interior, the Police Commander-in-Chief, the Director of Department of Highways, etc. The BMA is also responsible for constructing and maintaining stops for the BMTA buses and bus passenger facilities. But the two agencies do not always cooperate. For example, bus information provided at bus stops is usually unreliable. The OTP attempted to intervene and conducted a pilot project that provided real-time passenger information at bus stops in 2010, but the project never took off in full scale. There were several technical difficulties, but



one key issue was related to the lack of inter-agency co-operation between the BMA and the BMTA.

As for informal transport, the BMA, through its District Offices, had long been the key agency in registering motorcycle taxi wins and operators until 2013 when the responsibility was transferred to the DLT. While the transfer was considered a part of an effort to streamline regulatory functions into one agency, political dynamics could have been a reason as well. The BMA has long been a political stronghold of the Democrat Party, the current opposition party. But the DLT is under the central government, which is controlled by the Pheu Thai Party, the current incarnation of the Thai Rak Thai Party and the People's Power Party, originally founded by former Prime Minister Thaksin Shinawatra. It has been widely reported that a large number of motorcycle taxi operators support the Pheu Thai Party, and they have been lobbying for better support from the central government.⁵ With the transfer of registration function to the DLT, the involvement of the BMA in motorcycle taxi services is limited to enforcing the regulations on the use of sidewalks. The BMA is legally responsible for the maintenance of sidewalks, pavements, and local roads within the BMA. While the use of sidewalks is controlled by the

BMA City Law Enforcement Department, but the traffic control on BMA's roads is controlled by the traffic police. So, if the actual win stops are located on the sidewalks, they are subject to the BMA authority. But once they are on the roads, they are subject to the authority of the police. The complex set of regulations on such a small space makes the lives of motorcycle taxi operators susceptible to random extortion and manipulation by corrupt public officials and the mafia.



Traffic Police Division (TPD)

Another state agency that plays a prominent role in the labyrinthine landscape of transport regulations in Bangkok is the TPD. The agency is a command unit of the Metropolitan Police Bureau, which belongs to the Royal Thai Police (RTP), the national police force. The TPD enforces traffic law and controls traffic management on all Bangkok streets and roads, including curbside parking enforcement. This is so despite the fact that the BMA is responsible for the road infrastructure, including pavement maintenance, traffic signs and markings, traffic lights, and curbside parking regulations. The two agencies report to different ministers, the BMA to the Minister of Interior and the RTP to the Prime Minister. Each must communicate through long lines of hierarchical command, so they do not work well together. As an example, the BMA's administrative districts are quite different from the RTP's command districts. There have been several instances where the BMA installs a set of traffic lights at an intersection without notifying the police, who are unable to operate them manually, and so they hang a paper sign to notify motorists that the traffic light is not enforced.

The TPD wields enormous power – they can enforce all kinds of law, including traffic law, parking regulations, motor vehicle law, and land transport law. Therefore, the TPD is much more powerful than the DLT and the BMA when it comes to regulating public transport services and particularly informal transport. It is well known that for passenger vans and motorcycle taxi operators to be left at peace, they have to make payments to the win owner, who in turn makes due payment to the police station where the win belongs. Failure to do so may lead to stricter enforcement of traffic or other laws, which means that the informal operators risk facing huge fines. Therefore, any institutional reform would certainly face an uphill battle against the corrupt officials who stand to lose their current benefits.



IV. Conclusions

In this chapter, we have discussed institutional issues that have implications for informal mobility in Bangkok. Recognizing that the existence and emergence of informal transport is often caused by inadequacy and ineffectiveness in providing formal public transport, we have focused on key institutional issues that undermine the efforts to improve urban transport services as a whole, and wherever possible, identify how those issues affect informal transport.

We find that several institutional problems raised by previous research and consulting reports have not been resolved in the past decades despite a number of organizational reforms. Inadequate technical capacity and difficulty in land acquisition remain the key obstacles to the efforts to improve the overall public transport system. Institutional fragmentation and a lack of inter-agency co-operation are perpetual issues that persist, despite efforts to streamline policy and planning functions and to create channels for co-operation.

