AN ANALYSIS OF THE SOUTH AFRICAN BUS RAPID TRANSIT (BRT) POLICY IMPLEMENTATION PARADIGM

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ABSTRACT

Following on the review of a number of third generation policy implementation models, the Ambiguity-Conflict Model was identified as an appropriate model to apply to the BRT programme in South Africa to try to identify the policy paradigm in which implementation has been taking place and whether an alternative paradigm might prove more effective in future. It is concluded that because the levels of conflict inherent in the implementation of the BRT programme are so high, it has to date been implemented through a political process influenced by the power relations between the actors. Although an experimental implementation process where policy learning can take place may seem more appropriate for such a complex programme, this would require considerable time and resources. If the implementation impetus for the BRT programme is not to be lost, then it is believed that political implementation through negotiation, or possibly even coercion, may remain the choice of implementation paradigm.

1. INTRODUCTION

The Public Transport Strategy and Action Plan (DOT, 2007) detailed policies and programmes in respect of the implementation of Integrated Rapid Public Transport Networks (IRPTNs) in South Africa. Bus Rapid Transit (BRT), an important element of this policy and programme, is currently being implemented with varying degrees of success in cities around the country. The objective of this paper is to (i) identify and (ii) apply an appropriate policy implementation framework to the implementation of the BRT programme in South Africa to attempt to understand the BRT policy implementation paradigm that has emerged thus far, its effectiveness and whether an alternative implementation paradigm might not be more effective in future.

2. MODELS OF POLICY IMPLEMENTATION

The analysis and understanding of policy implementation depends on the theoretical perspective from which one approaches the matter. Since the 1970s, there have been three main generations of research in the field of policy implementation. These have moved from essentially just descriptive case studies, to the development of analytical frameworks, and most recently the synthesis, testing and revision of these frameworks (Goggin, et al. 1990). First generation implementation studies were mostly “detailed accounts of how a single authoritative decision was carried out; i.e., a case study” (Lester, et al. 1987:201). While it is important that the views and understanding of those involved in the implementation process are included in the research, case studies have tended to emphasize the barriers to successful policy implementation and have been criticised for insufficient attention to quantitative and deductive research.
Most second generation analytical frameworks of policy implementation are either top-down or bottom-up approaches. Top-down theorists essentially see policy-makers at the central level as the key actors, whereas bottom-up theorists argue that policy is really put into practice by service deliverers at the local level (Mazmanian and Sabatier, 1983).

Third generation implementation models are moving towards integrating top-down and bottom-up theories to develop more robust models of policy implementation. These models, however, have also tended to take one of two main approaches. One approach focuses on the organizational or institutional arrangements that are involved in implementation and their relationships to one another. Another approach focuses more on conflicts of interest and power relations between the different actors, and how to best elicit co-operation for implementation.

Most policy analysts have now moved past arguing the relative merits of the top-down versus the bottom-up approach, towards developing third models that attempt to reconcile and synthesize these approaches (O’Toole, 2000). Four of the best known third generation models are discussed below. The models were selected to cover both the institutional and the conflict/co-operation approaches. The Policy Instrument Model falls largely within the ambit of institutional analysis, as does the Communications Model. On the other hand, the Ambiguity-Conflict Model and the Implementation Regime Framework focus more on conflict and co-operation.

The Policy Instrument Model (Bressers and O’Toole, 1998) uses the concepts of cohesion (shared values and objectives) and interconnectedness (the contact and relations between actors in the policy process) to describe the policy network or relationship between government authorities and the set of actors at which policy is directed. The appropriate policy instrument, i.e. the type of mechanism used to try to implement policy, is seen to depend on the level of cohesion versus interconnectedness as analyzed on a two-by-two matrix. Where there is strong cohesion and interconnectedness, practical and clear-cut policy instruments such as subsidisation are seen to be effective for implementation. Where there is weak cohesion and interconnectedness, on the other hand, strong regulation is seen to be the appropriate policy instrument. Weak interconnectedness but strong cohesion suggests that the emphasis should lie on investment, research funding and information dissemination. Strong interconnectedness and weak cohesion are best addressed by agreements with the target groups at which the policy is aimed taking at least some responsibility. The dominance of government in this model makes it still essentially of a top-down nature.

