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SCOOTER SHARE

To say that global scooter sharing has become increasingly popular is an understatement. In the U.S. alone, the number of trips people took using shared micromobility more than doubled to 84 million last year—and nearly half of these rides were on an electric scooter. The rapid adoption of dockless vehicles has resulted in an unprecedented growth of private scooter-sharing operators deploying fleets all over the world.

Capturing a piece of the multi-billion-dollar scooter-sharing market is an accessible reality for any entrepreneur with the right resources and guidance in place. As with any new industry, market data and standards for best practices can be limited or, in some cases, are still in the process of being defined. For this reason, many would-be operators still have difficulty understanding how to launch their own scooter sharing fleet from the ground up. This eBook is designed specifically for the prospective scooter-sharing operator who is thinking of launching his or her own fleet.

DOMAINS

There are four major domains that must be considered when starting a scooter-sharing platform:

- Hardware
- Software
- Operations
- Regulations

These four components carry equal weight, and each domain will be explored in subsequent sections.
Hardware

There are two primary elements within this domain that must be addressed by any prospective operator:

1. Scooters

You can’t launch a scooter sharing system without vehicles. There are a wide range of scooters available on the market today. While one manufacturer, Segway-Ninebot, is presently dominating with an estimated 80% global market share, there is an ever-growing number of hardware producers that are manufacturing high-quality and innovative scooters. Among them are ACTON, Yimi, Tortoise and Superpedestrian – all of which are fully compatible with Joyride’s software platform.

The scooters you use will require connectivity, either with Bluetooth, GPS, GPRS, 3G/4G or a combination of thereof. This will be what is used to tether the unit to the rider’s mobile device, allowing them to access that specific vehicle. Typically, the connection can be obtained either by entering a vehicle number or by scanning a QR code.

The scooters designed for a sharing platform have a range of features to make both your operational needs easier and improve the user experience. Some features related to these products today include:

- Larger wheelbases, allowing for a more comfortable ride on uneven terrain
- Swappable batteries, reducing the effort required by operational staff in keeping the units charged
- A variety of cosmetic features, such as LED lights, a bell, speakers, places for advertising and QR Codes

Spare parts for your vehicles will be critical to your operations. These will enable you to increase the lifespan of your fleet at a lower cost. Ensure that the manufacturer you decide to go with can also supply all the spare parts you will need.

2. IoT Device

In order to operate your scooter fleet, each scooter needs to be IoT (Internet of Things) enabled. This means that the scooter is able to connect to the internet, which is typically conducted by connecting to a user’s mobile phone, or through being synced to directly connect to the internet itself through a SIM card. This allows the scooter to act as a global positioning device (GPS), while also (depending on the type of connectivity) being able to transmit additional operational data to improve fleet efficiency. Additional data can include the real-time battery charge of the scooter or whether any of the internal sensors on the IoT device/scooter have been triggered. Examples of these sensors include sensors to determine if a scooter has been knocked over or stolen.

The IoT devices are a must. They enable both the operator and the users to locate the devices via a computer or mobile device; unlock and lock the scooter; and report missing or maintenance tickets.
The IoT device can be connected either internally to the scooter on compatible models or retrofitted externally, generally onto the handlebars of the vehicle. In many cases, a retrofitted IoT device will only be able to transmit the geolocation of the scooter. However, new products are being produced that will allow for external connectivity that provides further data transmission capabilities.

You will also need to purchase a data plan and SIM cards for each one of your IoT devices so they can send that data and real-time position. There are many different data partners out there that sell data at a variety of prices. Determine the markets in which you’re launching and that will help you narrow down your data strategy. Costs can vary dramatically, so it’s worthwhile to do some research here.

While building your own IoT device may be an option, it can overly complicate and add to your overhead (there are off-the-shelf products available for purchase, too). The important part is to properly integrate whatever IoT device you use into your backend software, which can be complex and take time, so ensure you find professional electrical and software engineers to do this. Ideally, having an IoT device already integrated with your vehicles will make this step seamless in terms of launching and eventually scaling your business.

Software

Software is perhaps the most important part of your business. This includes the rider mobile app, the backend fleet management system, all operator apps or tools you use and any integration with your vehicles.

Software can be difficult to build independently, particularly when considering the hardware integrations necessary. As more third-party options become available, it is wise to consider using an available platform as this can be significantly more cost-effective and much faster to implement. And when first to market is so important, you don’t have the six to eight months it will take to build your own – especially when it’s possible for your software to be completely developed and operational within 24 hours through Joyride’s platform.

The software can be broken down into two elements:

1. Rider App

The rider app is essential for any scooter-sharing operation. It should be available for both iOS and Android in order to ensure that all markets can be addressed. The mobile app will be used by riders to locate the vehicles, reserve them and plan a walking route to them. It must also have the capacity to connect to the scooter and unlock it. The app should display all available scooters within a particular area, while also maintaining all user profile data, payment information and ride history.

The mobile app should be easy to use and consistent with other platforms on the market to avoid confusion in the user. Design elements should be used to reflect the unique branding of your particular fleet.
Other key features that are critical for increasing retention and daily usage are promotions and flexible pricing. Having the ability to reach your customers through SMS and email campaign updates is a powerful marketing tool and an effective way to stand out from your competitors. You should also be able to upsell your customers with weekly, monthly, and annual passes.

2. Operator Tools

The Backend, Backoffice, or Dashboard refers to the component of the software utilized by the fleet managers and employees of the operation.

