PROPOSED APPROACH TO ADDRESS THE REGULATION OF METERED TAXI AND E-HAILING SERVICES WITHIN THE ETHEKWINI MUNICIPALITY

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ABSTRACT

The metered taxi and e-hailing services sector currently plays a significant role as part of the South African public transport industry. In keeping with global trends, it is evident that these services are gaining more prominence going into the future.

However, the entities within this sector are experiencing conflicts and challenges with regards to licencing, enforcement, competition over destinations and commuter base, among other challenges. These challenges have unfortunately led to the manifestation of violent engagements between operators, damage to vehicles, road infrastructure, and compromised commuter safety.

The eThekwini Transport Authority (ETA) undertook to address these challenges within the eThekwini Municipality (EM). From status quo assessments, it was found that the current challenges being experienced by this sector are essentially due to the current gaps in the prevailing legislation, which governs the entry, operations, and enforcement of the sector.

To address the current challenges on the ground, a regulatory framework is required to formalise this sector. For the development of the required regulatory framework, a process is required which enables the integration and involvement of all role players including all tiers of governmental departments, business entities, public transport role-players and stakeholders, as well as civil society in general. The required process would need to be able to both collect the wide-ranging information to understand the nature of the sector, and then use the information to inform decision-making.

A staged/phased Expression of Interest (EOI) process has been proposed by the ETA to achieve this objective. Through this process, all existing and prospective operators will be identified, information collected about the existing services and operations; analyses done to determine market demand and supply and prepare regulatory requirements which can be enforced within the Municipality. The EOI that the ETA has developed will be done mainly as an on-line activity.

The EOI has to date been presented to role-players from the Metered Taxi and E-hailing services sector, who have welcomed and supported the proposed process. The proposed methodology was approved for implementation by the eThekwini Municipality's Council. This approach to address the regulation of a dynamic and complex service industry such as the

Metered Taxi and E-hailing sector is a first for South Africa, and it is expected to provide fruitful insights.

Keywords: Metered taxis, e-haling services, regulations, eThekwini Municipality.

1. INTRODUCTION

Since 1994 transportation regulations in South Africa together with the Public Transport Action Plan (2007) has concentrated mainly on the mini-bus taxi, bus, and rail services (Wosiyana, 2009). The metered taxi industry is also an important mode of public transport. The National Land Transport Act (Act no.5 of 2009) defines a "metered taxi service" as a public transport service operated by means of a motor vehicle contemplated in section 66 of the Act which:

- is available for hire by hailing while roaming, by telephone or otherwise.
- may stand for hire at a rank.
- is equipped with a sealed meter, in good working order, for the purpose of determining the fare payable, that is calibrated for such fare or complies with any other requirements applicable to such meters.

The metered taxi industry which provides an on-demand service to the public has evolved over time and was initially predominantly owned by a minority South Africans until the 1980s. During this period, the metered taxi industry was largely self-regulated and not subject to formal regulation. When the White Paper on National Transport Policy was approved in 1996 (the 1996 White Paper), it included the regulation of metered taxis (Competition Commission, 2020).

Metered taxis in South Africa (SA) operate differently from other countries where they roam the streets searching for passengers. In SA, this service is operated by means of booking the taxi telephonically or go to the taxi rank or area/s where they park. A passenger is charged a fare based on the kilometre travelled as determined by the sealed meter. This service is regulated, and most Municipalities grant an operating license based on the need for such a service. This service is mainly used by the middle-to-high income earners and tourists or by low-income earners in cases of emergencies.

