

Smart EV Bus

thefinal Group

Project Phase #1

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Preface

This report is prepared as a part of ITCS361 Management Information System Course to study the knowledge in the term of managing information systems effectively in various business contexts. Our project is about the electric bus industry. This business provides a comprehensive overview of our operations, products, and services. Our journey in this industry is defined by our commitment to sustainability, innovation, and excellence. We specialize in designing, manufacturing, and operating state-of-the-art electric buses that contribute to a greener and more efficient public transportation ecosystem. This preface aims to shed light on the status of our business, the unique features of our products and services, and our target customers, while also delving into the competitive forces at play in the market, as analyzed through Porter's Five Forces Model. Furthermore, we will articulate our vision, mission, and strategy, and explore how we create value through our extensive value chain. Our devotion to the development of the electric bus industry is the driving force behind our every effort.

Author hope that this report will be useful to the reader or student who find out about it. If there is any suggestion or error. The organizer will accept it and apologize.

organizer

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Business Description

At Mongkol company we are at the forefront of revolutionizing public transportation across Thailand. With a remarkable surge in the popularity of public transportation, particularly buses, we recognize the changing needs of residents and are committed to providing innovative solutions that enhance the travel experience while addressing contemporary challenges. Our mission is to enhance the convenience, safety, and sustainability of public bus transportation across all provinces, making travel a seamless and enjoyable experience for everyone.

The overview

Public transportation across Thailand is experiencing a notable surge in popularity, with a significant number of individuals choosing buses as their preferred mode of travel. Most of residents opt for buses due to their flexibility, cost-effectiveness, scalability, and ease of access. Despite these advantages, several challenges remain. The emergence of the COVID-19 pandemic has necessitated measures such as social distancing and consistent mask usage, impacting how people use public transport. In response to these challenges, our company has introduced an innovative solution – a cashless bus payment system seamlessly integrated with palm scanning and QR codes. Our approach ensures convenient boarding and disembarking from buses while emphasizing speed and accuracy. Additionally, our vision extends beyond, we actively seek more partners, aiming to bolster sustainability efforts and contribute to reducing environmental pollution across all provinces of Thailand.

Products and Services

We offer a comprehensive solution aimed at improving the way people travel around Thailand. Our primary offerings consist of modern **electric buses** and a **user-friendly application**, both working together to provide a seamless and efficient transportation experience for both local residents and tourists. For example,

- **Electric Buses for a Greener Commute:**

Our fleet of electric buses represents a step forward in environmentally friendly transportation. By using electricity instead of fuel, these buses help reduce air pollution and contribute to a cleaner and healthier city. We prioritize your comfort and safety, ensuring that our buses are equipped with modern technologies.

- **Innovative Application for Easy Travel:**

At the heart of our service is our user-friendly application, designed to make your journey hassle-free and enjoyable:

- **Cashless Payment System:**

With our application, passenger can easily manage your bus fare payments without the need for cash. Our touchless scanning technology, integrated into the buses, lets passenger pay by simply scanning your registered palmprint. This secure method ensures quick and convenient boarding and exiting. If they haven't registered your palmprint. Our app also supports QR code payments. Just use the phone to scan the QR code and make fare payment seamlessly.

- **Real-Time Bus Tracking:**

Our app lets passenger track the buses in real-time. This feature helps to plan journey better, knowing exactly when the next bus will arrive.

- **Enhanced Convenience:**

We understand the importance of convenience. For example, our app allows customer to top up bus account easily and keep track of your transactions. They can also set up notifications for their destination ensuring they never miss it.

- **Strategic Route Planning:**

We focus on routes that cater to areas with a concentration of education, jobs, and higher income levels and cover all areas in Thailand. By serving these areas, we aim to encourage more people to choose public transportation and improve the overall commuting experience.

Our goal is to provide a comfortable, eco-friendly, and efficient way to travel across Thailand. Whether customer are a local resident or a visitor exploring the city, our electric buses and innovative app are here to make your journey smooth, enjoyable, and better for the environment.

The status of business

We are a big company in public transport industry. As a prominent player in the realm of innovative public transportation solutions, our company has achieved remarkable success in revolutionizing the way people experience commuting in Thailand. With new technology of Ev-bus and eco-friendly application including a strong emphasis on sustainability, convenience, and cutting-edge technology, we have firmly established ourselves as a key contributor to the city's transportation evolution. As a result, our application has been downloaded by millions, further cementing our reputation as a country-class transportation solution provider.

Looking ahead, our vision encompasses not only elevating Thailand's public transportation to unprecedented heights but also exporting our expertise and solutions to other cities facing similar challenges. We try to make less problem in transportation. Accordingly, we envision a world where urban transportation is seamlessly connected, environmentally friendly, and accessible to all.

The features of products and/or services

Feature in Application

1. **Payment:** We implement the payment system within the app to enable users to top up their prepaid expenses on the bus. The payment in the application will link to your account that has been registered by the scanned palm technology. Passengers can still use the service even if they don't have money in their wallets in case, they already use our service at least 1 time, but they can only use it once. Passengers must top up their accounts after the notification of not having enough money. We also have the history of the transaction for passengers too. The payment page in the app uses the same logic as the banking and food delivery apps. The issue of passengers who don't carry cash will be resolved by this. (We use service of Omise (opn payment) to supports all payment types: API for bank)
2. **The nearest bus for the best path and arrival time:** Nowadays, it is difficult for foreigners to determine which bus refers to which location. As a result, tourists now use other transportation options instead of buses. This is a problem that affects not only foreigners but also Thai people. This is why we want to implement these features. Passengers can enter their source and destination, and the app will locate the bus that best fits their route. Passengers can use this to determine which bus to board. It will display the arrival time too. Most passengers use this type of transportation to get to work. That means one of our targets is the employee. If we add this feature, the workers who use this service will be better able to manage their time. (Used Google Map API to locate the place)
3. **Chat for feedback:** Feedback is very important to our startup technology, so we need to know all the concerns of the passenger and create a channel for them. Only then we can determine how to improve our features. We must ensure that every passenger understands how to utilize this service because some of the features are quite new to many individuals.
4. **Notification of your destination [Subscription-Based]:** This feature is very interesting and very useful. If the passenger is sleeping or doesn't know the destination, they can acknowledge it from this notification, as it will send you the message that this

is your destination which you mark it in the application. This will lead people to get off the bus without mistakes for the wrong place.

5. **Showing price [Subscription-Based]:** Customers can use this feature to prepare money in their wallets, so they don't have to worry about not having enough money to pay the fare in the case of people who set up the source and destination on the application.
6. **Number of available seats [Subscription-Based]:** This feature seems simple, but that's one of the things we want to highlight. Passengers can decide whether they want to use this car by seeing the number of available seats. If they prefer not to ride in a crowded bus, they can use an alternative method that we've included in this app, which is the arrival time of the car that is closest to them.

