

EXPLORING DISCOURSES ON TRANSPORT GOVERNANCE AND POLICY IMPLEMENTATION CHALLENGES BY USING Q- METHODOLOGY

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Abstract

The implementation of sustainable transport policy in practice is an issue which raises different questions about current governance structures and the efficient delivery of policy measures. Policy debates indicate that the views and perceptions of stakeholders differ across government policies, institutional priorities and the use of resources, and also that concerns are emerging with regard to weak links between policy processes, policy outcomes and uncertainties over delivery. Despite this, little attention has been given to the effectiveness of transport governance, structures and policy implementation challenges to promote sustainable transport in the UK. Stakeholders have different opinions and criteria to measure the success of a transport policy. Nevertheless, their perceptions and attitudes are significant for assessing the complexities of transport policy and implementation problems. The purpose of this paper is to present discourses on the effectiveness of transport governance structures and key barriers perceived during policy implementation. Q-methodology is used to investigate these attitudes in case study areas across the UK. The study findings highlight shortcomings associated with different aspects of transport governance arrangement and policy processes. It also reports conflicts over transport power, deficiencies in transport and land use policy co-ordination, and concerns about de-regulated bus policy. Insufficient attention to delivery of sustainable aspects of transport policy, funding constraints, lack of infrastructure investment and operational issues in implementing sustainable transport policies are other problems impacting the effectiveness of transport policies in each city-region.

Key Words: Q methodology, Transport, Governance, Implementation, Stakeholders

1. Introduction

Current transport policy debate in the UK is focused on the need for a sustainable transport system. Policy-makers and government institutions often struggle with the effective implementation of transport strategies aimed at reducing car use, while promoting the public transport system [4, 11]. Numerous studies indicate that transport strategies aimed at achieving sustainability need to be integrated between national, regional and local government levels [7, 15, and 17]. These strategies must involve a multitude of stakeholders who can provide a variety of different viewpoints to achieve a sustainable transport system. For this reason, exploring stakeholder opinions is critical in terms of overcoming the existing barriers which impede the implementation process. Furthermore, the exploration of actors' perceptions is essential for shaping transport policies that are sustainable [12].

The division of transport functions in UK metropolitan areas across a range of authorities is the most critical issue of transport governance, given some overlapping of functions and

technical capacities of the local structures [3, 6]. The effective implementation of sustainable transport policies exacerbated due to budgetary constraints, and it appears that financing local transport projects is getting more difficult at a local level [6]. Many studies conclude that the major barriers related to an effective delivery of sustainable transport policy are institutional, financial, legal, political, social and cultural [2, 8, and 13]. Some studies equally prioritise the technical, the policy process, communication and physical barriers [1, 11].

In this context, this paper presents the perspectives of a wide range of transport actors by taking into account their diverse experiences and viewpoints on a variety of issues associated with the governance and implementation of transport policy in the UK. The main aim of this paper is to explore the complexity of institutional governance and policy discourses. The paper points out the perceptions of key actors by revealing their common positions on issues in Belfast, Glasgow and Manchester. At the same time, the paper also examines the use of Q-methodology research as an approach that can be effectively utilised in the discipline of transport policy and practice research.

2. Q-Methodology

Q method is a quantitative as well as a qualitative way to reveal the subjective pattern of the stakeholders' opinions and to gather shared viewpoints on the research topic [18, 19]. Q-methodology technique is a very useful way of assessing and evaluating the stakeholder's preferences and satisfaction with the outcomes of the problem [20]. This method helps to explore the common perspectives and disparate views of the participants. Q-method is a straightforward technique compared to use questionnaire survey and is appropriate for a smaller number of participants with a high probability for accurate data collection [18]. Moreover, this method is explicitly designed to uncover and analyse similarities and differences in the subjective viewpoints of individuals/groups and is suitable for small populations of respondents [5]. The process and steps involved to conduct a Q-study are shown in Figure-1.

