Strategy Implementation and Public Service Performance
Rhys Andrews, George A. Boyne, Jennifer Law and Richard M. Walker
Administration & Society published online 22 July 2011
DOI: 10.1177/0095399711412730

The online version of this article can be found at:
http://aas.sagepub.com/content/early/2011/07/21/0095399711412730

Published by:
SAGE
http://www.sagepublications.com

Additional services and information for Administration & Society can be found at:

Email Alerts: http://aas.sagepub.com/cgi/alerts

Subscriptions: http://aas.sagepub.com/subscriptions

Reprints: http://www.sagepub.com/journalsReprints.nav

Permissions: http://www.sagepub.com/journalsPermissions.nav
Strategy Implementation and Public Service Performance

Rhys Andrews¹, George A. Boyne¹, Jennifer Law², and Richard M. Walker³

Abstract

Much has been written about implementation in the public sector, but little is known about organizational implementation styles and their consequences for performance. The authors’ evidence shows that implementation style matters but only in combination with appropriate strategic choices. None of the established styles of implementation (rational, incremental, and “no clear approach”) by themselves are likely to lead to better performance. However, when the authors incorporate the strategic orientation of the organization (defender, prospector, and reactor), they find that it has an important moderating effect on the relationship between implementation style and service performance. Their evidence suggests that public organizations need to achieve a fit between strategic orientation and style of implementation if higher levels of performance are to be attained.

Keywords

implementation, strategy, performance, Miles and Snow

¹Cardiff University, Wales, UK
²University of Glamorgan, Pontypridd, Wales, UK
³City University of Hong Kong, Pokfulam, Hong Kong

Corresponding Author:
Jennifer Law, University of Glamorgan, Pontypridd CF37 1DL, Wales, UK
Email: jalaw@glam.ac.uk
The improvement of service performance is one of the most pressing issues facing public organizations (Boyne, 2003; Ingraham & Lynn, 2004). Governments have typically responded to this with a raft of policies and guidance, covering issues such as how to formulate and implement strategies for service provision. This article focuses on a critical but under-researched potential determinant of public service performance: the implementation of organizational strategies.

Within the strategic management field, there has been a significant amount of research on strategy processes. That is “the process by which a strategic decision is made and implemented and the factors which affect it” (Elbanna, 2006, p. 2). Much of this work concludes that process matters for subsequent performance (see, for example, Dean & Sharfman, 1996; Hart, 1992). However, little research on this important topic has been carried out in the public sector. Moreover, much of the process literature focuses on the effects of strategy formulation, and there is very little evidence on the processes that organizations use when implementing their strategies and the consequences for performance (although see Bantel & Osborn, 2001; Dobni & Luffman, 2003; Noble, 1999). This is a critical issue for all organizations, as many have noted before, implementing strategy is often more difficult than formulating it, and it is widely accepted to be an aspect of management where many organizations fail (W. Hrebiniak, 2006; Nutt, 1999). It may be especially important for public organizations. It is clear that they are increasingly using strategic management models and language more traditionally associated with private corporations (Bryson, Crosby, & Bryson, 2009), but some argue that they are failing to learn and often recycle “techniques which have been shown to be badly flawed” (Ferlie, 2002, p. 287). There are extensive literatures on policy implementation (see, for example, O’Toole, 2000; Pressman & Wildavsky, 1984) and the management of change (Fernandez & Rainey, 2006; Pettigrew, Woodman, & Cameron, 2001; Stone, Bigelow, & Crittenden, 1999), which provide insights into strategy implementation in public organizations. Nonetheless, writers in these fields have themselves recognized the lack of empirical research linking implementation processes to performance.

Strategy implementation is defined as “the communication, interpretation, adoption, and enactment of strategic plans” (Noble, 1999, p. 120) and is widely perceived to be a significant determinant of performance. In particular, the style of implementation is important: as Long and Franklin (2004) state, “A key variable when studying implementation is the approach that each agency uses to implement policy” (p. 311). In focusing on the style of implementation within organizations—the processes used to put strategy into practice—we draw largely on the literature on strategy implementation and to a lesser
extent on the management of change, rather than research on policy implementation, which has typically examined interorganizational relationships (Hill & Hupe, 2002, Pressman & Wildavsky, 1984).

The strategy implementation literature suggests that there is a range of possible styles of implementation (Bourgeois & Brodwin, 1984), with rational at one end of the spectrum and incremental at the other. However, there is little consensus on which style leads to better performance. One of the classic arguments within the field of strategic management is that organizations will perform better if they adapt their internal characteristics to reflect their strategies (Miles & Snow, 1978). It is possible, therefore, that the strategic orientation of the organization will mediate the impact of implementation style. Does performance improve when an organization’s strategy and implementation style are closely matched?

We seek to answer these questions in a number of stages. In the first part of the article, we develop theoretical arguments and hypotheses on implementation style and public service performance. We also examine the possible role that strategy may play in moderating the relationship between implementation style and performance. In the second part, we outline our research design, data, and empirical methods. The context of our analysis is local authority service departments in Wales, which vary substantially in implementation style, strategic orientation, service performance, and other relevant characteristics. In the third part, we present and interpret our statistical results and draw conclusions on the relationship between implementation style, strategy, and public service performance.