Additional information

In PDPA law there is some sensitive personal data called biometrics in that we must collect the passenger's palm print to pay, However, we also have a consent base to solve the problem of "freely given" by creating an alternative to get on the bus by scanning the QR code in the app to pay instead of using your palm print.

This application must ask for request consent for the use of personal data (Consent: palm print) before getting into the application. We mention that we take the data to analyze lines of palm to use it in financial operations. In case of not consent, It will not affect the use of buses and the use of our application because it records only for payment processing by palm print. Customers can use QR-Code instead. Furthermore, we respect customers' right to privacy, and to make it less concerning to customers, we have a box for the one who gives consent to revoke the data subject.

Bus

▪ Technology:

1. **Computer vision:** We use computer vision for payment by having passengers scan their palms to pay when entering and exiting the bus.
2. **Deep learning:** Deep learning, which powers computer vision and trains algorithms to work on the program to correctly identify passengers.
3. **AI weapon-scanning technology:** Weapon scanning is the technology that increases safety for passengers who come to use it. They can be sure that it reduces the risk of using weapons to cause physical harm.
4. **EV car:** Make an electric vehicle to reduce smoke. Most Thai buses today are filthy and very old with long service life. Buses without air conditioning have been in service for 10 to 20 years, which has led to the engine malfunctioning and degrading to create soot. We use this as a solution to this and create an eco- friendly automobile.
5. **Sensor by microwave:** Motion sensors use radio waves or radio frequencies by working with CCTV to detect the number of people and there is a device to send data to an automated software system that has the ability to manage data. This sensor works with a chip on the back of the seat to determine the position of the chair. This sensor is used to determine the amount of space in the passenger compartment.

▪ Features:

1. **Free Wi-Fi:** Provide an extra service.
2. **The luggage storage area:** This is for travelers or persons who carry a lot of luggage to store their bags, so it doesn't block the walkway.
3. **Informing passengers of the next station's arrival time and location:** This helps them know where they are on the way. Passengers can prepare to get ready to exit the bus. Additionally, it shows the schedule in order to inform you of its arrival time. People who are unfamiliar with the path or can't remember the way would benefit greatly from this. Moreover, the display will include a voice that mentions the location when it arrives.

4. **Appearance**

Stairs up low automobiles: If the height of the steps is adjusted when getting in and out of the bus, older persons and kids can get in and out of the bus more easily.

Look: Even if it's a little issue, the design must also take this into consideration. Another crucial factor is the bus's appearance. It had to be contemporary and usable when we designed it. We love the look of the BTS, MRT, or the widely used bus in London and may have a design in that pattern. The itinerary display will be digital.

5. **A scanning weapon** helps to increase safety within the vehicle. When you enter the automobile, the scanning gadget we installed in the door will look for weapons.
6. **A scanning palm device** is what we design to process payments. This device will connect to the application to top up money in your account. When you board this electric bus, your palm must be scanned. Then, this equipment will compare your palm print to the palm you used to register to determine whether they are identical or not. Scanning your palm, will identify you and access your account. Before getting out of the car and scanning once again.
7. **Charger:** There will also be charging cables in the bus. In case the customer's phone has a low battery, it can be charged. Customers mainly pay with the phone, so if the phone suddenly runs out of battery, customers will not have to worry about this part. There will be a 3-in-1 charging cable, designed to come in the form of a USB A cable with a port on the other side that can be changed to multiple heads, including USB C, Lightning, and Micro USB, however, the customer cannot be removed from the car as it attaches along the window side to prevent the customer from stealing the cable.
8. **SOS Call Point:** To accommodate emergency events that may occur, such as violent quarrels or there is sexual harassment and you need help or cause of the fire. This signal is linked same as an anti-armor sensor system which the system will send a signal to the driver, and if the driver can analyze the situation, that this is not good now. The driver will confirm the incident. The system will send a signal to the company in order to proceed urgently.

Target customers

1. **Students** - This group typically has an income below 15,000 baht. They primarily rely on public transportation to travel to School, University, or others. This target group is concerned about transportation prices.
2. **Working people** - With an average income ranging from 15,000 to 25,000 baht, this category frequently utilizes buses. According to the data, public transport has a price that is accessible to most people, but another factor they consider is the terms of technology. It will help increase convenience for people of this age because they want faster speed to travel to different places.
3. **Foreigners or Tourists** - Who visit Thailand for work or vacation. They possess the financial capability to afford public transportation. Our bus route can take our customers to various destinations. Because our travel routes will be in areas where there are many foreigners, they may want a service that meets their needs, and it may require technology to help make their travels more comfortable.
4. **Advertisers** - Our buses serve as a potent advertising medium to engage the public and promote commercial brands. This involves collaborations with political campaigns and commercial enterprises seeking to leverage our bus fleet for effective communication and brand exposure.

Others

The other matters we are concerned about. We consider the laws and concessions.

1. PDPA

In PDPA law there is some sensitive personal data called biometrics in that we must collect the passenger's palm print to pay. However, we also have a consent base to solve the problem of "freely given" by creating an alternative to get on the bus by scanning the QR code in the app to pay instead of using your palm print.

2. Concession

- GPS - Our application service has a detailed description of every bus. Even though the bus has the same number, there are differences in routes such as taking the expressway and not on the expressway. The weakness that we encounter from using applications that are available today. And it's become our competitive advantage.
 - Limitations of GPS tracking buses. Currently, in Thailand, there is GPS bus tracking only for BMTA.
 - Same car number but different routes, for example, taking the expressway and not on the expressway, In the application, there are no details.
- Route - When we came into the role of public bus service, there must be an auction of bus routes that respond to more users than the existing companies that exist today.

2. Competitors

Our company is a trailblazing innovator in the realm of public transportation in Thailand. We've introduced an ingenious solution that includes a cashless bus payment system integrated with palm scanning and QR codes. This innovation streamlines the boarding and exiting process, prioritizing speed, and accuracy. Additionally, we're actively exploring new collaborations to contribute to sustainable energy.

2.1. Thai Smile Bus

Thai Smile Bus (TSB) is a comprehensive transformation of the public transportation experience across Thailand, offering an innovative travel experience through EV-buses and their TSB GO application. It emphasizes comfort, convenience, and sustainability. The focus isn't solely on the buses but on creating an entire travel experience that brings joy to passengers. With an array of services and amenities, Thai Smile Bus is redefining travel. It prioritizes various payment solutions, such as, Debit Card, Contactless, Apple Pay, Google pay, pay a contact (PayM), Direct Debit, Standing order, Immediate or future payment, Internal transfer, international payments, CHAPS, Cheque, and Banker's draft. In addition, The TSB GO application gives information of place, status, and time of the buses.

