CHALLENGES FACING THE TRANSFORMATION OF THE PUBLIC TRANSPORT SYSTEM IN NELSON MANDELA BAY, SOUTH AFRICA: HISTORY IN THE MAKING

Pakama Q Siyongwana and Mzikayise S Binza¹

Abstract

The transformation of the public transport system is a common occurrence in cities across the globe and is widely discussed in scholarly and policy circles. However, robust discussion on the transformation of the public transport system, using the Bus Rapid Transit (BRT) system in emerging economies like South Africa, is limited. This article assesses the challenges involved in the transformation of the public road transport system in the Nelson Mandela Bay (NMB), with special reference to the BRT system. The empirical data for the study were drawn from the fieldwork, meetings, focus group discussions, and interviews with affected stakeholders and senior managers of NMB who were involved in the implementation of the BRT. The secondary data were drawn from literature, government publications and media. The results reflect that the implementation of the BRT was not easily achieved, as diverse challenges surfaced during the implementation phase. The main challenges include: lack of intensive planning and limited effective stakeholder and affected community engagement. The article concludes that as much as the BRT has credited the public road transportation system innovation in South Africa its implementation was not easy in NMB, and will be an important history for the city.

Keywords: Transformation; public road transport; Bus Rapid Transit (BRT); worldwide bus rapid transit; historical transportation changes SA; Nelson Mandela Bay/Port Elizabeth; Nelson Mandela Metropolitan Municipality; taxi industry; bus industry.

Sleutelwoorde: Transformasie; openbare padvervoer; snel busvervoer; wêreldwye snel busvervoer; historiese vervoerveranderings in SA; Nelson Mandelabaai/Port Elizabeth; Nelson Mandela Metropolitaanse Munisipaliteit; taxibedryf; busbedryf.

1. INTRODUCTION

Beginning from the 1980s public road transport in urban areas worldwide experienced a steep increase in the number of vehicles, resulting mainly from the rapid urbanisation and improvements in technology (Pacione 2003). This resulted into a number of road traffic problems. In response to the road traffic problems,

¹ Dr Pakama Siyongwana, Department Political Geography, Nelson Mandela Metropolitan University, Port Elizabeth, South Africa. E-mail: pakama.siyongwana@nmmu.ac.za. Prof. Mzikayise Binza, CPUT, Bellville, Cape Town. E-mail: binzam@cput.ac.za. We are grateful to LED International Session Focus Group held in Port Elizabeth on 2nd November, 2010, for their comments on the earlier version of this article.

the governments in different countries embarked on development projects that were designed to improve road public transport with the Bus Rapid Transit (BRT) system as the nucleus for transformation (Wright 2005; Hossain 2006; Olufemi, 2008; Schalekamp and Behren 2009 and Dimitriou and Gakenheimer 2011). Apparently, in South Africa the BRT supporters (politicians, government officials and the business sector) believed that the BRT innovation would firstly make a remarkably positive spinoff in the economic development of the country, insofar as making South Africa's metropolitan areas globally competitive. Secondly, it would make a valuable contribution towards achieving sustainable urban road transport development in the country, a requirement that was emphasised in Agenda 21 as agreed upon in the Rio Earth Summit in 1992 (Pacione 2003). Thirdly, it would be a catalyst towards the formalisation of the taxi industry.

Interestingly, nothing could be further from the truth for Nelson Mandela Bay (NMB), Port Elizabeth, as the implementation of the BRT innovation would reduce the number of vehicles on the road, thus in turn reducing carbon emissions. In addition, with the implementation of the BRT, the elite group, which includes well-established businesses and politicians, would benefit from the deal (Judge *et al.* 1995). Conversely, the development of this first-class innovation would affect the running of the transport business in the city and more particularly the taxi industry with the fair percentage of its members operating illegally in the transport industry, hence the taxi operators are very sensitive towards the implementation of the BRT. Unquestionably there will be competition among the minibus taxis, the current buses and the BRT buses. Furthermore, the post-apartheid situation, confronted by pressure from the citizens, was expected as response to the uncontrolled taxi industry. Logistically, these contradictory ideas were likely to create conflict.

Indeed, with the introduction of the BRT transport innovation in 2008 in various South African cities such as Tshwane (Pretoria), Johannesburg, Port Elizabeth/Nelson Mandela Bay, Cape Town, Durban and Bloemfontein, only a few academic evaluations have been conducted in relation to the innovation. Brislin (2009) for example, has examined the challenges of traffic management and signalisation for the Bus Rapid Transit system in Johannesburg. Krogscheepers (2009) has provided an examination of the use of signal strategies for the Cape Town integrated rapid transport projects. None of the researchers had examined the challenges facing the implementation of the BRT programme system in the Nelson Mandela Bay (NMB), and yet the issue of the implementation of the BRT in Nelson Mandela Bay with a population of about 1,3 million, if one has to take into consideration that the minibus taxis have the potential of moving 15 million people around daily (Thakali

2009). It was in the above context that concerns about the challenges facing the implementation of the BRT in Nelson Mandela Bay emerged.