In 2013, Uber began to operate in South Africa which provided a new way of offering this service which uses a digital platform to connect private operators or operators with passengers more efficiently. Uber Technologies Inc. is an American company that develops and offers the Uber mobile application which mobile application connects potential passengers with drivers who use their own vehicles (Slavulj, 2016). The company was founded in San Francisco in 2009 and started marketing the free mobile application in 2011. In 2011, the same year Uber was founded, they expanded to New York City, Chicago and Washington, D.C. and later that year in Paris, France. Since then, they continued their expansion to Toronto, London, Sydney, Singapore, Johannesburg and other markets such as Seoul, Tijuana, Peking and Delhi. 2014 saw them entering smaller markets such as Warsaw, Anchorage, Copenhagen and Lagos. As of April 2016, Uber services are available in 405 cities in 60 countries on all 7 continents (Slavulj, 2016).

This mobile application uses global positioning system (GPS) technology to connect the nearest linked operator to a commuter who requires the service (Competition Commission, 2020). The benefit of this system is that the service provides upfront pricing to passengers and agreed upon before the journey begins and automatically generates an electronic notice

indicating the cost and map showing the route to be taken. The advantage of this type of service compared to the metered taxi service is that the commuter has real time information about the operator, vehicle details, and the estimated time of arrival. This information can be shared with family and friends from a safety and security perspective. Today, many services operate in South Africa which uses similar digital mobile application, services such as Bolt, Taxify, YoTaxi, etc.

While this type of service has been operating since 2013, there is no legal definition to enable it to operate (Browning, 2019). Even though the service is not legally regulated, commuters from all sections of the population use it as an elaborate means of transport. It has been generally observed that the COVID-19 pandemic has increased the desirability and use of this service due to social distancing protocols.

This paper presents the proposed methodology being adopted by the eThekwini Municipality to regulate the Metered taxi/e-hailing services within the eThekwini Municipal Area. Data collection for this type of service is a major challenge as this service does not operate from fixed points but is a demand driven service or referred to as ride-hailing. Ride-hailing is when a commuter orders a customised ride online mainly via a smartphone application. This paper presents the process to regulate this service as well as the data collection process which is the expression of interest (EOI) method.

At the time of writing this paper, there was not much information on the regulation of the e-hailing services sector and in most literature, e-hailing services were operating in unregulated environment. In South Africa, the legislation was amended to include the regulation of this sector but none of the Cities in South Africa have a process in place to date.

2. METERED TAXI AND E-HAILING SERVICES OPERATING WITHIN THE eTHEKWINI MUNICIPALITY

Metered taxis and e-hailing services play an important role within the eThekwini Municipality, providing efficient and reliable transport services to sectors such as business, tourism, education, retail, social and entertainment sectors. There is an increasing trend in the use of these services by commuters who currently use the conventional modes of public transport i.e., minibus taxis, buses, and rail. However, over the last several years this sector has experienced several challenges which have been played out in various anti-social and unsafe displays, uncharacteristic of these services on a global scale. While the situation on the ground appears to be a battle between metered Taxis and e-hailing services over areas of operation and commuter base, the challenges really are a display of the current gaps and weaknesses within the prevailing legislation that speaks to this sector of the transport industry.

With respect to metered taxis, the National Land Transport Act (Act 9 of 2009) does contain provisions for metered taxis, however the requirements are broad, not tailored to address the challenges being experienced at the Municipal level, such as market share, processes to assess service demand and supply, processes to guide the granting of operating licences, and roles and responsibilities relating to infrastructure required for metered taxis. With respect to e-hailing services, this sector is currently not addressed in the prevailing legislation. This has resulted in these services operating without any direction relating to the regulation of this sector. In the absence of prevailing legislation and the demand for this type of service, digital application services are operating within the eThekwini Municipality and in other South African cities. The Covid-19 pandemic and the increase in unemployment has impacted this market and the number of vehicles operating this service has increased since

2020 in the thousands. There are recorded incidences of violence between the regulated services and these services and their respective conflict in increasing rapidly.

