SUBTHEME: S2.3 The Formation Mechanisms and Development Dynamics of the Triple Helix

HOW MUCH THE ROLE OF THE OTHER? UNIVERSITIES AS POLICY-MAKERS IN THE ENTERPRISE INNOVATION ARENA

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Abstract

Introduction

The triple helix model considers the university-industry-government relationships as one of relatively equal and interdependent institutional spheres, which can overlap and take the roles of the others (e.g. Etzkowitz 2002 and 2008). In this research, we illustrate the case of universities taking the role of governments in the area of enterprise innovation. We argue that universities should play the role of implementing policies and use discretion to some extent according to the programmes' scope of action, which was contractually agreed with the policy administrators. However, in 5 of the 6 case studies of this research we found excessive discretion and the consequent change of the role of the university personnel from policy-implementers to policy-makers. Importantly, our assessment of the public interventions was very negative, which highlights the relevance of the research. We explain the reasons for the excessive discretion.

State of the Art about the Topic

To our knowledge, there is no research about universities taking the role of governments. In contrast, in the areas of public administration and political sciences, there is a long-standing debate between two positions regarding discretion and the effect of this on policy-making. Firstly, we have the view from those who argue that discretion exists at street-level (e.g. Lipsky 1980, Lindblom and Woodhouse 1993, Ellis et al. 1999, and Maynard-Moody and Musheno 2003). In this situation, policies tend to be made as much from the street-level by policy implementers, as from the heads of policy agencies. The second position regarding discretion is from those who propose that there has been a shift in power in favour of policy-makers as a consequence of the centralisation of strategic political direction and the introduction of competition in the delivery of public services. (e.g. Howe 1991, Clarke and Newman 1997, and Langan 2000).

Research Focus and Methodology

We developed 6 case studies of public programme assistance to information systems (IS) innovation initiatives in small and medium enterprises (SMEs), in order to uncover and illustrate the existence of discretion at programme level. After that, we analysed the context of the cases in terms of the complex procedures and behaviours in the policy process, which are determinant for the practice of discretion at street level. The policy process includes policy-making, policy administration, and programme implementation.

Findings

Policy-makers are pressured to show the delivery of a high quantity of services but being very efficient in the use of resources, which diverted the auditing and control indicators and procedures to address these political imperatives, and not the quality and content of the services. In addition, the policy administrators that performed the auditing and control activities were mere contract managers, who do not know about technology and business. What is more, their organisations took relevant roles in designing the public policies or had connection to the organisations that delivered the programmes, which creates a conflict of interests. Another relevant finding is that policy-makers used extensive and ambiguous policies, probably as a strategy to distance themselves from the consequences of the particular and complicated decisions to balance the demand of services, SME needs, and programme resources. Accordingly, if we take into account that programme managers could write broad proposals in order to access public funds, the breadth of the policy definitions can be exploited by them to formalise the discretion of their consultants in each intervention. The data also shows that there is the risk that programme workers and auditors could misinterpret the numerous and vague phrases of the policies, which probably allowed public interventions to stray even from broad policy statements.

Contributions and Implications

This research uncovered the duality of roles at street-level in the enterprise innovation policy arena. Although discretion is necessary, we consider excessive the discretion exerted by the university personnel in the case studies. Policy implementers took the role of policy-makers as a result of political interests at the highest levels of government, inappropriate evaluation mechanisms, lack of knowledge, intriguing collaboration of the policy administrators, as well as broad and ambiguous policies. These findings represent relevant and novel contributions for the triple helix model. In general, the issue of discretion was not researched before in the context of innovation policy. The origin of discretion seems to be rooted in the political decisions taken at the highest levels of government. For this reason, we recommend to study policy-making for SME innovation using the political economy framework. In addition, given the deficient support and excessive discretion in programmes, we conclude highlighting the need to research the entire context that direct programme workers towards objectives that are far from society goals (e.g. power over SMEs, demand for programme services, worker alienation, etc.).

Keywords: triple helix, spheres roles, policy implementation discretion, information systems innovation, SMEs.

