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The role of reporting mechanisms in transport policy implementation by local authorities in England

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Abstract

The UK Transport Act 2000 made a number of reforms, requiring all local transport authorities in England, outside of London, to produce a local transport plan (LTP). A separate annual delivery report was also required to show how the LTP was progressing, however this system of close monitoring was abandoned in 2008. This paper analyses and compares the LTP 2001-2006 and the LTP Delivery Report for three UK cities in order to obtain an insight into the importance of reporting in the implementation of local transport policy. Analysis of why some policies were not implemented successfully is based on the application of a new hybrid theory of policy implementation combining top-down and bottom-up perspectives. Findings reveal that the reporting process in the three case cities misses some key information which limits the ability of local authorities to monitor their policy implementation. Moreover, applying the hybrid theory reveals that even in cases of good reporting, some important elements needed to evaluate the implementation of transport policy are lacking. The paper provides recommendations for effective implementation and better decision making that will aid local authority staff.

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1. Introduction

Transport policies are developed to manage the social, environmental and economic impacts caused by transportation activity. Inappropriately designed transport policies can result in a network that excludes certain members of society, harms the environment and is detrimental to the economy. Without physical access to jobs, health, education and other amenities, the quality of life suffers (Banister, 2000). Therefore it is absolutely critical to implement systems that encompass all three aspects to ensure that a successful system is created.

A number of research studies have been carried out to identify the barriers to implementing sustainable transport policies at a local level. In 1995, the Institution of Civil Engineers published a review on transport policy and found that policy makers at a local level in the UK were concerned with how transport policy was being implemented. The review concluded that there was a need for clarity, consistency and commitment from national government in its interactions with local government. It also found that the principal barriers to effective policy implementation included the fragmentation of local government and the privatisation

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of public transport; lack of consistency in policy over time; failure to integrate transport and land use planning; lack of funding; inconsistent distribution of finance; and a lack of powers for demand management measures (May, 1995).

Another review published by ECMT (2002) found that the principal barriers to effective policy implementation were poor policy integration and coordination; counterproductive institutional roles; unsupportive regulatory frameworks; weaknesses in pricing; poor data quality and quantity; limited public support; and lack of political resolve.

The Department for Transport highlighted a number of weaknesses following the first LTP including conflicts between transport plans and those for other public policy sectors, managerial and political barriers, lack of integration between transport and land use planning, a weak evidence base, limited expertise in setting targets, reluctance to share good practice, limitations of staffing and skills, and inappropriate financial and political structures (Atkins, 2005).

The DISTILLATE research programme also carried out a study on policy implementation barriers and looked at six barriers deemed of particular importance to UK local authorities. The study found financial restrictions, staff shortages and divided responsibilities to be the most serious problems (Hull, 2009).

To overcome these policy implementation barriers, a number of research studies have attempted to investigate the best theoretical combinations of transport policies. The study of policy implementation has grown substantially since the late 1960s and many scholars have attempted to develop policy implementation frameworks in order to address the gaps that often occur between policy decision intent and policy performance, or implementation outcome. These frameworks are used to find out what makes a policy and its subsequent implementation successful, but also to eventually predict implementation success. The framework used for analysis in this paper is based on a new hybrid theory that combines top-down and bottom-up perspectives. By applying this theoretical framework to an analysis of policy implementation reporting, it can not only be used to evaluate the quality of reporting in individual cases, but also reveal to what extent the reporting process is able to address all the required elements of successful policy implementation, and thus achieve its overall goal of aiding policymakers and planners. Being able to predict what makes implementation successful helps policymakers address problems and issues through better policies and regulations, as well as to anticipate and plan for likely barriers. This paper will build on previous studies to produce recommendations for effective implementation and better decision making that will aid local authority staff.

This paper is structured as follows. Firstly, it presents a literature review of previous case study research on transport policy implementation, followed by a summary of UK local transport plans (LTPs) and the related reporting mechanisms. Section four provides an overview of policy implementation theories, divided into two parts. The first part gives a summary of top-down and bottom-up theoretical approaches and the second part identifies the critical variables of the theoretical approaches in order to develop a new hybrid theory. This is followed by an explanation of the methodology which is based on three case studies of the English cities of York, Greater Nottingham and Bristol, investigating the LTP 2001-2006 and the LTP Delivery Report for each city, specific to bus strategies. The results are presented in section six, followed by the application of a scoring system which is applied to rank the impact of the critical variables identified in the hybrid theory for the three cities. Finally, a summary of research findings is presented, followed by some concluding remarks and recommendations for policy makers and local authority staff.

2. Case study research on transport policy implementation

Many scholars across the world use case studies to address the gaps that often occur between policy decision intent and policy performance, or implementation outcome. For example, a study by Mulley and Reedy (2015) examined the way in which the connections between research and policy are made (or not made) between transport researchers and transport policy-makers using NSW, Australia as a case-study. This involved previous research conducted in NSW to provide quantitative and qualitative evidence on the needs of researchers, policy makers and other interested parties in NSW. It also helped to identify perceived barriers to making greater connections between the evidence base that exists and transport policy for relevant stakeholders. The study concluded with recommendations which emerged from the NSW case study as well as an exploration of the relevance of structural change, such as a government backed Strategic Research Agenda to create an effective transmission mechanism for evidence based public transport policy.

Another study was carried out by Bray et al (2011) where 43 transport strategies published for the five largest cities in Australia between 1965 and 2010 were reviewed. This review consisted of observations from a survey of public servants in the policy and strategy divisions of the state and territory transport agencies. One key objective of this research was to identify from where policy lessons are learnt by using a framework by Dolowitz and Marsh (2000). The study found that there was little published evidence on the performance of previous strategies being critically examined.