Implementation Style and Performance

Implementation style is the approach that organizations adopt when putting strategies into practice. There are two core elements of this: the extent to which responsibility is centralized or decentralized, and whether formulation and implementation are distinct and sequential activities or are intertwined (Long & Franklin, 2004; Thompson, 2000). An organization’s implementation style forms part of its administrative routine, which has long been recognized as crucial to understanding the dynamics of implementation (Pollitt & Bouckaert, 2000). Johnson (2000) highlighted the “marked influence of the ‘taken for grantedness’ of management practice and its effects on strategy development” (p. 403). Thus, an organization’s implementation style tends to become established and institutionalized over time. Nutt (1987), for example, showed that managers often develop a particular style of implementation and stick with it. Hence, we are interested in the general approach
to implementation taken within the organization rather than individual examples of the implementation of single policies or specific decisions.

One of the limitations of the existing literature is the scarcity of empirical studies, which examine the impact of implementation style on performance (Stone et al., 1999). This has been a “missing link” in much of the research on strategy implementation. A significant problem with many of the studies of implementation that are available is that success is identified as the adoption of the strategy, rather than higher performance (for example Nutt, 1989). As Fernandez and Rainey (2006) stated, “Researchers must confront the challenge of analysing the relationship of the content and process of change to organizational outcomes such as performance” (p. 18).

There are a number of conceptual studies that attempt to categorize different approaches to strategy making and implementation (Bourgeois & Brodwin, 1984; Hart, 1992; Hickson, Miller, & Wilson, 2003). These models illustrate the range of implementation styles that may exist in organizations, but they differ both in the variables that they consider and the terms that they use. For example, Hickson et al. (2003) used the terms planned and prioritized, whereas Bourgeois and Brodwin’s (1984) examples of implementation style are commander, change, collaborative, cultural, and crescive. Thompson (2000) synthesized these models by categorizing implementation style along a spectrum of approaches, with rational/command at one end and incremental/generative at the other. A similar approach is also taken by Cespedes and Piercy (1996) in their classification of marketing implementation tactics and strategies.

Much of the literature on strategy processes focuses on a rational approach to implementation. For example, Joyce (1999) argued that “the main advice on implementation tends to be couched in terms of the rational steps to be taken” (p. 80). A rational implementation style is characterized by centralized control, the use of formal means to secure compliance, and the separation of formulation and implementation. A key element of this approach is that formulation and implementation are sequential activities. Strategy is first deliberately formulated and only then is it put into place. As part of its evaluation of appropriate strategies, an organization is likely to pilot the strategy before full implementation (Bryson, 1995; Hart, 1992). Fernandez and Rainey (2006) reiterated that one key factor that contributes to the successful implementation of change is the provision of a plan that can act as an organizational roadmap. Rational implementers are likely to define activities clearly, through formal methods such as business or project plans that identify tasks with targets (Bourgeois & Brodwin, 1984; Bryson, 1995; Hart, 1992). Control has also been identified as central to the implementation process.
(Noble, 1999), and in rational approaches, this is done centrally through techniques such as action plans and monitoring. A number of studies have claimed that these activities are critical to successful implementation; for example, action plans can help implementers to translate strategy into a more short-term and focused plan (e.g. Chustz & Larson, 2006; L. G. Hrebiniaqk & Joyce, 1984; Pinto & Prescott, 1990). Centralized control can also facilitate coordination and integration of activities (Thorpe & Morgan, 2007). One of the advantages of the rational style is, therefore, that explicit strategies can be controlled and reviewed (Ansoff, 1991). However, does this style of implementation lead to improved performance?

Much of the available evidence on styles of implementation suggests that a rational approach enhances performance. For example, Parsa (1999) found that private firms implementing with a more rational style achieved higher profits. Hickson et al. (2003) examined the link between implementation and performance in a sample of mainly private organizations and concluded that approaches that combined both planning and what they described as “prioritizing” were associated with higher performance, as measured by subjective views of stakeholders. S. Miller’s (1997) study of 11 decisions from private and public organizations found that planning influences the success of implementation, whereas the flexibility associated with an incremental style is less important. Thorpe and Morgan’s (2007) evidence from private sector service organizations also found that implementation styles that were closer to the rational end of the spectrum were more effective. This theory and evidence leads us to suggest that

**Hypothesis 1:** A rational approach to implementation is positively related to organizational performance.

Despite the traditional prominence of the rational approach to strategy processes, a significant body of work has highlighted the value of the approach at the other end of the spectrum—that is an incremental approach to implementation. Organizations using this style decentralize responsibility and have a much looser distinction between formulation and implementation. A number of authors argue that the separation of formulation and implementation, as prescribed in the rational approach, is a key reason for implementation failure (Hambrick & Cannella, 1989; Mintzberg, 2000). Connecting these processes means that organizations can learn more effectively and respond to changes in the environment (Mintzberg, 2000; Montgomery, 2008). In an incremental style, responsibility is decentralized: Bourgeois and Brodwin (1984) argued, for example, that in the crescive model “the chief executive
must relax his expectations concerning the extent to which strategic plans can be developed centrally” (p. 257). The role of the organization’s members is enhanced as they are active participants in the process of developing and implementing strategies (Ragaopalan & Rasheed, 1995). This involvement of staff enables organizational learning as the strategy can be fine-tuned and adjusted, leading to the continual adaptation of strategies as they are being implemented.