Introduction

SMEs are underperforming corporations in the adoption of innovations, for example in the IS field (e.g. UNCTAD 2009 and EC 2010). Governments have been trying to focus on this concern with a series of policies (e.g. EC 2005 and ECLAC 2008). One case is the increasing public funding for the support delivered by universities to SMEs in the United Kingdom (Lambert 2003 and Sainsbury 2007), which represents a clear example of university-industry-government interaction. The triple helix model considers the university-industry-government relationships as one of relatively equal and interdependent institutional spheres, which can overlap and take the roles of the others (e.g. Etzkowitz 2002 and 2008). We illustrate here the case of universities taking the role of governments in the field of enterprise innovation. We argue that universities should play the role of implementing policies, not making it, and use discretion to some extent according to the programmes' scope of action, which was contractually agreed with the policy administrators.

We define the scope of action as what programme organisations are supposed to do in the implementation of particular programmes. In general, programmes have to address aspects of the policy frameworks, for example specific IS policies, priority sectors, and cross-cutting themes such as the environment or gender of the Regional Economic Strategies of England. In addition, programmes have to meet the application criteria of the funds they use, for example geographical areas with structural difficulties for the European Regional Development Fund or outreach activities of universities for the Higher Education Innovation Fund of England. Finally, the programme organisations themselves define with more precision some aspects that differentiate each of them when competing to obtain funding, for example services, subject areas, delivery methods and technology, target clients, and third-party providers.

To our knowledge, there is no research about universities taking the role of governments. On the contrary, in the fields of public administration and political sciences, there is a long-lasting debate between two positions regarding discretion and its effect on policy. First, we have the view from those who argue that discretion exists at street-level (e.g. Argyris 1964, Lipsky 1980, Lindblom and Woodhouse 1993, Ellis et al. 1999, Long 1999, and Maynard-Moody and Musheno 2003). In this situation, policies tend to be made as much from policy implementers, as from policy-makers. The second position on discretion is from those who propose that there has been a shift in power in favour of policy-makers as a result of the centralisation of strategic political direction and the introduction of competition in the delivery of public services. (e.g. Howe 1991, Clarke and Newman 1997, Hadley and Clough 1997, Lymbery 1998, Jones 1999, and Langan 2000). The objectives of this study are to determine if discretion is present in programmes, the extent of this practice, the underlying causes for this, as well as a future research agenda related to the topic.

After the introduction, we review in detail the literature about the two positions regarding discretion in the delivery of policies. Then, we explain the methodology of the research and present the information of six case studies. After this, we analyse the cases in order to determine if there was discretion and the extent that it was exerted. Then, we analyse the context that influence discretion. We conclude suggesting a research agenda to try to overcome the problem of excessive discretion.

Literature Review

There are two strands of literature that diverge in how they understand the phenomenon of discretion in public services (Evans and Harris 2004). Firstly, we have the view of the defenders

of the existence of discretion for street-level workers (e.g. Argyris 1964, Lipsky 1980, Lindblom and Woodhouse 1993, Ellis et al. 1999, Long 1999, and Maynard-Moody and Musheno 2003). For them, policy intervention is an 'on-going, socially constructed, and negotiated process, not simply the execution of an already-specified plan of action with expected outcomes' (Long 1999 p. 4). Their initial argument is that discretion is necessary because the work at street-level focuses on specialised areas (e.g. Reiss 1971), and requires individual responses which are based on observation and judgment (e.g. Wilson 1967). For example, a programme consultant uses discretion in selecting an SME and designing the services to be delivered based on the specific characteristics of the IS, the SME, the SME decision-taker, and the SME business environment. Also, street-level bureaucrats tend to have interests and opinions that do not agree with agency policies or with a management desire to curtail discretion, so there normally is a level of conflict and non-compliance with higher levels in the policy context (Van Meter and Van Horn 1975 and Prottas 1979). This situation stresses even more the importance of discretion.