Key differences:

- Scope of the route
 - **E-bus:** Our company operates bus services that cover all provinces in Thailand, offering a widespread network that connects various regions of the country.
 - **Thai smile bus:** Thai Smile Bus operates exclusively within the Bangkok Metropolitan Region, focusing its services within the city and its immediate surroundings.
- Innovation Focus:
 - **E-Bus:** Pioneers in introducing advanced payment technology like palm scanning and QR codes to enhance the bus commute experience.
 - **Thai Smile Bus:** Focuses on holistic transformation beyond technology, including passenger comfort, seamless travel, and sustainable mobility.

- Brand Identity:
 - **E-Bus:** Recognized for its innovation in payment technology and enhancing the efficiency of the bus commute.
 - **Thai Smile Bus:** Known for creating an enjoyable and memorable travel experience that encompasses various facets of passenger needs.
- Target customer
 - **E-Bus:** Our company's services are tailored for a broader demographic, including locals, tourists, and diverse communities.
 - **Thai Smile Bus:** Thai Smile Bus caters to the urban population of Bangkok.

2.2. Viabus

Viabus is a recognized player in the public transportation industry with a broader scope. They operate in multiple locations and likely have a more established presence. They offer a dynamic transportation solution through their application, covering a vast network of 70 cities in Thailand. This innovative platform enables passengers to track and access various modes of public transportation, including buses, minibuses, BTS, boats, and passenger vans. By providing real-time information on bus locations and numbers, passengers can effectively plan their journeys and optimize their time. Viabus's goal is to make travel efficient, convenient, and connected for passengers across multiple routes and regions.

Key differences:

- Specialized vs. Comprehensive Information:
 - **E-bus:** Specializes in providing detailed information and conveniences specifically related to bus travel, emphasizing new technology.
 - **Viabus:** Offers a comprehensive overview of various public transportation modes beyond buses.
- Precision and Accuracy:
 - **E-bus:** Prioritizes accuracy in route guidance and real-time information by leveraging advanced technology, potentially leading to more precise route suggestions.

- **Viabus:** Due to the diversity of transportation modes and routes, the accuracy of route suggestions might be affected in certain cases. In some cases, Route Guidance is unable to suggest the most convenient route.
- Challenges:
 - **E-bus:** The ownership approach of E-Bus, with its fleet of buses and a corresponding app, offers advantages in terms of quicker coordination, responsiveness to issues, and immediate app notifications.
 - **Viabus:** relies on a partnership model with BMTA, which might lead to challenges in terms of repair delays and potential limitations in control over the bus fleet and notifications.

2.3. Nexpoint

Nexpoint offers a diverse range of electric vehicles (EVs), including EV-buses and EV-minibuses, all powered by 100% electric energy. This eco-friendly approach has multiple benefits. These EVs emit less noise compared to combustion engines, contributing to reduced noise pollution. Additionally, they contribute to lowering air pollution by using less fuel, resulting in lower emissions of carbon dioxide, PM 2.5, and dust. Nexpoint has also introduced an innovation named the "Intelligent Battery Management System." This system efficiently manages EV batteries, enabling longer-distance drives and extending the overall battery lifespan. Notably, the battery can be charged even if it's not at a critically low level.

Key difference:

- Luggage Space:
 - **E-Bus:** Our company differentiates itself by prioritizing spacious areas for luggage storage, catering to the needs of passengers who may be carrying bags or belongings.
 - **Nexpoint:** They focus on EV buses and environmental benefits might influence the design and availability of luggage space based only on some specific EV bus model.
- Enhanced Security Measures:
 - **E-Bus:** Implements AI weapon-scanning technology at the front door, ensuring enhanced security for passengers by detecting potential threats before boarding.

- **Nexpoint:** While focused on EV technology, may not have the same level of emphasis on security measures.
- **Integrated Connectivity:**
 - **E-Bus:** Provides free WIFI for passengers, ensuring connectivity throughout the journey, addressing potential internet connectivity gaps.
 - **Nexpoint:** They may not provide free WIFI for the passenger. The passenger needs to use their own internet.

2.4. The Bangkok Mass Transit Authority (BMTA)

The Bangkok Mass Transit Authority (BMTA) is a public transportation agency in Bangkok, Thailand. It is responsible for operating the city's bus services, providing an essential mode of transportation for residents and visitors. BMTA manages a vast network of bus routes that serve various parts of the city, catering to different demographics and travel needs.

Key differences:

- **Vehicle Type:**
 - **E-Bus:** Our company specializes in operating electric buses (EV buses) that run on 100% electric power, contributing to reduced air and noise pollution.
 - **BMTA:** BMTA operates traditional fuel-powered buses that use conventional combustion engines, which can contribute to noise and air pollution. BMTA's fleet might include a mix of older and newer fuel-powered buses, with some potential for modernization efforts.
- **Environmental Impact and Emissions Consideration:**
 - **E-Bus:** Our company's focus on EV buses aligns with sustainability goals, promoting reduced carbon dioxide emissions, lower PM 2.5 levels, and decreased reliance on fossil fuels.
 - **BMTA:** Fuel buses emit pollutants such as carbon dioxide, nitrogen oxides, and particulate matter, which can impact air quality and public health.

- **Seat Comfort and Availability:**
 - **E-bus:** Our company prioritizes passenger comfort by providing well-designed and spacious seating arrangements. Seats might be ergonomically designed for a comfortable journey, particularly considering the needs of workers, students, and tourists.
 - **BMTA:** BMTA operates a diverse fleet of buses, which might include various seating configurations across different bus models and routes. Seat designs can vary based on the age and type of bus. As a result, some of bus are very old.

In conclusion, our company stands as a huge force in the evolution of public transportation in Thailand. Our innovative approach, centered around a cashless bus payment system integrated with cutting-edge technology like palm scanning and QR codes, redefines the commuting experience for our diverse clientele.

While assessing our competitors, it's evident that Thai Smile Bus focuses on redefining travel by emphasizing comfort, convenience, and sustainability within the Bangkok Metropolitan Region. On the other hand, Viabus operates on a larger scale, offering a comprehensive transportation network that spans across multiple modes of travel.

Nexpoint, through its commitment to electric vehicles and eco-friendly mobility, aligns with our vision for a cleaner and more sustainable future. Their "Intelligent Battery Management System" demonstrates a significant step forward in efficient battery utilization.

The Bangkok Mass Transit Authority (BMTA), while essential in serving the city's public transportation needs, operates traditional fuel-powered buses. Our emphasis on electric vehicles aligns with environmental goals by reducing emissions and promoting clean energy.

Incorporating AI-driven technologies such as palm scanning, deep learning, and AI weapon-scanning, our buses prioritize both efficiency and passenger safety. Free Wi-Fi, ample luggage space, real-time location information, and intelligent payment systems further contribute to an enhanced passenger journey.