Within the eThekwini Municipality, a moratorium was imposed on the issuing of new operating licences for Metered Taxis since 2010. This was done due to the influx of operators into the market which was at the time created an over-saturated situation. The mini-bus taxi industry is the predominant public transport mode within the eThekwini Municipality since the de-regulation of the bus operations in the 1980s. Over time the number of mini-bus taxis have increased due to the rapid rate of urbanisation since the apartheid era. To operate PT routes within the Municipality, an operating license is required. Due to the inefficiencies of the Provincial Regulatory Entity (PRE) in processing operating licenses, most of these routes have been overtraded with vehicles that have a valid operating license and those do not. The PT market is saturated, and this impacts greatly on the profitability of this industry which leads to safety and security issues where operators compete for passengers and to operate on lucrative routes. Due to routes not being profitable to operate on, it has caused operators to not trade in their existing vehicles which are more than five years old, resulting in vehicles being old and unsafe to operate with. This poses a safety hazard to the commuters.

In view of this, the South African government has introduced the Taxi Recapitalisation programme to challenge the problem of an ageing fleet within the transportation system. The aim of this program is to provide safe and affordable transport to the population already utilizing the taxi service; regulate the unregulated taxi industry; introduce cost effective fuel vehicles; develop downstream manufacturing and create jobs; introduce smart cards to the taxi industry; empower the taxi industry; and address the challenges facing people with disabilities who use minibus taxis as a means of public transport (DoT, 2003). This programme has unfortunately not been successful, and the routes are still being overtraded. The increase in the e-hailing and metered taxi industry is impacting on the already overtraded routes and this has resulted in violence between the two operators. The concern is always about the regulation of the e-hailing services.

While a legislative intervention was required to address this challenge, there has not been any intervention made to date. This has in the meantime led to a considerable growth in the number of "illegal operators", with mounting pressure from the Metered Taxi sector for legislation to be revisited to address their current challenges. The advent of E-hailing services since 2013 has added to the frustration of the Metered Taxi sector in that E-hailing services were not addressed by the prevailing legislation. The E-hailing sector was therefore not subject to any regulatory requirements. Due to the use of technology, E-hailing services gained popularity, resulting in a considerable shift of commuters from Metered Taxi services to E-hailing services within eThekwini Municipality. The popularity this service is due to the convenience of using an app, not carrying cash with you, knowing the make of the vehicle and driver, vehicles are newer, knowing the journey time and cost of the journey, travelling alone and being safe because the driver and vehicle is recorded on the app. The service provides a door-to-door service.

At present, the challenges being experienced between the two service types appear to be competition around areas of operation and commuter base. However, the challenge can be addressed through a legislative and regulatory requirement for the two service types. In view of this, the ETA, which is the Planning Authority for the City, is responsible for having a process to support such operating licenses for this service within the EMA.

3. DESIRED OUTCOMES FOR THE REGULATION OF THE SECTOR

The ETA is responsible for developing solutions to regulate operations for the various modes of transport within the EMA. This is done by working within the confines of the prevailing legislation, and by developing by-laws that are aligned to prevailing legislation to address transport operations unique to the Municipality. Regarding Metered Taxis and E-hailing services, noting that the primary challenge is the inadequacy of the prevailing legislation, addressing these inefficiencies serves as the first port of call in addressing the challenges being experienced by the sector.

The principal task is to develop an inclusive regulatory framework for Metered Taxis and E-hailing services. The outcomes that the regulatory framework should achieve include the following:

- Measure and monitor demand for these services.
- Identify and allocate routes or areas of operation to operators in this sector in a fair and equitable manner.
- Guide the provision and maintenance of infrastructure for this sector.
- Define approaches and requirements for assessing and supporting applications for operating licences.
- Set service standards to ensure passenger safety and service reliability (such as vehicle requirements, operator requirements, technology, etc.).
- Enforcement of the regulatory requirements.

A regulatory framework is required that must yield the above-mentioned major outcomes. This will ensure that the current challenges being experienced will be resolved and that antisocial behaviour (such as violent marches, strikes, loss of life, etc.) are minimised and eventually eliminated in the future.