For example, one characteristic in the context of bureaucracies is that they often have to deal with large amounts of work with insufficient resources (e.g. MacDonald 1990 and Lewis and Glennester 1996). As the focus of street-level workers is oriented to client-processing, they create shortcuts and simplifications in order to cope with the exigencies of the job (e.g. Boradhurst et al. 2009 and Wastell et al. 2009). These coping mechanisms are not necessarily consistent with the agency policies but are essential to maintain the programme organisation (e.g. Argyris 1964). As the focus of managers are based on aggregated delivery and cost efficiency, they do not sanction the simplifications developed by street-level workers (e.g. Argyris 1964). Thus it could be concluded that there is simultaneously an inherent conflict as well as a mutually dependent relationship between street-level workers and managers.

To complicate things, the complex nature of the work at street-level makes control of discretion a serious problem. Because of this, it is hard to envisage that the proliferation of policies and rules could reduce the bureaucratic tasks to programmable formats. Even the attempts of using standardised electronic workflows have proven to be risky for the quality of the services (Broadhurst et al. 2009 and Wastell et al. 2009). In many cases, policies and rules could be so numerous and ambiguous that they could only be applied selectively (e.g. Wilson 1968 and Perry and Sornoff 1972). Furthermore, some studies suggest that some policies and rules, including evaluation mechanisms, are defined intentionally broad and vague by politicians in order to protect their own interests, leaving the responsibility to the experienced bureaucrats to interpret and implement them (Moyniham 1969, Lindblom and Woodhouse 1993, Wells 1997, Harrison 1998, and Ellis et al. 1999). So, street-level bureaucrats may make use of existing regulations or legal loopholes to circumvent evaluations, according to their objectives (e.g. Prottas 1979).

In general terms, by way of comparison with lower-level workers in other kinds of organisation, street-level bureaucrats enjoy a great level of discretion in defining the nature, amount, and quality of their jobs (e.g. Argyris 1964). In this situation, policies tend to be made as much from the street-level by public workers, as from the heads of policy agencies (e.g., Argyris 1964, Lipsky 1980, Lindblom and Woodhouse 1993, Juma and Clarke 1995, Ellis et al. 1999, Long 1999, and Maynard-Moody and Musheno 2003). For these reasons, Lindblom and Woodhouse (1993 p. 11) said that policy-making is a 'complex interactive process without beginning or end'.

On the other hand, we have the view of the advocates of a shift in the distribution of power in favour of policy-makers and managers over bureaucrats. They are the new managerialism (NMG) proponents (e.g. Howe 1991, Clarke and Newman 1997, Hadley and Clough 1997, Lymbery 1998, Jones 1999, and Langan 2000). According to the NMG, this shift has occurred as a consequence of the centralisation of strategic political direction and the inclusion of competition in the delivery of public services. This challenging structure had generated an important cultural change in terms of management responsibilities and supervision.

The NMG defenders argue that due to this market-oriented scheme the fundamental drivers of the public service activity are the managerial commands, the public policies and procedures, the evaluative indicators, the allocation of resources, as well as the statutes and legislation that

create both agencies and clients. Therefore, the practice at street-level is aligned with a context of managerial, political, and legal authority. Howe (1991) argues that certain level of discretion is allowed in the specific cases of services that demand the use of judgement in each intervention or for areas that are not political or managerial priorities. In these cases, there is allowance for street-level workers to apply their personal styles or manners of work. However, if the beneficiaries of the services started to show behaviours that represented a threat for the agency, for example demanding too much use of resources, these areas would become priorities and the allowances would disappear.

Methodology

We used a structure of six case studies of programme assistance to IS innovation initiatives of English SMEs. The analysis was deductive and based on the pattern matching analytical method (Trochim 1989). We also used replication (Yin 2009), which considered the confrontation of rival explanations of case studies with known outcomes. Given the analysis, we discarded the reductionist stance because we found excessive discretion in almost all the cases. For this part of the research we used semi-structured interviews with the SME decision-takers and with the programme consultants, as well as read diverse documents such as the contracts between the programme organisations and the funding bodies, the proposals of the programmes to the SMEs, and programme assistance files. After that, we went in detail into the contextual information with the aim of understanding the underlying causes that fostered excessive discretion. For this part of the research we gathered further data using semi-structured interviews with programme managers of different programmes and with ex e-business policy managers of regions, as well as reading diverse material such as economic policy documents and manuals for the management of policies and public funds.