Innovation remains at the core of our operations, and our commitment to creating a seamless, comfortable, and safe commuting experience sets us apart in the realm of public transportation. As we forge ahead, we will continue to innovate and evolve, ensuring that the future of public transportation in Thailand remains bright, sustainable, and passenger centric.

New Entrants Determinants

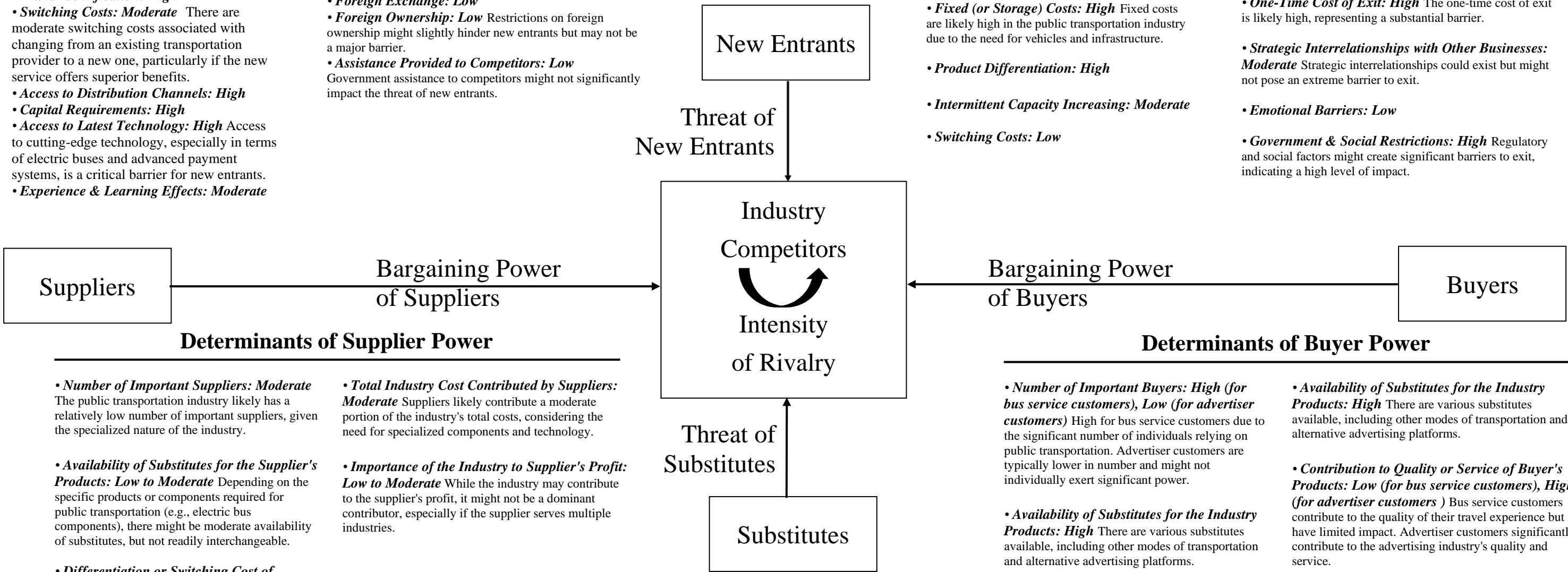
Barriers to Entry:

- **Economics of Scale: High** Achieving economies of scale in the public transportation sector requires substantial investment and operational capacity, acting as a significant barrier for new entrants.
- **Product Differentiation: Moderate** Differentiating a new transportation service significantly can be a challenge, but innovation can allow for some level of differentiation.
- **Brand Identification: High**
- **Switching Costs: Moderate** There are moderate switching costs associated with changing from an existing transportation provider to a new one, particularly if the new service offers superior benefits.
- **Access to Distribution Channels: High**
- **Capital Requirements: High**
- **Access to Latest Technology: High** Access to cutting-edge technology, especially in terms of electric buses and advanced payment systems, is a critical barrier for new entrants.
- **Experience & Learning Effects: Moderate**

Government Action:

- **Industry Protection: High**
- **Industry Regulation: Moderate** Asset specialization could be high, making it challenging to exit without losses or complications.
- **Consistency of Policies: High** Consistent policies provide a level playing field for both existing players and new entrants, reducing entry barriers.
- **Capital Movements Among Countries: Low**
- **Customs Duties: Low**
- **Foreign Exchange: Low**
- **Foreign Ownership: Low** Restrictions on foreign ownership might slightly hinder new entrants but may not be a major barrier.
- **Assistance Provided to Competitors: Low** Government assistance to competitors might not significantly impact the threat of new entrants.

Five Forces Model



Rivalry Determinants

- **Concentration & Balance Among Competitors: Moderate** The industry likely has a moderate concentration of competitors with some level of balance.
- **Industry Growth: High** The industry is experiencing significant growth, attracting more players and increasing competition.
- **Fixed (or Storage) Costs: High** Fixed costs are likely high in the public transportation industry due to the need for vehicles and infrastructure.
- **Product Differentiation: High**
- **Intermittent Capacity Increasing: Moderate**
- **Switching Costs: Low**

Barriers to Exit:

- **Corporate Strategic Stakes: High** Companies likely have significant stakes in the industry, driving intense competition and strategic maneuvering.
- **Asset Specialization: High** Asset specialization could be high, making it challenging to exit without losses or complications.
- **One-Time Cost of Exit: High** The one-time cost of exit is likely high, representing a substantial barrier.
- **Strategic Interrelationships with Other Businesses: Moderate** Strategic interrelationships could exist but might not pose an extreme barrier to exit.
- **Emotional Barriers: Low**
- **Government & Social Restrictions: High** Regulatory and social factors might create significant barriers to exit, indicating a high level of impact.

Determinants of Substitution Threat

- **Availability of Close Substitutes: High** There are various alternatives to public transportation such as taxis, ride-sharing services, personal vehicles, and even walking, providing readily available substitutes.
- **User's Switching Costs: Low to Moderate** Switching costs for users are relatively low, especially for short distances. However, for long-term or regular usage, there might be moderate switching costs associated with getting accustomed to a new mode of transportation.
- **Substitute Producer's Profitability and Aggressiveness: High** Substitute producers (e.g., ride-sharing companies) often operate aggressively, offering competitive pricing and attractive deals, showcasing a high level of profitability and aggressiveness in the market.
- **Substitute Price-Value: High** Substitutes like ride-sharing services often offer competitive pricing and value for money, presenting a high price-value proposition to customers.

