

MINIBUS TAXI INDUSTRY PARTNERSHIPS FOR SUSTAINABLE TRANSPORT

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ABSTRACT

Sustainable Development Goal (SDG) 11 is to “make cities and human settlements inclusive, safe, resilient and sustainable” because of the rapidly rising levels of urbanisation. Rapid rates of urbanisation and population growth require adequate transport systems to facilitate accessible, reliable and safe urban mobility. SDG Target 11.2 is to “provide access to safe, affordable, accessible and sustainable transport systems for all” and it emphasises the expansion of public transport, with special attention to the needs of the disadvantaged. The minibus taxi industry (MBTI), coined as the “servant for the urban poor”, accounts for approximately 63% of public transport work, school, and recreational trips. It is responsible for 15 million daily commuter trips, with an additional 325,000 commuters using minibus taxis as a feeder mode to other modes of transport. The MBTI plays a significant role in the South African public transport industry and thus needs to be leveraged to for sustainable transport solutions. The aim of this paper is to demonstrate how partnerships between the MBTI and other stakeholders can be fostered to create sustainable transport solutions. The Institutional frameworks for Integrated Mobility Services (IRIMS) in future cities will be used to relate the interrelationships between stakeholders. There are four main stakeholders in the stakeholder model namely, the MBTI, businesses (private companies), users (commuters) and the state (government); collectively referred to as the MBUS Model. An introduction to the stakeholders in the MBUS model will be given, followed by a discussion on their current way of operating. IRIMS will be discussed, highlighting the institutional levels that exist within the framework. A theoretical solution is discussed to demonstrate the sustainable nature of IRIMS. This paper advocates for the inclusion of the MBTI in developing sustainable transport solutions, emphasising on how partnerships between the MBTI and existing institutions can be done to achieve this.

1. INTRODUCTION

Sustainable Development Goal (SDG) 11 is to “make cities and human settlements inclusive, safe, resilient and sustainable” (United Nations, 2016) because of the rapidly rising levels of urbanisation. Rapid rates of urbanisation and population growth require adequate transport systems to facilitate accessible, reliable and safe urban mobility. SDG Target 11.2 is to “provide access to safe, affordable, accessible and sustainable transport systems for all” and it emphasises the expansion of public transport, with special attention to the needs of the disadvantaged (2018). Booyesen et al. (2013) point out the vital role played by the informal public transport system and how it can be leveraged to achieve sustainable transportation. This paper will be discussing how the minibus taxi industry (MBTI), and its subsequent partners, can achieve sustainable transport solutions. This is facilitated through the use of the ‘Institutional frameworks for Integrated Mobility Services (IRIMS), an analytical framework that identifies institutional enablers and barriers (Mukhtar-Landgren, 2016).

This paper will be focussing on the South African minibus taxi industry (MBTI) and the possible partnerships that could be formed with the MBTI for the generation of sustainable transport solutions. There are four main stakeholders in the stakeholder model namely, the MBTI, businesses (private companies), users (commuters) and the state (government); collectively referred to as the MBUS Model. The Institutional frameworks for Integrated Mobility Services (IRIMS) in future cities will be used to relate the interrelationships between stakeholders.

In the three sub sections that follow:

- Each of the stakeholder groups are described and examples of existing institutions are given.
- The interrelations between the groups are explained using the IRIMS theoretical framework.
- An example of a sustainable transport solution is proposed.

2. MBUS MODEL

2.1 Minibus Taxi Industry

Minibus taxis initially emerged in response to the mobility needs of the townships – majority black populated communities located on the peri-urban perimeter of major cities and towns – during the racially segregated apartheid era (1948-1990) (Fobosi, 2013). This service has now become a commodity for the lower income groups because, for them, personal transport is a luxury; the result is a large captive ridership of the MBTI (Vegter, 2020, p. 3). The minibus taxi industry, according to Booysen et al. (2013), has four service providers, namely, owners, drivers, taxi associations and regulation authorities.