4. PROCESS REQUIRED FOR THE DEVELOPMENT OF A REGULATORY FRAMEWORK FOR METERED TAXI AND E-HAILING SERVICES

The development of an appropriate regulatory framework for the Metered Taxi and E-hailing services sector is an activity that will require a mix of technical, social, practical, legal, and governmental inputs and expertise. It will require extensive consultation and engagement with existing and prospective operators, governmental, business, and public stakeholders. The process will also need to define activities to gather data and information relating to current service demands, supply, standards, and operations. Whilst the activities relating to engagements and collaborative planning can be undertaken quite easily, information relating to demand and service standards cannot be easily gathered using conventional surveys and data collection methodologies due to the nonconventional nature of this sector noting that they do not have set facilities and most operate from their residences.

A process is required which will allow for two fundamental activities to be undertaken:

a) Firstly, extensive engagements must take place between the governmental authorities, sector role-players and other entities to agree on the parameters of the regulatory framework such as service standards, operating licence considerations, operational requirements, among other parameters, and

- b) Secondly, the process must define an approach to collect and analyse important information from the sector to inform decision-making relating to the regulation of the sector. To this end, processes for collecting and analysing data must:
 - On the front end, allow all existing and prospective operators across the Municipality to participate and submit information, and
 - On the back end, the process must allow for information that will be collected to be analysed and used to inform decision-making.

In terms of the major outcomes articulated above, the process must also be able to communicate the proposed regulatory requirements that all operators must comply with.

In summary, to achieve the development of a regulatory framework for this sector, a process is required that will achieve the following objectives:

- a) Be informed and fine-tuned by inputs from all Governmental role players, current operators, other affected and interested parties and the public.
- b) Be a flexible and easy process to roll out and participate in.
- c) Ensure that all existing and prospective operators across the Municipality can participate in the process, and
- d) Be used to collect important information which will in turn be used to inform decisionmaking and present the requirements of the city for the regulation of this sector going forward.

Based on the above requirements, the ETA led the planning initiative and developed standards and compliance criteria for drivers, companies, vehicles, and technology. After having engaged with the relevant role-players regarding these proposed requirements, the appropriate processes and activities were identified for engaging with existing and prospective operators within the sector and to collect data to inform decision-making relating to the regulation of the sector. After a detailed study of the nature of such an undertaking and probing several process options, an Expression of Interest (EOI) process was investigated and found to be one of the most responsive and efficient ways of collecting data.

A comprehensive but user-friendly EOI was developed which satisfied the requirements of the ETA for engaging with current and prospective operators and collecting the necessary data that will ultimately be used to make decisions for the regulation of this sector. This EOI process is the focus of the following section of this paper.

5. PROPOSED EXPRESSION OF INTEREST PROCESS

5.1 Overview

An EOI is a document or process which allows an individual or organisation to present its professional requirements relating to a particular undertaking and can be tailored to facilitate processes in which buy-in from participants is sought.

A staged/phased EOI process has been proposed to facilitate the participation of industry role-players and operators to collect the necessary information from these respective entities to contribute to the development of a regulatory framework for the sector.

Through the EOI process, the EM will present its compliance criteria for all participants to adhere to for remaining in the sector. The various stages allow time for applicants to become responsive to the City's requirements. Failure to comply with the requirements will result in the applicant not being considered as a potential operator and will not be allowed to progress to the subsequent stages of the EOI.

The aim of the FOI is to

- Allow potential and existing operators across the EM to participate in the process in an equitable manner.
- Present the City's service standards and compliance criteria for operators and businesses to adhere to.
- Filter out operators who are not willing to co-operate with the City in the provision of an improved service for its customers.
- Collect the necessary data to inform the determination of a demand threshold to inform decision-making about the quantum of operating licences to support.
- Present equitable processes to determine the way responsive applicants will be selected to be awarded operating licences, and the subsequent treatment of responsive applicants who may not get awarded an operating licence.
- Define methodologies for receiving applications for operating licences beyond the EOI process stage.