A case study by Olsson et al (2015) combines a backcasting study of urban road transport with an analysis of current policy processes in Stockholm, Sweden. The combination is used to help bridge the implementation gap between scenario-based research and actual policy implementation and thus increase the chances of research being implemented in practice. The study identified the need for diverse fuels and vehicles and for immediate policy action. Furthermore, the policy analysis demonstrated that, given current policy structures, this is difficult to implement. The results of this study identified a mismatch between problem definitions and policy goals, which therefore suggests poor policy integration could hamper development towards a more sustainable transport system.

In the UK, a study by Ison and Rye (2003) analysed travel plans and road user charging with respect to a theoretical framework developed by Gunn (1978). The framework sets out 10 conditions, which should be satisfied if perfect implementation is to be achieved. The study analysed the model of implementation first proposed by Gunn against the empirical experience of attempts to implement travel plans and road user charging. This highlighted the most important aspects of the implementation process of both, however, the study found that Gunn's conditions do not cover all the essentials of implementation where travel plans and road use charging are concerned. This includes a need for monitoring, a policy champion, political stability, trust in terms of the parties' involved, consideration of public relations and careful timing.

Further case studies were carried out in the UK where Marsden and May (2006) reported the results of an investigation of the effects of institutional structure on transport policymaking in three UK cities (London, West Yorkshire, and Edinburgh) with very different current institutional arrangements and past experience. The results show that despite several attempts at local government reorganisation in the United Kingdom, there was continuing institutional barriers to the pursuit of sustainable urban transport strategies, and a particular need to develop conurbation-wide authorities, to introduce franchise-based management of public transport services and fares, and to avoid inconsistencies in the allocation of funding to larger capital schemes and to revenue-funded projects. The study did, however, conclude that experience from London suggests that a combination of the right powers and institutional structure, flexible funding, and a strong political champion can achieve significant improvements in a short period of time.

Gruyter (2015) carried out a case study to identify opportunities to enhance the impact of travel plans for new residential developments in Australia. A series of interviews provided insight on their perceived advantages and disadvantages, levels of involvement and stakeholder interactions, implementation challenges and potential solutions, and future expectations. The results showed general support among industry representatives for travel plans at new residential developments, but limited confidence in the ability to implement them successfully. By applying the interview findings to implementation theory, the study identified opportunities to enhance the implementation process and subsequent outcomes of travel plans at new residential developments.

Furthermore, a study was carried out by Ariffin and Zahari (2013) to analyse the implementation of policy and administration of urban transportation system in the Klang Valley, Malaysia. This area was chosen due to its phenomenal growth in the last two decades that affected the administration of its urban transportation system. Interviews were conducted which found practices, attitudes and beliefs of those working in the transport related field have shed some light on the relationship between agencies and the impact that these have upon transportation system in the Klang Valley. The study also found that the lack of synergy in the implementation and administration of the system has taken its toll on the efficiency and effectiveness of the system.

Finally, a study was carried out by Tuominen and Himanen (2007) to explore the potential of a target analysis method in acting as a link between policy objectives, targets, measures and their implementation in order to intensify the policy process. The study suggested this method can be quite useful in bringing transport policy targets closer to policy implementation by considering policy measures to meet the targets and their acceptance as a part of the target or objective analysis process. The study therefore concluded that the target analysis presented could act as an originator for a more open, interactive and particularly systematic process in transport policy formulation, leading through social learning into a more successful implementation of policies.

These case studies provide exemplars of in-depth investigations into policy implementation and reveal many challenges. This paper will complement previous findings by exploring the reporting and evaluation process used by the three UK cities of York, Greater Nottingham and Bristol, and assessing the extent to which they meet the theoretical requirements of successful policy implementation derived from previous research.

3. Local Transport Plans in England

In the 1998 Transport White Paper 'A New Deal for Transport: Better for Everyone', a new policy for LTPs was introduced by the Government. This policy replaced the previous framework for local transport delivery, Transport Policies and Programmes (TPP) in order for local authorities in England, outside of London, to plan and deliver safer, more integrated, efficient and sustainable transport infrastructure and services in their areas (Atkins, 2006). The new framework of LTPs was accompanied by a significant increase in capital funding, and a slight increase in revenue funding (House of Commons Transport Committee, 2006).

The LTP is prepared by local authorities and sets out their objectives and policies covering all aspects of transport and accessibility at a local level. Although the LTP is prepared at a local level, it must take into account guidance issued by national (English) government and contribute towards transport policy concerns at a national level.

By the end of the 20th century, this new policy was given statutory status in the 2000 Transport Act and local authorities were now required to produce an LTP every five years and to keep it under review (Transport Act 2000 as amended). The first plans were submitted for the period 2001-2006 in most local authorities, while a separate local planning and funding system, the Local Implementation Plan (LIP), existed in London. The LTP system was subsequently changed by the 2008 Local Transport Act, but this paper uses data from the first set of LTPs produced in 2001.

LTPs brought about a change in the way that local authorities plan strategically for transport in their areas. Good transport is essential for building sustainable local communities and it contributes to the achievements of stronger and safer communities, healthier lifestyles, equality and social inclusion, environmental objectives and improvements to the economy (DfT, 2009). In July 2001, local authorities published their first LTPs which focused on:

- consultation and partnership in developing and delivering transport strategies and programmes;

- planning and delivery of transport measures as part of an integrated package contributing to clear objectives subject to address local issues;
- transport modes and themes including highway maintenance, road safety, traffic management, public transport, walking and cycling, smarter measures, freight and travel to school;
- developing revenue from funding associated with capital allocations awarded for a five year period and a local discretion on how these resources should be spent (Atkins, 2006).