Thus, the purpose of this research is to examine the extent to which the public road system has transformed in NMB since the introduction of the BRT transport system. In this context, the background and advantages of the BRT model are explained. Thereafter, the legislative framework for improving public transportation in South Africa is discussed. The challenges to the implementation of the BRT model and the strategies used to address the challenges by the NMBM are presented as a case study. The article concludes that the BRT transport system is an appreciated innovation, but as it is currently still a work in progress, it needs to be fully implemented before its contribution to socio-economic development can be measured. This article is intended to contribute to the literature on the historical development of modern transportation systems in South Africa. It is hoped that the inclusive approach used by government to introduce new changes in the public transport system would assist future researchers and policy makers in finding effective and efficient ways of implementing improvements in the transport industry, without the conflict that marred the introduction of the BRT system when it was introduced in 2008

2. BUS RAPID TRANSIT WORLDWIDE

The South Americans appeared to have a legitimate claim to be the founders of BRT as this programme had its genesis in 1974 in Brazil in one of its most famous cities, Curitiba. Although there were several small-scale projects prior to its development, the success and the credibility of the programme gave it the impetus to be implemented in other countries (Dimitriou and Gakenheimer 2011). For example, in Africa, by 2008, the BRT system was in the process of implementation in Senegal, Tanzania and South Africa. Research on the impact of BRT systems in major metropolitan areas in relation to transport challenges has revealed both positive and negative aspects. On the positive side, the following are worth mentioning: Firstly, the BRT system provides a commuter-friendly transport system (Olufemi 2008). Secondly, it reduces carbon emissions and as such is an environmentally friendly mode of public transport. Thirdly, it is considered a catalyst for more compact urban development and for "smart growth" in more resourced and wealthy countries as it can provide efficient and swift pubic transport (Litman 2008). On the negative side, the BRT transport system may affect negatively on businesses that are close to the BRT routes, during its implementation phase. The Senegalese government prioritised economic importance during the implementation of the BRT routes, and strategies were adopted to ensure that the economy was not impacted negatively by the innovation of the BRT transport system (Institute for Transportation and Development Policy 2004). Furthermore, the BRT transport system tends to depend heavily on government support in terms of security and police enforcement (Van der Schuren and Cloete 2006). This implies the taxpayers having to bear the cost. Furthermore, BRT transport has the potential of reducing the number of private motor vehicles in commercial and institutional centres, forcing the passengers to walk relatively long distances in order to access such areas (Wright 2005). This forces smaller vehicles and more particularly the paratransit vehicles to service the less financially lucrative feeder routes of the city.

3. THEORETICAL FRAMEWORK OF THE STUDY

Development is often, but not exclusively, regarded as a synonym for progress, which is a value-laden notion. Wherever development is imminent, or in process, there will always be those who resist, and those who welcome it. Development is therefore almost always laden with conflicts and challenges. The group benefiting from a particular status quo will naturally be wary of any change. Regarding the implementation of development projects different approaches can be used. The main development approaches can take a route either above or below. However, another variant of developmental approach is termed as the development from the middle. The top down approach entails government or service providers imposing development initiative to people. With this type of developmental approach the affected people in a development initiative are not in a position to question or to challenge the provider or the government. However, the development from below (also known as a participatory approach) takes the opposite route to that from above. The development from the middle finds itself between the two extremes. The participatory model, among other things, emphasizes the critical importance of the local community or primary affected people and stakeholder engagement. However, stakeholder inclusion in developmental issues extends beyond a narrow segment of involving people, including informing, consultation and participation. The engagement of the primary affected beneficiaries and stakeholders creates an enabling environment as well as a platform to provide local insight and the knowledge on controversial issues.

In a similar vein with the participatory approach to development Siyongwana and Mayekiso (2011) have suggested that the participatory approach with the stakeholders and primary affected community should not follow a "**DAD**" approach, (that is, **D**ecide on the issue - and in this case implementation of the BRT, Announce it, and then **D**efend it. It should rather be a process by which the affected people's concerns, needs and values are incorporated in the decision-making process. Echoing about the importance of stakeholders' engagement in a developmental issue as a strategy to reduce misunderstanding, they maintain that the stakeholder and beneficiaries engagement need to be integrated into the project cycle. Thus, their inclusion must be linked to the requirements of the different phases of the project as it proceeds from pre-feasibility, through an engagement plan and implementation and finally to closure. As much as the participatory approach acknowledges the importance of the engagement of the affected people, this can be regarded as an important component in the implementation of democracy in a country. In addition, it is vital that there should be a two-way flow of ideas from the providers and the primary affected people. Equally important is that the primary affected people and stakeholders' engagement and interests need to be reflected in the final results. Adding to that, the effectiveness of community and stakeholders' engagement should *inter alia* be transparent, trustworthy, honest in response to queries and complaints, properly communicated and finally there should be inclusive involvement.

4. DEBATES ON HISTORICAL TRANSPORTATION CHANGES IN SOUTH AFRICA

In terms of the development of the road transport system in South Africa from 1988 to 2009, the urban public transport systems were dominated by rail, subsidised bus services and unsubsidised minibus taxi transport services. These three different modes of public transport did not work together in an enlightened and integrated fashion; instead, they competed with one another for passengers, at the peril of the industry and local economies (Khosa 1994). In many instances, when the competition was poorly managed, the situation degenerated into taxi wars and numerous road accidents that claimed the lives of innocent people caused by reckless and speedy driving as the drivers tried to meet daily money quotas for their bosses (Lomme 2006). Common to these forms of public transport systems were poor customer service and the unreliability of the buses and the minibus taxis, which operated predominantly during peak times (mornings and afternoons) with only a limited service during the off-peak hours. As a consequence of this fierce and chaotic competition, socio-economic pressures were put on the government to find suitable ways to close the gap of an inadequate and unsafe public transport system, hence the introduction of BRT.