When it comes to public transport services, particularly informal transport, the institutional framework is developed on an ad hoc basis. The regulatory approach of the government is generally more punitive and reactive than supportive and proactive, which makes the operations and livelihoods of informal transport operators difficult and vulnerable to rent-seeking activities.



Chapter 6

Conclusions and Recommendations

I. Summary of Findings

We have so far discussed the current situations of informal mobility in Bangkok in three interrelated aspects. First, the demand-side studies show empirical evidence of travel behaviors of the poor and vulnerable population in Bangkok. Second, the supply-side studies focus on two major informal transport modes, namely passenger vans and motorcycle taxis, examining whether

and how they are utilized by the urban poor. And third, the institutional analysis investigates the laws, regulations, and other organizational issues that govern Bangkok's public transport services in general, and the informal transport markets in particular. There are a number of findings that deserve stressing again in this concluding chapter.

Demand-side

On the demand side, the results of three different types of surveys reject our initial hypothesis. Unlike in other cities in developing countries, informal transport modes in Bangkok are not widely used by the poor. The household travel survey in low-income communities shows that the majority of the poor in our sample own private vehicles, mostly motorcycles, and some even own private cars. Due to the relatively high costs of owning and operating private

vehicles, the poor households' transport expenditures represent up to a quarter of household expenditures. The results of the occupation-based survey also confirm the poor's heavy dependence on private motorcycles, and the limited role of informal transport in the poor's daily commute. In addition, the survey highlights the critical role of employer-provided transport in the commute of a large majority of the poor who work at construction sites or in factories.



Meanwhile, the travel survey of foreign migrant workers shows a different picture: very few Myanmar workers own private motorcycles and rely heavily on

public buses. A small number of them use informal transport, as the fares tend to be more expensive than public buses.

Supply-side

On the supply side, the in-depth studies focus on passenger vans and motorcycle taxis, the two forms of informal transport that are ubiquitous in the whole Bangkok Metropolitan Region. We estimate that there could possibly be as many as one million person-trips daily on passenger vans and 5-7 million person-trips on motorcycle taxis. Motorcycle taxis, and to a lesser extent, passenger vans are the key feeder modes that transport passengers to rail transit stations.

little capital required. Over time, these informal services became indispensable to many Bangkok residents, particularly the middle class. However, conflicts among operators which could result in disastrous competition and unsafe operating practice, led the state to regulate them.

The main reason that informal transport still exists and thrives even in a middle-income city such as Bangkok is that the expansion of formal modes of transport, such as bus and rail, have not kept pace with the growth of the city. Due to the un-served demand, both for point-to-point and feeder services in newly developed areas, particularly the Bangkok suburbs, informal operators are quick to fill the gap where transport services are lacking. Work in informal transport services is considered a quick way to earn cash for unskilled laborers, with



Institutions

Policy, Planning, and Implementation

In recent years, the Thai government has shifted focus in transport policy from building roads to investment in public transport. However, the state has devoted much of its resources to urban rail transit investment, and to a much lesser extent, public buses. Since the investment in formal public transport cannot keep pace with demand, residents in many areas are not well served by rail or public buses. They have to rely on informal transport, such as passenger vans and motorcycle taxis. In many cases, accesses to rail or public bus services are not convenient and commuters must rely on feeder services, which are provided almost entirely by informal operators. It is clear that the state does not see its role in developing road-based feeder systems, which are left to the care of the private sector. This approach is similar to the fact that the government mostly focuses on arterial and main roads, but not secondary roads.

Currently, road-based public transport services in Bangkok are in the hands of three different agencies: the Office of Transport and Traffic Planning and Policy (OTP), the Department of Land

Transport (DLT), and the Bangkok Mass Transit Authority (BMTA), all of which report to the national government. The OTP has prepared a public transport network plan, which is supposed to be implemented by the BMTA, subject to approval from the DLT. The BMTA does not have sufficient resources to implement the plan and faces stiff opposition to any network changes from private bus and van operators. For this reason, the bus re-routing proposal that was completed in 2008 by the OTP has not been implemented at the time of writing.

