

SOUTHERN AFRICAN SOLUTIONS TO PUBLIC TRANSPORT CHALLENGES

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ABSTRACT

The South African public transport industry is under immense scrutiny as captive users of these systems face unsafe, unreliable and costly systems. In the 21 years of the new dispensation, solutions to public transport challenges in South Africa need to be tackled contextually. The Southern African Transport Conference focuses on such a theme and essentially deliberates the tools needed to solve the incumbent issues that are present. The current challenges illustrate the disconnections that exist in public transport and how they affect all users of the road networks. The current solutions –in their response to the challenges- exemplify the approaches used to resolve public transport systems which are often well considered through the planning and implementation phase but again expose the disconnect that exists. In exploring South African solutions, the essay recommends a holistic approach in attempting to provide adequate, efficient and effective systems. A way to transform these systems to focus on the extreme user and how their implied costs of using public transport can be mitigated.

INTRODUCTION

“The best way to address mobility challenges is to fund smart public transit investment, while also making decisions, both land use and transportation-related, that support more inviting movement choices through transit, walking and cycling”

Brent Toderian

More than 21 years into the democratic era, South Africa's dreams of efficient, affordable and integrated public transportation systems remain deferred. A bleak and underwhelming picture is painted of captured users involuntarily using services that are lacking safety, services that are costly and services that are inaccessible for various reasons. Congestion on South Africa's road networks has peaked with

nowhere to redirect car users for alternative transit. From an institutional perspective, public transport policies and plans –although directive – miss the necessary targets and densities to operate efficient and effective systems. The need for solutions that bring a direct positive impact to the South African public transport system is at a critical junction.

Tackling *Southern African Solutions to Public Transport Challenges* is this year's theme for the Southern African Transport Conference (SATC), which is to be held in Pretoria. This essay seeks to provide a critical discussion on the required solutions to the challenges presented above as well as other issues that are present in public transport systems in the South African context. Current challenges that are present stem from years of poorly provided yet heavily subsidised systems and networks among spatial segregation and other roots of unequal provision of infrastructure. A scope into the 1996 White Paper on National Transport Policy and the past pioneering papers such as the Moving South Africa (MSA) strategy, the Public Transport Strategy (PTS) and Action Plan, and most recently, the Integrated Public Transport Network (IPTN) plans; efforts have been made to transform the provision of public transport infrastructure (Walters, 2008). The essay has three main sections before reaching concluding thoughts. Moving on from the introduction, current challenges are further unpacked to provide a foundation for discussing the current solutions that are available and their impact in the transportation perspective. Finally, the essay delves into what holistic Southern African solutions might be. Although important to public transport systems, the essay does not discuss non-motorised transport (NMT) and it limits the discussion to the South African context. The essay begins by providing an overview of what the public transport situation is and how it has arrived at this point.

CURRENT CHALLENGES

In an occasional paper for the Gauteng City-Region Observatory, Mubiwa and Annegarn (2013) provide a foundation for the conventional way in which public transport has been delivered. The systems that are predominantly used include passenger rail which is primarily operated by the Passenger Rail Agency of South Africa (PRASA), buses; which are provided at provincial scales but operate mainly at the metropolitan/city scale and mini-bus taxi's (MBT) which operate at a metropolitan scale with specific routes being utilized and monitored by the different associations and operators that exist. MBT's remain marginally unsubsidised by the State although the industry transports its majority of commuters (70%) in relation to rail (10%) and buses (20%) (Walters, 2008; Walters, 2014). This is one of the main issues with public transport provision. The financial compensation for MBT's has been a contested discussion with the Department of Transport (DoT). The unsafe habits of drivers, triggered by the competitive need to get more customers fares, is a contributing factor that may be affected by subsidies.

The fragmentation of space, a geographically and politically sprawled city and the perpetual planning of housing developments away from activity and economic nodes in the new dispensation remains a challenge that is emphasised by the lack of PT systems and as a result fragmented public transport networks, if there are any in place. This also contributes to the financial aspect of public transport provision. Moreover, this perpetuates the number of captive users of public transport systems as high travel times and high costs persist. As advised by White (2009, p98), “the starting point of any public transport network must be the pattern of land use, which strongly influences the potential traffic”. The same applies contrariwise where the network has the potential to influence the different land activities around it and its movement patterns.

The final challenge in the public transport industry within the South African context is that of diverse disciplines which are involved in the design, planning, implementation, operation and maintenance of public transport systems working in silos rather than working in an integrated manner. A great threat applies for the objective for integrated public transport systems if the relevant industries are not in communication with each other. From a wider perspective, this extends to related disciplines in the engineering and built environment where ideas generated for working towards better systems, and therefore, better cities are done with no holistic approach (Pillay, 2001; Turok and Watson, 2001; WEF, 2017). Similar financial implications are then incurred for aspiring public transport solutions and developments. With the challenges unpacked, the following section identifies the interventions and incremental solutions that have been considered.

CURRENT SOLUTIONS

With an obligatory need to address the issues around inadequate public transport systems as well as an overwhelming requirement to upgrade systems to attract and sustain world events, major South African cities have sought to implement public transport systems and networks that are internationally recognised and promise to directly impact the issues at hand while meeting the objectives set out in policy (Walters, 2014). With some of the present systems being on the back burner and having minimal upgrades, new infrastructure has been developed to fulfil the demand for mass transit in line with accelerated urban growth and international best practice. The Gautrain rapid rail –connecting Gauteng’s two economic hubs, Johannesburg and Pretoria and having a link to the airport as well as Bus Rapid Transit (BRT) systems which are present in 5 provinces in the country that have become the focus of public transport infrastructure to promote economic growth and the long-term sustainability of cities (Thomas, 2016; Mthimkulu, 2015). This level of transformation and the benefits that were acclaimed with the development of these systems has remained a debatable topic.