Since 1994, the democratic government has been striving to make South Africa globally competitive through investing in socio-economic infrastructure development such as improving road infrastructure and airports. This infrastructure development was considered to have many benefits in that through improving infrastructure and urban transport systems, jobs would be created, poverty and unemployment reduced, and more than 56% of the population would have access to better, safer and more reliable urban transport. Thus, the South African government,

since 1995, had to focus on the transformation of the urban public transportation system, among its other important mandates. Thereafter, the National Taxi Task Team investigated the causes of and the prospective solutions to taxi unrest and related conflicts. One major recommendation of the taskteam was the reregulation of the taxi industry. Legislation was required to enforce the implementation of the recommendations of the task team. In 2000, the National Land Transportation Transition Act, 2000 (Act 22 of 2000) was promulgated to reregulate the chaotic state of the taxi industry at that time (South Africa 2000). However, various national taxi associations, namely: the Port Elizabeth Distance Taxi Association (PELDTA), the South African Black Taxi Association (SABTA), the South African National Taxi Council (SANTACO) and the UNCEDO Taxi Association, voiced their reservations regarding the reregulation of the taxi industry as they could foresee that the government wants control over the taxi industry. For example, President Zuma engaged the ministers of transport, Minister Jeffrey Radebe (Conference of National, Provincial and NMB-Coega Hall, Transport Summit, January 2009) and Minister Sibusiso Ndebele negotiate with taxi operators on possible ways of formalising the taxi industry. The formalisation of the taxi industry would legalise and thus contribute to the South Africa Revenue Service and thus implies becoming part of the tax net.

The taxi operators did not welcome the government's stand on the BRT transport system. They staged counter-revolutions in various forms against reregulating the taxi industry, which eventually gave formal weight to their protests. The conflict subsided when the government instituted a four-year recapitalisation scheme. The aims were to improve the safety requirements for new taxis, introduce the effective regulation of the taxi industry, enforce effective law in respect of public road transport and empower the taxi industry. Government also suggested in the recapitalisation programme that the taxi industry should form one cohesive association that could speak on behalf of all South African taxi owners. In addition, the government replaced the 15-seater taxi minibuses with 18- and 35-seater minibuses. This resulted in a substantial number of unsafe minibus taxis being scrapped and the taxi owners were to be subsidised in purchasing these new taxis. Because of this action, the number of minibus taxis increased drastically. Although the taxi subsidisation scheme was introduced with "good intentions", many taxi operators found themselves overwhelmed by huge debts (Hani 2009). Furthermore, the global agreement that was endorsed by the United Nations to develop sustainable energy and transport systems in human settlements of member states involved the development and transfer of energy-efficient technologies and improving the urban public transport systems (Pacione 2003). In South Africa, the Draft Public Transport Strategy of 2006 was developed to recognise and adopt the Integrated Rapid Public Transport Networks (IRPTN). The BRT system was intended to be the nucleus of the IRPTN. The present research investigates the issues that surrounded the implementation of the BRT system in the NMB area. It will answer the following question: *Why is the BRT transport system not operating in the Nelson Mandela Bay/Port Elizabeth?*

5. RESEARCH LOCATION

The Nelson Mandela Metropolitan Municipality (NMMM) is the fourth largest metropolitan area in South Africa. It is located in the south-eastern part of the country and has a population of 1,3 million people. The municipality consists of three urban nodes, namely Port Elizabeth, Uitenhage and Despatch, that in its totality occupy about 30% of the surface area of the municipality, but surprisingly contain more than 90% of the population of the NMMM (Nelson Mandela Metropolitan Municipality 2009). Public transport activities in the three urban nodes are characterised by daily commuters who move back and forth between the nodes. The daily commuter traffic swells during the peak hours, (07:00-09:30 and 15:30-17:30), while between 09:30 and 15:30, the traffic decreases, as illustrated in Table 1. The mobility patterns and the modes of transportation present an interesting feature of NMMM as it is dominated by the use of private vehicles and pedestrians. As reflected in Table 1 the number of train commuters are limited. Port Elizabeth, like other BRT-selected South African cities, was placed under the National Urban Transport Programme (NUTP).

Mode	Private trips	% All modes	% Motorised transport	% Public modes	Socio-economic status
Walk (pedestrians)	460 000	33	_		Low
Private vehicles	572 000	41	60		Middle & high
Taxis (cabs and kombis)	286 000	20		75	Middle & low
Buses	89 000	06	40	23	Middle & low
Trains	5 000	0,4		02	Low
Total	1 412 000	100	100	100	

TABLE 1: TRANSPORT PATTERN IN NMB (AFTER NELSON MANDELA METROPOLITAN MUNICIPALITY 2007)

As far as the planning of the integrated urban transport system by the NMBM was concerned, the BRT planning design was adapted from the Latin American City of Pereira (Nelson Mandela Bay Municipality 2007). Local planners felt that the City of Pereira compared favourably with the NMBM in terms of population size (1,3 million for Port Elizabeth and 750 000 for the City of Pereira). Furthermore it would have more or less similar conditions, in terms of the length of buslanes, stations and terminals, buses (articulated and feeder vehicles) and the number of passengers.