Case Studies

To begin, table 1 shows the six SMEs assisted and their IS innovation initiatives. In addition, we present in table 2 the information of the results of the case studies, basically the contrast between the scopes of action agreed with the policy administrators and the services actually delivered by the programmes. This is the information required to decide if there was, or was not, discretion and to what extent it was exerted. The programmes were run between the beginning of 2002 and the end of 2006. We use pseudonyms to identify the programme organisations, programmes, and SMEs that participated in the research.

SME Assisted	SME Activity	IS Initiative
JVentureCo	Building supply sector reseller	A start-up third-party e-marketplace
RecruConstCo	Recruitment agency for the construction sector	Development of a portal based, password protected, self-service application for clients and candidates
RecruTrainCo	Human resource services for multiple sectors	Development of an online training forum, improvement of the website's functionality and appearance, and development of further intranet functionality
LanguagesCo	Intermediary of language services	Development of an intranet application to manage the interaction with language service providers and clients
FuelCo	Distribution of Liquefied Petroleum Gas parts for the conversion of truck diesel engines	Development of a database to compare consumptions of fuel and costs, graphic presentations, and commercialisation of the aggregated data of consumptions and costs of the fleets.
ConstCo	Project management in the construction sector	Improvement of the integrated work of the IT platforms and of the informational website

Table 1. SMEs and IS Initiatives

SME Assisted	Public Programme	Scope of Action Agreed with the Policy Administrators	Services Actually Delivered
JVentureCo	PP-ELearning	Integrated learning via coaching, mentoring, and training in different business subjects, based on e-learning techniques and face-to-face interaction	Marketing and web design consultancy
RecruConstCo	PP-MultiServe	Support via coaching, consultancy, mentoring, and training in different business subjects	Coaching in strategy and marketing consultancy
RecruTrainCo	PP-Marketing	Marketing support, basically consultancy	Marketing and IS services
LanguagesCo	PP-ICTServe	High level knowledge transfer from the academics of the departments of Computing and Communications to ICT SMEs	Traditional IS services to generic SMEs
FuelCo	PP-ICTServe	High level knowledge transfer from the academics of the departments of Computing and Communications to ICT SMEs	Traditional IS services to generic SMEs using third-party service providers
ConstCo	PP-ICTServe	High level knowledge transfer from the academics of the departments of Computing and Communications to ICT SMEs	Traditional IT and systems services to generic SMEs using third-party service providers

Table 2. Agreed Scope of Action versus Services Actually Delivered

The public programmes PP-ELearning, PP-MultiServe, and PP-Marketing were run by the programme organisation MNGTASSIST and the public programme PP-ICTServe was run by the programme organisation ICTASSIST. Both programme organisations are special units of universities. These programme organisations have been running public programmes using different funding streams, basically the European Regional Development Fund (ERDF), the Regional Development Agency Fund (RDAF), and the Higher Education Innovation Fund (HEIF). Specifically, the ERDF is funded by the Directorate-General Regional Policy, the RDAF is funded by the HM Treasury, and the HEIF is funded by the Higher Education Funding Council for England.

When programme organisations apply for public funds, they must indicate the public policies that they intend to implement. Basically, these policies are stated in the Single Programming Documents for the ERDF, in the Regional Economic Strategies for the RDAF, and in the policies oriented to the interaction of higher education institutions and industry of the Department for Education and Skills for the HEIF. Programmes also have to address the application criteria of the funds they plan to use, for instance to apply the funds in regions with structural difficulties for the ERDF. Finally, programmes differentiate themselves defining certain characteristics of their services such as subject areas, delivery methods and technology, target clients, and third-party providers. As mentioned, the aspects addressed of the policy frameworks, the application criteria of the funding streams, as well as the way that programme organisations differentiate their services define the scope of action of the programmes.