For the purposes of this paper, the LTP system as set up under the 2000 Transport Act was particularly interesting, since it also required authorities to produce annual monitoring reports to show how their LTPs were progressing. At the end of the first five year LTP period, in 2006, a lengthy Delivery Report was produced to show what had and had not been implemented, and why, over the previous five years. This system of close monitoring was abandoned in 2008 but for the first round of LTPs it provides an invaluable data source that has been used by the authors to understand LTP implementation processes. The specific focus of this paper is to investigate the quality of the reporting and the extent to which it succeeded in its aim of aiding policymakers and planners in evaluating their policy implementation.

4. Implementation theory

4.1 Overview of approaches

The theory of policy implementation has evolved through three generations. The first generation ranged from the early 1970s to the ’80s; the second generation from the 1980s to the ’90s; and the third generation from 1990 and onwards (Matland, 1995). The first generation looked at the problems associated with policy implementation, i.e. uncertain relationship between policies, decisions and implemented programs. Similarly, the second generation focused on the development of an analytical framework of implementation, which includes the top-down and bottom-up perspectives. The third generation is based on implementation theory-building, which has not yet been realised (Paudel, 2009).

The three generations of implementation research can be subdivided into three distinct theoretical approaches to the study of implementation:

1. Top-down models put their main emphasis on the ability of decision makers to produce unequivocal policy objectives and on controlling the implementation stage.
2. Bottom-up critiques view local bureaucrats as the main actors in policy delivery and conceive of implementation as negotiation processes within networks of implementers.
3. Hybrid (synthesis) theories try to overcome the divide between the other two approaches by incorporating elements of top-down, bottom-up and other theoretical models.

During the first generation, there was less emphasis on theory building, whereas the second generation began to put forward a whole range of theoretical frameworks and hypotheses. It soon became apparent that concerns shifted from the “what” of policy outcomes to the “why” of perceived policy failure, with more focus on the actual process of translating policy into action: the process of implementation (Barrett, 2004).

During the second generation, theorists on implementation were divided into two camps. Those who embraced the top-down perspective believed that centralised policymakers should be as clear as possible with their goals, minimize the number of bureaucrats a policy depends on, and limit necessary change. Bottom-up theorists emphasise target groups and service deliverers, arguing that policy is made at the local level (Matland, 1995).

The two approaches vary in a number of areas, such as the role of actors and their relationships and the type of policies they can be applied to. Top-down theorists see policy designers as the central actors and concentrate their attention on factors that can be manipulated at the central level (Matland, 1995). Bottom-up theorists argue that having more freedom to implement a policy will ward off job dissatisfaction and allow policies to be more adaptive to local conditions.

In this paper, the focus is on both top-down and bottom-up theoretical approaches. Both approaches were firstly analysed and then combined to distinguish a relationship between the two (*section 4.2*). A new hybrid theory was developed which includes the first six critical variables identified by Cerna (2013). This new theory could then be used for the analysis of LTPs in York, Greater Nottingham and Bristol (*section 4.3*).

4.2 Top-down and bottom-up approaches

Table 1. Top-down theorists and factors which influence successful implementation.

Theorist	Factors which influence successful implementation
Pressman and Wildavsky (1973)	1. Implementation should not be divorced from policy and must not be conceived as a process that takes place after, and independent of, the design of policy. 2. Designers of policy must consider direct means for achieving their ends.

	3. Consider carefully the theory that underlies your actions. 4. Continuity of leadership is important to successful implementation. 5. Simplicity in policies is much to be desired.
Van Meter and Van Horn (1975)	1. The first factor examines the policy itself in four categories: goals and objectives, the background of the policy, definition of key terms, and the policy's target groups. 2. The second factor explores policy resources such as funding, technical or legal assistance, and political support. 3. The third factor deals with policy enforcement and compliance in the context of the law, what institutions are involved, and delineates sanctions for not non-compliance. 4. The fourth factor investigates characteristics of the implementing agency, including its bureaucratic structure, type of managerial power, organisational culture, and intergovernmental relations with other agencies and stakeholders. 5. The fifth variable considers economic, social, and political conditions as a factor affecting policy implementation. 6. The sixth variable evaluates the disposition of implementers, including the motivation and attitudes of those responsible for implementing the reform.
Gunn (1978)	1. There should be no crippling external circumstances. 2. Adequate time and resources are available. 3. The necessary resources are available as needed during implementation. 4. The policy is based on a valid theory of cause and effect. 5. Cause and effect are closely linked. 6. A single agency can control the whole programme, with minimal dependency on others. 7. Everyone involved agrees on the objectives. 8. It is possible to specify in advance who needs to do what, and when. 9. All those involved communicate and co-ordinate well throughout. 10. Those in authority can obtain obedience throughout.
Sabatier and Mazmanian (1981)	1. Clear and consistent objectives. 2. Adequate causal theory. 3. Implementation process legally structured to enhance compliance by incorporating officials and target groups. 4. Committed and skilful implementing officials. 5. Support of interest groups and sovereigns. 6. Changes in socio-economic conditions that do not undermine political support or causal theory.

Table 2. Bottom-up theorists and factors which influence successful implementation.