6. METHODOLOGY

The research methodology chosen for this study is a case-study approach to the implementation of the BRT model in the NMB area. The data were obtained from diverse sources, which include primary and secondary sources. Interviews with the leadership of the taxi association in Port Elizabeth and senior managers responsible for BRT in the NMBM were conducted. In this regard, three interviews were arranged (one with the taxi association and two with the municipality). The relevant questionnaire had unstructured in-depth questions focusing on the challenges facing the renewal of urban public road transportation in the NMB area, and which developed strategies could minimise conflicts and ensure the successful implementation of the BRT system. In addition, direct observation from the meetings on the implementation of the BRT attended by researchers from 2006 to 2010 served as data for this article where challenges were examined by all primary stakeholders. The stakeholders included the following: the bus industry (Algoa buses), taxi industry, commuters (road passengers), the business industry, comprising mainly retailing, engineers, and property owners. In the discussions held during meetings, the researchers were able to grasp the responses and the feelings raised by the people directly affected. A literature review of the BRT system was undertaken, using various sources including books, journal papers, proceedings of conferences and reports by the South African government and international institutions. From these meetings, conferences and interviews, the projected impacts and challenges towards the implementation of the BRT transport system in the city were observed (Table 2).

Type of vehicle	Current 2010	Transition period	Full IRPTN after five years-2016
Articulated buses	0	24	117
Boggy buses	0	117	219
Regular buses	407	190	111
Midi buses	0	138	284
Mini buses	+ 3200	1438	1118

TABLE 2:THE PROJECTED TRANSPORTATION VEHICLE PLAN AFTER
FIVE YEARS (AFTER SAID 2010)

In Table 2 it is projected that there would be a drastic reduction in minibustaxis and regular buses from Algoa Bus Company owing to the introduction of the three types of BRT buses. The decrease of minitaxis and Algoa buses is estimated at 60% over the next five years. An incremental approach was used with regard to the introduction of the BRT buses, as it is estimated that their number would increase from 279 in 2010 to 620 in 2016.

7. CHALLENGES TOWARDS THE BRT IMPLEMENTATION

7.1 The business sector

In order for the BRT transport system to work, it has to be accommodated in the existing NMB street arrangements. In NMB, the BRT project had to go through the old city centre, but due to a lack of physical space, it could not be easily accommodated. Consequently, the BRT transport project had to compete for land with other interest groups in and along the main road routes. The action not only inflated expenses, but also complicated the institutional operation (Said 2010). Thus, the limited physical space posed an acute constraint on the implementation of the BRT lanes as the space that was set aside for parking and pedestrians became a "contested territory" to different users, for example, taxi buses and trucks for unloading people or goods, or, as their travelling lane, shoppers for parking. This also implies that the BRT lite buses would operate within rather narrowly defined conditions. The upshot of this, however, was that the intensive re-engineering of some existing streets and the construction of segregated bus lanes had to be undertaken. The *Herald* (2010, p. 1) echoed comments about morphological problems:

"I heard a rumour that the BRT lanes are too narrow for the buses to use ... Also large trucks which have to do deliveries in those areas can't make turns any more as the roads are too narrow, resulting in them having to drive over curbs to make the turns, damaging their tyres and the curbs."

To further exacerbate matters, the business operators who were operating along the BRT routes also had many reservations due to loss of income resulting from the implementation of the BRT transport system as the limited parking space was not user-friendly to shoppers. As much as the operation was supported by a traffic-impact analysis, the construction phase of the BRT system was – strangely enough – not informed by a comprehensive social or environmental impact assessment (Mitchell 2010). Logistically, the environmentalists had reservations regarding the reconstruction of roads to cater for the BRT transport system.

7.2 Road passengers

One of the major hurdles facing the implementation of the BRT transport system was the garnering of support for the local BRT system from road passengers, especially in the middle and high-income group, those individuals who traditionally used private vehicles as their main mode of transport (Table 1). By virtue of the sheer number of privately owned vehicles in this case, the group was largely responsible for rush-hour traffic congestion and air pollution. However, the NMMM officials who "buy into" the BRT transport was far below expectations. Thus, the fact that middle and high-income groups in the NMMM generally did not support public transport posed a major limiting factor. The list of reasons for not supporting the BRT system was extensive, but the main reasons included the following: opponents claimed that the BRT buses were receiving exceptional and unjustifiable treatment, which had caused roadway delays. However, the concerns that emerged from the motorists were twofold. The first was historically based on the method of separate transport buses in the country for the white community and the black community. Effecting change was thus not easy. The second was the stigma associated with public bus and minibus transport, as it was perceived to lack safety and security - and these reservations applied to the local BRT system as well.

7.3 The transport industry

7.3.1 Bus industry

The local bus operators initially showed resistance in agreeing to amalgamate into a new business venture, that is, the BRT transport innovation, as they were pessimistic about changing from the current mode of operation to new operational forms, which were, at best, unpredictable. In addition, the local bus operators (Algoa bus operators) had reservations about the BRT transport system due to its lack of a robust business and financial model, relying mostly on buyings from the existing public transport operators and the financiers. This stance, however, was later changed, owing to an acknowledgement that their buses were operating under section 21, which implied that they were non-profit organisations, and therefore heavily dependent on government subsidy (Said 2010). The implementation of the BRT system was therefore not going to make substantial changes to the bus business industry.

