BUSINESS ANALYSIS BUSINESS REPORT

Of Lime-S

Contents

Executive Summary	2
Objectives	2
Rich Picture	3
Rich Picture: Explanation	
Context-Flow Diagram	5
Context-Flow Diagram: Explanation	
Use Case Diagram	
Use Case: Explanation	ε
Stakeholder Analysis	7
SWOT ANALYSIS FOR LIME-S (E-Scooter)	11
Importance Imminence Matrix	17
Problem Identification and Description	20
Next Steps	21
References	22

Executive Summary

This report was commissioned to examine possible threats and opportunities can affect the Lime-S business.

As business analysts, we created a rich picture to show the business at their current stage which is easier to understand than reading information which doesn't make much sense. Then, we looked at stakeholder analysis, swot analysis and next step (suggestion of strategy). This helped us find out what kind of problem the company is facing and what issues will arise in the future.

We came up with some current issues and find out the power of *stakeholders* in terms of how each user can influence business. For example, we evaluate operation staff in terms of level of their power, interest, reason why, and suggested strategy.

For the next step, we use SWOT analysis to find out Internal and External Strengths(S), Weaknesses(W), Opportunities(O) and Threats(T) of the innovative and eco-friendly electric scooter of the present generation.

For each factor, we find at least 15 strategic issues of the company and we give rank for each factor to find out the accurate influence of them in the business environment.

For the final part we focus Next steps, we focused on suggesting a right way of finding a solution which is about documenting requirements and which cover 5 major components of the system, such as outputs, Inputs, processes, performance, and security of the system. This part can be finalized with top management.

Objectives

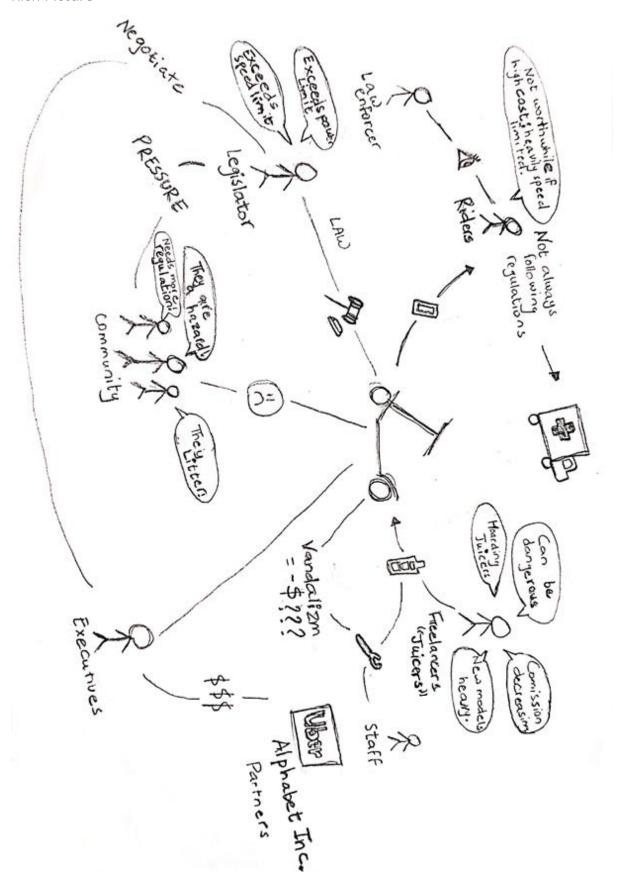
Cities are often known as a place which has a high level of concentration and accumulation. The larger the city, the higher its potential disruption. With people need to get from place to place more and more, traffic delay has become a problem. Therefore, Lime have come up with a solution for this situation. With their trademark, "smart mobility for the modern world", Lime brings riders to the places and people that signify the most, empowering better urban lifestyle.

- Lime provides electric bikes, scooter sharing systems around the world in various cities.
- Lime's system provides dock-less vehicles which users unlock through their app.
- Users can leave their ride at their destination, which will be picked up by one of their staff every night to fully charge for the following day.
- Lime aims to advance transportation fairness and building a sustainable, safe communities.

In 2018, Lime's service has launched in Brisbane, after running an inspection in Melbourne. The firm present trialling bicycles instead of scooters in Sydney because of legal constraints. However, the Queensland government has granted Lime an exemption from legislation that otherwise considered its vehicles illegal (Ward & Curran, 2018). The organization has been picking up fame over the world, with even Uber joining as an associate.

In this report, Business Analysts will look into Lime's current business system including operational and strategic issues, as well as analyse potential opportunities and threats to identify future direction for the company.