The Communications Model (Lester et al. 1987; Cline, 2000) is based on the assumption that organizational management issues are the primary implementation problem. It sees policy implementation as a function of incentives and constraints imposed on a sphere of government by another sphere, the propensity of the implementing government sphere to act and its capacity to act. The capacity to act is comprised of organizational capacity (structure, personnel, and financial resources) and ecological capacity (economic, political and situational capacity). Although the model accepts that the choices of the implementing sphere of government may be the result of bargaining among both internal and external parties, it still regards conflict as a problem that can be addressed within an organization, rather than being a fundamental part of the policy process.
The Ambiguity-Conflict Model (Matland, 1995) tries to determine when the top-down versus bottom-up approaches are appropriate. It assumes that conflict exists whenever more than one actor views a policy as impacting on its interests, and the different actors have contradictory goals and/or disparate views of acceptable policy solutions and intended outcomes. The model develops four policy implementation paradigms in a two-by-two matrix based on the level of ambiguity and the level of conflict involved in a policy. Ambiguity is determined by the level of clarity of policy goals and implementation means, and the level of conflict depends on how important the policy is seen to be and how different are the views of the actors on desirable goals, solutions and outcomes.

Where there are low levels of ambiguity and conflict, the policy is clear and relatively acceptable to all. Policy implementation can then be carried out administratively (in a top-down manner) as long as adequate resources are provided. Where there are high levels of ambiguity but low levels of conflict, implementation should be more experimental and contextual so as to develop a better understanding of the issues and less policy ambiguity. In this situation policy learning can take place, dependent once again on adequate resources and time. This can be seen as more balanced between top-down and bottom-up approaches.

Where there are low levels of ambiguity but high levels of conflict, policy implementation will largely be a political process decided by power relations between actors. Implementation could take place through negotiation or through coercion. Again, this can be seen as more balanced between top-down and bottom-up approaches since it does not assume that power rests only in the hands of (higher levels of) government. Where both ambiguity and conflict levels are high, the implementation situation is seen as somewhat anarchic with the outcomes depending on the strength of local coalitions that control resources. Actors must be heavily involved and participate in a democratic manner if any resolution is to be found.

The Implementation Regime Framework (IRF) (Stoker, 1989; Cline, 2000) sees conflict as a legitimate part of policy implementation, and in fact, as continuing from the previous policy development. An implementation regime provides the organizational framework and values for participants in policy implementation, with the intention of promoting co-operative behaviour and policy co-ordination. Regime analysis examines the institutional mechanisms and the strategic contexts, i.e. the extent of inherent conflict between participants, that comprise a particular regime to determine whether it is likely to promote co-operation, and if not, how this co-operation could be brought about. A well-developed implementation regime is seen as a requirement for successful implementation. The IRF maintains that the implementation process is driven by a predictable dynamic that alters the probability of co-operative behaviour by implementation participants. The cost and/or risk of participation in the implementation of a policy is highest at the start of the process, and decreases over time as participants find their roles and develop relationships. Conversely, the costs and/or risks of defection from the policy increase over time as a constituency of participants develops with an interest in the success of the policy.

Implementation of the BRT programme in South Africa to date has been characterised by high levels of conflict, particularly between government agencies and current public transport operators in trying to agree a business model for future operations and compensation for the withdrawal of existing licences and vehicles. Conflict in policy implementation is best addressed by a model such as the Ambiguity-Conflict Model or the
IRF. An advantage of the Ambiguity-Conflict Model is that it does not discard other approaches, but rather seeks to determine which approach may be most appropriate for successful implementation. For this reason, this framework has been applied to attempt to understand the BRT policy implementation paradigm that has emerged thus far in South Africa.

3. APPLICATION OF THE AMBIGUITY-CONFLICT MATRIX TO THE BRT PROGRAMME IN SOUTH AFRICA

The two-by-two matrix of the Ambiguity-Conflict Model was applied to categorize the current policy implementation paradigm of the BRT programme based on the levels of ambiguity and conflict involved.