7.3.2 Taxi industry

With regard to the taxi industry, it should be noted that the foundation of the BRT transport system had been designed to reduce the practice of drivers and/or taxi owners receiving profit based solely on number of passenger collection. In such cases, drivers would speed, work long hours and drive recklessly in order to maximise the number of passengers. Thus, the number of uncontrolled paratransits had to be reduced (Said 2010). This action led to the taxi operators resisting the implementation of the BRT system. Their resistance involved a wide range of issues, some of the more important ones being a controversy over the name of the innovation, that is BRT. According to the taxi operators the name used to refer to this transport innovation, "Bus Rapid Transit" (BRT), was perceived negatively by the taxi operators as reflecting the grossly socio-economic exclusion of the major organ of transportation in South Africa, namely the taxi operators in the taxi industry. In line with this controversy over the name, the following remark was made: "The taxi industry does not like anything that has got the three letters, that is B-U-S, in it" (Interview taxi operator who wanted to remain anonymous 2009). Yet the taxi industry in Port Elizabeth, over the past three decades has not only shown steep growth, but has also become the most popular mode of public transport. It is therefore understandable that the taxi operators were insisting on their own identity and a share in the new transport system since they regarded themselves as being entitled to the Port Elizabeth transport resource sector. Thus, the taxi transportation sector demanded that the letter "T", that stands for "Taxi", should be included in the new transportation system.

However, on the face of it, their reaction might appear too slight, and perhaps the government thought it a good approach to improve the public transport system through the implementation of the BRT system. However, as far as the distressed taxi operators are concerned, the outcomes go deeper into the interface of local development, more particularly to the nature and the direction of South Africa's informal sector, which currently provides a fair share of employment opportunities to low income earners and less educated people in NMB. In every South African city (including Cape Town and Johannesburg) where the BRT transport system is being implemented, the taxi operators have been volatile in claiming that they were not fully engaged in the BRT project, with the NMB taxi operators not being immune from the general trend. They claimed that they were superficially informed about the progress of the BRT transport system (Hani 2009) and yet the former mayor was adamant that they had been given opportunities to respond to the BRT transport innovation for more than a year. The taxi operators dismissed that notion by stating that they were invited to attend "public hearings on the government's plans regarding the BRT transport system, but were not engaged in the process of the implementation of the BRT system".

As much as the taxi operators were kept on the periphery on the issue of the BRT transport system, they also felt that there was no merger of ideas of the two parties. Hani (2009) echoed this on behalf of the taxi operators in Business on line:"We (taxi operators) are not against the development brought about by the government, but we are against the manner they are rolling out this project, the speed." Indeed the engagement of financially vulnerable taxi operators with the changes in the transport system was vital, in order to give them a decision-making platform regarding the BRT transport innovation. In addition, out of a group of ten taxi associations, two NMB minibus taxi associations (Ncedo and the Port Elizabeth Long Distance Taxi Association, otherwise PELDTA) did not support the BRT system. They could foresee that they would be the biggest losers should the BRT system be implemented, because they would be losing money as the BRT would only reimburse operators who operated within the BRT system.

Year	Type of consultation	Reason for consultation
2004	16 public meetings in Port Elizabeth	Assess needs
2006	Public transport plan	Meet ward committees
2007	Task team	Tr. stakeholders meet monthly
2007	Public meetings in all residential areas	Inform the public
2007	Negotiation with taxi association	Letters of intent
2007	Visit to Colombia with relevant stakeholders	To learn the concept
2007	Four public meetings	Facilitate EIAS
2008	Workshop with all relevant associations	Discuss the business plan
2008	Meeting with Algoa Bus Company	Discussion
2008	Many public meetings with relevant people	To answer questions on the BRT
2009	New business plan	Address concerns taxi industry
2010	Transport summit	Address case of the BRT buses

 TABLE 3:
 CONSULTATION WITH STAKEHOLDERS (AFTER NMMM 2010)

Conversely, the NMMM officials cannot be immune to these consultation allegations because they allowed the consultation issue to be the responsibility of the South African National Taxi Council (SANTACO), even though the SANTACO leadership was not consulted further. However, regarding the process of consultation, SANTACO would state that in the event of their views not being fully accepted, they had not been engaged in the process. To fight their case further, they would use their ANC alliance as leverage to fight their cause. They would convince the alliance that, although they had been informed of the implementation process, they had not been engaged in the process. That in turn implied that the NMMM engagement with the crucial stakeholders was not a genuine condition that persisted until the establishment of the Nelson Mandela Bay Transport Forum (NMBTF) in 2009. At that stage the BRT transport project of the NMB had progressed considerably. Furthermore, the limited transparency about the BRT project led to a lot of confusion about the BRT transport system project. For example, most of the affected stakeholders thought that the need to implement the BRT transport project was to improve the transport system for the FIFA 2010 World Cup, and not to address the inadequacies of public transport in NMB.

With the implementation of the BRT system, many taxi owners, especially the old model taxis (five years old), were expected to surrender their current taxis to government in order to eliminate the number of paratransit vehicles on the road and, in particular, vehicles of the minibus variety. In return, the taxi operators were to be compensated (Meeting Centenary Hall 2008). The disagreement over compensation for the affected taxi operators for surrendering their operating licenses on the proposed BRT routes was also a "burning issue" that caused great dissatisfaction amongst the taxi operators regarding the BRT transport system. Initially, the government made a proposal that it would reimburse the taxi operators whose vehicle models were less than five years old. However, the proposal was completely rejected by the taxi operators who demanded that the government should reimburse all the taxi operators, irrespective of the model of the vehicle. The government found it difficult, if not impossible, to come up with market-related compensation for the minibus taxis, and loss of income due to the implementation of the BRT transport system. The minibus taxi industry, although mostly "unionised" in terms of representative taxi associations, is largely an economically unregulated entity in reality. This means that most of the minibus taxi operators and their staff operate informally, and are not registered with the Department of Labour or with the South African Revenue (Tax) Service. Logically, that would complicate it for the NMMM to present a comprehensive strategy for the compensation of the taxi operators (Said 2010).