Rich Picture



Rich Picture: Explanation

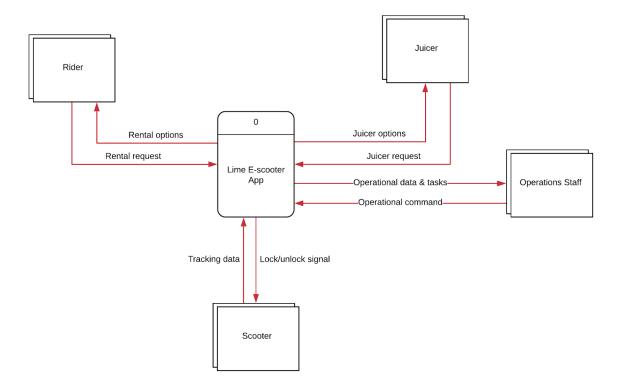
The preceding rich picture captures the main issues that affect Lime's e-scooter business that are public knowledge. Demonstrated in the rich picture, is the e-scooter in the centre of the business's situation and the key stakeholders' viewpoints and relation to the e-scooter surrounding it. The main facilitator of e-scooters is arguably the law and legislators, who dictate whether or not the e-scooter is permitted in the region. For example, in a region like Victoria, where there is a 10km speed limit and 200w output power limit, which basically negates the time & cost value of e-scooters and renders it an unviable option for riders and e-scooter businesses (Perry, 2019), or in the UK, where e-scooters are outright illegal on public land (Tapper, 2019). Moreover, as demonstrated in the rich picture, the previous point emphasizes the importance of negotiation between the executives of Lime and legislators to come to an agreement, like in Brisbane, Queensland; where Lime were given exemption from laws that prevented Lime's e-scooters due to its speed and power (Ward & Curran, 2019).

Another important aspect of the problem is the community's backlash with e-scooters, particularly pedestrians, who may have to deal with reckless scooter drivers and dangerous parking and scooter littering (Tapper, 2019). Due to the complexity of enforcing e-scooter regulations, there is a present problem with riders neglecting the protocols to wear a helmet, drive safely in permitted areas and park mindfully, which results in the endangerment of pedestrians and accidents (Tapper, 2019), as implied by the ambulance in the rich picture. Whilst law enforcement in some cities are implementing ways to curb such behaviour ("Parking bans and restricted zones: How German cities plan to crack down on e-scooters", 2019), pressure from the communities may result in restrictive legislation change or even outright banning of e-scooters (Hawkins, 2019), something which Lime executives needs to be mindful of and work with authorities to find and negotiate solutions and possible penalties for offenders.

A critical driving force behind Lime's and the e-scooter industry is the freelancers who charge scooters, also referred to as "Juicers" by lime. Juicers receive a commission for each charge or drop-off (Tapper, 2019), which varies based on certain factors like time, location and battery life ("How To Make Money Charging Electric Scooters | Lime-S Scooter Juicer", 2019). Additionally, there are also Lime operations staff that do maintenance and juicing if required (Tapper, 2019). There have been several reports of the hoarding practices and potentially violent and dangerous working conditions, commonly caused by the competitive nature of harvesting scooters (Conti, 2019). However, Lime has improved that situation by introducing a reservation feature that allows juicers to reserve a scooter 30 mins prior to pick up to reduce the potential for altercations (Wachunas, 2019). Furthermore, there are several reports of complaints of reduced commissions and the new scooter model posing a "health and safety" risk due to being heavier to carry (Te, 2019). In Paris, Lime have announced they will be changing their Juicer model and instead work with third-party companies to do the job, in order to improve the work standard and pay, to have a better chance of earning a license to do business (Dillet, 2019). Which may reveal that Juicers are substitutable even though they have shown to be crucial to the functioning of the business.

Financially, Lime is backed by major strategic partners & investors, most notably Alphabet Inc. and Uber who have invested heavily into the business, valuing the company over 2.4 billion USD (Peterson, 2019). Early data suggests that due to the short average lifespan of scooters, depending on the environment and vandalism, the revenue made from scooters is not nearly enough to recoup the cost, indicating that Lime and other e-scooter businesses are loss-making (Hruska, 2019).

Context-Flow Diagram



Context-Flow Diagram: Explanation

In the context flow diagram, there are 4 identified external entities, that the Lime E-scooter application interfaces with:

External entity: Rider

Data Flow: (in) Rental options (out) Rental request

Description: Riders can see the rentable scooters options on the Lime app and enter scooter details by scanning the QR code or manually to send a rental request.

External entity: Juicers

Data Flow: (in) Juicer options (out) Juicer request

Description: Juicers can view the scooters available for either charging or dropping off on the Lime app and send request to the app to reserve and or to harvest a scooter.