Still, the government's initiatives to reassess and work towards meeting the objectives of available transport plans and provide systems that are accessible and meet the issues of safety, affordability and availability entail some commendation. The *Rea Vaya* BRT located in Johannesburg, was launched 1 year before the mega world event –the 2010 FIFA World Cup which was hosted by South Africa. Amidst an expedited transport infrastructure and levels of uncertainty surrounding the implementation and operation of the BRT system, its determination as a beacon of hope for a new public transport system initiative in the city was not deterred (Mubiwa and Annegarn, 2013; Mthimkulu, 2015).

Despite the BRT system having opportunities to be a catalytic system for commuting passengers, tensions endured during the initial phases of implementation in the different provinces due to MBT operators citing that the similar routes of the BRT with MBT was taking away customers from the latter which would affect their revenue. As with other functional transit systems in various international cities, BRT systems in South Africa have been viewed positively by many, and have been welcomed with less hostility in the different cities as they have become a conduit for access and ultimately, economic growth. Similarly, the notion of universal access, safety, visibility of signage and information, frequency of the network and relative affordability have provided a positive perception for public transport where it has been lacking (White, 2009). Keeping in line with the transformation of public transport, another solution, the Gautrain rail system has also had an impact on the willingness to plan and implement systems when aspirational plans and policies have a supporting sense of political will and success (Walters 2014; Thomas, 2016). The impact has mainly been felt by an exclusive set of commuters and the projects high costs throughout its development have contributed to its elitist feeling. In addition to this, its prioritisation for car users and higher income earners to use the system exemplify the limited current solutions that exist (Oxford, 2013). Despite being under a seemingly fragmented provincial and metropolitan management network, the Gautrain system has continued to operate relatively well within its own management entity (Walters, 2014).

With the above-mentioned systems in mind and the level of infrastructural implementation that has taken place, elements of positive spatial development and spatial transformation have come about in unique contexts. The ideas of spatial integration have been brought forward through concepts of Transport Development Areas (TDA) or Transit Oriented Development (TOD) in recent policy documents which is essential to the South African context (White, 2009). But this kind of integration remains an antithesis to fragmentation – which is still rife. The spatial sensitivity of South African cities and the locations where infrastructure has been developed has perpetuated the development of housing that is further out from the central economic nodes with the excuse that these systems can reach those outlying areas (Turok and Watson, 2001). Furthermore, current solutions lack the connection

to the actual issues that are occurring (Oxford, 2013). Alternatives to these costly and disconnected systems continue to be non-existent. Discussions held by stakeholders including transport planners and engineers, urban designers and planners, consultant's officials, politicians and other related disciplines is essential to considering feasible and actionable alternatives for effective and efficient as well as integrated public systems (Pillay 2001; Turok and Watson 2001). While Pillay (2001, p17) has pointed out that South Africa needs "a radical public transport revolution", Walters (2008, p101) opines that there is "a significant re-think of the public transport policy and strategy in the country". Recounting these statements 16 and 9 years later respectively emphasizes that these goals and viewpoints continue to be essential in exploring what South African solutions entail.

EXPLORING SOUTH AFRICAN SOLUTIONS

Public transport enables many economic and societal activities. The gravity of public transport in South Africa is explicitly given with how households spend at least 2/3rds of their income on transport. The disparity in levels of efficient and affordable public transport provision for those who are in the lower income range of earners is one of the key challenges that require responding to. If the statement provided by Letebele, Masemola and Mokonyama (2009) holds true –that households are spending 10 times more on transport than education, then a critical question needs to be asked about why radical approaches are not being fully investigated. With that said, it cannot be ignored that the resilience experienced by captive users of South African public transport cannot be learned from. Perceptions of the available public transport systems remain negative due to many different aspects. Exploring South African solutions requires that we reconsider what the fundamental issue is with public transport. Rather than developing new systems, it is important to rediscover the working elements of the systems that are currently available and what opportunities they still hold.

A focus on MBT's indicates that they may have a seemingly efficient business model that allows them to reach where passengers are mostly. The institutional challenge of densities that is experienced by the more formal sectors could explore the informal nature of MBT's that allows the network to meet its commuters' needs of a frequent service and a service that is flexible by request. Secondly, in terms of integrated services, users have organically taken it upon themselves to interact with the different modes that are available. This is important in that connections can be made as to which services share the highest transfers and how this can contribute to more accessible systems. Through retrofitting and redesigning bus transfers for example, then the perception of using the system may be improved. A general recommendation is to develop systems for extreme users of public transport that removes the limitation of targeting income groups. Rather, through redefining the actual reasons for the challenges that are present, plans and strategies that exist

may be differently implemented. Finally, the complexity of issues surrounding public transport systems cannot be mitigated while working independently. Transparency and sharing of knowledge and ideas for better solutions by all stakeholders involved is invaluable for developing sustainable systems and smarter cities.

CONCLUSION

This year's theme for the SATC centres on how we might attempt to provide solutions to public transport challenges in the southern African context. Responding to what these challenges are, their impact and the need for finding sustainable solutions has been at the core of this essay. A strong, well implemented and well operated public transport system is not far from the horizon of South Africa's future when the political will of those in power is aligned with the policies and plans that are present and documented. Transportation, although inundated by complex issues, has the possibility to affect many other disciplines and more especially, the economy of South Africa. The essay has provided an understanding of the need for better responses for to the incumbent challenges that face the South African public transport industry. In seeking to have a sustainable set of solutions, it is important that we reconsider the way forward and whether we are solving the right challenges. The financial burden of inadequate public transport systems is experienced by all, but especially those who are already captive to the system. Although the provided solutions may seem simple, they hold great impact for improved systems.

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