The backend for scooter fleet management software should be web-based. However, you will also require a mobile application for field staff to use in order to locate and rebalance your fleet.

The backend should have the capacity to track the present location of the vehicles associated with a fleet, while containing them within geofenced boundaries. It should also be able to specifically flag certain vehicles for maintenance and repairs so your users can’t rent them. Another must-have feature is the capacity to receive and respond to support tickets. This will ensure that you and your support team are swiftly able to address the reported concerns of your riders.

Operational Requirements

Operational requirements refer to the day-to-day activities necessary to ensure the fleet remains in service. While these can be very specific to the region in which your system is intended to launch, there are generally some universal requirements that must be considered:

1. Staffing

While some scooter sharing companies will allow non-licensed individuals to receive a nominal fee for collecting and charging their units (often called "chargers"), this will likely not sufficiently address all the charging needs of your fleet. Furthermore, almost all municipalities will require an operator to dictate how they intend to address the charging of scooters independently. As such, it will be necessary for every operator to be able to collect, store, and recharge their units without relying on a loose "charger" network. This means the new operator will have to hire staff for the purpose of nightly collection and rebalancing. This will also ensure that ALL your vehicles are being properly collected and maintained to your and the manufacturers standards. Scooters contain lithium-ion batteries, which makes them susceptible to explosion if not charged with their manufacturer’s charging cables.

2. Fleet Collection/Rebalancing

Many operators deploy their fleets in the morning and then collect them in the evening for recharging. Rebalancing, meanwhile, is conducted throughout the day. Rebalancing refers to the collection and movement of the vehicles to areas that will maximize the usage of the fleet. A solid rebalancing strategy will involve monitoring where users are riding the vehicles and at what hour of the day. Bringing the appropriate number of scooters to these locations will ensure that a unit can be quickly and easily located by a prospective rider and increase the likelihood of future use.
Rebalancing also gives your staff an opportunity to swap out old batteries for fully charged ones if your scooters support that.

To optimize efficiency, most operators will use large trucks or vans to ensure that they can collect as many scooters as possible in one trip. While these vehicles can be expensive, they will significantly increase the capacity of the charging staff. Consider using electric vehicles to reduce your carbon footprint. The amount of staff you require will depend on the geography of your city, how many vehicles you have in operation, and how much maintenance your vehicles require. It is also worth exploring how an autonomous repositioning strategy may work for your fleet, such as one recently introduced by self-driving scooter manufacturer Tortoise.

3. Storage for Maintenance

Many scooter fleets are operated on a rotational maintenance structure. This provides riders with constant availability to a specific number of scooters, while also ensuring that deterioration due to wear-and-tear is minimized as much as possible. However, this means that the scooters will need to be stored at a location when they are being repaired/charged. Regardless, many cities are making this a requirement for an operating licence. It can also be a liability to have the scooters operational at night. Typically, a storage unit which provides electricity, a warehouse (or portion of one), or commercial building is used.

Even with regular maintenance, an operator should anticipate a relatively short lifespan for their units, typically four to six months, though hardware manufacturers are increasingly introducing innovative solutions to extend scooter lifespans past 12 months. A scooter with a longer lifespan will likely be worth the rise in price.

Regulatory Requirements

Most municipalities will have certain requirements of the prospective scooter-sharing operator within their limits. While each municipality is unique, there are, once again, common features throughout:

1. Permits

Most cities/towns will require an operator to obtain a permit in order to work within their boundaries. In addition to a fee (which may be a base fee, a per-trip fee, or some combination thereof) the city will likely require the operator to submit a package that includes details of their business plan. Typically, these requests come in the form of a Request For Proposal (RFP). Common features of historic RFPs include:

- Company details
- Scooter details
- A maintenance schedule
- Hours of operation for the fleet
Each of these considerations will require careful thought and planning. There are many successful RFPs from other scooter sharing companies that have been published online and can serve as a useful template.

2. Insurance

Almost every municipality will require that a scooter-sharing fleet obtain insurance in order to operate within their boundaries.

There are different types of insurance coverage options available. Municipalities are primarily concerned with an operator obtaining a Commercial General Liability policy. This is the coverage that will be triggered if a rider is injured or damages property not related to the scooter fleet. In insurance terminology, this is known as Third-Party Coverage.

An operator may also be interested in obtaining First-Party Coverage. This is the coverage that will come into effect if one of the fleet’s scooters or other property is damaged, broken, stolen, etc. It should be noted that wear-and-tear is an exclusion on all first-party policies, meaning that replacement of a unit due to deterioration from regular use will not trigger a claim. Most cities will not require this form of coverage.

A city will need to see a certain limit of coverage – the maximum amount that will be paid under any claim. Smaller, less litigious municipalities may only require $1-$2 million USD in coverage, while larger cities may need to see $7-$10 million USD.
Ready to start your journey? Get in touch

Scooter sharing is a lucrative, modern and sustainable business venture. Moving quickly in this market can give you, the prospective operator, an advantage over the competition.

In order to launch seamlessly with top-of-the-line features and simultaneously meet municipal regulations, we recommend partnering with a software provider capable of addressing your questions and providing the necessary and deep connections with the hardware manufacturers to guarantee you the best price and supply. Joyride has managed to assist operators of all sizes in more than 60 markets worldwide with a platform designed to support fleets ranging from five to 500,000+ vehicles.

Contact Joyride at hi@joyride.city to schedule your consultation with a team member to learn more about how you can be part of one of the fastest-growing industries in technology.