External entity: Operations Staff

Data Flow: (in) Operational data & tasks (out) Operational command

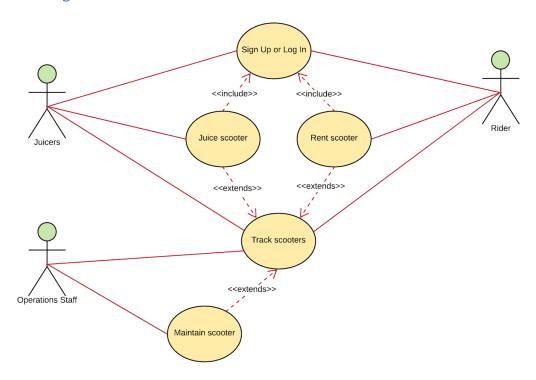
Description: The operations staff have a wider range of controls and tasks in which they can view and perform within a Lime app, due to the broader scope of their job.

External entity: Scooter

Data Flow: (in) Lock/unlock signal (out) Tracking data

Description: The app interfaces with the e-scooter to send a signal to lock or unlock and it receives tracking data, including GPS updates, battery health etc.

Use Case Diagram



Use Case: Explanation

In the use case diagram, there are 3 identified actors and the relevant use cases of Lime's e-scooter system:

Actor: Rider

Associated use-cases: Sign up, track scooters, rent scooter

Description: riders can track scooters available for rent, with regards to, their geographical position and their status, like their battery. The riders can rent a scooter using the app, given they have signed up with their details and logged in first.

Actor: Juicer

Associated use-cases: Sign up, track scooters, juice scooter

Description: the actor applies to become a juicer. After approval, they log into the app, where they can track the harvestable scooters and their status, including the commission; and request to harvest or "juice" a scooter, which involves charging and or dropping off the scooter at a designated LimeHub.

Actor: Operations Staff

Associated use-cases: track scooters, maintain scooters

Description: The operations staff, can track beyond the other two actors in detail, for instance, scooters that are marked missing, in need of repair, currently in repair or need transportation etc. to support their maintenance job, in which they are responsible for maintaining scooters.

Stakeholder Analysis

High		• Legislators	ExecutivesInvestors
Medium	 Public transport 	• Riders	 Low/Mid manager E-scooter competitors Pedestrians Law enforcers
Low	• Drivers	SuppliersCar transport businesses	 Juicer Operations Staff Software developers Bike-rental businesses
Power /Interest	Low	Medium	High

Users Riders

Power: Medium **Interest:** Medium

Reason: riders have medium power, whilst they are customers of Lime and they do vote with their money, they do not directly influence Lime's business decisions. Riders have medium interest, due to the presence of alternatives such as other e-scooter business like Bird, public transport or other means of transport for the first/last mile.

Strategy: pay attention to the needs and behaviour patterns of riders when making decisions, keep them informed and supportive. As their power might change to high if a sizeable amount of people stop giving their money to Lime.

Juicers Power: Low Interest: High

Reason: Juicers have high interest because juicing represents a portion of their income and possibly their means of making a living. If Lime decides to reduce their commission or change their juicer policies, it will likely have an impact on their lives. Juicers have low power because it's a low skilled job with low barrier to entry and as mentioned before, Lime could potentially hire a third-party company to do it.

Strategy: Keep them informed about business changes that affect them and especially ones that have a big impact on their earnings.

Operations Staff (Employee)

Power: Low Interest: High

Reason: Operations staff have a high interest in Lime, as they are employees, hence, they ought to be aware of changes in the business that affect their job, for instance, a change in their maintenance procedures. Operations staff have low power because they work at a low level in the organization, in which their decisions do not have a big impact on the business.

Strategy: Keep operations staff informed of business changes, especially procedural changes etc. that affect the way they go about their jobs.

Authorities Legislators Power: High Interest: Medium

Reason: Authorities have high power, due to their ability to regulate e-scooter business and even outright ban them from operating on public properties. Legislators have medium interest unless they become aware of an issue that prompts them to act upon and legislate.

Strategy: Keep legislators satisfied and negotiate solutions to any issues that may arise, with regards to, Lime's operation on public property.

Law enforcers Power: Medium Interest: High

Reason: Law enforcers have high interest in Lime's operations on public property because it is their duty to monitor and enforce regulations imposed on Lime's users and Lime's public operations. Law enforcers have medium power because if they encounter too much trouble with Lime's users and scooters, they can trigger legislative changes.

Strategy: Keep them informed about business changes, especially, any changes to Lime's operations on public property and work together to enforce regulations and protocols.

Community Pedestrians Power: Medium Interest: High

Reason: Pedestrians have a high interest in Lime's public operations because their scooters are commonly driven and parked on pavements, which may pose a potential threat to the safety of pedestrians. Pedestrians have medium power because they are a key concern for legislators and they can pressure them to consider action against Lime.