- **Number of Important Buyers: High (for bus service customers), Low (for advertiser customers)** High for bus service customers due to the significant number of individuals relying on public transportation. Advertiser customers are typically lower in number and might not individually exert significant power.
- **Availability of Substitutes for the Industry Products: High** There are various substitutes available, including other modes of transportation and alternative advertising platforms.
- **Buyer's Switching Costs: Low (for bus service customers), Moderate (for advertiser customers)** Bus service customers usually have low switching costs. Advertisers might have moderate switching costs due to the effort involved in shifting to different advertising platforms.
- **Buyer's Threat of Forward Integration: Low** Buyers, especially individual bus service users, are unlikely to threaten forward integration into the public transportation industry.
- **Availability of Substitutes for the Industry Products: High** There are various substitutes available, including other modes of transportation and alternative advertising platforms.
- **Contribution to Quality or Service of Buyer's Products: Low (for bus service customers), High (for advertiser customers)** Bus service customers contribute to the quality of their travel experience but have limited impact. Advertiser customers significantly contribute to the advertising industry's quality and service.
- **Total Buyer's Cost Contributed by the Industry: High (for bus service customers), Low to Moderate (for advertiser customers)** Bus service customers contribute significantly to their total costs by using the service frequently. Advertiser customers contribute but may have lower overall costs compared to the bus service customers.
- **Buyer's Profitability: Low (for bus service customers), High (for advertiser customers)** Bus service customers are generally cost-sensitive, impacting their profitability. Advertiser customers, if successful, can achieve high profitability through effective advertising campaigns.

Conclusion Each Determinants

Rivalry among existing competitors is influenced by a moderate to high level of concentration, high fixed costs, significant product differentiation efforts, and the impact of industry growth. Barriers to exit, on the other hand, are generally high, with challenges stemming from asset specialization, exit costs, government restrictions, and emotional considerations. These factors collectively shape the competitive landscape and the difficulty associated with exiting the market.

The threat of new entrants in the public transportation industry appears to be low to moderate, primarily due to significant barriers to entry related to economics of scale, brand identification, access to distribution channels, capital requirements, access to the latest technology, and industry experience. Additionally, government regulations and policies, including industry regulation and possibly industry protection, further contribute to the barriers new entrants face. However, the exact level of threat can vary based on regional and market dynamics.

The bargaining power of substitutes is generally high. There is a wide range of readily available and close substitutes to public transportation, including various transportation services and even non-motorized modes like walking. Additionally, the aggressive approach and profitability of substitute producers contribute to the buyers' ability to switch to alternatives easily, giving them significant power in negotiations. The value and pricing offered by substitutes further elevate the buyers' bargaining power.

The bargaining power of suppliers in the public transportation industry appears to be moderate. The number of important suppliers is likely low, but their contribution to the industry's products and services is crucial. The threat of forward or backward integration by suppliers is generally low, indicating a stable and established industry-supplier relationship.

The bargaining power of buyers varies based on their category.

- **Bus service customers** have a relatively high bargaining power due to their large numbers and the availability of substitutes.
- **Advertiser customers**, on the other hand, have less individual bargaining power due to their lower numbers and the unique contribution they make to the advertising industry.

However, the overall availability of substitutes and the influence on the industry's quality and service play important roles in determining the bargaining power of buyers.

Analysis Five Forces Model

1. Competitive Rivalry

Competition in the public bus industry in Thailand is **high**. There are a number of well-established bus companies, such as BMTA, Thai Smile Bus, and Next Point that compete directly with our company. These companies offer similar services and have a strong brand presence in the market, resulting in potentially low switching costs. It may make it easier for consumers to switch to other services or brands. This is because consumers see that other brands or competitors of the business have better offers or benefits. Our company differentiates itself from competitors with innovations or technology related to cashless payments on buses using palm print payment or QR-code to reduce waste from tickets or receipts after payment. In addition, we also use electric buses which help in reducing air pollution and its commitment to sustainability.

Industry competition in applications related to buses industry in Thailand is **low**. There are many well-known companies that make applications such as Viabus, Thai Smile Bus Application, Moovit, and Rumbo. These applications have similar functions or features, such as seeing when the buses will arrive at bus stop and seeing which routes each buses takes. Our company has developed a unique set of features that are user-friendly. In addition, to letting users know where and when the bus will arrive, it can also design the original route and estimate the time it will take them to get there. By employing sensors on the bus and communicating the data to the app, users can also know how many seats are available. Passengers who sign up for membership using our application will be granted unique benefits, such as price breaks and freebies.

2. Threat of New Entrants

The threat of new entrants in the bus industry is low. This is because there are many barriers to entry into the bus industry, such as the need to obtain a license from the government and the need to bid for concession routes, all of which require high costs. and takes a long time to develop. However, the potential for new entrants may also have the opportunity to increase due to the increasing popularity of public transport and the availability of new technologies such as electric buses. Our company mitigates emerging threats by creating innovations or new technologies that can differentiate us from competitors. For example, Fare payment, technology inside the vehicle Voice announcements before reaching the bus stop, battery chargers inside the bus This helps facilitate passengers who get on the vehicle and don't have a battery. Moreover, our company has a strong and established brand, which means that the threat of new entrants is low.

The threat of new entrants creating applications related to the bus industry is **low**. Existing companies have established reputations and strong brand awareness. This makes new entrants less effective and the obstacles in creating bus-related applications are difficult because in many companies they do not allow tracking or using GPS on company vehicles. Since our company both manufactures buses and software, it is advantageous that we can use GPS or bus tracking on our bus vehicles while also creating a dependable and strong application that is easy to use and meets consumers' expectations for easier travel and payment processing.

3. Threat of Substitutes

The Bangkok and Metropolitan Region

- **Other forms of transport**

- **Train:** The threat of industrial substitution in public transportation in Bangkok and surrounding areas is **high**. In term of the trains in Bangkok are divided into several lines, namely BTS, MRT, BRT or ordinary trains. It is a time-based journey for both near and far stations and has its own route. For this reason, trains pose a high substitution threat. To alleviate this problem, we record the time we start our journey and arrive at our destination to help customers predict the time and use our buses.
- **Vans/Minibus:** The threat of industrial substitution in public transportation in Bangkok and surrounding areas is **low**. As for the van, there is little space for passengers to sit and be packed together, unable to check the arrival time, and no security in many matters such as there were no CCTV cameras on the van, or the van film was dark. As a result, we have an advantage such as there is more space for passengers to sit and it is cheaper. There are CCTV cameras to help ensure that nothing unusual will happen to passengers. All in all, vans don't have that much of an impact on us in terms of substituting transportation.
- **Taxi Car/Grab car:** The threat of industrial substitution in public transportation in Bangkok and surrounding areas is **low**. The first thing that passengers often consider is the cost of travel. Taxi or Grab pose a threat that doesn't have much power against us because we have fewer travel expenses and the same travel time.
- **Motorcycle/Grab bike:** The threat of industrial substitution in public transportation in Bangkok and surrounding areas is **low**. A motorcycle is a vehicle that usually travels short distances, and the price is not much different from our buses. So, it does not have much power with us. Our buses travel both near and far depending on the needs of the customer and in terms of cost, we have calculated the cost to suit the customer as much as possible.
- **Tuk-Tuk:** The threat of industrial substitution in public transportation in Bangkok and surrounding areas is **low**. Tuk-Tuks are tricycles that have no

effect on us either. The number of people driving Tuk-Tuk is small and the number of people riding them is also small. Tuk-Tuk travel only a short distance and are only in certain areas. To alleviate this, our buses travel to more areas and reach more passengers. Tuk-Tuk are not effective for us as a substitute for transportation.