Besides, there is no single agency charged with planning and implementing public transport service delivery on a network basis. The OTP focuses mainly on urban rail network planning and to a lesser extent bus networks. The DLT is supposed to study bus demand and prepare bus service operation plans at the route level, as well as, advertise for private operators to petition for licenses to operate in these routes. If no private operators apply for a license, no service will be provided. Because of the existing institutional and organizational arrangement, rail-based and



road-based public transport systems are not planned as integral components of the urban transport system. For example, the OTP, which is responsible for preparing the transport plan for the Bangkok Metropolitan Region (BMR), has not addressed the issue of feeder services by informal operators in the preparation of the BMR's rail master plan (M-MAP). The Metropolitan Rapid Transit Authority (MRTA) is a state enterprise under the Ministry of Transport in charge of rail infrastructure and operation, with Bangkok Metro Public Company Limited (BMCL) being the private concessionaire. Bangkok Mass Transit System Company Limited (BTSC) is the Bangkok Metropolitan

Administration's (BMA) concessionaire in charge of running the BTS. The BMTA is the state enterprise with the sole operating rights of buses in Bangkok and the vicinity. Informal transport operators are overseen by the DLT, which does not have the resources to effectively plan, implement, or supervise the large number of informal operators that are distributed over a large geographic area. Because these agencies are not obliged to cooperate, interfaces between services provided or regulated by each agency are not well planned and implemented.

Regulations

The regulation of informal transport was carried out under the existing legal framework created by the Land Transport Act B.E. 2522, which was written from a perspective of administration, and with little consideration for public welfare. Thus, the main objectives of introducing the regulation of informal transport, in addition to the usual sets of regulations on safety and fare, are to prevent destructive competition and to preserve exclusive rights to existing operators. Currently, official formal regulations

coexist with informal standing institutions: norms and practices that originated long before the formalization effort began. Official regulations do not replace pre-existing institutions, but reinforce the existing norms and practices. In addition, regulations bring about opportunities for rent-seeking behaviors by operators and government officials, thereby creating unnecessary, additional costs for the operators who pass them along to passengers.



In the case of passenger vans, the introduction of regulation is constrained by the existing cabinet resolution to give the BMTA the sole license to operate bus services in the BMR. Van operators, thus, are required to enter a contract with the BMTA, the state-owned bus operator, as joint-service operators, which operate under the BMTA's operating license. While the BMTA is supposed to take an active role in the daily management of vans, in reality, it leaves this duty to van operators to coordinate amongst themselves. As a result, the informal organizational structure of each van route, called a "win", coexists with the formal structure established by the law. Under this structure, the win owner controls which operators can operate in the route that he "owns." The win members must pay large sums for the win entry fee and the win management fees to the owner. In return, the owner takes care of the day-to-day management of the route, such as van dispatching and parking arrangements, and protects members from law enforcement and harassment by government officials.

The right to operate a van route is, on paper, sanctioned by the licensing system established by the Land Transport Act. But because the quota set by the authority is not updated regularly

to match the changing demand, the operators adjust themselves to accommodate the demand by allowing unauthorized vans to operate in their routes, even though this self adjustment is against the law. But the costs of compliance are high, as the petition for route adjustment approval takes a long time due to cumbersome bureaucracy and blockage from interest groups. The operators who adjust the routes are subject to heavy fines or their operating licenses being revoked. So they opt to engage in rent-seeking activities by seeking protection from the local mafia. In the case of passenger vans, there are two sets of mechanisms that create monopoly rents: one by law and the other by informal institutions.