Strategy: Listen to pedestrian complaints and work to find solutions to minimize any nuisance caused by Lime's operations.

Drivers Power: Low Interest: Low

Reason: Drivers have low interest because they are typically not affected by scooters since they are usually taking place on pavements and cycling lanes. They have low power because they are not a concern for legislators with regards to e-scooters.

Strategy: Occasionally inform them of Lime's business.

Employees
Executives
Power: High
Interest: High

Reason: Executives have high power because they are responsible for strategizing and decision-making for Lime. Executives have a high interest in Lime because they need to know the business is on the right track and take action to prevent deviations.

Strategy: Keep them informed and managed at all stages of the project, on a fortnightly or monthly basis, so none of the recommendations come as a shock to them.

Software Developers

Power: Low Interest: High

Reason: Software developers have a high interest in the Lime's activities because they work for the organization and on a technical level. They have low power because they work at a lower level of the organization and are replaceable if they leave.

Strategy: Keep them informed of any business changes, especially the ones that affect their software development jobs, like code practices.

Low/Mid managers

Power: Medium Interest: High

Reason: Low/Mid managers have medium power because they play a higher role in the organization, where their duties could involve being a tech lead, in which they supervise and lead the development of the projects. They have high interest because it's critical that they have a very good understanding of the business, in order to do their job competently.

Strategy: Ensure they understand the strategy of the organization, listen to and consider their perspectives regarding Lime's direction.

Investors Power: High Interest: High

Reason: Investors have high interest in Lime because they have invested a lot of money into the business and are interested in its growth and successes. They have high power because they enable Lime to operate, by providing the financial means to support the business, especially due to the fact that the unit economics of Lime is currently likely loss-making, as stated before.

Strategy: Keep them informed and managed at all stages of the project, on a fortnightly or monthly basis, so none of the recommendations come as a shock to them.

Competitors Public transport Power: Medium

Interest: Low

Reason: Public transport have low interest because Lime is not a substitute for lengthier trips. Lime arguably addresses first/last-mile transportation, which supplements public transport. Public transport has medium power because the government can regulate competitor businesses that impact the demand for public transport.

Strategy: Emphasize the benefits of Lime for public transport, with regards to first/last-mile transportation and work to facilitate it further.

Car transport businesses

Power: Low Interest: Medium

Reason: Car transport businesses like taxis may have medium interest, due to the fact that Lime's escooters may affect their demand, as they offer an alternative for shorter trips. Car transport businesses have low power because their service is not a substitute to e-scooters, therefore, their ability to affect lime's e-scooter business may be limited.

Strategy: watch for any changes in power and interest.

Bike transport business

Power: Low Interest: High

Reason: Bike transport business have high interest, due to the fact that e-scooters may have a major impact on their sales, especially due to the convenience factor of e-scooters. Bike transport businesses have low power because their service is not a substitute to e-scooters, therefore, their ability to affect lime's e-scooter business may be limited.

Strategy: watch for any changes in power.

E-scooter competitors

Power: Medium Interest: High

Reason: E-scooter competitors have high interest, due to the fact that they compete in the same market as Lime and they offer a similar service. They are competing for market share. E-scooter competitors have medium power because they can influence the strategies of Lime's e-scooters if their substitutable service is more compelling, which would pose a threat to Lime's market share. **Strategy:** Pay close attention to the market share & e-scooter competitors' strategies. Adopt a

proactive approach, e.g. by innovating, and adapt quickly to any competitive changes.

Suppliers
Power: Low
Interest: Medium

Reason: Suppliers have medium interest because Lime makes up a portion of their sales. Suppliers have low power, because Lime hires multiple suppliers to manufacture their scooters (Marshall,

2019).

Strategy: Keep suppliers informed of business changes that have an effect on them.

SWOT ANALYSIS FOR LIME-S (E-Scooter)

SWOT analysis on the Lime provides a comprehensive view of the internal and external strengths(S), weaknesses(W), opportunities(O) and threat(T) of the innovative and eco-friendly electric scooter of the present generation. These factors have been analysed and ranked according to internal and external elements. SWOT analysis of Lime business assists in the identification of strategic issues of the company.