Existence and Extent of Discretion

Although the literature on the curtailment of discretion states that good managerial commands, public policies and procedures, evaluative indicators, allocation of resources, as well as statutes and legislation that create both agencies and clients are effectively reducing discretion at street-level, Howe (1991) identified two exceptions to this rule. First, he admitted that there are certain jobs that cannot be standardised because they demand the use of judgement in each intervention, for instance counselling. Second, certain areas are not political or managerial priorities. In these cases, there is allowance for street-level workers to apply their personal styles or manners of work. As most of the case studies in this research illustrate discretion, namely JVentureCo, RecruTrainCo, LanguagesCo, FuelCo, and ConstCo, we will comment on the two exceptions to the rule.

From table 2, in the column called Scope of Action Agreed with the Policy Administrators, we can say that all the public programmes were initially designed with services that required a great deal of judgement in each intervention. For all the programmes, judgement was needed to select SMEs, to design personalised services, to deliver the services, to connect the SMEs with other providers, as well as to follow-up on the SMEs' initiatives. Acknowledging Howe's position, we could say that the street-level workers in this thesis should have had license to use discretion given the high level of judgement inherent to their programme services.

The other option is to consider that the programmes, and the public policies that they addressed, were not political or managerial priorities. According to what we exposed in the introduction, we do not believe that this was the case but we will consider this possibility in order to cover an alternative explanation. Under this assumption, street-level workers could have enjoyed a degree of discretion to accommodate only their styles or manners of work.

However, neither the need for judgement nor the lack of political or managerial priority explains the radical departure from the scope of action of the programmes in these case studies. As shown in table 2, a great mismatch between the scopes of action and the implementations was present in the 5 cases in which discretion was exercised. For example, we believe that the decision of the programme workers to change the services in the assistance to LanguagesCo from 'high level knowledge transfer from the academics of the Computing and Communications departments to ICT SMEs' to 'traditional IS services given to a generic SME' exceeded the judgement that street-level workers should have to act according to the particular situation of the SMEs. Similarly, to change the services in the assistance to JVentureCo from 'integrated learning using e-learning techniques and face-to-face interaction' to 'consultancy in marketing and web design' was far beyond the discretion needed to incorporate a particular style or manner of work.

We think that *the judgement used went further than the numerous actions that could be allowed within the scope of action of the programmes*. *In the same way, the changes observed in the programme scopes of action were more than just mere styles or manners of work.* We agree that discretion at street-level is an important component for the implementation of programmes oriented to SME innovation, but this discretion should be relative, should have boundaries, and should respect the broad contractual requirements that were previously agreed with the policy administrators. In fact, street-level workers were making policy in a broad sense and to a greater degree than was accounted for by Howe (1991).

In the next section we analyse a more comprehensive view of discretion, including the desire and possibility of controlling it with conventional methods. In fact, we build an elaborated argument that explains the existence of excessive discretion in the public support to SME innovation.

Context for Discretion

We illustrate here the dependency of policy-makers and programme managers on the exercise of discretion in the work with clients. The root causes for this are the political intents at highest levels of government. This makes policy-makers, programme administrators, and programme managers take decisions that encourage the practice of excessive discretion. The scheme of the analysis is shown in figure XX.