In the case of motorcycle taxis, the government has implemented a series of initiatives to formalize and regulate the operation over the past 30 years, using the Motor Vehicle Act, B.E. 2522 (A.D. 1979) as the main legal framework. As the de jure regulator, the DLT has issued a set of regulations on setting fares, safety, and operators' conduct and behavior. But very much like the case of passenger vans, the de facto regulators are the local mafia, who work with win leaders and managers in controlling the routes and levels of services within their territories. Although the organization of



motorcycle taxi operators is more structured than that of passenger vans, they are still subject to harassment and capricious law enforcement. But with the establishment of the Motorcycle Taxi Association of Thailand, there is hope that informal transport operators may increase their negotiating power against the government and the mafia, as well as the recognition of their presence and importance in transport policies and plans.

In both the cases of passenger vans and motorcycle taxis, regulations so far have not increased competition, but rather, by consolidating the pre-existing informal institutions and practices, prevent competition for the market. Both van and motorcycle win ownerships are highly valuable sources of income, and rent seeking is rampant, and underground. The markets are not transparent and highly corrupt. Despite all the regulations, neither informal transport operators nor win owners pay taxes. In the case of vans, registered operators pay the joint-service fees to the BMTA, which views the fees as compensation for their loss of passengers. Some registered van operators who feel that BMTA does nothing to protect their exclusive operating rights simply refuse to pay the fees, but continue to pay for the win membership. It is clearly proven

that the official regulations can do little to protect consumers.

The transport authorities in Thailand have always been uneasy about informal transport, so they attempt to formalize the services through economic and social regulations. Social regulations, on the one hand, aim to assure the quality of service, especially safety, reliability, comfort, and the labor conditions. Reckless van drivers, motorcycle taxis without helmets for passengers, dirty seats, cramped space, and fatal accidents are only a few of the reasons that cry out for government regulation. Economic regulations, on the other hand, include restrictions on entry and exit and price control, so in principle public welfare is not diminished by natural monopolies and market structures with limited or excessive competition. As such, some aspects of informal transport are now regulated, such as vehicle and service registration.

However, the authorities are extremely slow in adjusting their regulatory framework, operating standards and procedures to fit with the growing and changing demand. As a result, the operators choose to offer the services even if they are against the law, because the benefit of doing so is greater than the risks of being caught and the



costs of the fines. That is why all of them are engaged in rent-seeking activities in one way or another, often by way of paying protection fees to public officials and the local mafia. The prevalence of rent seeking activities would be a major obstacle to any reform.

II. Policy recommendations

In this section, we propose a few policy recommendations based on our analysis of the current situations of informal transport in Bangkok. Because the existence of informal transport itself is attributable to the inadequacy and ineffectiveness in providing formal public transport, it is thus important to point out the key policy recommendations for public transport that have already been identified by other studies. We agree with several suggestions proposed in the 2007 World Bank report on strategic directions for improving transport systems in Bangkok, including public transport reform. The recommendations that are relevant to our research objectives include:

- Redesign of bus routes and services. The bus route structure must be constantly updated to accommodate the ever changing travel demand.
- Also, bus routes must be restructured to complement rail networks. This would widen the catchment areas of rail stations and increase public transport utilization overall.
- Reforming the public bus system. The separation of responsibilities in policymaking, regulation, and operations of bus services is suggested. The regulatory and management functions of BMTA would be transferred to the newly established Bus Control Management Authority (BCMA).
- Bus service delivery by competitive tendering. The BCMA is to manage bus service delivery by competitive tendering process, in which private bus companies, including the remaining operational division of the BMTA, will bid for gross cost, performance-based



contracts to operate in designated routes. This would overcome the problem of fragmented bus services and unintegrated systems of bus and rail.

- Enhancing institutional and regulatory capacity. It is recommended that a regional transit authority, the Bangkok Integrated Transit Authority (BITA) be established. BITA would absorb MRTA, BTS rail concession, SRT commuter services, as well as BCMA. This will separate planning and

policymaking (OTP's responsibilities) from public transport operations (BITA's responsibilities), which would be provided on a contractual basis. Also, intermodal integration will likely improve under a single agency responsible for all modes of transport in the BMR.

While we agree with the above recommendations, we propose additional policy changes with regards to informal transport, as follows.