Strengths

- 1. Dockless electric scooter
- Eco-Friendly Reduction in Emissions
- 3. Cheaper to run (as compared to raising the price of the fuels)
- 4. Silent and no engineering sound
- 5. Energy conservation
- 6. A couple of dollars for the customers travelling around
- Ease of parking at own customer destination
- 8. Ease of use in massive traffic cities
- 9. Unlock the scooter via mobile app-Lime S/QR code or entering an ID
- Locating the nearby scooter through an app
- 11. Vehicles are equipped with a sensor for the operator location.
- 12. Customer can share location with the lime team for any assistance on the road or any operating information
- 13. Battery life can be monitor through these sensors and can also be accessed via the mobile app
- 14. Batteries are recharged overnight at the lime recharging spot

Weaknesses

- 1. Safety subjects are primary concerns
- 2. Extreme weather conditions can slow the performance
- 3. Risk of accidents are more compared to the other vehicles on the road
- 4. Inexperienced driving and handling of the scooters by the customers
- 5. Reckless scooter driving and it is littering around the city
- Negotiating with the city authorities' reforms
- 7. Legal restrictions at various places
- Need arrangements or permits for operation of the services otherwise scooters are termed as illegal in Queensland state
- 9. Restricted speed limits (10 km per hrs.) at various cities
- 10. Need the electric motor with more than a 200-watt output for the legal operation of the service on the road
- Limited range of travelling for their customers
- 12. Staff need to travel to the customer destination if the juicer is not available for the location for the collection of the vehicles

- 15. Scooters are collected by the staff member over the night in the juicers and brought back to the nearest lime station for the recharge
- 16. A scooter can cover a range around32 kilometres and can reach the topspeed of 23 kilometres per hours
- People can qualify for the Lime Access membership and receive discounted prices over the uses
- 18. The consumer of the services can sign as a juicer and can extra money while checking the scooters to the nearest charging station

- 13. Travelling of the staff could cost time and money
- 14. Scooter are subject to vandalism and other misfortunes like throwing scooter into rivers or lake, unplugging of the scooter wires, scratches also involving scooter into careless accidents
- 15. Need mobile for accessing the Lime application to locate and use the scooters

Opportunities

- A new perspective on mobility around the globe
- 2. Easy to adopt and compatible with urban style
- Solar charging can place electric charging points and a step more to conserve the energy
- Government authorities can subsidies the scooters after watching its zero-pollution impact on the environment.
- 5. Expanding market in heavy-traffic and polluted cities around the globe
- 6. Digital marketing with concerned environmental professionals.
- Can focus on the uni and college students with student discount and various other promotion
- 8. Can add various features in their apps such as collecting points and

Threats

- E-scooter regulations based on its safety and power by the officials can negate the time and cost of the scooters business
- 2. Illegal status at various properties such as public land in the UK
- Negotiations with the concerned authorities can be complicated and unproductive for getting the right to drive the scooters
- Some legal issues and government approval over the legal restriction might delay the launching of the e-scooter in Sydney
- 5. Fines imposed by city councils can be hefty on lime members pocket
- A user could be fined up to \$10,444 due to scooter speed and power of the scooter(QLD gov)
- 7. Limit on the travelling speed, and electric motor can mess up the company

- one free ride after a particular time(Promotions)
- Adopted by 300,000 users in New Zealand within a month of its launching
- 10. Suitable for all economy class individuals.
- 11. Attracting more establish business such as Uber signed as strategic partners

- 8. Parking bans and restricted zones in the city for the scooter riders
- Replacements of electric motor or battery might cost to the company(acc to regulations)
- Pressure from communities regarding reckless scooter driving can result in restrictive legislation change
- Violations of the working conditions for the juicers may result in penalties and fines on the company
- 12. Loss-making from scooter business can withdraw the significant strategic partners of the company
- 13. Consumers may consider the privacy of their locations as their priority and might hesitate in sharing their location
- People might consider if the data of their travelling location is sold to the third party for various purposes
- 15. Consumers perspective and perception of the safety
- 16. Cities with poor road conditions (in terms of space and white marked lines) and heavy traffic condition
- 17. The bird is the present fierce competitor of the lime-s.
- 18. The bird is currently working on the safety of the passengers and can be a threat to lime market share.

Analyses and Rank Factor for the strengths, weaknesses ,opportunities and threats for the lime-s evaluating from the SWOT analysis.

1. **Resource Based View** (RBV) to priorities strengths of company Lime .

Strengths	Valuable (V)	Rare (R)	Inimitable (I)	Organisationally Feasible (O)	Priority
1	~	~	~	✓	1
2	~	~		✓	4
3	~	~		✓	3
4					18
5		>	~	✓	9
6	~	>		✓	5
7	~	>		✓	8
8	~	>		✓	6
9	~				16
10	~				17
11				✓	14

12	~			~	11
13	~			~	12
14				~	13
15	~	~	~	~	2
16	~	~		~	7
17				~	15
18	~			~	10

Analysing and the rank factors are carried out in terms of strength of lime business and comparing with other companies recognised as a present or future competitor (Such as company bird which is planning to operate in Australia) .