Ambiguity is determined by the level of clarity of policy goals and implementation means, and the level of conflict depends on how important the policy is seen to be and how different are the views of the actors on desirable goals, solutions and outcomes. In order to apply the Ambiguity-Conflict Model, the following needs to be known in respect of the BRT programme:

- The clarity of the policy goals;
- The clarity of the means of implementation;
- The importance of the policy; and
- The degree of difference in the views of the various actors.

These are further discussed below.

4.1 Clarity of Policy Goals

The policy goals for the BRT programme were given in the Public Transport Action Plan (DOT, 2007). The document is quite specific about aiming to implement high quality networks of car competitive public transport services that are fully integrated, have dedicated right of way and are managed and regulated by a capable municipal transport entity. A medium term target is set of 85 percent of a city’s residents to be within 1 km of the network. A further goal set for metropolitan cities is to achieve a mode shift of 20 percent of car work trips to public transport networks by 2020.

The Public Transport Action Plan specifies the characteristics that public transport services should have in order to be a car competitive, namely:

- Networks that link all major origins and destinations;
- Upgraded modal fleets and facilities;
- High frequencies of at least five minutes in the peak and 10 to 30 minutes in the off-peak along trunk corridors;
- 16 to 24 hour operations;
- Journey times that are car-competitive (under 60 minutes door-to-door for urban commuters);
- Integrated feeder services including non-motorised modes;
• Full special needs and wheelchair access for all trunk corridor vehicles, and at least on-demand specialised feeder services to the trunk corridors;

• Safe and secure operations monitored by a Control Centre;

• Electronic fare integration when making transfers; and

• Integration with metered taxis and long-distance public transport.

The above would appear to give a clear indication of the policy goals to be achieved by the implementation of BRT programme. The goals are specific, rather than ‘motherhood' statements. Certainly, most of the 12 implementing cities¹ seem to understand the goals, although it is less certain whether the underlying philosophy of people-friendly rather than car-friendly cities is as yet fully appreciated or supported.

DOT officials held workshops with the politicians and officials in the 12 implementing cities during 2007 to communicate the contents and aims of the Public Transport Action Plan. However, DOT policy engagement with other crucial stakeholders, namely the public transport industry, labour and organised commuters, did not begin in earnest until the establishment of the National Joint Working Group (NJWG) in 2009. At this stage, the BRT/IRPTN projects in at least Johannesburg, Cape Town and Nelson Mandela Bay Municipality had progressed well beyond the initial planning stage, and city communication efforts were focused on project-specific aspects. Communication and possible agreement on the policy goals which the BRT projects are intended to achieve thus lagged behind the BRT project planning and implementation. The one area in which there has been considerable confusion has been between the perceived need to implement BRT to improve public transport for the 2010 FIFA Soccer World Cup versus the need to in any case address public transport inadequacies in South Africa over the medium term. The latter is far more realistic in terms of the time required for implementation of a complex programme of this nature. However, the confusion between 2010 public transport goals and those beyond 2010 was almost inevitable since the funding was initially provided for 2010-related projects and the 2010 requirements and deadlines provided a key catalyst for the BRT initiative. In some respects, the equating of BRT and 2010 was probably helpful in launching the programme. Now that 2010 is upon us, however, and it is clear that the original ambitious BRT implementation process will not be fully realised, it is important that the original medium-term aim of achieving the policy goals be re-emphasized.

4.2 Clarity of Implementation Means

The clarity of the means of policy implementation involves three main aspects:

• The level of clarity in respect of the roles that need to be played by the different actors;

• The level of clarity in the implementation tools to be used and their likely effects; and

• Variations in the means of implementation across sites.

¹ These are the six metropolitan and six secondary cities targeted for Catalytic Projects, namely: Joburg, Tshwane, Cape Town, eThekwini, Nelson Mandela Bay, Ekurhuleni, Mangaung, Polokwane, Rustenburg, Mbombela, Buffalo City and Msunduzi. "Catalytic Projects" are Phase 1 IRPTN/BRT projects on priority corridors that aim to kick-start the rollout of the full IRPTNs.
The Public Action Plan (DOT, 2007) is divided into three implementation phases:

- Phase I: Accelerated Recovery and Catalytic Projects (2007-2010);
- Phase II: Promote and Deliver Basic Networks (2010-2014); and

As far as the implementation of the BRT programme is concerned:

- Phase I involves the initiation of ‘Catalytic Projects’ to promote implementation of BRT/IRPTN priority corridors in the 12 targeted cities.
- Phase II involves the operationalisation of the Catalytic Projects and the expansion of the BRT/IRPTN initial priority corridors.
- Phase III aims at maximum national rollout of IRPTNs (road and rail-based), together with strict land use actions to support public transport and car user charges.