1. Change in policy mindset

The government must change its mindset and consider public transport services as a type of basic welfare, similar to the cases of healthcare and education. Thai public officials have a long-held view that the role of government in transport is limited to infrastructure provision. Operations of public transport services are the responsibility of private operators who are expected to recover capital investment as well as operating costs. This mindset that public transport operations must cover cost is extended to state enterprises responsible for public transport services, such as the BMTA and the SRT. Many believe

that the continuing operating losses of these agencies are caused by poor management, lack of oversight, and that fares do not keep pace with inflation because they are heavily controlled by the government.

In the case of road-based public transport, such as buses and vans, private operators collect fare revenues to cover their own capital and operating costs. The government grants an operating license for each operator which stipulates fares that are supposed to cover costs at the specified operating frequency. Officials have no recognition



of the network structure, such as trunk and feeder routes or the economies of network, and regulations are done on the individual route basis. As a result, the potential of cross-subsidizing unprofitable routes with profits from lucrative routes has not been realized.

Another change in policy mindset is concerned with the feeder systems. The relevant agencies have to become

more pro-active in making policies and plans that integrate the feeder services into the overall public transport system, while revamping the regulations that are currently obstructing service improvement. This shift in mindset is particularly critical to the implementation of transit-oriented development (TOD) initiatives along rail transit systems, which the government is trying to promote at the moment.

2. Back to basics: Integrated transport-land use planning and design

It has long been stressed in academic literature and among the community of practice that for transport planning to be effective, it has to be accompanied by appropriate land-use planning. The Thai urban planning system adopts the American-style Comprehensive Plan as the basic tool for land use planning. In principle, the Comprehensive Plan should integrate transport planning and land use planning. In reality, this basic principle of transport-land use integration is much easier said than done. Transport infrastructure and land use development are rarely planned together in Thailand.

In most cases, the Comprehensive Plan for Bangkok, and for that matter

for all other cities in Thailand, take the existing and future transport projects as given. These transport projects are mostly under the responsibility of various departments of the Ministry of Transport, while comprehensive planning processes are under the responsibility of local governments and the Department of Public Works and Town and Country Planning, which are under the Ministry of Interior. Although current Comprehensive Plans in Bangkok and other cities include future transport projects, it is just a way of recognizing that those projects exist and that they may affect future land use development in the city. To the best of our knowledge, there has never been a case where a transport project of the



Ministry of Transport is rejected on the grounds that it does not comply with a Comprehensive Plan. This implies that transport agencies do not follow the directions of urban development indicated in Comprehensive Plans. It is usually the case that Comprehensive Plans just incorporate whatever transport projects that have been planned by transport agencies.

As for public transport, no single state agency is responsible for planning, financing, and implementing public transport services necessary to ensure the attainment of the objectives of the Comprehensive Plan. A large number of public agencies and private organizations are responsible for different components of the public transport system. These agencies have their own objectives which are not necessarily consistent with the Comprehensive Plan. No single Comprehensive Plan in Thailand has ever incorporated informal transport in its content.

The integration of transport planning and land use planning is particularly important at the level of distributor roads. We believe that distributor roads are crucial to improving public transport systems in Bangkok as they determine the networks and systems of feeder services. Without land readjustment of

some sort to make it possible to have complete road network hierarchy, formal bus systems would never be able to replace motorcycle taxis as the main feeder system for rail transit systems. Long-term urban planning should take this issue into account.

Another related policy recommendation is that the design of rail transit stations should take into account the requirement of informal modes of transport that feed passengers into the rail systems. There are a number of locations in the city where several modes of transport intersect, such as the Victory Monument area. The areas around these intramodal and intermodal nodes are usually very chaotic. We often see passengers walk onto the street to enter the buses or vans; double or triple parking is not uncommon; and street vendors and hawkers are everywhere, making it difficult for pedestrians and passengers to walk. Even though informal transport modes are essential to the public transport system in Bangkok, no space has been officially planned, allocated, and designed for parking and picking up passengers. Therefore, as the government is promoting the concept of Transit-Oriented Development (TOD), it is important that the design of the stations includes appropriate space for informal transport.