2. In this index **weakness** are evaluated according to competitive liability criteria.

Weakness	Rare	Inconvertible	Costs	Priority
1.	~	>	~	1
2.	~	>		10
3.	~	>	~	2
4.				13
5.	~		~	9
6.	~		~	8
7.	~	>	~	4
8.	~	>	~	3
9.	\		~	6
10.	~		~	7
11.	~			11

12.				14
13.	>			12
14.	~	~	~	5

Importance Imminence Matrix

Importance

High Critical 1.Expanding in heavy traffic cities and 1. Team Lime and city councils and authority need to conceiving people with new form of work out to propose solution for the safety methods mobility around the nearby places of the passengers and the illegal status to e-scooter at various places 2. Securing rider safety following with educating people with traffic rules 2. Securing the scooter form damaging from reckless driver while increasing number of juicers and staff 1.Government might not recognize their 1. Changes in law and regulation are accepted to be potential and cause delays in the testing lime business didn't want to lose their stakeholders and launching of the scooters in various and strategic partners cities 2. Lime must convince city councils and local for spreading their operation around the city as it might cost them financially

Low High

Imminence

Identify a strategic Fit and Develop a Strategy for the Lime E-Scooters:

Quadrant 1: Strengths/Opportunities (SO)

Lime is providing dockless electric scooter service in various major cities of the US and initially running test in Melbourne and Sydney after successful launching in NZ with over 300,000 rides within a month. Company is recognizing the opportunities for two-wheeled eco-friendly transport in profound traffic affected cities around the globe. Companies like uber are impressed with its gaining popularity in a short period and signed as a strategic partner. Reduction in the emission and energy-saving facilities are grabbing the attention of the various concerned authorities related to the transport and the environment. City council might see these scooters as emerging modern-day transport and can help the company in the assigning process in Sydney and other major cities of Australia. Low riding cost and ease of parking are attracting people's attention and commencing a new perspective on mobility around the local areas and major cities. Low impact on the climate is a crucial factor for the company to grasp the opportunity in those cities which are working hard to reduce the traffic and reducing the emission from the transportation.

Quadrant 2: Weakness/Opportunities (WO)

There is a striking question on the lime electric scooter on its powers and the safety of its riders. Lime is consulting with the city councils on imposing safety measures for the travelling and the power generating motor for the various concerned reasons. City Council of Brisbane has remarked about the folks leaving their bike anywhere and might Vandalism while throwing them in rivers and lakes. Lime is planning to add more spots around the Brisbane city and equipping their scooters with sensor to track down the scooter location. Lime members can sign as a juicer and can earn extra money while bringing the scooters to these spots for charging. Regrading riders' safety issues, lime s is advertising on their websites and thru mobile apps for wearing the helmet and providing essential tips to be followed riding the scooter.

Quadrant 3: Strengths/Threats (ST)

Threats such as Vandalism and street clutter are the primary concern of the team lime. According to Hruska, 2019, in his report, revenue generated from e-scooters are not enough to recoup the cost and lime can be financially backed up by its major strategic partners. For preventing any damage to their scooter, lime is adding new spots around the city, and the vehicles are collected every night. Increasing their juicers for the collection of the scooters while monitoring them through the apps. Threats concerned such as road safety, road-injuries, traffic rules by the authorities are on the top list. Lime is using its website and mobile apps as a platform for spreading awareness and asking people to wear the helmet to limit the danger on the road while travelling. Regarding the violation

of the working conditions which might lead to restrictive legislation of lime. Lime is adding various regulations to allow juicers to reserve a scooter 30 mins before pick up to reduce the potential for altercations (Wachunas, 2019)

Quadrant 4: Weaknesses/Threats(WT)

Lime is concerned about the safety of their passengers and their scooters. City councils and the various authorities are imposing a hefty fine on the scooter users due to the speed and power of the scooter. To prevent these fines and to decline the road-related incidents, team lime is actively advertising about the safety concerns and road rules to be followed while travelling on the electric scooters. Regarding the e-scooter own maintenance and well-functioning, lime is adding more juicers and scooter collecting staff. Besides, In Brisbane authorities have raised an issue regarding the carless parking to avoid the situation, lime is planning to add more spot for preventing the loss to their scooters.

Problem Identification and Description

According to Consumer Reports, there have been around 1,500 accidents related to electric scooter across America in recent years. Lime strongly mention safety on their website, and recommence users to wear a helmet, which are not provided in their service. Cities welcomed Lime as option for transportation. However, after the service come, so did accident involved in them, such as: fractures, broken bones, brain injuries, and even fatalities (Felton R, 2019). In Brisbane, a man died riding an electric scooter after failing down a set of stairs. After many accidents, it was the first fatality involving the mobility devices. As reported by Josh Dye, during the use of electric scooters in public areas in NSW is presently illegal, the government has conducted a private evaluation to take decision on where and how e-scooters could be trialled.