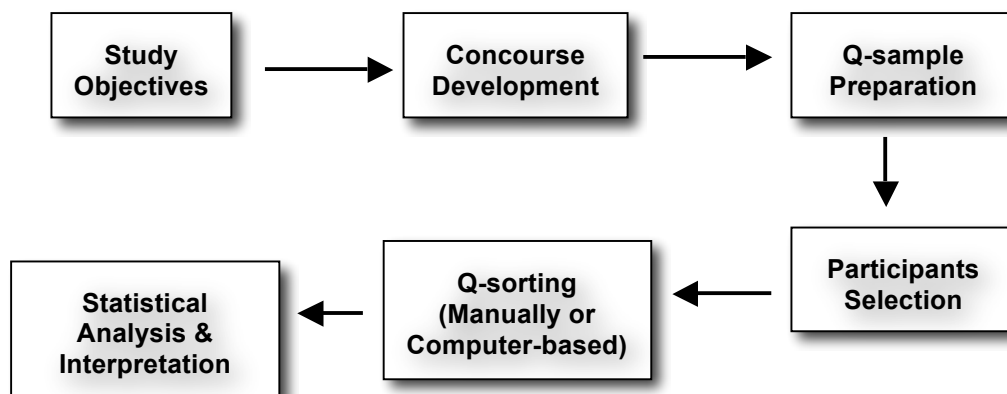


Figure-1 Steps of a Q-method Study

3. Conducting Q-methodology

For this study, the concourse was developed from two sources: from the issues discussed in the existing literature and findings of focus groups, as well as the interviews conducted in three case study areas during the first stage of the study. Initially, more than 200 statements including the issues, problems and opinions of stakeholders were generated on the topic to develop an appropriate and manageable Q- sample. It is difficult to administer a concourse consisting of hundreds of statements representing the opinion of every single person. Therefore, a Q-sample is drawn from a large number of concourse and the sample statements are presented to the participants in the form of Q-sorts [20]. Q-samples were chosen by removing duplicates, by refining and rephrasing where necessary, and selecting comprehensive and clear statements [19]. Some research studies suggest that a sample

size between 40 to 60 statements is considered satisfactory and appropriate to conduct a Q-study [9]. Other studies argue that reliable results can be obtained with a far fewer participants [14, 19]. By removing the overlapping and duplicate statements, a Q-sample of 45 statements was selected from the concourse for this study. The Q-sample covered 11 categories namely, transport governance, governance of the public transport system, institutional structures, issues and effectiveness, policy coherence and delivery, policy process and socio-political factors, accountability, stakeholder participation, policy implementation barriers, operational issues, barriers to public transport mode integration and sustainable transport to gather participants opinion and priority on a range of issues and themes associated with governance and implementation of sustainable transport policies in the UK.

The literature clearly indicates that the Q-study is very effective with a small number of participants [18]. In this study, the participants were selected to represent a wide variety of transport actors including officials from public bodies, public transport operators, transport experts and users, transport interest groups and local politicians. From each city region, the Q-survey was shared with at least 35 participants in order to obtain the response of 22 participants from each city-region for the analysis stage. A total of 22 responses from Belfast, and 21 each from Glasgow and Manchester were taken into account to conduct Q-analysis.

4. Q-Sorting and Data Analysis

In Q-sorting, the participants were asked to rank items/ statements using a continuum of most agreeable to most disagreeable. An online sorting method using the FlashQ programme (available at <http://www.hackert.biz/flashq/downloads/>) was developed. For sorting, a quasi-normal distribution on a nine-point scale was employed. A web-link was developed and emailed to participants along with a set of instructions for completing the Q-survey. Figures 2 to 7 are screenshots of the sorting process with FlashQ. Figure 2 provides a brief introduction of the research study and also includes the online informed consent agreement. Figure 3 shows the procedure of categorising the statements into agree, disagree and neutral piles. Figure 4 shows the process of ranking the statements according to the forced distribution on a scale of +4, +3, +2, +1, 0, -1, -2, -3 and -4. Figure 5 indicates the text boxes to collect the qualitative responses of the respondents in describing the reasons of choosing their most agreements and most disagreements. Finally, Figure 6 shows the online questionnaire for collection of comments and personal details of the respondent, while Figure 7 indicates the final step (data submission) of the survey process.