The final outcomes of the EOI process will be used to address the possible revision of existing legislation to address the current gaps and inefficiencies. In the interim, following the conclusion of the EOI process, municipal by-laws will be developed to enforce the regulatory framework within the EM whilst prevailing legislation undergoes review.

5.2 The Proposed EOI

5.2.1 The Four Stages of the Proposed EOI

An online EOI has been developed comprising of four stages:

- Stages 1 to 3 are the stages in which the operators will participate. Stage 4 is the data analysis stage of the process to inform decision-making regarding the number of operating licences to be sustainably supported.
- ii) Stages 1 to 3 is an online application process. Applicants will be sent a link to access the application form (created on the MS Forms platform) from any smart device, computer, or laptop. During stage 2, applicants will be required to upload documents at Municipal libraries or the City's Sizakala (Information) Centres.
- iii) Between each stage, the forms uploaded by applicants will be processed. Upon successful uploading of forms (and supporting documents in stage 2), applicants will be informed by short message (SMS) with directions relating to the next stage of the EOI process.
- iv) Stages 1 to 3 serve as filters to ensure that operators who wish to be granted an operating licence are essentially compliant in terms of the requirements proposed as part of the EOI process.

- v) During stage 4, all the information captured in stages 1, 2 and 3 is analysed and used to inform decision-making with regards to supporting operating licences to operate within the EMA. A fundamental objective in this regard is to ensure that the industry is not over-traded. Through this stage of the process, this will be done by supporting the optimum number of operating licences to balance market supply and demand.
- vi) Market supply will be assessed directly from the information that will be collected during stages 1, 2 and 3. The determination of demand will be done in a series of steps. A technical method has been developed to measure a realistic demand for this sector by using existing surveys, traffic models, engineering principles and operational characteristics of this sector. Through the EOI process, applicants will be requested to give an indication of the demand they currently service. This information will be used to calibrate and fine-tune the demand that will be calculated through the technical approach. The technical method has been set up to produce outputs which pay attention to aspects such as equal opportunity to previously disadvantaged groups, female, youth, and operators with disabilities:
 - A lottery system has been proposed to select the operators who will be supported by the ETA based on balancing market supply and demand. The names of the selected operators will be submitted to the Provincial Regulatory Entity (PRE). These operators will be advised by ETA to submit a formal application to the PRE for consideration.
 - The PRE will assess the formal application and then decide as to whether to grant the operating licence. The PRE will then inform the ETA of all applicants who have been granted operating licenses. The ETA will thereafter oversee the branding of these vehicles and issue the operators a unique badge/permit to identify them as legal operators within the EMA.
 - Upon receiving an Operating License, the City will issue the successful operators with rank permits to operate from Municipal owned facilities or other facilities within the City.

The process has been set up to be open, transparent, equitable and legally compliant. Throughout the process, applicants will be able to easily communicate with the city. Applicants will also be allowed to appeal the outcomes of any stage of the process. Measures and provisions have been incorporated into the process to ensure that all applicants are empowered to successfully participate in the process.

Following the completion of the EOI process, decisions to support future applications will essentially be made based on the principle of maintaining a balanced market supply and demand. This will be monitored and reviewed annually following the Expression of Interest process.

The Expression of Interest process is shown in Figure 1.

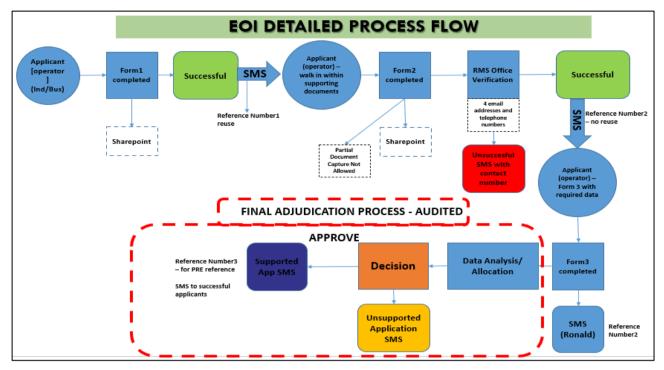


Figure 1: EOI Process overview - Stage 1 - 4

5.2.2 Proposed Service Standards and Compliance

Stages 1 and 2 of the EOI process are designed to present the City's requirements and to allow the applicant opportunity to either become responsive to these requirements or choose to opt out of the process and sector altogether.