Furthermore, the implementation of BRT implies that the number of taxis would be reduced, resulting in some of the taxi operators being assimilated into the new transport system. Thus, the taxi operators became sceptical about losing ownership in the transportation industry, hence they attempted to obstruct any progress made towards the BRT system's implementation. The taxi operators felt that they had grown and nurtured the taxi transport business from a small entity to a large-scale business operation and had expended much energy and effort in designing the current popular and busy routes. They therefore claimed the goodwill and the intellectual property rights of the metro transport industry. An example of the taxi operators' discontent with the new system is reflected in the comments of a particular taxi operator to *City Press* in 2009: "We started this business without any assistance. Now that they see there is money in it they want to take it away and turn around and paint us as hooligans." The intellectual property issue needs further interrogation as to how it relates to the South African context. However, in a discussion with a law firm that specializes in intellectual property laws are clearly defined and range from trademarks to patents and copies. There is, however, no provision made for taxi routes in this particular sector of the law (Wegierski 2009). Thus, the taxi operators have no legitimate claim over the transport routes.

The taxi operators experienced uncertainties regarding the working conditions in the new environment and its predicted effects. In the new system, the major routes would be used mainly by the BRT transport system and on the other minor, feeder routes would be operated predominantly by the minibuses (Wright 2011 in Dimitriou and Gakenheimer). Operating on the feeder routes would not be automatic, as the operators would have to tender for a permit to run. Furthermore in order for the taxi operators to win the tender, an individual taxi operator would have to be very aggressive in the bidding process and therefore, it goes without saying, that operating taxi contracts would be awarded through a competitive bidding process (Interview taxi operator who wanted to remain anonymous 2009). This also puts additional competitive pressure on the taxi owners. However, in the previous working environment, the taxi owner had to renew his licence. In the new environment the tender would only be valid for four years and, on expiry, the process of tendering would have to be renewed. Again, the taxi operator had to face a win or lose situation as in many instances corruption in municipal circles prevailed, and tendering seemed to be influenced by political affiliations. This implies that the taxi operator had now and again to manage competition. Furthermore, the taxi owners who had won the tenders for the feeder routes would then subcontract other taxi owners who would report directly to them. It is understandable that the subcontractors would have to tow the line of their new bosses (Meeting 2008).

The taxi fare would be charged according to the length of the route and in many instances the routes, by virtue of being only feeder routes, would be shorter (Figure 1). Consequently, the taxi operators income would be reduced. The taxi operators could foresee that with the building of the BRT infrastructure, there would be more buses and this meant that there would be more competition leading to a reduction in jobs (Meeting Centenary Hall 2008).



Figure 1: Map showing transformation of taxi routes in NMB.

All this explains why the implementation of the BRT transport system has resulted in opposition between socio-economic groups over the distribution and utilisation of resources (refer to Table 2). Viewed from another angle, it should be considered that the NMB taxi industry has been in existence for quite a while, serving as a means of survival for thousands of South African blacks. The implementation of the BRT system was regarded as an additional barrier as the taxi operators were already experiencing fierce internal conflict amongst themselves. Therefore, in making their voices heard by the government regarding the implementation of the BRT transport system, the taxi operators staged multiple protests. The protesters demonstrated by destroying property (for example, the railway lines, taxi ranks) and inconveniencing a large number of public users, with violent clashes between taxi operators, causing injuries and claiming lives of people (The Herald Online, 19 January and 10 February 2009). Indeed, the subsequent absence of any meaningful stakeholder engagement meant that the implementation of the BRT system, contrary to expectations, encountered considerable social resistance from a range of affected groups. These included some residential and business property owners who suddenly experienced the inconveniences caused by road works and construction activities, including limited access and parking for customers, loss of business and regular electricity and water supply interruptions.

8. REVISITING THE CHALLENGES

The South African government, faced by "the teething problems", especially with regard to the FIFA Soccer World Cup 2010, was compelled to enter into intensive negotiations with the directly affected stakeholders. Firstly, the BRT name challenge was revisited. A concession was made in naming the new transport innovation IRPTN and affirming that the taxi industry would be the nucleus

of the new transport system. The taxi operators' engagement in the BRT system implementation was re-examined and the outcome of this re-examination was that drastic strategies were undertaken to ensure that the taxi industry, the backbone of the transport industry in the NMMM, was engaged in the BRT transport system innovation. The NMMM official also improved transparency in the transformation of public transport in the city.

Furthermore, a concession was made in allowing the taxi operators to also use the BRT routes. That implied that there would be no segregated lanes for the buses and the taxis. This was a drastic and a unique stand taken by the NMMM, and the NMB was the only South African city that opted for the route of integrated lanes. It should be taken into account that the BRT transport system in the NMB differs from that in other South African pilot cities (Johannesburg and Cape Town). Unlike Johannesburg and Cape Town, which implemented the full trunk BRT transport system, the NMB implemented the BRT lite, which allowed the utilisation of BRT lanes by other public transport vehicles on both the median and kerb side. Whether this would work effectively remains to be seen.

Nevertheless, to solve the issue of the taxi operators losing employment opportunities with the implementation of the BRT system, the government guaranteed that the taxi operators (which include taxi owners, taxi drivers and the taxi callboys) would be absorbed into the new system and that the taxi industry would be brought into the system. This move held very lucrative possibilities, particularly to the taxi drivers and "callboys" because for them it implied employment by the municipality by virtue of their being government employees, hence entitling them to government benefits. However, the irony was that only a few legitimate taxi drivers would be absorbed as government employees and this action seems to have created many reservations.