3. Institutional re-alignment and regulatory revamp

Organizational reform is direly needed, but admittedly extremely difficult. The BMR needs a comprehensive transit authority that oversees all public transport services, including rail, bus, and informal services. The new authority must prepare an integrated public transport plan for all transport modes with the objectives that are consistent with a Regional Plan of the BMR, which does not exist at the moment. It must specify measures of effectiveness to ensure the objectives are attained, such as the proportion of the population within walking access distance of public transport stops. The authority must also have financing capability to carry out the plan, and have sufficient resources, such as manpower and technology, to supervise the services in the case where they are tendered by private operators. For this to happen, the responsibilities of several central government agencies,

including the OTP, the DLT, the MRTA, and the BMTA, must be devolved at the local level. A special act that grants the power to plan and implement public transport in the BMR to the BMA must be passed by the national legislature.

As for the regulation of informal transport, the existing regime must be abolished in order to create a tendering system that is both transparent and encourages orderly competition. The new transit authority must consider the informal services, both vans and motorcycle taxis, as an integral part of the public transport system. It must recognize the roles of route associations, or wins, and create a system of competitive bidding for the right to operate services out of the win. Some brief details of the recommendations are as follows.



Bangkok Regional Public Transport Authority

The BMR urgently requires a regional level public transport authority with clear policy objectives. The Bangkok Regional Public Transport Authority (BRPTA) should be established as a regulatory body for all public transport services in the region, including buses, taxis, passenger vans, songtaews, silorleks, tuk tuks, and motorcycle taxis. The 1983 cabinet resolution that granted the BMTA sole license must be revoked and the BMTA will become one operator among many bus and fixed-route transport operators in the BMR.

The BRPTA will establish standards for minimum levels of service for all of the BMR. It will also plan the integrated system to meet the minimum standard. It must regularly review all fixed route services, both in terms of routes and service levels, preferably every two years. Significant revisions of existing regulatory frameworks, i.e., those established by Land Transport Act B.E. 2522 (A.D. 1979), must be undertaken, in order to support the move from route-based operator licensing toward a contracting and tendering system.

Overhaul of regulations

The current Land Transport Act cannot accommodate the reality of urban transport system in the BMR on three fronts. First, it does not promote the development of integrated transport networks, neither intramodal nor intermodal. Second, it does not include informal transport services. Third, it does not have provisions for dealing with the metropolitan transport systems that go beyond one jurisdiction. Thus, this Act needs to be reformed or a new one should be enacted to accommodate the three aspects needed for metropolitan transport systems.

Specifically with regards to informal transport, passenger van regulations must be overhauled. The existing passenger van routes must be reviewed and the structure of the routes must be re-designed to meet the prespecified level of service standards. The BMTA joint-service contract will not be renewed after the term of contract expires. A concession to operate each route will be awarded by competitive bidding process, according to the prescribed performance standards, including vehicle standards, service frequency, on-time performance, and fare



schedule. The level of service and performance standards for each van route will be reviewed every two years. A new bidding process for the concession will also take place at the same interval. As for routes that cannot attract bids for concession, the transport authority will use the tendering system to ensure that the level of service standard is met in areas served by those routes.

Since a large number of driver-owned, passenger van operators are have a single vehicle, these operators will be affected by the change of the BMTA joint-service contract to the concession system and will oppose the change. For this reason, successful transition will require careful preparation. BRPTA must create an organizational framework in which individual driver-operators can join together and form a cooperative to bid for the concession right for van operations. This must be done well before the BMTA joint-service contract expires. BRPTA must also provide technical assistance for service planning to help each cooperative prepare for the bidding process. In addition, since additional investment by each operator will be required, assistance from the government, such as soft-loans by the Small and Medium Enterprise

Development Bank of Thailand (SME) Bank, may need to be pre-arranged.