In these stages, standards and criteria have been defined which are constitutionally sound, legally compliant, enforceable and which ensures that the sector is holistically improved and regulated.

Some of the overarching standards and criteria that were defined include:

- <u>Vehicles</u>: must not be older than 5 years and must be white in colour for branding purposes. They must contain the necessary safety equipment and technology requirements for the provision of either a metered taxi or e-hailing service.
- Drivers: must have a legal driver's licence and Professional Driving Permit (PrDP)
- <u>Data and technology</u>: operators are required to submit data relating to their service annually. Technology must be latest versions, must be clearly visible, and must have the required certificates where required.
- <u>Business entities</u>: must provide their operators with documents to be kept by their operators to identify operators as belonging to a formal business. Businesses will also be legally responsible for the services provided by their operators.

5.2.3 Determination of a Demand Threshold for Balancing Supply and Demand Across the EOI stages, information will be captured which will allow the ETA to determine an actual service demand and supply. Thereafter using a series of existing surveys, open-source data and traffic simulation results, a theoretical demand will be calculated. A validation of the service demand to be used as a threshold will be done by comparing the

demand calculated through the EOI process with the theoretical demand, and adjustments/refinements to achieve a best fit demand. Supply will then be calculated by taking into consideration operational parameters such as route length, speed, hours of operations and vehicle occupancies.

Ultimately the total number of vehicles required to service the threshold demand will be calculated, and thus the number of operating licences that will be supported. The data assessment methodology is shown in Figure 2.

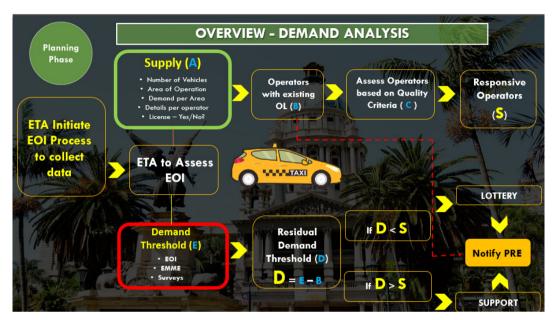


Figure 2: Overview - Demand Analysis

5.2.4 Process for Selecting Applicants to be Granted Operating Licences

Through stages 1-3 of the EOI process, the total number of compliant and responsive applicants will be determined. The calculation of the demand threshold will determine the number of operating licences that will be supported.

Scenario 1: Demand > Supply

If the number of responsive applicants is less than the number of operating licences to be granted (i.e., demand > supply), all responsive applicants will be granted licences.

Scenario 2: Supply > Demand

If the number of applicants is greater than the demand threshold (i.e., supply > demand), a lottery system has been proposed to be used to determine the applicants to be supported to essentially match market supply and demand.

5.3 The Proposed Lottery System

The lottery system has been set up as a protected Microsoft Excel form which uses mathematical formulae to randomly select the applicants from a pool of applicants based on the principle of matching market supply and demand.

All responsive applications from Stages1-3 will be entered into the lottery spreadsheet and will be given a randomly generated and unique reference number. The total number of operating licences that are required will also be entered onto the lottery spreadsheet. A total of applications equal to the demand threshold will then be randomly selected through the lottery as shown in Figure 3.