- **Application:** The threat of substitution in the Bangkok application industry is **high**. In Bangkok, the number of people traveling by public bus is large and the number of people using apps to travel is also high. There are many other applications that can view the time period or number of cars, causing app users to use our competitor's apps. To alleviate this problem, we will constantly improve the stability of the app. If customers encounter problems, they can contact us in various ways.

Cities in other provinces

- **Other forms of transport:** The threat of industrial substitution in public transportation in other provinces is **high**. For other provinces, the location in the provinces is quite far. Public transportation is seldom available, so people in other provinces often use their own cars to travel, making the number of people who use our public transportation less. To alleviate this threat, we will build routes in many areas of the provinces and important places that people frequent to help people turn to our electric buses and help reduce pollution.
- **Application:** The threat of substitution in other provinces application industry is **low**. In the provinces, there are still no buses that are widespread or that go in many areas. Therefore, the power of using the application of our app will be very powerful and advantageous at this point. Because passengers or app users will use our application to view the travel or operating times of our company's buses.

4. Power of Suppliers

The power of suppliers in the technology space is **high**. The limitation of our company's technology is that we have only one partner in this field, AWS, which has the power and ability to negotiate prices with our company. The part where technology is used is the palm scanning part. Once scanned, payment will be made through the application. To alleviate this restriction, our company may have a written contract so that they cannot negotiate with us, and we will use technology that we have developed from AWS. Even if it is our copyright to help provide more convenience to both our company and customers.

The power of suppliers in terms of materials for assembling buses is **low**. The companies we partner with for vehicle assembly have many sources and we have our own garages, so suppliers in this area do not have that much influence or authority over us. To alleviate this part, we will develop our own cars together but also partner with other companies in a way that is like helping and supporting each other on a win-win basis.

The power of the supplier in terms of the power supplier (for the engine charger) is **low**. The company we are partnering with is EA anywhere, which is a good partner with us, and we can help or support them in many areas, such as advertising or promoting within the app. However, we can alleviate this part by developing engine chargers within the garage.

5. Power of Buyers

The power of customers using bus services or in the bus industry is **high**. Passengers have many choices in choosing to use the bus or take the bus. However, passengers are price sensitive and look for good value for their money. We emphasize on service and high quality at reasonable prices to answer or solve this problem. In addition, our company also considers our customers and tries to retain them by developing applications that are easy to use and new technology within the buses to meet their needs and motivate or encourage customers to continue using our services.

The power of advertisers on buses is **low**. In general, the number of customers wanting to advertise is smaller, so we have an advantage because our buses travel on many different routes and the general public can clearly see our buses. Therefore, the decision-making power depends more on our company, and we may be able to offer non-negotiable offers that will be beneficial to our company and be like promote our buses as well if someone advertises on our buses.

Discussion

Overall, the Five Forces analysis suggests that the public transportation industry in Thailand is moderately attractive. There is a high level of competitive rivalry, but our company has a number of factors in its favor, such as its innovative cashless bus payment system and its commitment to sustainability. The threat of new entrants and the power of suppliers and buyers are moderate. The threat of substitutes is also moderate, but our company can reduce this threat by continuing to innovate and improve its services.

Strategic planning

Vision: “To lead in technological innovations that deliver comfortable, secure, and environmentally friendly bus travel experiences accessible to all.”

Short-term goals (1 year)

1. **Mission:** Enhancing software application - continuous improvement through user feedback-driven updates.
 - **Strategy:** Multi-language Support: Develop the application to offer Thai, English, and Chinese options, catering to both local and international passengers for understanding of how it works.
 - **Strategy:** User Experience Researcher needs to collect the feedback from users by conducting user interviews, surveys, and usability tests to gather insights and use this information to provide recommendations for enhancing user experience.
 - **Strategy:** Use UX/UI designers to create easy-to-use interfaces that are accessible to everyone and design prototypes for new features and improvements.
 - **Strategy:** Use software developers to collaborate with the UX/UI team to implement new features by coding and testing the system.

2. **Mission:** Promote environmental sustainability through our business.
 - **Strategy:** Launch a campaign to raise awareness about eco-friendly practices among passengers, encouraging them to choose sustainable travel options.

Ex: Exchange plastic waste for free bus tickets.
 - **Strategy:** Accept advertising services for exclusively eco-conscious companies, aligning with our sustainability focus.

3. **Mission:** Create brand recognition and awareness.
- **Strategy:** Develop a strong online platform, including a professional website that effectively conveys our brand's identity and our expertise in our field. This website will not only showcase our brand's identity and offer valuable content.
 - **Strategy:** Produce high-quality content that aligns with people's interests and concerns. This content will primarily focus on topics related to business, applications, and eco-sustainability.

Medium-term goals (2-4 years)

4. **Mission:** Innovate and evolve our electric bus design by creating a second version that has more capabilities than the first model.
- **Strategy:** Use Pricing Strategist to analyze operational expenses and determine the optimal pricing planning.
 - **Strategy:** Use Market Research Analyst to gather data on customer needs, willingness to pay, and location.
 - **Strategy:** Use Design Engineers to develop prototypes and testing procedures. This will collaborate with the design engineer on their design concept.
 - **Strategy:** Research Plan: Implementation of Waste-Derived Materials in Bus Assembly
 - **Strategy:** Creating advanced features and functionalities that address customer problems following feedback
5. **Mission:** Measure the reduction in reliance on fuels and the overall environment impact.
- **Strategy:** Use data analysts to continuously measure progress to be the standard for measuring reduction in reliance on fuels in Thailand.
 - **Strategy:** Use sustainability managers to monitor key performance indicators (KPIs) related to the clean-energy and ecosystem's goals.

6. **Mission:** Develop palm print to be able to connect with other transportation.
- **Strategy:** Use system Integrators to integrate the palm print system with various transportation services, including ticketing, scheduling, and access control systems.
 - **Strategy:** Use Quality Assurance (QA) Engineers to conduct thorough testing, including functional testing, security testing, and performance testing, and testers to execute test cases and report bugs and issues in order to cover wide use.
 - **Strategy:** Keep an eye on emerging technologies in biometrics and transportation, and be prepared to adapt and evolve the system to incorporate innovations that enhance its functionality and security.
 - **Strategy:** Collaborate with government transportation authorities to gain necessary approvals and support.
7. **Mission:** Expand our market reach by attracting and engaging new customers and consumers while nurturing and retaining the loyalty of our existing customer base.
- **Strategy:** Use consultants to supplement the skills of marketing in campaigning the use of our bus.
 - **Strategy:** Use connections with partners to gather information to improve and develop the customer base.
 - **Strategy:** In order to increase the partner base, our company and new partners will cross-promote one other's services/products.
- Ex1:** Being a partner with local eco-friendly hotels, hotels will promote our bus for residents and our company will promote their hotels for passengers.
- Ex2:** To collaborate with tourism agencies, our company will promote their travel packets for passengers and agencies will promote our bus for tourism.
- **Strategy:** A marketing team needs to create campaigns to represent the unique features of our tracking service to encourage a substantial increase in user adoption and promote the benefits of using our service rather than the competitor's service.