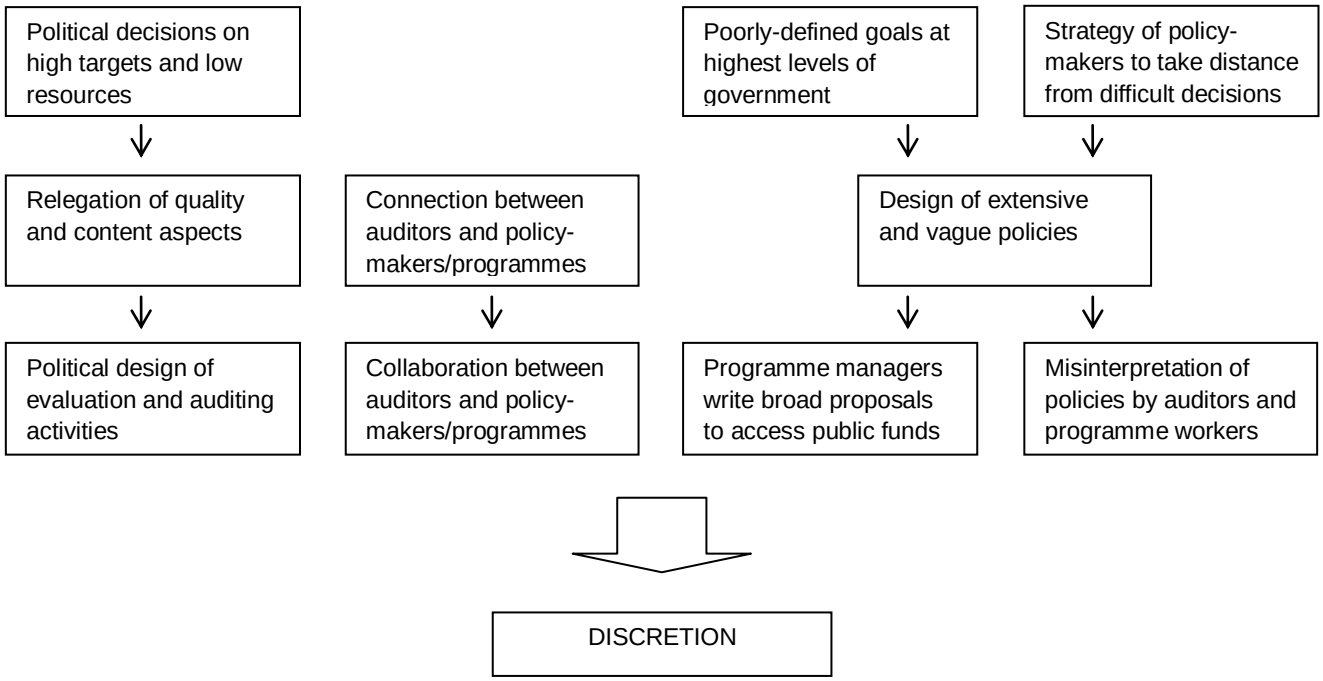

Figure XX. Contextual Influence on Discretion

Political Interests

The first part of our argument is to consider the policy-making focus regarding public services. Most of the time, especially in periods of financial or fiscal crisis, there is pressure to deliver *a high quantity of services but being very efficient in the use of resources* (e.g. MacDonald 1990 and Lewis and Glennester 1996). In fact, this occurred with the programmes of MNGTASSIST and ICTASSIST. The programme managers of both organisations stated that they had very high targets and insufficient resources to meet this challenge. This political priority could mean that *the quality and content of services are secondary considerations*. After all, resources are limited and it is difficult to control all aspects of the implementation of public policies. A direct consequence is that both *evaluation and auditing activities tend to focus on the areas that are politically relevant*. Lipsky (1980 p. 45 and 164, respectively) explained it in this way:

> "Street-Level bureaucracies are under continuous pressure to realise the public objectives of efficiency and cost effectiveness. Pressures will be more or less explicitly articulated depending upon the political climate and a variety of other factors."
>
> "Supervision of subordinates with broad discretion and responsibilities requires assertions of priorities in attempting to increase accountability … If everything is scrutinised, nothing is scrutinised. Thus efforts to control street-level bureaucrats not only affect those areas that are management targets, but they also affect those areas that are not the focus of management efforts, since by implication those efforts will not come up for surveillance."

Accordingly, the evaluation mechanisms of the ERDF considered as outputs the number of companies assisted, the increase and safeguarding of sales, and the increase and safeguarding of jobs. The RDAF and HEIF used only the number of companies assisted. The statements relating to sales and jobs do little to inform if the services were needed, if the time dedicated to the assistance was enough, if the consulting methodology was appropriate, if the client could have benefited from more services, if the client was connected with other providers, if there was follow-up to the adoption process of the client, or if there were changes in the competitive environment that could have caused variations in sales and jobs. What is more, our assessment of the public interventions was very negative in these respects, which confirms the inappropriateness of the formal evaluations. Also, all the funding schemes employed exigent financial controls. All these formal indicators represented only quantitative, inappropriate, and overly complacent views of programme services and their effectiveness.

We did not identify any meaningful qualitative feedback in the formal evaluations done for the funding bodies. Only the RDAF and the HEIF programmes needed conformity letters from the clients stating the degree of satisfaction with the services. However, there was not any evaluation tool mandated by the funding bodies that informed what actually happened in the assistance and adoption processes, which left an open door for discretion.