Theorist	Factors which influence successful implementation
Lipsky (1971, 1980)	1. Street-level bureaucrats are expected to adhere to routines and bureaucratic procedures to ensure all citizens are treated equally, while being responsive to unique, individual circumstance. 2. Street-level bureaucrats are policy makers due to the inherent discretion involved in their interactions with the public and their decisions have an impact on the lives of citizens. 3. Disillusioned with their ability to meet their own goals, street-level bureaucrats develop coping mechanisms, which are often unsanctioned by the agencies who employ them.
Hjern et al. (1978)	1. Central initiatives are poorly adapted to local conditions. 2. Programme success depends on the skills of individuals in the local implementation structure who can adapt policy to local conditions. 3. Services are more likely to be delivered by implementation structures than a single lonely organisation. 4. The policy process is more likely to be self-selected than designed through authoritative relationships.
Elmore (1980)	1. There needs to be clearly specified tasks and objectives that accurately reflect the intent of policy. 2. A management plan that allocates tasks and performance standards to subunits should be in place. 3. There should be an objective means of measuring subunit performance. 4. There needs to be a system of management controls and social sanctions sufficient to hold subordinates accountable for their performance.
Rein (1983)	1. Front-line worker must know what is expected of them. 2. There needs to be insufficient resources available. 3. Front line workers must be competent and have the knowledge and skill to carry out tasks.
Grindle and Thomas (1990)	The framework proposed by Grindle and Thomas (1991) consists of an agenda phase, decision phase, and implementation phase. At each stage, the framework suggests that a decision can be made for or against the

	policy. At any of the three stages, a policy can either move towards successful implementation or be removed. The phases are of the framework include: 1. Recognising and defining the nature of the issue to be dealt with; 2. Identifying possible courses of action to deal with the issue; 3. Weighing up the advantages and disadvantages of each of these alternatives; 4. Choosing the option which offers the best solution; 5. Implementing the policy; 6. Possibly evaluating the outcome.

Table 3. Analysis of top-down theoretical approaches.

	Critical Variable	Theorist
1	Policy standards and objectives	There need to be clear and consistent objectives and the priority of objectives should not undermined over time by conflicting public policies or changes in socio-economic conditions (S&M). The policy implemented must be based upon a valid theory of cause and effect; the relationship between cause and effect must be direct and there must be few, if any, intervening links; there must be complete understanding of, and agreement upon, the objectives throughout the implementation process; and tasks should be fully specified in correct sequence (Gunn). Successful implementation requires (1) statutory goals and objectives; (2) the background of the policy; (3) definition of key terms; and (4) the policy's target groups (VM&VH). Implementation is an interaction between the setting of goals and actions geared to achieve those (P&W).
2	Policy resources	Adequate time and sufficient resources must be made available; the required combination of resources must be actually available; and tasks must be fully specified in the correct sequence (Gunn). Policy resources should include appropriate funding (VM&VH) and (P&W).
3	Inter-organisational communication and enforcement activities	Policy needs to be supported by organised constituency groups with few key legislators throughout the process (S&M). There needs to be consistent inter-organisational communication and enforcement activities (P&W). There must be perfect communication and co-ordination between participants (Gunn). Technical advice and assistance should be offered in the law, and political support for the law itself; and superiors should rely on positive and negative sanctions (VM&VH).
4	Characteristics of implementing agencies	The implementation process needs to be legally structured to enhance compliance; and leaders and implementing agencies require significant managerial and political skills and commitment to the goals (S&M). There should be minimal dependency relationships between implementing agencies (Gunn). Both formal structural features of organisations and informal attributes of their personnel are important (P&W). These include bureaucratic structure, type of managerial power, organisational culture, and intergovernmental relations with other agencies and stakeholders (VM&VH).
5	Economic, social and political conditions	The circumstances external to the implementing agency must not impose crippling constraints (Gunn). Economic, social, and political conditions as a factor affecting policy implementation should be considered (P&W), including the general economic environment, prevailing societal ideologies, public opinion and media attention, and political support and/or opposition (VM&VH). The support of interest groups and sovereigns are essential for successful implementation; it is important that changes in socio-economic conditions do not undermine political support or causal theory; and the priority of objectives is not undermined over time by conflicting public policies or changes in socio-economic conditions (S&M).
6	Disposition of implementers	There must be perfect communication and co-ordination between participants; and those in authority must be able to demand and obtain perfect compliance (Gunn). Committed and skilful implementing officials are required for successful implementation; and leaders and implementing agencies require significant managerial and political skills and commitment to the goals (S&M). Implementing agencies should express his or her cognitive ability and willingness to understand the policy, his or her technical expertise, his or her level of support for the policy, and values like efficiency, effectiveness, equity, ethics, and empathy (VM&VH) and (P&W).

Note: S&M refers to Sabatier and Mazmanian; VM&VH refers to Van Meter & Van Horn; P&W refers to Pressman and Wildavsky.

Table 4. Analysis of bottom-up theoretical approaches.

	Critical Variable	Theorist
1	Individuals at subordinate levels play an active part in implementation	Decisions and actions do more to influence outcomes than policies and programmes set by the top (Lipsky). Programme success depends in large part on the skills of individuals in the local implementation structure who can adapt policy to local conditions (Hjern).
2	Policy implementation is an interactive process	Specific types of primary actors in the implementation process include (1) guideline developers; (2) interest groups; and (3) programme administrators (Rein). Services are likely to be delivered by implementation structures than a single lonely organisation (Hjern). Features of policy implementation include the process by which policies are translated into administrative actions and the translation of an idea into action which involves certain crucial simplification. Virtually all public policies are implemented by