2.2 Businesses

In 2019, The South African Business Insider (Wasserman, 2019) cited a Transaction Capital (2019) report that valued the South African MBTI at R50 billion. This makes it one of the most lucrative business ventures in the country attracting business interests in financing, insuring and fleet management. Examples of such businesses include (1) SA Taxi, an independently owned commercial business that provides loans to and insures taxis for MBTI practitioners (SA Taxi, 2020) and (2) LULA, an integrated ticketing platform that is set to digitally unify the South African transport industry ticketing and payment system (Ma, 2020).

2.3 User

The Research and Markets' report titled, 'Minibus Taxi, Bus Services and Metered Taxi Industry in South Africa 2020', revealed that 69% of all South African households use the MBTI for work, school and recreational travel (2020). The MBTI has become what Fobosi (2013) calls, the "servant for the urban poor", which is consistent with the fact that, in 2018, there were 238 million Sub-Saharan African urban citizens living in informal settlements (United Nations Statistics Division, 2018). The "Moving South Africa" document (Department of Transport, 1999) classifies public transport users into two categories: "survival" users and "sensitive" users. The survival users are captive users based on cost i.e. they use the cheapest mode of public transport and the sensitive users are captive users based on quality; they use the best public transport option.

2.4 State

The MBTI and the state have been at an impasse since the industries inception in the late 1970s (Fobosi, 2013); from the restrictive regulations of the apartheid government to the unsubsidised, post-deregulation tension between these two groups have remain relatively unchanged. The state has been lodging attempts to formalise and regulate the MBTI since 1994 and has done this through several policies, initiatives and programs, for example, the National Taxi Task Team in 1995; the Taxi Recapitalisation Program in 1999 (Government Communications (GCIS), 2015); and the ‘Sectoral Determination 11: Taxi Sector’ labour practice policy in 2005 (Oliphant, 2017). These attempts always fall short and are derailed for some undocumented reasons. This needs to be addressed, particularly given that only 18% of Sub-Saharan African urban residents have convenient access to public transport (United Nations Statistics Division, 2018).

3. INSTITUTIONAL FRAMEWORKS FOR INTEGRATED MOBILITY SERVICES (IRIMS)

There are interrelations between each of the stakeholders in the MBUS Model, which will be framed using the Institutional frameworks for Integrated Mobility Services (IRIMS). IRIMS (2016) is a theoretical framework that builds knowledge and recommends how institutions can be modified for the overall integration of the transport system (Dalia Mukhtar-Landgren, 2016). IRIMS is based on institutional theory (2020, p. 284) and will be used in this paper to propose a framework for sustainable partnerships. According to Scott (2014), institutions are "regulative, normative, and cultural-cognitive elements that, together with associated activities and resources, provide stability and meaning to social life". IRIMS segments the institutions into three levels namely, macro, meso and micro institutional levels. According to Karlsson (2020), these can be further segmented into formal (laws, regulations, plans and planning processes) and informal (identities, norms, perceptions, daily habits and practices) dimensions. In the macro level the formal dimension is represented by state affairs while the informal dimension is represented by societal affairs. Similarly, at the meso level, regional and local public-private affairs represent the formal dimension while the relationships between local entities and businesses represent the informal. Finally, at the micro level the democratic rights and responsibilities of individuals are representative of the formal dimension while socio-economic realities represent the informal. Examples of the formal and informal dimensions of each of the MBUS Model stakeholders are shown in Table 1.