The concern about ownership and management of the BRT system had been addressed by encouraging the taxi operators to form cooperatives, which were to be divided into primary and secondary phases. On the one hand, the primary cooperative would be composed of members of the ten registered taxi associations in the city and, on the other hand, the secondary cooperatives would consist of senior elected members from the primary cooperatives. During the first phase (one to two years), professional management would monitor the primary cooperatives. However, in due course the paratransit owners would cede only the management of their fleet and drivers to the managing company, thus creating an enabling environment for a well-structured working operation. The second phase (two to three years) would be reached as soon as paratransit operation became successful, followed by the outsourcing of finances to a separate company. It is worth pointing out that in the second phase, the taxi operators would be earning a guaranteed income (about R8 000 a month) in compensation for the loss of property resulting from surrendering the operating permit from the government as well as dividends from the transport business. If the transitional period proved to be unsuccessful, the taxi operators could reverse the deal. During the third phase (three to five years), and depending on the success of the process, the company would be fully absorbed in the BRT transport system, and would function as an autonomous entity alongside the BRT buses (Said 2010).

However, the process of surrendering the informal taxi business to formal business cooperatives in the NMB, is proceeding at a slow pace, as many taxi operators still have reservations about the implementation of the BRT transport, which they consider as being a target for the NMB elite group's "enrich scheme". Moreover, there were irregularities in the selection process of the Nelson Mandela Bay Public Forum as well as in the selection of representatives in the councils of national and provincial bodies of the taxi industry. For example, the Nelson Mandela Bay's SANTACO representatives caused a lot of discomfort among the taxi operators as certain irregularities in their selection were discovered (Interview taxi operator who wanted to remain anonymous 2009). All these above-mentioned factors have caused many reservations among the taxi operators during the negotiations. Interestingly enough, the BRT transport became operational in the NMBM during the few weeks prior to the opening of the FIFA 2010 Soccer World Cup, and thereafter the BRT buses have ended up in storage for approximately 24 months. This implies that the implementation of the BRT transport system is still a major challenge in the city and needs to be reconsidered, perhaps by re-establishing dialogue with the affected people.

9. CONCLUSION

Elucidating the challenges that have emerged during the implementation of the BRT transport system in Nelson Mandela Bay, was the central theme of this research study. However, the road to its implementation was and is still not easy, as it is affected by numerous constraints in NMB. Several lessons were learned in the research study, including the following: the Latin American transport innovation (BRT) transport system should be aligned to local circumstances. Intensive planning was essential as well as engagement with the affected roleplayers and stakeholders in order to win the hearts of the relevant stakeholders and more particularly the taxi industry and road commuters. Although it is understandable that the broad participation and negotiations would inevitably bring about differences in opinion, these obstacles could be regarded in a more positive light, namely as a learning curve. It should also be taken into consideration that although negotiations are time-consuming, they have been conclusive and should result in the establishment of a sustainable transport system.

In conclusion, the study endorses that the implementation of the ANC-led government "wished for" BRT transport system development initiative is not just a "switch and play technology" that can take off easily as it involves human beings whose interest should firstly be addressed. Thus, the study endorses the importance and the impact of stakeholders and the primary affected people in socio-economic transformation issues in post-apartheid South Africa. The government-desired project that was targeted to transform public transport that would eventually formalise the taxi industry has not taken off in NMB due to proper lack of sound engagement of stakeholder and affected local community. As much as the BRT transport system operated during the duration of the FIFA 2010 Soccer World Cup and thereafter, in July 2010 the BRT buses were kept in safe places, and undoubtedly this forms an important history in the development of the transportation service in NMB. In addition, this stresses the fact that the implementation of the BRT transport system is still facing challenges. Finally, this study provides some advice to the cities within the developing or emerging economy of states that will in the near future be implementing the BRT transport systems; cognisance should also be taken that case studies are often undertaken in isolation. Thus, one can safely conclude that what is good for one city may be bad for another. Therefore, it is not always appropriate to generalise the findings of a particular research study, as each case study has its own unique character, circumstances and applications.

RERERENCES

Attendance at meetings, fieldwork and interviews 2007-2010:

Meetings in March 2007. Public meetings were held in all residential areas affected by the Public Transport Plan and the process explained to the general public.

Meetings October-December 2007. Intense negotiations were held with representatives of the associations regarding the receipt of "letters of intent" from all associations to proceed with further negotiations.

Meetings October 2007. Four public meetings were held to introduce BRT and to facilitate the Environmental Impact Process.

Meeting 2008. Briefing regarding the BRT system, Centenary Hall, 22 October.

Meeting/Conference 2009. National, Provincial and NMMM, Coega Hall, Transport Summit, January.

Siyongwana and Binza • Challenges facing the transformation of the public transport system

Mapaza N 2009. *National, Provincial and NMMM, Coega Hall, NMBM Transport Summit*, Speech by the Mayor, January.

Radebe J 2009. *National, Provincial and NMMM, Coega Hall, NMBM Transport Summit*, Address by Minister of Transport, Mr J Radebe, January.

Interview 2009. Mr Melekile Hani, Chairperson of the PELDTA, August.

Interview 2009. Keith Mitchell, Manager of the BRT project, NMBM, August.

Interview 2009. Taxi operator who wanted to remain anonymous, November.