		large public organisations where they work on problems by breaking them into discrete, manageable tasks and allocating responsibility for those tasks to specialised units (Elmore).
3	Policy may change during implementation	Policy development includes an agenda phase, a decision phase, and an implementation phase. At each stage, the framework suggests that a decision can be made for or against the policy. For example, an issue can either be put on the policy agenda or not put on the agenda. At the decision phase, the decision can be for or against policy reform. At any of the three stages, a policy either continues to move toward successful implementation, or else it is derailed (G&T). When policy is unclear and incompatible, each successive stage in the process of implementation provides a new context for seeking further clarification. One of the consequences of passing ambiguity for an inconsistent legislation is that the arena of decision making shifts to a lower level. As a result, the everyday practitioners become the ones who resolve the lack of consensus through their concrete actions (Rein).
4	Front line workers are faced with conflict and ambiguities	Policy implementation can be seen as a matter of puzzlement where programme administrators and front-line works do not know what is required of them, the resources at hand are insufficient for the task and workers lack the knowledge and skill to take action (Rein). Street-level bureaucrats develop coping mechanisms to deal with the challenges brought about by inadequate resources, few controls, indeterminate objectives, and discouraging circumstances. Street-level bureaucrats develop patterns of practices, such as routines and stereotyping, to limit demands on their time and resources. They modify the concept of their job to narrow the gap between objectives and resources and they modify the concept of their clients to render the inevitable gap between objectives and accomplishments (Lipsky).

Note: Hjern refers to Hjern et al; G&T refers to Grindle and Thomas.

4.3 Analysis of theoretical approaches to develop a new hybrid theory

Several researchers have synthesised elements of both top-down and bottom-up approaches to produce new hybrid theories and models. These theories and models are developed to combine elements of both sides in order to avoid the conceptual weaknesses of top-down and bottom-up approaches. For example, Elmore (1985) developed an idea to combine the concept of “backward mapping” with “forward mapping”, where policy makers should start with the consideration of policy instruments and available resources for policy change (forward mapping), but they should also identify the incentive structure of implementers and target groups (backward mapping). Matland (1995) developed an “ambiguity and conflict model” which combined top-down and bottom-up perspectives and identified how ambiguity and conflict affect policy implementation. Furthermore, Goggin et al. (1990) developed a model which included variables from both top-down and bottom-up approaches and was based on the communications theory perspective of intergovernmental implementation. These examples provide fruitful theoretical elements of both top-down and both-up approaches in order to produce new hybrid theories. This research has therefore taken a similar approach to help local authority staff and policy makers avoid barriers to effective policy development. From analysis of top-down and bottom-up theoretical approaches identified in table 3 and table 4, the following hybrid theory was developed:

1. Policy standards and objectives: Effective implementation depends on the nature of the policy to be carried out and the specific factors contributing to the realisation or non-realisation of policy objectives, which vary across policy types.
2. Policy resources: funds are needed for implementation, but the ones available are usually not adequate, which makes reaching policy objectives difficult.
3. Inter-organisational communication and enforcement activities: technical advice and assistance should be provided, and superiors should rely on positive and negative sanctions.
4. Characteristics of implementing agencies: both formal structural features of organisations and informal attributes of their personnel are important. These include, for example, the competence and size of an agency’s staff, degree of hierarchical control of processes within implementing agencies.
5. Economic, social and political conditions: general economic, social and political conditions are important for the relationship between objectives and results.
6. Disposition of implementers: This concerns the motivation and attitudes of those responsible for implementing the reform.
7. Individuals at subordinate levels are likely to play an active part in implementation and may have some discretion to reshape objectives of the policy and change the way it is implemented.
8. Policy implementation is an interactive process involving policy makers, implementers from various levels of government, and other actors.
9. Policy may change during implementation.
10. When implementing policies at a local level, front line workers are faced with conflict and ambiguities.

5. Methodology

The methodology adopted for this paper is a case study analysis of three English cities based on the reporting mechanisms of each local authority. To facilitate cross-case comparison, the study focuses on cities that followed the same policy framework

(LTP1) and required a LTP delivery report. A scoring system is also applied to rank the impact of the ten critical variables identified in the hybrid theory. This involves assessing each LTP and delivery report and scoring each critical variable identified with one score. Three case studies from the UK cities of York, Bristol and Greater Nottingham were chosen as they were all required to produce a LTP from 2001-2006. The chosen cities were also required to publish a delivery report at the end of the LTP1 period and all were judged at some point in the first LTP period to be "excellent" in some respect, according to the national Department for Transport. Due to the enormities of these documents, the data collected is specific to bus strategies. Bus strategies were the chosen area of research as it gives a good representation of public transport within the cities. Also, these bus strategies aid local authorities to respond to the Government Transport White Paper - "A New Deal for Transport: Better for everyone". All three cities are small in global terms, with populations of around 200,000 (York), 400,000 (Bristol) and 700,000 (Greater Nottingham). They have relatively similar spatial forms, based on a small urban centre and semi-rural surrounding area connected to the centre by regional bus services, thus presenting local transport planners with similar challenges regarding bus policy.

6. York, Greater Nottingham and Bristol LTP

The following section of the paper is based on the LTPs (2001) and LTP Delivery Reports (2006) from three English local authorities that were selected because they are all urban areas. The tables included in this section describes in relation to buses what was achieved (middle column) and why (right hand column). It should be noted that bus services in England outside London are deregulated, with private operators running most services and setting routes, fares and times without any influence from the local authority. The local authority can however fill any gaps in the commercially-provided network by letting separate contracts for "tendered" or "socially-necessary" bus services.

Table 5. Analysis of City of York LTP 2001-2006.