Table 1: A summary of the MBUS Stakeholder Model IRIMS institutions and examples of the formal and informal aspects (Karlsson, 2020)

Institution	Institutional Level	Formal Examples	Informal Examples
MBTI	Meso	taxi associations, permits and routes	pricing, schedules and employment
Businesses	Meso	registration, operation agreements, partnerships	Internship programs, corporate social responsibility
User	Micro	traffic conditions, access, planning, taxpaying	travel patterns, perceptions and attitudes
State	Macro	laws, policies, transport regulation and subsidies	cultural, national and communal identities

3.1 Macro

The macro institution is supposed to be the institution under which the rest, the meso and micro, function (2020, p. 286). Legislation around the MBTI has been a challenge since its inception. Fobosi (2018) divides the history of the MBTI into eras which map out the legislative trajectory of the MBTI-state relationship. The period between 1977 and 1987 was characterised by heavy regulation; in 1977, the Breda Commission of Inquiry into transport regulation and the Transport Act allowed the MBTI to operate under strict regulations. In January 1987, the MBTI was deregulated under the Transport Deregulation Act of 1988 which led to increased violence due to route competitions (informal dimension). In 1995 the government launched the National Taxi Task Team to improve the performance of the MBTI and road safety. There was an increase in illegal operations and taxi wars because of the rapidly increasing rate of entrants. The Taxi Recapitalisation Program (TRP) was initiated in 1999 to formalise the MBTI by scrapping the old fleets and giving operators a scrapping allowance, which was to be used as a retirement package or capital for a new taxi. This program was closed in 2018 having scrapped 72 653 out of the targeted 135 000 (Taxi Recapitalisation South Africa, 2018). A revised TRP has since been announced in 2019 by then Minister of Transport, Blade Nzimande (2019). The government currently engages the MBTI through the South African National Taxi Council (SANTACO) which claims to be the industry's "democratically elected leadership body" (SANTACO, 2016). However, the MBTI is decentralised, with each driver operating as a free agent. Thus, a country-wide representative body is bound to prove ineffective. A bottom-up, region-specific and collaborative approach needs to be taken in terms of policymaking, regulation agreements and subsidy agreements. The state needs to subsidise the MBTI, at least partially, and implement accountability systems to address any violations of labour laws or sectorial laws.

3.2 Meso

Taxi Choice, founded in 2003, is the commercial wing of SANTACO and exists to "provide professional support to the taxi industry in all business dealings with private companies" (Taxi Choice, 2016). They position themselves as the knowledge centre for all legal MBTI related matters and as a service provider for MBTI operators – providing what they call "a holistic and dynamic range of services" (Taxi Choice, 2016). In 2016, Taxi Choice, in collaboration with FairPay, launched a cashless e-ticketing system that was meant to function in the Johannesburg, Pretoria, Mabopane (JPM) corridor (2016) but it failed because it needed the onboarding of all other modes i.e. buses and trains (Kempton Express, 2017). Another pilot was set to be launched in October 2017, but nothing has been reported since.

Where progress has been made in the formal dimensions of the meso institutions, this is not the case in the informal dimensions. For example, in the formal dimension there is an increase in the number of business registrations, agreements signed, and projects planned. In contrast, in the informal dimension, there is a lack of quality partnerships being formed and, in the instances, where partnerships do exist, stakeholder follow through is lagging. Oosthuizen and Mhlambi (2011) point out that these shortfalls are a trend by saying that every time "the mini-bus taxi has stood on the brink of the final phase of formalization and of starting to reap the fruits of unity and formal business practices, the process becomes derailed".

3.3 Micro

Although minibus taxis cater for the majority of South Africans, the issue with them is that they are unsafe. Taxis are also unscheduled, having no published routes or times, and are thus often unreliable. The modus operandi is that of profit maximisation and consequently cost minimisation. These two objectives often manifest in the disobedience of road safety rules (e.g. driving on the wrong side of the road, exceeding speed limits) and the violation of automotive manufacturer recommended safety regulations e.g. not complying with vehicle servicing requirements and overloading vehicles. These violations compromise the experience of the commuter. Safety can be considered as a formal and an informal dimension. The democratic right to safety and security is representative of the formal dimension, with an Assassination Witness report (2018) attributing 43% of South African assassinations, between 2007 and 2017, to the MBTI. The overloading and poorly serviced cars are also a formal dimension safety concern, with Arrive Alive (2016) reporting that, from 2013-2016, there were 648 fatal crashes involving minibus taxis with a total of 857 fatalities in Gauteng alone. The informal dimension is represented by the perceptions, norms and attitudes that people have developed because of the aforementioned realities.