In the case of motorcycle taxis, the complex web of regulations should be streamlined and incorporated as part of the overall revamp of land transport regulations. Very much like the case of passenger vans, the route associations, or wins, should have a legal status. A federation of motorcycle taxi wins could also be established with appropriate legal backing. The existing regulations on service performance must be reviewed to reflect the market changes in recent years, including vehicle standards, service frequency, on-time performance, and fare schedule. It is likely the geographical coverage is already adequate, reflecting the responsive nature of the service. But the fares and the de facto quota of operators in each win may not be responsive enough. Once the win associations have a legal status, a bidding process for the concession to operate in certain locations can take place. The transport authority may use the tendering system to provide services on the routes that cannot attract bids for concession.



Adopt competitive tendering for road-based public transport

Perhaps the most out-of-the-box policy recommendation in this report is concerned with the way in which public transport services are delivered. We advocate the move from route-based operator licensing toward a contracting and tendering system. As outlined by Scurfield (1990), there are a number of advantages of competitive tendering for bus services, compared with service provision by a state enterprise and by private sector in a deregulated environment.

In the case of Bangkok, compared with service provision by the BMTA, a state-owned monopoly, which is operating at a tremendous amount of debt, competitive tendering can yield significant operating cost savings. The tendering process will introduce competition in the market where currently entry is controlled either by the formal licensing system in the case of the BMTA bus routes or by the informal institution, i.e., route associations or wins.

Since a large number of contractual operators may be required to provide services that cover the BMR, a regulatory agency with sufficient human resources would be needed. DLT is not up to the task and it is essential

that a Bus Control Management Authority (BCMA) be established to take full responsibility of the competitive tendering and contracting process. It should be noted that while in the past, the contract enforcement of public bus services might seem a daunting task, today information and communication technology has a great potential as a contract enforcement tool, which not only can reduce human resource requirement, but also can prevent the possibility of corruption in the regulatory agency.

Compared with service provision by the private sector, such as private bus companies and van operators that currently operate under the BMTA joint-service in certain designated routes, competitive tendering has many potential benefits. First, because all routes and services can be fully designed by the BCMA, innovative network designs, including trunk and feeder networks, or timed-transfer networks, can be realized without opposition from individual operators. The authority can also specify the routes and services to meet social objectives, such as routes in low-density areas, which are not normally profitable, and the services in these routes can be cross subsidized by services in more



lucrative routes. Second, since the authority collects fare revenues, the fare system can be controlled and designed to suit social objectives as established by the authority. For example, fully integrated public transit fares can be introduced, and discounts for the elderly or children, as well as discounts for connecting or transfer trips can be offered – features that are not currently possible. Another important advantage of competitive tendering is the more

effective control of service quality, including safety and reliability. Since operators would not need to compete for passengers under tendering contract, the possibility of destructive competition can be greatly reduced. Lastly, as in the case of the tendering process by Transport for London, the contracts can be designed to provide incentives to operators to improve service quality.



Promoting civil society for public transport

There is currently no single non-governmental organization (NGO) that focuses on transport issues in Thailand. Changes in transport policy are rarely triggered by public movement. There were occasional demonstrations against the government for hikes in bus fares and gas prices by groups of passengers and taxi drivers respectively. But other than those events, there is very limited civic engagement in transport matters. The existing civil society groups for transport issues are more concerned with promotion of bicycles. Members of these groups tend to be from the middle class. There is no single NGO or civil society group that specifically tackles mobility issues faced by the poor, although the Foundation for Labor and Employment Promotion (Homenet-Thailand) has started to work on inclusive mobility issues with relatively low-income communities in the suburbs of Bangkok. Promotion of civic groups that work on this issue should be on a public policy agenda in the near future.

Furthermore, because one of the most important issues facing informal transport operators is extortion by public officials and the mafia. It is crucial that their collective bargaining power and other related capacity be enhanced.

As in the case of the Motorcycle Taxi Association of Thailand, membership-based organizations (MBOs) could play an important role in increasing the operators' negotiation power. This may lead to less rent-seeking and corruption, as collective action could force the authorities to adjust their regulations to become more responsive to the changing demand, thus reducing the operators' need for doing an end run around the law and relying on the mafia.