Bottom-Up Collaboration

Also, we could infer that the political priorities were supported by the auditing work and the external control of the programmes, which were done by policy administrators*. As happened with the outputs, the auditors did not question other aspects of the scope of action of the programmes, basically the eligibility of SMEs, types of services, and delivery mechanisms.*

Accordingly, the opinion of an ex e-business policy manager of a region was that the auditing activities for the funding bodies were carried out by contract managers who normally ‘do not care about business and technology’. He added that the auditors scrutinised in detail only the existence of output and financial documents. The programme manager of ICTASSIST expressed a similar opinion in relation to the auditing focus on outputs and finances. She said that ‘as long as the auditors see that you provide an assistance that is relevant and they see that you are hitting the targets and spending the budget correctly, it isn’t necessarily an issue if it doesn’t follow to the words that you said you were doing in the bid’.

In most cases, *the funding bodies commissioned the management of the deployment of funds to organisations that took important roles in designing the public policies or that were connected to the programme organisations*. To be more precise, the policy administrators had conflict of interests regarding the policies and programmes that they were judging. The occurrence of this type of conflict is criticised by Storey (2006).

For instance, the Government Offices for the English Regions led the development of the Single Programming Documents. However, the Secretariats, which were created by and depended on the Government Offices, were in charge of the auditing and control of the European Union funded programmes. Other case is when the day-to-day management of various parts of the implementation is assigned to a different type of policy administrator. This is done by linking related parts of a Single Programming Documents, with the aim of improving coordination and maximising impact in critical geographical areas, socio-economic groups, or across different themes. This integration is known as Action Plans. For the implementations of Action Plans, the political accountable body in the northwest was the Regional Development Agency, which actively participated in the partnership which designed, drafted, and approved the Single Programming Document. What is more, in the north-west of England the operative tasks of the Action Plan related to knowledge transfer initiatives were charged to the Northwest Universities Association. Taking into account that the members of these associations are universities, we can say that universities were auditing and controlling the programmes that they were delivering themselves.

Similarly, the Regional Development Agencies had the political leadership in the development of the Regional Economic Strategies. However, they directly audited and controlled the RDAF

programmes. The situation of the Higher Education Funding Council for England was a special case because they did not participate in the policy-making process. They are an independent non-departmental public body, which only deploys and controls funds. The public policies concerning the outreach activities of higher education institutions were defined by the Department for Education and Skills. Also, the use of the HEIF was deliberately open and largely dependent on the higher education institutions themselves. Practically all types of services, areas of support, delivery methods, companies, and geographical areas were eligible.

Broad and Ambiguous Policies

Discretion could also be facilitated from top to bottom in the policy context if we consider that *some policy statements are very broad and vague in nature*. With this, politicians and programme managers permit street-level workers a big room to judge in situ and define their interventions for each case. Accordingly, this could be a direct consequence of *poorly-defined goals at highest levels of governance* (e.g. Moyniham 1969, Landau 1973, and Hasenfeld and English 1974). Also, policy-makers could use extensive and ambiguous policies as a strategy in order *to distance themselves from the consequences of the individual and complicated decisions to balance demand, needs, and resources* (Lindblom and Woodhouse 1993, Wells 1997, Harrison 1998, and Ellis et al. 1999). These authors also found similarities in the low level of scrutiny done by policy-makers and programme managers.

One example of the manifestation of policy broadness can be observed in the initial policy statement of the Single Programming Document that was addressed by the programme organisation ICTASSIST, in order to access the ERDF funds for its public programme PP-ICTServe (Government Office for the North West 2001 p. 232):

> "This measure aims to enhance the region's competitive position by supporting innovation activities, especially those linked to advanced R&D and knowledge transfer initiatives, through the development of innovative business networks. Actions will support new innovation partnerships and the development of both horizontal networks and the facilitation and linking together of business networks to create innovations, share knowledge, and pool resources."