Interview 2010. Keith Mitchell, Manager of the BRT project, NMBM, August.

Interview 2010. Mr A Said, Director of Infrastructure, NMBM, November.

Fieldwork 2010. Personal observation in Kempston Road, November.

Brislin AG 2009. *Meeting the challenge of traffic management and signalisation for the Bus Rapid Transit for Johannesburg*, Paper presented at the 28th Southern Transport Conference (SATC), South Africa, Pretoria, 6-9 July.

Business Day 2010. "Buses don't use the BRT lanes built at great cost", 14 September.

Bryne C 2008. "Taxi Industry shoots down public transport plans", *Mail and Guardian*, 7 December.

Condliffe P 2002. *Conflict management: A practical guide*. Lex-Nexis: Butterworths, Australia.

Dimitriou HT 2011. In: Dimitriou, HT and Gakenheimer R (eds). *Urban transport in the developing world. Handbook of policy and practice* USA: Edward Elgar Publishing: 8-35.

Dougherty JE & Pfatzgraff JR 2001. *Contending theories of international relations: A comprehensive survey*. Addison Wesley: Longman Incl.

Dugard J 2001. "From low intensity war to mafia war: taxi violence in South Africa: 1987-2000", *Violence and Transition Series 4*. Johannesburg: Centre for the Study of Violance and Reconstruction.

Hani M 2009. Business on line.

Hossain M 2006. "The issue and the realities of the BRT planning initiatives in developing Asian cities", *Journal of Public Transportation: BRT Special Edition*: 69-87.

Institute for Transportation and Development Policy 2004: *Pre-Feasible study for Bus Rapid Transit in Dakar*, Bus way pre-feasibility study, Dakar.

Khosa MM 1994. "Accumulation and labour relations in taxi industry", *Transformation* 24:55-71.

Judge D, Stoker G and Wolman H 1995. "Urban politics and theory: An introduction", in Judge D, Stoker G and Wolman H (eds). *Theories of urban politics*. London: Sage.

Krogscheepers JC 2009. *Traffic signal strategies for the Cape Town integrated rapid transport project*, Paper presented at the 28th Southern Transport Conference (SATC), South Africa, Pretoria, 6-9 July.

Lemon A 1991. *Homes apart: South Africa's segregated cities*. Cape Town: Paul Chapman Publishers.

Litman T 2008. "Value transit service, quality improvement", *Journal of Public Transportation* 11(2):43-64.

Lomme R 2006. "Taxi wars and regulation of informal public transport in South Africa", *Afrique Contemporaine*, Autumn.

Matland RE 1995. "Synthesizing the implementation literature: The ambiguity-conflict model of policy implementation", *Journal of Public Administration Research and Theory* 5(2):145-174.

Nelson Mandela Metropolitan Municipality 2007. Implementation of the PTP: *implications of implementing a full BRT system, Draft 3,* 18th October, Nelson Mandela Bay.

Nelson Mandela Metropolitan Municipality Transport Forum 2009. *Strategic Business Plan*, Port Elizabeth.

Oliphant L 2009. "Uneducated taxi man: I will fight to protect job", City Press, 15 March.

Olufemi OA 2008. "Public transport innovation: The impact of the passenger's movement in Lagos Metropolitan Area of Nigeria", *Pakistan Journal of Social Sciences* 5(8):845-852.

Pacione M 2003. Urban Geography: A global perspective. New York: Routledge.

Radebe J 2009. "Government must take action if the Bay taxi strike continue", *The Herald*, 2 February.

Schalekamp H and Behren R 2009. An international review of paratransit regulation and integration experiences: Lessons for public transport system rationalisation and improvement in South African cities, Paper presented at the 28th Southern Transport Conference (SATC), South Africa, Pretoria, 6-9 July.

Siyongwana PQ and Mayekiso TV 2011. "Local community and stakeholder participation in post-apartheid urban renewal development projects in Port Elizabeth, South Africa", *Africa Insight* 41(3):142-157.

South Africa 1988. Transport De-regulation Act of 1988. Pretoria: Government Printer.

South Africa 2000. *National Land Transportation Transition Act, Act 22 of 2000*. Pretoria: Government Printer.

South Africa 2001. Statistics South Africa. Pretoria: Government Printer.

Thakali T 2009. "Frustrated taxi bosses may block routes", Saturday Star, 16 May.

The Herald, 19 December 2009.

The Herald 2010. "Buses don't use the BRT lanes built at a great cost", 4 September.

The Herald Online, 10 February 2009.

The Herald Online, 19 October 2009.

The Mail and Guardian 2008.

The Saturday Star 2009.

Van der Schuren M & Cloete RO 2006. "Improvement in public transport operational performance: A case for Gauteng province South Africa", *Proceedings of the 25th Southern Transport Conference (SATC)*,

Walters J 2008. "Overview of the public transport policy developments in South Africa", *Research in Transportation Economics* (22):98-108.

Wegierski D 2009. "Taxi industry insists on owning BRT system", The Star, 24 June.

Wright L 2005. *Bus Rapid Transit development in China - Challenges and opportunities*, Paper read at Transforming Public Transportation, San Francisco.

Wright L 2011. In: Dimitriou HT and Gakenheimer R (eds). *Urban transport in the developing world. Handbook of policy and practice*: 421-455. USA: Edward Elgar Publishing.

Wright L and Hook W 2007. *Bus Rapid Transit Planning Guide*, New York: Institute for Transport and Development Policy.