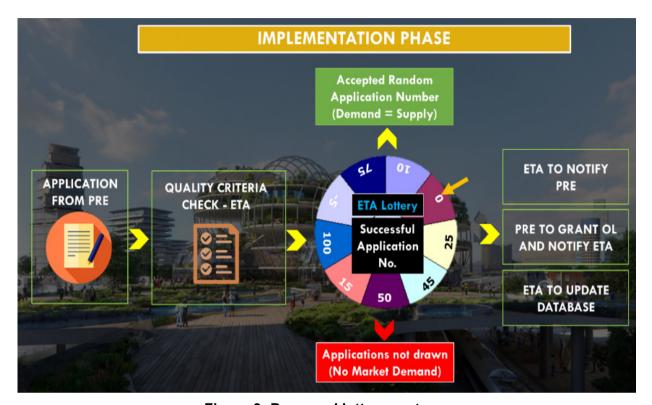


Figure 3: Proposed lottery system

The lottery system has been designed to have a high level of integrity. It is proposed that the lottery process be an audited process overseen by a committee of City officials including members from the ETA, Metro Police Legal and Compliance, Economic Development and Business Support Units. The lottery to select the requisite number of applicants can be recorded via a platform such as Microsoft Teams and saved for future reference. The results of the lottery system will be generated into a report that the committee will endorse.

5.4 Process Following the Completion of the EOI Process

At the end of Stage 4 of the EOI process, the PRE will grant operating licences to the applicants that will be drawn from the lottery process. The PRE will then inform the ETA of all applicants that have been granted operating licenses. The ETA will thereafter oversee the branding of these vehicles and issue the operators a unique badge/permit to identify them as legal operators within the EMA.

Going forward, beyond the EOI process, decisions to support future applications will essentially be made based on the principle of maintaining equilibrium in market supply and demand. Through the EOI process, a requirement has been included requiring operators in the sector to submit data annually to the ETA. This data will be used to monitor and review market supply and demand annually following the EOI process. Figure 4 demonstrates the process to be followed following the Expression of Interest process.



Figure 4: Process to be followed following EOI process

6. CONCLUSION

The current challenges being experienced by Metered Taxis and E-hailing services is essentially a problem due to the current gaps in the prevailing legislation. To address the current challenges on the ground, a regulatory framework is required to formalise this sector. For the development of the required regulatory framework, a process is required which enables the integration and involvement of all role players including Governmental Departments across all tiers of Government, business, PT Operators, and the public. The required process would need to be able to both collect the wide-ranging information to understand the nature of the sector, and then use the information to inform decision-making.

A staged/phased EOI process has been proposed to achieve this objective. Through this process, all existing and prospective operators will be identified, information collected about the existing services and operations; analyses done to determine market demand and supply. A lottery system will be used to select applications to whom operating licences will be granted. Future applications will be considered for support based on maintaining market supply and demand in equilibrium.

At the end of the EOI process, necessary changes to prevailing legislation will be identified to formalise and legitimise the regulation of this sector in an equitable manner. In the interim, by-laws will be developed to implement the regulatory requirements within the municipal area.

The process involves stakeholder engagement which will ensure the success of the regulatory framework. In this regard, the industry has been consulted to share the draft framework. The draft framework was accepted in principle by the e-hailing and metered

taxi stakeholders, but continuous stakeholder engagement is being held until the process is implemented. A stakeholder engagement process together with a marketing communication strategy was also developed to run in parallel.

Once the stakeholder engagement is concluded, a report must be sent to the eThekwini Municipality's Executive Committee for report back on the process for final approval and to implement the regulatory framework.

7. RECOMMENDATION

The e-haling sector is growing at a rapid pace and the regulation of this sector must be implemented as soon as possible. The eThekwini Municipality is keen to implement this framework as soon as possible to eliminate the current conflicts in the public transport industry

It is recommended that other cities in South Africa pursue a similar approach to address the regulation of the metered taxi and e-hailing services sector. This will contribute not only to providing relief for the current challenges within this sector but will also produce new knowledge and methodologies which can be synthesized to develop robust policy and guideline documents to guide a more effective regulation of this sector within South African cities.

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