4. EXAMPLE OF IRIMS IN ACTION

An example of IRIMS in action is a digitally based transport system rolled out with the MBUS Model stakeholders making up the conception and initiation phase team. There are various opportunities that arise from digitised transport systems, the most important of which being the user centricity (Harvard Business Review, 2016). Digitised transport systems work on a flexible consumption model (FCM), a business model that is demand responsive and has an interconnected value chain (Khan, 2018). There is a paradigm shift from transporting a user from point A to B, to delivering experiences and ensuring that the customers' needs are met at every interaction point i.e. planning, booking, boarding and paying (Frei, 2008). Table 2 is a summary of what benefits are rendered from one stakeholder to the other, using the proposed digital platform. The digital platform will be facilitated by the businesses and the MBTI-business collaboration. The MBTI gives businesses data and businesses give the MBTI customer locations and will optimise their operations. This digital platform should give the MBTI more efficient ways of locating users, providing them with more users (e.g. during off-peak hours) and, consequently, increased revenues. These increased revenues should encourage compliance to road rules and thus collaboration between the MBTI and the state. The businesses, through their data collection, should provide service reliability, route information, pricing information and safety for the user. This should result in the generation of tailored mobility solutions and thus symbiosis within the MBTI-user relationship. In addition, the businesses can employ and upskill young people, giving them technical skills for the upkeep of the digital platform and to ensure continued public participation. The users provide the MBTI with revenue and businesses with their travel data. There would have to be tracking units installed in minibus taxis for the MBTI to provide the business sector with access to gather real-time data, fares and routes. This will enable the businesses to facilitate the financial transactions between industry and commuters and get commission. The digital platform will have, embedded in it, customer satisfaction and incident reporting mechanism which will allow users to work with the state in holding the MBTI accountable to the user. The platform allows the user to locate the closest minibus taxi or taxi rank, the prices from origin to destination and the estimated travel times. The state contributes to businesses by funding students to work for businesses collaborating with the MBTI, educating, and training future employees for the MBTI-business partnership. The state-business

partnership will also be tasked with rolling-out data protection of, both, the commuters, and taxis. In exchange for access to MBTI data and travel patterns, the state will subsidise the MBTI and collaborate with them on a bottom-up basis, ensuring that their concerns are addressed, and their needs met.

Table 2: The interrelation matrix within the MBUS Model stakeholders

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		Minibus Taxi Industry (MBTI)	Businesses	User	State
From	Minibus Taxi Industry (MBTI)		data	customer satisfaction	collaborative policymaking and compliance to road rules
	Businesses	customer location and optimised operations		tailored transport solutions	Employment, upskilling and public participation
	User	revenue	data and subscription		Accountability through active citizenship
	State	subsidy and bottom up collaboration	educate and train future employees	policy and data protection	

5. CONCLUSION

This paper reiterated the vital role played by public transport, as stated by Booyesen et al. (2013) and how partnerships could be used to achieve sustainable transportation. The minibus taxi industry (MBTI), and its subsequent partners, was shown to be an effective way to fulfil sustainable development goal 11, which is to “make cities and human settlements inclusive, safe, resilient and sustainable” (United Nations, 2016).

The four main stakeholders in the MBUS Model namely, the MBTI, businesses (private companies), users (commuters) and the state (government); were used as the partnerships to achieve sustainable development.

Sustainable transport solutions can be implemented by using the IRIMS theoretical framework to identify institutional barriers and enablers for the formation of partnerships. Each of the institutions have their own ideals, expectations and interests and the purpose of IRIMS is to foster collaboration. The MBUS Model is one such example of how partnerships can be enabled to deliver sustainable transport solutions.

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