- **Strategy:** Doing the collaboration with C.P. company to have a campaign for giving back service promotion to customers.

Ex1: Customers can collect 7-11 stamps and use it to pay for fares.

Ex2: Creating a QR Code at the bottom of the 7-11 receipt, customers can scan QR Code at our application to get discounts.

Long-term goals (5 years and up)

8. Mission: Driving new technological innovation (Non-Stop Improving)

- **Strategy:** Incorporating Smart City Connectivity: Partnering with smart city initiatives , we integrate real-time traffic light data. This integration seamlessly extends driver-side applications to know the road information.
- **Strategy:** Design a new system for enrollment that uses palm print recognition, seamlessly accessible via mobile devices. Reminding: Today, the customer has to register the palm-print system via machine at a bank or convenience store.

9. Mission: Participate in the project "Changing Private Public Buses to Electric Buses in the Bangkok Area" to sell carbon credits and increase income.

- **Strategy:** Showing potential in carbon credit management in our company.
- **Strategy:** Demonstrate a commitment to supporting the government's goals of reducing greenhouse gas emissions.
- **Strategy:** Engage with government officials and stakeholders to discuss how your project aligns with their objectives.
- **Strategy:** Building connections with EV Companies who sign Letter of Authorization (LoA)
- **Strategy:** Build trust and credibility with project stakeholders and government agencies by demonstrating transparency in order to be selected to participate in the project.
- **Strategy:** Becoming the top electric bus company in Thailand in order to be chosen as part of the project in the future.

10. **Mission:** Enhance accessibility of our community by introducing a new bus route that connects key destinations, and provides safe, reliable, and inclusive transportation options for all residents and visitors.

- **Strategy:** Use a Regulatory Compliance Officer to work closely with transportation authorities and local government agencies to secure funding and resources for accessibility improvements.
- **Strategy:** Establish a centralized data analytics team to monitor route performance, ridership trends, and passenger feedback.
- **Strategy:** Comprehensive Route Planning and Analysis: Conduct a thorough market analysis to understand passenger demand, demographics, and travel patterns.

Competitive Strategy (Differentiation Focus)

Differentiation:

New Technology and Innovation: Our company has technology which is palmprint scanners for customers to make payments, and weapon scanners for providing high security in our buses. Our service is the first one that uses these technologies in the buses.

Innovative Bus Features: Our buses offer unique features such as charging cables, catering to modern connectivity needs. Our buses offer charger ports, free wifi, luggage storage areas, and universal design—there is no step floor between the bus and the pathway for disabled people. Furthermore, our pioneering palm payment system contributes to a cashless society—a contemporary touch that no other company has ventured into.

Advanced Application Features: Our application introduces new features. There are brand-new functions that distinguish our application from competitors, such as a real-time display of available seats within the bus, breaking news on traffic, alternative ways for making payments, providing the nearest bus stops, and arrival time. This real-time information empowers customers to make informed travel decisions. Moreover, the application will provide more details on each feature if customers pay for a subscription. This is an innovation not found in any other application.

Enhanced Convenience: The minimum of our service fee is 25 baht, which is more expensive than competitors with a minimum price of 8–15 baht. We have something that can facilitate more convenience for customers than the competitor's companies. We prioritize a seamless and elevated experience for our customers, setting us apart from the norm.

High Cost, High Innovation: In contrast to the prevalent price-focused approach in the Thai public transport industry, we prioritize differentiation as our core strategy. While big industry players focus on affordability, we pivot towards standing out in terms of value and innovation, ultimately attracting customers seeking a distinctive travel experience. If we choose the price strategy, this would not be a good story for us because the current standard price of public transportation in Thailand is very low.

Environmental Stewardship: A company's commitment to a greener future. We care deeply about the environment and focus on green solutions. We're leaders in electric buses and support various coming projects that make the world more eco-friendly. We stand in the industry as a company dedicated to our planet's well-being.

Focus:

Selective Customer Base (Niche Customer Segment): Our services focus on middle- to high-income individuals, with a targeted focus on students, workers, and foreigners. We consider specific customer segments with the financial capacity to opt for a premium experience. By making this strategic decision, we are focused on attracting customers who appreciate a premium transportation experience and service at a price they can afford. This aligns with their preferences for quality, innovation, and convenience rather than solely seeking lower fares.

Area and Route Focus: We primarily target urban areas within each province, as these city centers tend to have higher population densities and a greater reliance on daily transportation for various activities, including commuting to work, attending educational institutions, and traveling. These areas are integral to people's daily lives, making the use of transportation services an essential and frequent necessity. Additionally, we focus on areas where a significant portion of the population possesses medium to high incomes, ensuring that our services cater to customers."

Environmental Consciousness:

Our dedication to environmental consciousness, sustainability, and the importance of partnering with aligned organizations to work toward common environmental goals. We focus on environmentally friendly companies that are going to be our partners for doing campaigns or consumers for doing advertising to match our vision.

Value Chain



Value Chain Analysis

Primary Activities

1. Inbound Logistics:

Our E-Bus manufacturing process starts with inbound logistics, It involves carefully getting advanced electric vehicle (EV) parts like powerful lithium-ion batteries, top-notch electric power systems, sturdy bus frames, and passenger-friendly materials. We focus on finding high-quality parts from reliable and affordable suppliers. This process is the first step in creating dependable and eco-friendly public transportation.

2. Operations:

- **Vehicle Assembly:** This is where we put together our electric buses, involving steps like building the bus frame, fitting electric power systems, adding passenger-friendly interiors, and checking for quality.
- **Quality Control:** We take safety seriously by rigorously testing electrical systems, checking battery performance, and making sure our buses are safe and reliable for passengers and the environment.
- **Efficient Fleet Management:** We plan bus routes and schedules carefully to match passenger needs, save money, and provide efficient service. We make decisions base on collections of passenger information to reduce fuel use.
- **Application Development:** Offers features like cashless payments, real-time tracking, and convenience-enhancing functionalities.

Operations are the core of our E-Bus service. This is where we build our electric buses carefully, making sure they meet high safety and performance standards. This phase powers our service, making sure each bus offers safe, eco-friendly, and comfortable transportation in Thailand.