Promotion of MBOs for informal transport operators could also lead to improvement of welfare and livelihoods. The van and motorcycle taxi fares are not cheap, but the operators still receive limited public welfare because they are considered informal workers. MBOs would allow the members to share resources, increase the accessibility to credits, and apply for group insurances that would reduce the costs of operation.



Use Information and Communication Technologies (ICTs) wisely

Information and communication technologies (ICTs) can be useful in many aspects of informal transport regulations and quality control. Real-time Locating System (RLS) can be used to monitor driving practices to ensure safe operation. Data from such a system can also be used to better improve service and operation planning. However, several obstacles must be overcome before the full potential of ICT can be realized. For example, currently all BMTA joint-service vans are required to be equipped with RFID devices for speed control. Unfortunately, unregistered vans that are used to provide services illegally are not equipped with such device and are not monitored for speed. Therefore, more ICT innovations are needed to ensure that all informal operators are monitored in terms of operating safety.

ICTs will be very useful in monitoring the services and promoting integration between passenger vans and other modes. Vehicle standards for the concessionaire can require that an automatic vehicle location (AVL) system, such as GPS, and electronic fare collection system be installed. AVL will be useful for operation and safety

monitoring. Electronic fare collection that is compatible with the system used in BTS and MRT can facilitate transfer between formal and informal modes. In addition, it can help BRPTA to track passenger volume in each route, which will be useful for future route planning as well as concession review.

Mobile technology and social networks applications can have potential impacts on the way informal transport services are delivered. For example, social media can increase participation, especially by passengers voicing and giving reviews and feedback in real-time. This can potentially relieve regulatory burdens on the authority, as well as increase competition. Social networks of informal operators can also change the way informal transport is planned and provided.



In addition, sound policy making requires reliable data. Currently transport planning authorities do not systematically collect and update data on informal transport. Systematic data collection is the first step towards transport policies that take informal transport into consideration. A data collection framework will have to be designed and tested for the purpose of planning and monitoring the informal transport sector. Because data collection can be expensive, examining which types of data are necessary for policymaking can also be useful. “Big data” technologies that can be utilized to retain and analyze more data should be adopted in the near future.

Endnotes

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ABBREVIATIONS AND ACRONYMS

AD	Anno Domini
BCMA	Bus Control Management Authority (proposed)
BE	Buddhist Era
BITA	Bangkok Integrated Transit Authority (proposed)
BMA	Bangkok Metropolitan Administration
BMCL	Bangkok Metro Company Limited
BMR	Bangkok Metropolitan Region
BMRDC	Bangkok Metropolitan Region Development Committee
BMTA	Bangkok Mass Transit Authority
BRPTA	Bangkok Regional Public Transport Authority (proposed)
BRT	Bus Rapid Transit
BTS	Bangkok Transit System
BTSC	Bangkok Transit System Company Limited
CBD	Central Business District
CLTCB	Central Land Transport Control Board
CMRT	Commission for the Management of Road Traffic
DLT	Department of Land Transport
DOH	Department of Highways
DPT	Department of Public Works and Town and Country Planning
DRR	Department of Rural Roads
DTCP	Department of Town and Country Planning

ETA	Expressway and Rapid Transit Authority
EXAT	Expressway Authority of Thailand
HD	Harbor Department
ITS	Intelligent transportation systems
LTCB	Land Transport Control Board
M-MAP	Mass Rapid Transit Master Plan in Bangkok Metropolitan Region
MRT	Mass rapid transit (rail)
MRTA	Mass Rapid Transit Authority
NGOs	Non-governmental organizations
OCMLT	Office of the Commission for the Management of Land Traffic
OTP	Office of Transport and Traffic Policy and Planning
RTP	Royal Thai Police
PWD	Public Works Department
SRT	State Railways of Thailand
THB	Thai Baht
TPD	Traffic Police Division

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