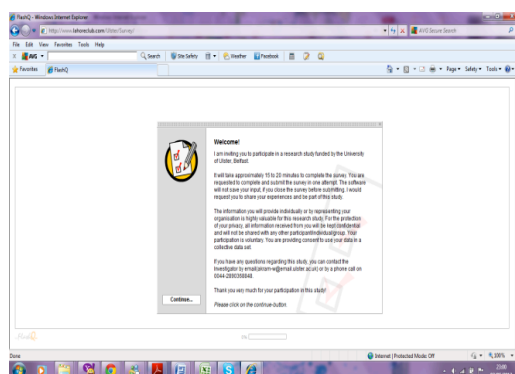


Figure-2 Introduction and Consent Agreement

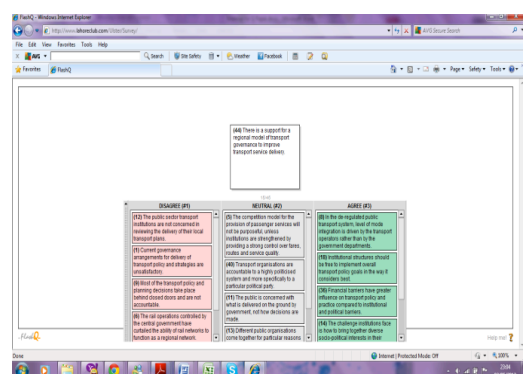


Figure-3 Card Sorting with FlashQ

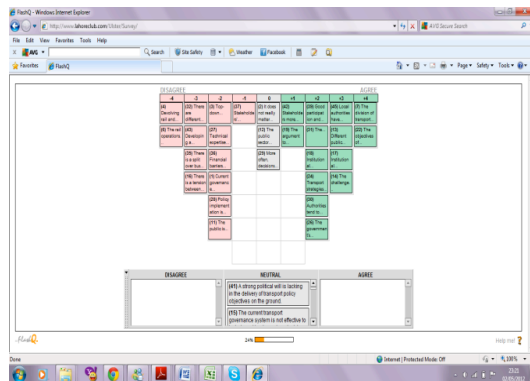


Figure-4 Placing Items on the Q sheet

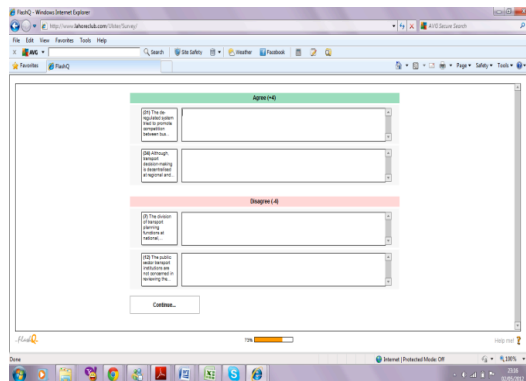


Figure- 5 Open-ended Opinion of Q sorts

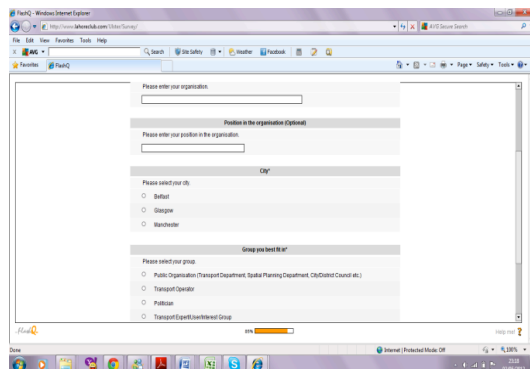


Figure-6 Background Details and Comments

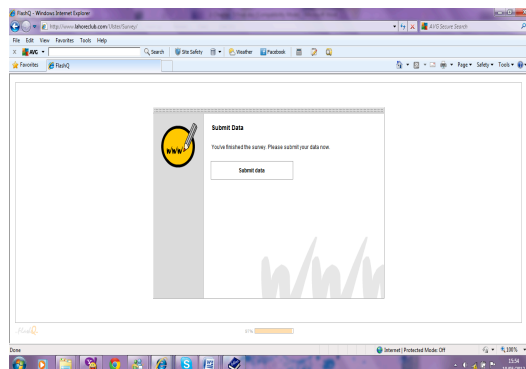


Figure-7 Data Submission

The Q-sorts were collected from the participants and analysed by using statistical techniques of Q-factor analysis. The literature indicates that all the Q-studies used a by-person factor analysis [9]. Free statistical software 'PQMethod version 2.31' designed by Peter Schmolck (see <http://www.lrz.de/~schmolck/qmethod/downpqwin.htm>) is used for Q-data analysis [16]. At the first step, the Q-sorts for each case study were entered into a database, and a correlation matrix among Q-sorts was created. Once a matrix of Q-sort correlation was generated, the factor analysis was carried out using Principal Components Analysis (PCA). Un-rotated factors with an Eigenvalue equal to and greater than 1.00 are considered significant for further analysis in a Q-study [14]. Factors having an Eigenvalue less than 1.00 are considered too weak to warrant an impact [10, 14]. The PCA results generated seven un-rotated factors for Belfast; six for Glasgow and Manchester with Eigenvalues > 1.0, which were retained for further factor rotation.

In the next stage, factors were rotated using the Varimax rotation procedure. The criteria used for the selection of factors rotation are: (1) Eigenvalues of factors equal to or greater than 1.00 and (2) a minimum of two Q-sorts loaded on the same factor to obtain statistically significant results [19]. The results were interpreted using three important elements, including, (1) the factor Q-sort values (factor arrays), (2) the normalised factor scores (z-scores) and (3) the distinguishing characteristics of each factor. Factor analysis results were interpreted to examine the relationships between factors, which indicate the participants' opinions and responses on a certain issue or problem.