What was planned	What was achieved (April 2001 to March 2006)	Explanation if implemented or not
Introduction of high frequency 'Metro' services	High frequency 'turn up and go' services were introduced on six routes serving ten transport corridors – run for profit by bus operator. All routes got new bus stops, shelters and raised kerbs for easy access to new low floor buses.	Implemented as planned, more successful than anticipated. Council founded "quality partnership" – platform for cooperation between private bus operator and Council. Resources available for both operator and Council to invest. Park and Ride and buses in York already relatively successful in pre-LTP period.
Supporting of a conventional 'Easylink' network	The council re-planned a subsidised 'Easylink' network of less frequent services (30 min+) and services along non key corridors. Some subsequently became profitable.	Implemented as planned, more successful than anticipated. Lessons learnt from "Metro" services applied to less frequent subsidised services. Patronage increased; success bred success.
Bus priority measures to guarantee reduced journey times	Bus priority measures (1.5km of bus lane) were introduced on two key radial routes and bus priority at traffic signals on all radial routes.	Not implemented as planned. Some of the proposed bus priority measures were not progressed following detailed consultation – there was too much public opposition. Also, lack of road space to physically fit in bus lanes without unacceptable reduction in on-street parking.
Additional and enhanced Park & Ride sites to promote a modal shift, reduce congestion and improve air quality	Two new Park & Ride sites (1300 spaces in total) provided and a further site expanded by 250 spaces. Bus priority exit from one site. Quality of existing Park & Ride sites enhanced.	Successful because of partnership with bus operator and earlier tradition of Park & Ride in York (since early 1980s). However, planned Park & Ride site on the A59 corridor not implemented due to cost increase on one site, so funds not available for A59 site. Proposed development that would have part funded A59 site did not start in LTP1 period.
Development of Quality Bus Partnership	A quarterly QBP meeting took place with almost all operators in the city signed up.	Highly successful, partly due to good personal relationships between key staff at operator and Council.
Concessionary fares	A new statutory requirement to provide half price concessions on local bus travel for eligible residents came into effect. Concessionary travel was provided to people over 60 and people with disabilities.	Council was required by national legislation to implement this measure. Outside the scope of this paper to assess its success.
Rural Transport	Declining patronage on some rural services combined with rising costs of operation, led to withdrawal of services, putting increasing pressure on available council subsidy funds. Limited reduced services were available to assist in alleviating social exclusion. A trial demand responsive service was developed with the Rural Transport Partnership.	Not fully implemented as planned and only of limited success. Some initiatives were discontinued due to poor take up by potential users and the absence of continuation funding. For the majority of journeys, the trial service competed with established bus or Dial & Ride services (so target market unclear). Lack of available funding prevented development of service.

Development of Park & Ride sites as transport interchanges for all forms of travel to and from the city centre	Park & Ride in York carried an estimated 2.6 million passengers per year, keeping a total of 1.1 million car journeys out of the city centre. Cycle parking was available at all of the sites with lockers available at Monks Cross, Rawcliffe Bar and Grimston Bar.	'Connexions' rural bus services linking the Park and Ride site at Askham Bar / Grimston Bar with the villages to the east and south of York were provided through the Rural Bus Challenge – a separate pot of central government money. Two out of the four services now (2006) in operation.
Improving bus information	In 2004 the council's Public Transport Information Strategy was issued. The communication was directed and implemented through: 1. Workplaces using personalised travel planning 2. Households through the 'Intelligent Travel' initiative 3. The point of access at bus stops, interchanges and on buses etc. 4. Technology such as BLISS and on-street electronic kiosks. The Businfo was developed to provide more information on a wider range of transport options.	Successful use of new legislation to deliver new information strategy.

Table 6. Analysis of Bristol City Council LTP 2001-2006.

What was planned	What was achieved (April 2001 to March 2006)	Explanation if implemented or not
Improvements to services and networks across the area.	£18.8m was spent over the LTP period on supporting 204 services across the area per year. 664 raised kerbs and 327 new shelters delivered. A number of innovative especially rural bus services were introduced to enhance social inclusion	Successful, due to availability of skilled staff and additional central government funding from streams including Rural Bus Subsidy Grant, Urban Bus Challenge, Rural Bus Challenge and Kickstart funding competitions.
Integration of conventional bus services with health and community transport and the voluntary sector	All community transport minibuses were made wheelchair accessible and community transport provided on average 24,000 journeys a month. Entire city now covered by Dial-a-Ride. 12 new vehicles were funded by the Urban Bus Challenge Bid and local authority funding.	Successful due to funding availability and good cooperation between City Council and largely voluntary Community Transport organisations.
Achievement of targets	Not on track.	Shortages of bus drivers and huge fare increases in this area prevented the increase in patronage. A 3% increase in patronage was seen over the first 4 years but halted in year 5 following 3 fare increases. These were outside the control of the Council due to the regulatory situation for buses in Great Britain.
Major outputs delivered by partnerships, such as substantial showcase routes	New Quality Bus Partnerships were signed between the authorities and major bus operators. Bus priority lanes and at signals, improved stops and shelters were implemented along 11 showcase bus routes in partnership with First Bus £8m was spent on raised kerbs and dropped kerbs, new or relocated stops and shelters, bus stop markings on the road, new bus stop poles, flags and timetable cases at all stops, door to door timetable distribution, seating and Real Time Information. Bus operator First spent over £4m on new buses.	Partial implementation of what was planned due to successful partnership with bus operator. However, initial preparatory works for Bristol's second showcase bus route on A420 / A431 corridor (Bristol City Centre to Kingswood) were undertaken during the LTP, but not implemented in time, due to issues arising during public consultation.
Evidence of the LTP investment made in bus priority measures and infrastructure delivering monitored benefits to bus passengers cost effectively	£12.5m was spent on bus priority and infrastructure measures including 11 showcase route schemes, 12 bus lanes, 2 High Occupancy Vehicle lanes, 11 other bus priority schemes, 68 new bus stops, 83 bus stops with timetable displays, 703 improvements to existing stops, 23 other bus infrastructure schemes, 664 raised kerbs and 327 bus shelters.	Implemented successfully due to availability of financial and staff resources.