There are also reports stated that many people are complaining about dock-less vehicles system. Pedestrians are not happy that scooters been scattered across sidewalks and are a danger for the disabilities and wheelchairs users. People are wondering if electric scooters are a new part of modern urban transport, or they are unsafe and uncalled-for. Rachel White, policy leader at Sustrans in the United Kingdom, declared that they electric scooters were "generally supportive", if speed were constrained and scooters were invalidated from sidewalks. Apart from safety, they are also concerned that users do not have the same health profit from cycling or walking, since users will put in less exercise using an electric scooter (Tapper, 2019).

The company also has to deal with vandalism and destruction. E-scooter is a great ideally but has been carried out badly. There are many cases in which the scooter's handles, the GPS tracker and other parts are broken, mostly by drunk people. Although electric scooters are an environmentally friendly transportation, scooters themselves are not as eco-friendly as they seem, according to Vivian Ho. The research discovers that the materials to manufacture the battery, wheels and frames, along with Lime's effort collecting the scooters at the end of the day produces more greenhouse gas emissions than traveling by bicycle or by bus.

As a result, electric scooters and bikes are cheaper than a taxi, and more convenient than most of the public transport, they also have a lot of drawbacks.

Issues	Weight
Too many accidents related to electric scooter	10
Cities ban scooter for safety reason	9
Vandalism and destruction	8
Customers break the law while traveling with Lime's service	6

- Pedestrian complain about scooter scattered across the road
- Gas emission caused by manufacturing and collecting the scooters 2

Next Steps

Requirement Modelling

The first suggestion for finding an accurate solution as a business analyser is requirement modelling.

This modelling is about finding the fact that describe the company current stage, system, and identification of new requirements which can be applied for the new system.

The new requirement covers five major components such as:

- outputs, Inputs, processes, performance, and security of the system (K and J, 2013).
- output is data produced by the system.
- *Input* is about the entered information this process can be done manually or automated by the system.
- *Process* is rules and policy which can change the information more accurate and understandable.
- Performance is more about speed volume, size, accessibility, and loyalty of the system.

Security it's about making a secure environment for system against any internal or external threats.

Business analyser can provide accurate and reasonable requirement list to the top manager for further discussion.

References

Dye, J. (2019). Sydney's electric scooter trial plagued by safety fears. The Sydney Morning Herald. Retrieved from https://www.smh.com.au/national/nsw/sydney-s-electric-scooter-trial-plagued-by-safety-fears-20190823-p52k5i.html

Ho, V. (2019). Electric scooters aren't as eco-friendly as they seem, study finds. The Guardian. Retrieved from https://www.theguardian.com/technology/2019/aug/02/electric-scooter-eco-friendly-greenhouse-gases

Felton, R. (2019). E-Scooter Ride-Share Industry Leaves Injuries and Angered Cities in its Path. Consumer Reports. Retrieve from https://www.consumerreports.org/product-safety/e-scooter-ride-share-industry-leaves-injuries-and-angered-cities-in-its-path/

Tapper, J. (2019). Invasion of the electric scooter: can our cities cope. The Guardian. Retrieved from https://www.theguardian.com/cities/2019/jul/15/invasion-electric-scooter-backlash

Ward, S., & Curran, L. (2018). Lime's Dockless Electric Scooter Service Has Launched in Brisbane. Concrete Playground. Retrieve from https://concreteplayground.com/melbourne/design-style/technology/limes-dockless-electric-scooter-service-has-launched-in-brisbane

K, K. and J, K. (2013). Systems Analysis and Design, Global Edition. 9th ed.

Conti, A. (2019). Someone's Going to Get Killed Charging Those E-Scooters. Retrieved 20 September 2019, from https://www.vice.com/en_us/article/wjmx8y/someones-going-to-get-killed-charging-those-e-scooters-juicing-limes

Dillet, R. (2019). Lime stops working with freelancers in Paris – TechCrunch. Retrieved 20 September 2019, from https://techcrunch.com/2019/09/05/lime-stops-working-with-freelancers-in-paris/

Hawkins, A. (2019). Nashville is banning electric scooters after a man was killed. Retrieved 20 September 2019, from https://www.theverge.com/2019/6/21/18701299/nashville-electric-scooter-ban-man-killed

How To Make Money Charging Electric Scooters | Lime-S Scooter Juicer. (2019). Retrieved 20 September 2019, from https://cityformillennials.com/electric-scooter-share-lime-s/

Hruska, J. (2019). Early Data Suggests Shared Scooters Unsustainably Expensive - ExtremeTech. Retrieved 20 September 2019, from https://www.extremetech.com/electronics/286774-early-data-suggests-shared-scooters-unsustainably-expensive