5. Belfast Results

The Q results indicate that an ineffective implementation of strategies to control car dependency in this region is a challenge for government organisations responsible for the implementation of the Regional Transport Strategy. A strong consensus exists between 40% of the total participants that transport sustainability has been prioritised in transport policy; however, putting sustainable strategies into action is inefficient and ultimately unproductive. The most compelling evidence is the lack of a clear set of priorities and the absence of a

significant investment programme to tackle car dependency. The link between transport and land use integration is not effectively planned, which is limiting public transport networks due to poor connectivity between public transport modes.

Ample car parking spaces in and around the Belfast city has been a real concern for public transport operators, transport experts and government officials (36% of the total participants). Free car parking is seen as the main factor for the high level of car journeys into the city centre. By all means, car parking is not only a transport policy deficit but also an outcome of weak land use planning. The result indicates that a policy framework for effective parking planning and management is required to improve public transport ridership and revenues.

A tension has been noted between the Department for Regional Development (DRD) and local councils on the issue of providing statutory transport powers to local councils similar to Great Britain (32% of the participants). The capacities of local councils, population, geographic size, resource available, political factors and most importantly, the impact of improving delivery of transport services across the region are the major considerations of the wider debate to empower local authorities in Northern Ireland. In comparison with political and institutional barriers, funding uncertainties and the balance of transport investment in different modes have been ranked by participants as highly recognised barriers to the effective planning and implementation of sustainable transport schemes.

There is a mixed view that a lack of political will is hindering the sustainable transport policy objectives: the response of politicians indicates the presence of adequate political commitment to promote transport sustainability. However, it is important to realise a clear lack of political will in the areas of improving walking and cycling infrastructure and to some extent public transport. A clear census emerged among participants that transport decisions are not taken behind doors. At the same time, transport stakeholders and interest groups are not satisfied with the current levels of accountability and emphasis on stakeholder participation in transport policy processes.

6. Glasgow Results

The results show that 48% of the total participants indicate there is a lack of transport power at city-region level to deal with rail, highways and private bus operators. This discourse emerged in response to a perceived lack of quality of bus services and weak mode integration between public transport services. In the view of public body officials and politicians, the existing mechanism for quality partnerships for bus and the passenger services is relatively weak. They believe this is because fares, routes and service quality parameters are not part of the partnership agreement. Furthermore, bus operators independently make decisions on these important aspects of bus policy, which is regarded as problematic.

Sustainability transport development is another complex contemporary policy issue, shared by 28% of the participants. The problem touches upon a number of issues including cooperation between government departments to effectively implement anti-car policy measures, institutional response to encourage sustainable transport choices and a lack of political support. A strong opinion exists amongst participants that transport policies need to be prioritised with respect to their need and significance, which can reduce conflicts and also provide an opportunity for meaningful negotiations between different stakeholders.

The results confirm a split between transport policy objectives and funding priorities. Indeed, the decline in transport funding has a significant impact on sustainable transport initiatives. The results indicate that substantial value is placed by the participants on institutional coordination. Importance is also placed on the way transport policy and delivery framework are established for developing interactions between government institutions. This is because a variety of institutions are involved in the distribution of transport policy measures, which are not able to capture required integration during the practice of combined policy objectives. This can also have the effect of creating confusion on key policy issues in terms of the allocation of responsibilities. The most compelling factors for weak institutional coordination

are inadequate institutional rules, differences over transport powers, inefficiencies and organisational behaviours.

A common consensus stands on the need for introducing an integrated ticketing system both within and across all transport modes. Such a move would achieve an increase in the use of public transport modes and restrict car travel into the Glasgow city. In addition, participants also agree that transport and land use planning is done in isolation. This lack of consistency and coherence in transport and land use policy have wide impacts on economic development, travel needs, infrastructure demand and cost, and carbon emissions from transport. There is a consensus between all the participants that a different regulatory framework for each mode of transport is a barrier to the improvement of integration between public transport modes. There are contradictory viewpoints on the issues of the adequacy of existing transport governance, the ineffectiveness of parking policy, road pricing schemes and tensions between transport organisations at different levels.