3. Outbound Logistics:

- **Maintenance and Repairs:** We keep our buses safe and reliable by doing regular maintenance and quick repairs.
- **Passenger Comfort:** We care about passenger comfort, so we have comfy seats, charging stations, places for luggage, and prepare the cleanness of the bus before serve the customer in each round. Enhanced comfort contributes to a positive passenger experience.
- **Real-time Information:** Providing real-time bus tracking and arrival information via your application helps passengers plan their journeys effectively and conveniently.
- **Charging Station**

Outbound logistics make sure our electric buses are in the right places and running smoothly. We plan routes carefully and keep up with maintenance to avoid problems. Our goal is to offer reliable and top-quality transportation.

4. Marketing and Sales:

- **Digital Marketing:**
 - Advertising campaigns, influencer collaborations, and video production on social media platforms, YouTube, Twitter, TikTok, and others.
 - Company's Advertising via the Company's website.
- **Advertisement:** Displaying video advertisements on LED screens in high-traffic areas.

Marketing and sales activities for the E-Bus service involve digital tools to attract a diverse passenger base. This including digital marketing campaigns that utilize real-time tracking and electronic payment systems to enhance the passenger experience. Collaborations with influencers, video marketing on social media platforms, and even video advertisements on LED screens in high-traffic areas contribute to the outreach efforts.

5. Services:

- **Customer Service:** Providing passengers with customer service is our top priority. This includes assisting passengers with boarding, facilitating smooth fare payments, gives feedback, and offering real-time route information to enhance their overall experience.
- **Safety Measures:** Ensuring the safety and comfort of passengers during their journey. This involves implementing a strict safety protocols and tools, maintaining clean and- well-maintained buses, and providing ongoing training to drivers on passenger safety and service excellence.
- **Payment Solutions:** Our application offers cashless payment options, including palm scanning and QR codes. These solutions ensure convenience for passengers and resolve the issue of passengers not carrying cash. Describe the seamless payment process and security measures.
- **Passenger Assistance:** Providing notifications of upcoming stops and destination alerts enhances passenger convenience. It ensures passengers disembark at the correct location and have a smooth travel experience.
- **Connectivity:** Offering free Wi-Fi and charging options on buses ensures passengers stay connected during their journeys. Highlight the quality of the Wi-Fi service and the availability of charging ports.

Our value chain is intricately tied to these essential passenger-centric services. They are the foundational elements that enable us to deliver a superior and holistic transportation experience to our passengers. Customer service, prioritizing safety, convenient payment solutions, passenger assistance, and connectivity are not just individual components of our operations; they are the threads that weave together the fabric of our value chain.

Support Activities

1. Firm Infrastructure:

Our firm infrastructure includes having a strong organizational structure with good ways of making decisions. We make sure our business follows all the rules and standards in the electric vehicle and transportation industry. In our main offices, managers take care of important departments like management, finance, and legal stuff. This helps our stores and operations run smoothly. At our stores, the managers there make sure they are nice places, and they have a team of employees who give great customer service.

2. Human Resource Management:

- **Recruitment:** Attracting and retaining skilled and dedicated employees for various roles, including engineers, drivers, marketing professionals, and customer support staff, is crucial for the business's success.
- **Training:** Providing comprehensive training programs for employees to enhance their skills and ensure they can perform their roles effectively is essential for maintaining high service standards.
- **Employee Benefits:** Developing competitive compensation packages and benefits is necessary to attract and retain top talent in a competitive job market.

Within the field of human resource management, we recognize that our employees are the lifeblood of our organization. Our efforts here are geared towards attracting, retaining, and nurturing a workforce that is both skilled and dedicated. This spans a multitude of roles, encompassing engineers, drivers, marketing professionals, and customer support staff, each playing a unique but integral part in our business's success. This commitment to employee development contributes significantly to maintaining high service standards and passenger satisfaction.

3. Technology Development:

- **Research and Development:** Continuous investment in research and development is key to improving bus technology, developing and upgrading the palm print recognition system, increasing energy efficiency, and enhancing the overall passenger experience.
- **Application Development:** Ongoing development and maintenance of the E-Bus application, including features like real-time tracking, electronic payment systems, and passenger communication tools, is vital to staying competitive in the market.

Innovation and technological advancement play a critical role in our value chain by enhancing various aspects of our operations and services. First and foremost, our investment in research and development directly impacts our inbound logistics and operations. It allows us to source and integrate cutting-edge EV components efficiently, ensuring that our buses are equipped with the latest technology, such as energy-efficient systems, which is essential for our commitment to sustainability.

Moreover, our focus on technological advancement extends to our outbound logistics. By continuously improving bus technology, we not only provide a more comfortable and reliable mode of transportation but also reduce operational costs, aligning with our efficient fleet management goals. Additionally, our investment in the palm print recognition system enhances security and convenience for our passengers during the boarding and payment process, directly impacting customer service.

Ultimately, embracing innovation and staying at the forefront of technological advancements in electric transportation ensures that we offer a superior and competitive service to our passengers. It's an integral part of our value chain, enhancing each step from inbound logistics to outbound logistics and all the way to our passenger-centric services. world. Our commitment to giving passengers a great all-around travel experience makes us different from the competition and keeps us a leader in the market and cornerstone of our long-term sustainability in the electric transportation industry.

4. Procurement:

- **Supplier Relationships:** Maintaining strong and collaborative relationships with key suppliers is crucial to secure favorable terms, negotiate bulk purchases, and ensure a steady supply of high-quality components.
- **Cost Negotiation:** Actively negotiating prices and terms with suppliers to reduce procurement costs while maintaining component quality is essential for cost-effective operations.

Procurement maintaining strong and collaborative relationships with key suppliers is essential to secure favorable terms, negotiate bulk purchases, and ensure a steady supply of high-quality components. Effective cost negotiation is another critical aspect, actively working with suppliers to reduce procurement costs while maintaining component quality. This careful balance between cost-efficiency and quality is central to cost-effective operations, ensuring the E-Bus service remains sustainable and competitive.

Value Chain Analysis

The value chain components mentioned above collectively create a unique and superior transportation experience that connect with our target customer base. Passengers who prioritize modernity, innovation, and convenience are drawn to our services, perceiving them as distinct from traditional public transportation options.

By focusing on differentiation, innovation, and customer-centric services, we not only attract passengers but also command higher pricing for our premium offering. Passengers are willing to pay a premium for the added value and convenience we provide, which contributes to increased revenue per passenger.

Moreover, this strategic approach enables us to generate higher margins per passenger compared to competitors who primarily focus on cost reduction. These higher margins, combined with a loyal and growing customer base, lead to increased business profitability and long-term sustainability in the electric transportation industry. Our ability to consistently deliver a superior transportation experience reinforces our competitive advantage and solidifies our position in the market.