Marshall, A. (2019). Lime's New Scooter Is Hardier, Heavier, and Built for Life on the Streets. Retrieved 20 September 2019, from https://www.wired.com/story/lime-scooter-gen3-design/

Parking bans and restricted zones: How German cities plan to crack down on e-scooters. (2019). Retrieved 20 September 2019, from https://www.thelocal.de/20190815/pavement-parking-ban-how-some-german-cities-plan-to-crackdown-on-e-scooters

Perry, A. (2019). Electric scooters work brilliantly in Europe - so why not here?. Retrieved 20 September 2019, from https://www.theage.com.au/national/victoria/electric-scooters-work-brilliantly-in-europe-so-why-not-here-20190913-p52r1e.html

Peterson, B. (2019). \$2.4 billion scooter startup Lime is raising more money, and its next check could come from SoftBank. Retrieved 20 September 2019, from

https://www.businessinsider.com.au/lime-looking-to-softbank-for-next-mega-funding-round-2019-8

Tapper, J. (2019). Invasion of the electric scooter: can our cities cope?. Retrieved 20 September 2019, from https://www.theguardian.com/cities/2019/jul/15/invasion-electric-scooter-backlash

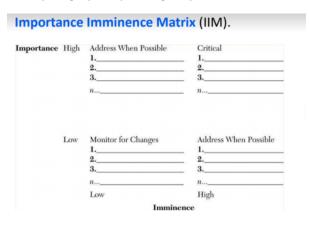
Te, M. (2019). Lime's latest e-scooters a 'health and safety issue' for juicers. Retrieved 20 September 2019, from https://www.stuff.co.nz/business/115139150/limes-latest-escooters-a-health-and-safety-issue-for-juicers

Wachunas, J. (2019). Lime's Juicer Reserve Feature Goes Global. Retrieved 20 September 2019, from http://www.li.me/second-street/lime-juicer-reserve-feature-goes-global

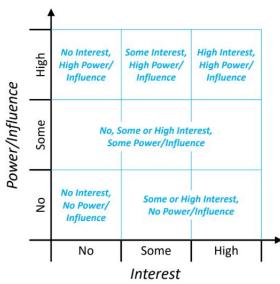
Ward, S., & Curran, L. (2019). Lime's Dockless Electric Scooter Service Has Launched in Brisbane. Retrieved 20 September 2019, from https://concreteplayground.com/brisbane/design-style/technology/limes-dockless-electric-scooter-service-has-launched-in-brisbane

Appendix

Lecture and Tutorial Material was very beneficial when completing this business report. These are images and video we found were useful in successfully completing the report which also contain a small paragraph explaining why we believe it was useful.



The IIM was useful because it showed us an easy way to complete the matrix. This image also had an explanation of what each section means which provided a lot of benefit in letting us understand how this matrix is completed and how it is helpful to business analysts.



This is a stakeholder power/interest analysis definition which was in the lecture slides. This diagram was very useful because it explains what each square represents and how it would relate to a business. Using this template, we were able to understand the matrix and recreate our own with the information required about the Lime-S business.

Videos:

Week 2: Drawing a rich picture

Week 3: Creating a context-level data flow diagram

Week 5: Stakeholder analysis

These videos explained how and why each diagram/analysis technique is used, how useful it is to a business analysis report, and how to recreate them for our own report. These resources were helpful because we haven't had to do any of these diagrams/analysis techniques before, so getting a quick summary of what each are and how to do them gave us a deeper understanding of the information we needed to add to these sections of our report.

SCHOOL OF ELECTRICAL ENGINEERING AND COMPUTING

INFT2150 – BUSINESS ANALYSIS BUSINESS REPORT GROUP ACTIVITY OVERVIEW *



Group Name: Wednesday 10-12, Group 4

Name (as in University records)	Student Number	E-mail
Ayden Khairis	C3282229	C3282229@uon.edu.au
Ahmed Essam Yehia Abdelsalam	C3275916	C3275916@uon.edu.au
Faraz Zarnikhi	C3286819	C3286819@uon.edu.au
Hoang Ky Nguyen	C3249599	C3249599@uon.edu.au
Randeep Bhathal	C3289690	C3289690@uon.edu.au

Business Report Components

Component	Responsibility (Student Names)
1. Report format [5%]	Ayden
2. Executive summary [5%]	Faraz
3. Objectives [5%]	Hoang
4. Systems modelling [15%]	Ahmed
5. Stakeholder analysis [15%]	Ahmed
6. SWOT analysis [15%]	Randeep
7. Problem identification & description [15%]	Hoang
8. Next steps [10%]	Faraz
9. Writing and referencing [15%]	Ayden

Note: Each component needs to be assigned to at least one person. However, it is also possible to assign a component to several individuals or even the whole group. Further components (e.g., appendix) can be added as required.