Table 7. Analysis of Greater Nottingham City Council LTP 2001-2006.

What was planned	What was achieved (April 2001 to March 2006)	Explanation if implemented or not
Progress towards Targets	Targets for public transport patronage, bus quality partnership routes, modal share of AM peak period inbound journeys by public transport, modal share of all journeys by public transport, Park and Ride provision, and percentage of easy access buses were achieved; only that for bus journey speeds was not.	Measures successfully implemented help to explain successful achievement of targets.

Improve services across the network	Bus priority was improved with new bus lanes on an unspecified number of routes. Two new interchanges opened, new multi-operator integrated public transport ticket developed and launched allowing travel on buses, trams and trains within Greater Nottingham. New shelters and other improvements at stops. Improvements to network thanks to purchase of new 'Link' buses serving Park and Ride, key employment areas and hospitals, the 'Skylink' service to airport and a pilot demand responsive service in Sherwood. By owning its own buses, Council could keep subsidy costs low. At same time both main commercial bus operators invested in new buses and driving training. New access restrictions and waiting facilities in the City Centre were implemented making bus and tram relatively more attractive than car.	Success exceeded expectations; more improvements implemented than originally planned. Network wide improvements were undertaken, rather than the original strategy of the LTP which was to focus on a selected number of bus quality partnership routes to allocate resources. Success factors were availability of financial resources, city-owned bus company, new tram, consistent political support and excellent staff.
Implement Bus Priority Measures	20km of bus lanes now in place across Greater Nottingham. A Clear Zone was introduced to coincide with a radical overhaul of bus services within the conurbation.	Largely implemented as planned due to availability of resources and political support. However, major new city centre bus lane, planned for 2000/1, not implemented until 2004/5. This was due to enable the joint delivery of the scheme with the subway replacement and pedestrian priority scheme. Enforcement problems remain.
Support and Develop Community and Voluntary Transport Initiatives	Eight voluntary car schemes and six mini-bus schemes now in place.	Good working relationship between Council and voluntary sector.
Increase Park and Ride Provision	Number of Park and Ride spaces increased by around 1,600. Bus services operating the remaining two bus-based Park and Ride sites were re-branded and extended to serve the neighbouring employment locations.	Proposed bus-based Park and Ride site at Gamston was not implemented due to the site being within the scope of the A52 Nottingham to Bingham Multi-Modal Study (a national level scheme, led by national roads agency). This resulted in the delivery of fewer Park and Ride schemes than planned.

7. Application of implementation theory to local transport plans

This section of the paper applies the new hybrid theory to the LTPs (2001) and LTP Delivery reports (2006) for the three English local authorities. Application of the new hybrid theory will determine which of the ten critical variables have the greatest impact on the implementation of transport policy for the three local authorities. A scoring system was also applied to rank the impact of the ten critical variables (table 8). This involved assessing the tables in section six of the paper and scoring each critical variable identified with one score.

Table 8. Overall scoring.

	York	Bristol	Greater Nottingham	Total
1. Policy standards and objectives	3	0	1	4
2. Policy resources	4	3	2	9
3. Inter-organisational communication and enforcement activities	0	0	0	0
4. Characteristics of implementing agencies	1	2	1	4
5. Economic, social and political conditions	2	2	3	7
6. Disposition of implementers	0	0	0	0
7. Individuals at subordinate levels	0	0	1	1
8. Policy implementation is an interactive process	2	2	1	5
9. Policy may change during implementation	1	0	2	3
10. Front line workers are faced with conflict and ambiguities	1	0	1	2

The overall highest scored critical variable was "policy resources". Successful policy implementation was largely influenced by the resources available to each local authority. For example, resources available for York council led to the successful introduction of high frequency 'metro' services, while a separate pot of central government money for the 'Connexions' rural bus services was provided through the Rural Bus Challenge. Bristol also saw many benefits from available funding which enabled services and networks across the area to be implemented successfully. Similarly, Greater Nottingham had improved services across the network and bus priority measures were implemented as planned due to the availability of financial resources. However, a lack of resources can have a negative impact on policy implementation as identified in York, where a lack of financial support meant that rural services were not fully implemented as planned and proved only of limited success due to the absence of continuation funding. A lack of available funding also prevented development of services.

The second highest score was "economic, social and political conditions", which had both positive and negative impacts on implementation. Greater Nottingham saw bus priority measures being implemented as planned due to the availability of political support. Services were also improved across the network due to a city-owned bus company, a new tram and consistent political support. However, the proposed bus-based Park and Ride site at Gamston was not implemented due to the site being within the scope of the A52 Nottingham to Bingham Multi-Modal Study, which resulted in the delivery of fewer Park and Ride schemes than planned. York experienced a negative impact where bus priority measures were not implemented successfully due to political constraints and public opposition. Bristol was also negatively affected by political conditions, where targets were not on track for achieving an increase in bus patronage. Also, the initial preparatory works for Bristol's second showcase bus route were not implemented in time, due to issues arising during public consultation.