The critical implementation building blocks are identified in the Public Transport Action Plan as:

- A BRT/IRPTN Implementation Plan;
- Municipal control over BRTs/IRPTNs; and
- A maximum stake for existing bus and minibus-taxi sectors in the BRT/IRPTN operations.

As far as the role of the implementing cities is concerned, the Action Plan specifies that each municipality will need to act as a network authority, responsible for:

- procuring the required public transport infrastructure;
- (designing) and entering into operating contracts that are tailored to meet a corridor’s particular service requirements;
- contracting an independent electronic fare collection service, receiving the fare revenue and paying contracted operators per vehicle kilometre; and
- monitoring and controlling the network through Public Transport Information Technology.

Little is said about the role of national and provincial government, other than that it is to ‘co-ordinate and integrate’ public transport. The division of transport functions and responsibilities between spheres of government have historically been poorly defined and outcomes have largely depended on the relationships between these spheres. Minibus operators and employees are seen to be full participants in providing services in the corridor network, but only in terms of integrated public transport planning. The users of the BRT system, whose role one would assume to be critical, are given little mention. It can thus be concluded that the greatest level of clarity of roles is that specified for the 12 implementing cities.

The implementation tools envisaged for the implementation of the BRT programme can be seen as institutional, financial and regulatory. Institutionally it seems clear that the intention is for BRT programme to be implemented at the municipal sphere of government. Financially, initial funding has come from national government through the Public Transport Infrastructure and Systems Grant (PTISG), and some cities have contributed funds of their own. However, sources of sustainable public transport (and particularly BRT) funding have still not been addressed. From a regulatory point of view, operators do not compete for passengers on the road but rather on meeting performance quality standards
and by supplying contracted vehicle kilometres. The first BRT contracts are being negotiated with incumbent operators, so any element of competition has effectively been removed from this first round. Certain of the policy implementation tools to be utilised in implementing the BRT programme are clearer than others, but on the whole, there is ambiguity on the precise tools and their likely effects.

Relatively little attention has been given thus far to co-ordinating the implementation tools envisaged for BRT with those used and envisaged for overall public transport policy implementation. As a result, ambiguity exists in respect of, for example, the future of the minibus-taxi recapitalisation programme and its relationship to the BRT programme.

The level of variation in the means of implementation across sites is a further indicator of the level of ambiguity. Local actors and coalitions can become very important and can determine or redetermine the policy direction. In the case of the BRT, variations across the 12 implementing cities were expected, and even encouraged, within the overall policy goals. For example, the cities of Johannesburg, Cape Town and Tshwane are designing and implementing ‘full’ BRT systems with dedicated median trunk busways to be served only by BRT articulated vehicles, whereas Nelson Mandela Bay Municipality is implementing more of a BRT ‘lite’ or hybrid system, where busways will be utilised both by BRT and other public transport vehicles on both the median and kerb-side. Obviously this has resulted in differences between systems and in some cases, the original policy goals are being redefined at local level. Recently national government has felt the need to start intervening and being more prescriptive about the implementation of BRT meeting certain basic policy goals while still allowing for local differences. DOT has, for instance, over the past few months carried out reviews of the progress in the implementing cities and has made recommendations on changes and improvements to aspects such as envisaged networks and required project management structures.

4.3 Conclusion on Level of Ambiguity

The BRT programme policy goals and means of implementation seem to have been fairly clear to some, but by no means all, of the actors. The timing of the implementation of BRT with 2010 World Cup transport improvements also caused some confusion. The implementation of the BRT programme in the form of ‘catalytic projects’ has fast-tracked implementation, but to some extent has also ‘divorced’ the BRT programme from public transport policy implementation as a whole. Over time, greater clarity is being achieved, but there are still many areas of ambiguity surrounding the BRT programme. It is thus concluded that the level of ambiguity in the implementation of the BRT programme currently is medium.