7. Manchester Results

The problems surrounding the institutional governance of public transport in Greater Manchester have been strongly emphasised (48% of the total participants). The deregulation of bus services has been identified as a barrier to implementing an integrated multi-modal ticketing system and to achieving integration between public transport modes in Greater Manchester. A large share of participants – excluding public transport operators - strongly agrees to empowering government organisations on bus policy matters including fares, route distribution, ticketing and service quality. The perception of transport stakeholders, officials from government organisations and politicians is that private bus operators do not compete with each other. However, the viewpoints of these three groups are opposed by the bus operators. A strong agreement was obtained between all groups over the need to devolve necessary rail and highway powers from the national government to city-region administration. This would accommodate a range of local interest and transport needs in deriving and implementing rail and highway policies by the national government. The groups desire strong local institutional control over the transport network in Greater Manchester.

A consensus is obtained between all the participants that current institutional arrangements are satisfactory and institutional structures are conducive to effective delivery. Public transport operators emphasised the need for improving land use and transport integration, infrastructure improvements and the strong enforcement of parking policy in city areas. Almost one-quarter (23%) of the participants confirm their agreement on this theme. Flexibility in policy packages is an important area of consensus between all participants; they state that it can facilitate negotiations and enlarge bargaining space between different parties over conflicting issues during the implementation phase.

Dealing with high levels of funding uncertainties, the funding process and the split between the policy objectives and the amount of money spent in promoting sustainable transport are major concerns among all the participants. Funding control in the hands of the national government is ranked a key barrier to the successful implementation of the transport project. The impacts of financial barriers are ranked high compared to political and institutional barriers in the implementation of a policy. The discourse focuses on the need for financial autonomy to enable local governments' control on transport spending.

Developing a consensus on political viewpoints at different government levels on transport priorities and policy actions is ranked equally important by each group. The participants strongly agree on the need for developing clear policy objectives with respect to their relative importance. The point was made that key players should carry out negotiations over the policy objectives in case of conflicts. A strong disagreement by all groups that local authorities have adequate control to formulate and implement transport schemes in their areas. The participants expressed contradictory viewpoints about the effective implementation of sustainable transport measures, accountability and the lack of political will in deriving and implementing transport policy.

8. Discussion and Conclusions

It has been seen that Q-methodology offers interesting insights into the perspectives of different actors on transport governance within the context of the delivery of a sustainable transport policy. The discourses that emerged out of the Q-study indicate that there is consensus as well as differences between the ways in which different actors view transport governance arrangement, policy implementation and sustainable transport in Belfast, Glasgow and Manchester. The application of this method has highlighted four distinct sets of attitudes held in Belfast and Glasgow; three discourses are found appropriate to explain participants' opinions towards the transport governance and policy implementation issues in Manchester. Each viewpoint is largely owned by at least two groups out of four, with few areas of overlap and conflicts.

The discourse obtained in each city-region underlines the complexity of the transport governance issues between the actors. The discourses show that there are groups in Belfast with a strong attitude towards the effective implementation of sustainable transport policies through integrated transport and land-use planning and better financial focus. The perspectives in Glasgow indicate the desire for local transport powers on bus, rail and highway, a focus on implementation effectiveness and better institutional coordination to improve transport services. In Greater Manchester, the patterns recognise governance of the public transport services, institutional powers, better funding and a desire for local autonomy as the key themes among participants. The patterns show that questions have been raised about the effectiveness of deregulated bus policy in Glasgow and Manchester because the perceptions reveal that private bus operators do not compete in the open market, and hence, the quality of bus services is poor with high cost. The government officials and politicians are of the view that the bus industry cannot be improved in the current legal framework; therefore, they stress new legal powers are crucial for transport organisations to control fares, routes and a ticketing system.

There is a general agreement across all three cases that a significant mismatch exists between the policy objectives and funding priorities. The reliability of public transport services is identified as the most important factor to promoting public transport services. Integration between public transport services and connectivity of the transport system with other land uses is described as critical to increasing public transport patronage in the case study areas. Introduction of an integrated ticketing system is another major problem in Glasgow and Manchester. The application of Oyster Smartcard system (similar to London) is a collectively recognised policy action needed to improve public transport integration, affordability and for encouraging modal shift. The results highlight that parking supply is not coordinated with any part of overall transportation policy in all three city-regions. This has been identified in this study as a key policy action to improve bus ridership and tackle congestion. Finally, it has been stressed that decisions on transport and land use are made in isolation, which not only increases car travel but also confronts authorities with sustainable economic growth objectives. One consequence of this finding is that the government needs to strengthen organisational relationships through sub-regional and local partnerships to improve strategic integration between transport and land use planning. The relationship and coordination between actors are also identified as an important aspect of effective transport provision; this can be achieved by opening of political and participatory avenues. The implementation of these policy actions, coupled with a strong political commitment, legal interventions and increased financial focus are key priority areas that this study argues will make a significant move towards the achievement of effective sustainable transport policies.

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