Another key critical variable identified for successful implementation included examples of where "policy implementation can be seen as an interactive process involving policy makers, implementers from various levels of government, and other actors". For example, York council founded a "quality partnership", which involved coordination between the council and a private bus operator. Park & Ride sites were also enhanced due to successful partnerships with bus operators and the earlier tradition of Park & Ride in York. In Bristol, the integration of conventional bus services with health and community transport and the voluntary sector was implemented successfully due to good cooperation between City Council and largely voluntary Community Transport organisations. Major outputs delivered by partnerships were also partially implemented due to successful partnerships between the authorities and major bus operators. Finally, in Greater Nottingham, the support and development of community and voluntary transport initiatives was due to good working relationships between the Council and voluntary sector.

The scoring system in this paper found "policy standards and objectives", and "the characteristics of implementing agencies" to be of equal value. In York, policy implementation was seen to be effective when lessons were learnt from the "metro" services, which was a result of effective implementation based on the realisation of the policy objective. In contrast to this, policy implementation was ineffective when bus priority measures were not implemented as planned due to specific factors contributing to the non-realisation of policy objectives. In Greater Nottingham, targets were successfully achieved due to effective implementation of policy standards and objectives across the bus strategy. With regards to the characteristics of implementing agencies, all three cities benefited from the availability of skilled staff.

The next critical variable identified was "policy may change during implementation". York saw policy change during implementation when the proposed development that would have part funded A59 Park & Ride site did not start in LTP1 period. Similarly, two changes occurred during Greater Nottingham's LTP. A major new city centre bus lane, planned for 2000/1, was not implemented until 2004/5 and the council took on a network wide approach to improve services, rather than the original strategy which was to focus on a selected number of bus quality partnership routes.

The second lowest score was "front line workers are faced with conflict and ambiguities". In York, conflict between front line workers and the general public resulted in proposed bus priority measures not being implemented successfully, while in Greater Nottingham, enforcement problems remained due to the change that occurred during the LTP to enable the joint delivery of bus schemes.

The lowest score included "individuals at subordinate levels are likely to play an active part in implementation". This was the case in Greater Nottingham where network wide improvements were undertaken, rather than what was stated in the original strategy of the LTP which was to focus on a selected number of bus quality partnership routes to allocate resources.

8. Conclusions

This paper provides an insight into the implementation of local transport policy for three English cities – York, Bristol and Greater Nottingham. It focused on both top-down and bottom-up theoretical approaches. Both approaches were firstly analysed and then combined to distinguish a relationship between the two. A new hybrid theory consisting of ten critical variables was developed and used to analyse the bus strategy for the three cities based on what was planned (LTPs) and what was delivered (delivery reports). A scoring system was then applied to rank the impact of the ten critical variables and explore to what extent they influenced the successful implementation of policy goals.

The new hybrid theory identified in this paper also provides a basis for policy makers and local authority staff on the key elements required for successful policy implementation. In particular, lessons can be learned from the successes and failures of policy implementation during the LTP period. The scoring system used in this paper highlighted policy resources, such as financial support, as an essential part of implementing policy successfully. Other important issues included economic, social and political conditions which can have a positive or negative impact on how policy is implemented. The interaction between policy makers, implementers from various levels of government, and other actors also played an important role in successful implementation.

The literature in this paper included a number of research studies that have been previously carried out to identify the barriers to implementing sustainable transport policies at a local level. Studies by the Institution of Civil Engineers, ECMT, the Department for Transport and DISTILLATE all highlighted the importance of policy resources such as financial support, mirroring the results found in this paper. Other common findings similar to the results in this paper included the importance of policy standards and objectives, characteristics of implementing agencies, economic, social and political conditions.

However, the previous studies did not analyse the seventh critical variable of the new hybrid theory which points out that individuals at subordinate levels are likely to play an active part in implementation and may have some discretion to reshape objectives and change the way it is implemented. While there was not a great deal of evidence of this variable across the three cities, influence of this variable was seen in Greater Nottingham where network wide improvements were undertaken, rather than what was stated in the original strategy of the LTP which was to focus on a selected number of bus quality partnership routes to allocate resources. Previous studies also neglected the ninth critical variable which highlights how policy may change during implementation. Several examples of policy change were found in this research. In York, policy changed during implementation when the proposed development that would have part funded A59 Park & Ride site did not start in LTP1 period. Another example saw policy change in Greater Nottingham where a major new city centre bus lane, planned for 2000/1, was not implemented until 2004/5. Also, the council took on a network wide approach to improve services, rather than the original strategy which was to focus on a selected number of bus quality partnership routes.

It is also important to note that two critical variables from the hybrid theory did not find any evidence in the document analysis, namely "inter-organisational communication and enforcement activities" and "disposition of implementers." These gaps suggest that key aspects of successful policy implementation are not being documented by local authorities, therefore their evaluation of policy implementation will be incomplete. The fact that the reporting process in the three case cities misses such key information limits the ability of local authorities to monitor their policy implementation. Applying the hybrid theory also suggests that, even in cases of good reporting, some important elements needed to evaluate the implementation of transport policy are lacking. If local authorities and policy makers want to implement transport policy successfully, it is vital to consider all ten critical variables of the new hybrid theory identified in this paper and institute appropriate reporting mechanisms to capture all influences and challenges. Future research is needed through collection of interview data to determine how local authorities are monitoring the two key variables that were not addressed in their reporting process.

The findings of this paper highlight the importance of good reporting in the implementation of transport policy. However, policy makers and local authority staff face several barriers for effective implementation. Not only were some gaps identified in this paper, but, due to a change in national transport policy, the requirement for local authorities to produce annual delivery reports was abandoned in 2008. Therefore, further research is needed, such as interviews with key actors involved in the policy making process or ethnographic studies of not only the policy making process but the current use of reporting and monitoring since the official requirement was removed. Also, a longer term research project could explore other areas of the LTPs and delivery reports for the same period, such as walking, cycling, public transport, parking, etc.

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