4.4 Importance of Policy

The BRT policy and programme is clearly of considerable importance to both public and private actors in that it fundamentally changes the way public transport is to be planned, managed and funded in South African cities. The cities are required to take on far greater responsibility for planning, regulation, funding, managing and monitoring contract-based public transport services. Operators, on the other hand, are required to operate according to the contractual requirements of the city as transport authority, in terms of the type, frequency and quality of services to be provided. More effective and efficient public transport services are to be planned, with a move to mass transit on high demand
corridors. Government at local level takes on an increasing proportion of the risk, but private sector operators also surrender much of their current ability to operate as they please. The role of other levels of government, such as the provinces, is diminished.

4.5 Difference in Views of Actors

There are numerous actors in the BRT implementation process. The following actors have been identified through a stakeholder analysis undertaken by the author for the City of Tshwane, and generalised to cover other cities (in no order of importance):

- **Government**
  - Political parties and individual politicians at national, provincial and local level;
  - Departments at national level, particularly the Department of Transport and National Treasury;
  - Departments at provincial level, particularly the Department of Transport;
  - Departments or divisions at local level, particularly those responsible for transport, roads, planning, police and traffic, environment, finance and legal matters;
  - Agencies at national, provincial and local level, particularly the South African National Roads Agency Limited (SANRAL), Gautrain Management Agency, provincial and local transport authorities, and municipal entities such as the Joburg Roads Agency (JRA); and
  - Individual officials at national, provincial and local levels.

- **Public Transport Operators**
  - Individual minibus-taxi owners and owner-operators at local level;
  - Minibus-taxi associations at national, regional and local level;
  - Existing subsidised bus operators, both privately and publically owned;
  - ‘Small’ previously disadvantaged bus operators;
  - Special interest operators, particularly women and scholar transport operators;
  - Bus industry organisations, e.g. South African Bus Operators Association (SABOA) and Women in Transport (WIT);
  - Passenger rail operators PRASA and Gautrain;
  - South African operators who want to enter the public transport market; and
  - International operators who want to enter the South African market, particularly those with BRT experience in developing countries such as Veolia, Ciudad Movil and K99.

- **Labour and Management**
  - Organised labour, particularly South African Transport and Allied Workers Union (SATAWU) and South African Municipal Workers Union (SAMWU);
  - Non-organised, informal sector employees;
  - Minibus-taxi association leadership;
  - Rail and bus operator management;
  - Operational employees, e.g. schedulers, dispatchers, inspectors and rank marshalls;
  - Technical employees, e.g. mechanics;
  - Administrative employees, e.g. human resources and book-keeping; and
  - Minibus-taxi and bus drivers.
• Community
  - Organised passenger groups, particularly the South African Commuter Organisation (SACO) and its regional and local branches;
  - Current and potential passengers;
  - Other community groups e.g. youth, religious and women;
  - Disability Alliance;
  - Heritage and environmental groups; and
  - The general public.

• Business
  - Chambers of Commerce and major employers;
  - Specific business coalitions e.g. Church Square businesses in Pretoria;
  - Developers of both existing and new major commercial, retail and industrial developments along BRT routes;
  - Consultants; and
  - Contractors.

• Financiers (Local and International)
  - Development agencies;
  - Banks; and
  - Export Credit Agencies (ECAs).

• Suppliers
  - Vehicle manufacturers;
  - Vehicle body-builders;
  - Vehicle service industry;
  - Fuel industry;
  - Suppliers of fare and ticketing equipment;
  - Suppliers of Intelligent Transport Systems (ITS) equipment;
  - Facility managers; and
  - Service suppliers, e.g. security, cleaning.

• Media

• Transport Advocacy Groups and Academics

It can be seen that the above list of actors represents diverse interests, as well as both individuals and organizations. Clearly some of these actors have a greater influence than others on the successful implementation of the BRT programme. Some actors may also be more significant than others at different stages in the process.