From this paragraph, we infer that it is a short but very broad statement regarding sophisticated innovations and inter-organisational networks. However, after reading the complementary information (Government Office for the North West 2001 p. 243-245) we found that the expansion of this statement into three pages extended even more the breadth of the policy, instead of making it more concise. We found indicative actions and fields of intervention as diverse as, 'SME links with the higher education sector', 'development of advanced e-commerce solutions', 'gateway/portal internet/websites', 'innovative services and applications provided by advanced digital networks', 'technology management projects', 'encouragement of access to and use of e-commerce SMEs in the e-economy', 'business advisory services', 'research projects based in universities and research institutes', and 'innovation and technology transfer'.

As a consequence, *the breadth of a policy definition can be exploited by programme organisations to formalise discretion if we take into account that they could write broad proposals in order to access public funds.* A programme consultant of ICTASSIST mentioned that they develop 'big proposals' to access public funds. The same person said that 'you get an amount of money and then you do what you want'. Similarly, the programme manager of MNGTASSIST expressed that they wrote some of their proposals in an open way in terms of the scope of action of the programmes, in order to have freedom to define the interventions for each SME. They call these proposals sent to policy administrators 'permissive bids' and the services delivered to SMEs 'demand-led services'.

In this thesis, only the assistance of PP-MultiServe to RecruConstCo did not show discretion. However, just this programme was the only one that was very open in the scope of action agreed with the policy administrators, i.e. the Regional Development Agency and the Northwest

Universities Association. Basically, the scope of action included support in different business subjects such as strategy, marketing, and web presence, using different methods such as coaching, consultancy, mentoring, and training. Accordingly, the assistance to RecruConstCo was for a coaching in strategy and a marketing consultancy.

Finally, it is not only the license to address a broad policy statement in innumerable ways, but also the risk that *programme workers and auditors could misinterpret the numerous and vague phrases of the policies, which could allow public interventions to stray even from broad policy statements* (Handler 1973, Scott 1990, Lewis and Glennerster 1996, and Evans and Harris 2004). Evans and Harris (2004 p. 885 and 886, respectively) explained it as follows:

> "There are many examples of worker activity interpreting and using rules, and of the failures and confusions of top-down control … Rules, even though we often think of them as unambiguous, can contribute to the uncertainty that creates discretion."
>
> "Different but equally valid interpretations of policy could be made by drawing on elements in the same body of knowledge, with these elements being outlined, emphasised, or downplayed in different ways by different interpreters … Even if the author takes for granted a certain context of interpretation, the audiences do not necessarily share it."

The misinterpretation of policy could have happened in the three interventions of PP-ICTServe. For example, we consider that the report about the IT platforms and the improvement of the website for ConstCo, shown in table 2, completely mismatch with the core policy statement related to 'sophisticated innovations and inter-organisational networks', but for the programme workers and auditors it could have been connected with phrases such as 'SME links with the higher education sector', 'development of advanced e-commerce solutions', 'gateway/portal internet/websites', or 'technology management projects'. Similarly, we do not see much connection between the same core policy statement and the development of the intranet application to manage the interaction with language service providers and clients for LanguagesCo, or the development of the database to compare fuel consumption data of prospective clients of FuelCo. All these works were only time consuming, and did not require research and development. Also, they were assigned only to one or two individuals, and not to a network of organisations.

Conclusions

This study exposed the duality of roles at street-level in the enterprise innovation policy field. Even though discretion is necessary, we regard as excessive the discretion practised by the university personnel in the case studies. Programme workers took the role of policy-makers as a consequence of political interests at the highest levels of government, inappropriate evaluation mechanisms, poor goals, intriguing collaboration of the policy administrators, as well as broad and ambiguous policies. These findings represent important and original contributions for the triple helix model. In general, the topic of discretion was practically not studied before in the context of enterprise innovation policy. As the origin of discretion seems to be embedded in the political decisions made at the highest levels of governance, we suggest studying policy-making for enterprise innovation using the political economy framework, especially for SMEs. In addition, given the deficient assistance and excessive discretion, we conclude emphasising the need to study the entire context that influence programme workers towards objectives that are distant from society goals, e.g. inadequate evaluation mechanisms, power over SMEs, low access to resources, demand for programme services, and worker alienation (Lipsky 1980).

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