Apart from the significant number of actors, the level of compatibility between the goals and desired implementation means of the different actors has a crucial impact on the level of conflict. Of particular relevance in the implementation of BRT to date has been the reaction of the minibus-taxi industry. Clearly they view the BRT programme as impacting severely on their interests, and have different views from government on the acceptability and intended outcomes of BRT. It must also be remembered that the minibus-taxi industry is far from homogeneous and that there are a number of actors and interests within the industry. A considerable period of consultation and negotiation has led to agreement with elements of the taxi industry on aspects of BRT implementation, but the potential for conflict remains.

A further potential for conflict exists as far as the bus industry is concerned. To date, the emphasis has been largely on the minibus-taxi industry because the first BRT routes to be implemented are served more by minibus-taxis than bus services. But the impact of BRT in certain areas on the bus industry will also be severe, for instance, on the Mabopane to
CBD corridor in Tshwane. The industry is unionised and it can be expected that labour will also have strong opinions on the outcomes of BRT, particularly on job opportunities.

Some community and business opposition has been experienced where they have felt that the BRT will impact negatively on their neighbourhoods and businesses. For example, communities have strongly objected to the proposed use of Oxford Road as a BRT corridor in Johannesburg, and there is concern around heritage issues in Church Square in Pretoria.

4.5 Conclusion on Level of Conflict

The importance of the policy decisions taken together with the divergent views of the various actors suggests that there is an inherently high level of conflict in the implementation of the BRT programme. This has certainly been borne out by experience to date.

4.6 Summary of Ambiguity-Conflict Matrix Application

The Ambiguity-Conflict Model identifies four policy implementation paradigms in a two-by-two matrix:

- Low conflict-low ambiguity - administrative implementation process where sufficient resources are key;
- High conflict-low ambiguity - political implementation process with outcomes decided by power relations;
- Low conflict-high ambiguity - experimental implementation based on contextual conditions; and
- High conflict-high ambiguity - symbolic implementation with outcomes determined by the strength of local coalitions.

The application of the Ambiguity-Conflict Model to the BRT programme to date indicates a high conflict–medium ambiguity policy implementation paradigm in which the implementation process is largely political, with the outcomes decided by the power relations between the actors. The policy goals and means of implementation are becoming somewhat clearer over time, but even where there is less ambiguity, disagreement exists between actors because the goals and/or means of implementation proposed by the different actors are not seen to be compatible. The implementation process can be viewed as political, and can either take place through negotiation or coercion. To date the emphasis has been on a negotiated implementation solution rather than coercion, but the latter cannot necessarily be ruled out.

In the ongoing implementation of the BRT programme, the need to achieve a common understanding among key actors has become more important. This common understanding among certain actors has begun to lower the levels of ambiguity over time, but levels of conflict have risen as the understanding of the implications for the actors (particularly current operators) has become more and more apparent. A further source of conflict has arisen between operators at national versus local level, and between operators seen to be ‘directly affected’ (i.e. on a Phase 1 BRT route) and those seen to be ‘indirectly affected’ (i.e. not on a Phase 1 route), and the need to extend the level of common understanding further has become apparent.
4.7 Recommendations for Future BRT Policy Implementation Strategies

If one takes into account the complexity of the BRT programme, the most effective implementation paradigm would probably be *experimental* implementation, with sufficient time and resources devoted to trying out different solutions in various conditions and contexts, and allowing policy learning to take place. However, this would require increasing the level of ambiguity and lowering the level of conflict. The current and a possible future policy implementation paradigm for BRT are illustrated in Figure 1 below.

*Figure 1: Ambiguity-Conflict Matrix Analysis of BRT Implementation*

It may be argued that a higher level of policy ambiguity would in itself lower conflict levels, as the implications of the BRT programme would be explored and clarified by actors over time. However, the role of the 2010 FIFA Soccer World Cup in providing impetus for the BRT programme also placed tight time deadlines on implementation which, it could be argued, increased conflict levels and did not allow for any type of experimental implementation. Whether or not experimental implementation could still be applied in those cities that have now missed the 2010 implementation deadline for their BRT systems, remains to be seen. This would require revisiting some of the means of implementation and perhaps even certain of the policy goals underpinning the BRT programme. While this may temporarily lower conflict levels, it may also stall implementation to such an extent that the impetus of the BRT programme is lost. It may well be that the level of conflict is so inherently high that political implementation, with outcomes decided by the power relations between the actors, is the only course.
5. READINGS