There is some evidence to suggest that incremental styles can be effective. Parsa (1999) found that private organizations using this approach achieved higher sales. Stewart and Kringas’ (2004) evidence also suggested that a more incremental or negotiated style may be important for performance: the two agencies in their study that achieved the highest rankings on objective and subjective measures of performance valued negotiation more than lower ranked agencies. Particular elements of an incremental implementation style have also been identified as central to organizational success in a number of studies. For example, Nutt (1999), Rainey (2003), and Woolridge and Floyd (1990) found that staff participation in decision making is associated with improved implementation and organizational performance. Despite this, the balance of evidence is less strong than for the rational approach. We therefore suggest that

**Hypothesis 2:** An incremental approach to implementation is positively related to organizational performance but less so than a rational approach.

In addition to the highly distinctive rational and incremental implementation styles, it is possible for organizations to have no discernible or consistent style of implementation. In these organizations, there is no taken-for-granted routine for implementing strategies, which reflects Inkpen and Choudhury’s (1995) concept of “strategy absence.” To date, few researchers have explored organizations that do not have a clear approach to implementation. However, Hickson et al.’s (2003) study of the implementation of 55 decisions in mainly private organizations indicated that those that seemed to be neither “experience based” nor “readiness based” were less likely to lead to good performance. An inconsistent approach to implementation may therefore be associated with poorer performance because those involved in implementation are confused and lack understanding of how they are expected to behave. Therefore our third hypothesis is as follows:

**Hypothesis 3:** No clear approach to implementation is negatively related to performance.
Implementation Style, Organizational Strategy, and Performance

One factor that may mediate the impact of implementation style on performance is the strategy of the organization. The argument that organizations should adapt their internal characteristics to reflect their strategies has a venerable status in the management literature, and research on private organizations broadly supports the view that a fit between strategies and processes is associated with better performance (Donaldson, 1996; Govindarajan, 1988). Miles and Snow’s (1978) seminal model of strategic management suggested that strategies fall into a small number of ideal types and that to achieve success, they should be consistently related to the organization’s internal processes. Our conceptualization of strategy is based on Miles and Snow’s typology of four ideal types of organizational strategies. *Prospectors* are organizations that “almost continually search for market opportunities, and . . . regularly experiment with potential responses to emerging environmental trends” (Miles & Snow, 1978, p. 29). In the public sector, prospectors often seek to expand budgets and pioneer the development of new products and services. *Defenders* are organizations that take a conservative view of new product development. They typically compete on price and quality rather than on new products or markets and “devote primary attention to improving the efficiency of their existing operations” (Miles & Snow, 1978, p. 29); in short, they seek better performance on a limited number of core products and services. Public sector defenders are likely to focus on low-risk strategies designed to enhance the efficiency of their existing services. *Analyzers* represent an intermediate category, sharing elements of both prospector and defender. *Reactors* are organizations in which top managers frequently perceive change and uncertainty in their organizational environments but lack a consistent and stable strategy. A reactor “seldom makes adjustment of any sort until forced to do so by environmental pressures” (Miles & Snow, 1978, p. 29). Reactors in the public sector lack a strategy of their own but wait to be cajoled or coerced by external forces, such as the interventions of regulators.

Boyne and Walker (2004) recently evaluated the relevance of the Miles and Snow (1978) framework to public organizations. They criticize most prior research on strategy content for placing organizations in mutually exclusive boxes and assuming that each organization has only a single strategic orientation and is, for example, just a prospector or a defender. Boyne and Walker argued that organizations’ strategies are messy and complex rather than neat and simple. A mix of strategies is likely to be pursued at the same time, so it is inappropriate to categorize organizations as belonging solely to a single type (e.g., reactor or prospector). This logic also implies that the
“analyzer” category is redundant because all organizations are both prospectors and defenders to some extent (although the balance will vary with the priority attached to these strategies and that attached to a reactor strategy).

Miles and Snow (1978) indicated that organizations face not only an “entrepreneurial” problem (which strategy to adopt) but also an “administrative” problem (the selection of structures and processes that are consistent with the strategy). They argue that administrative systems have both a “lagging” and a “leading” relationship with strategy:

As a lagging variable, the administrative system must rationalize, through the development of appropriate structures and processes, the strategic decisions made at previous points in the adjustment process. As a leading variable . . . the administrative system will facilitate or restrict the organization’s future capacity to adapt. (Miles & Snow, 1978, p. 23)

Thus, over time, strategy, structure, and process reinforce each other: organizations that choose an administrative system that is consistent with their strategy then find that this system continues to propel them in the same strategic direction. The result is a cycle of mutual cause and effect, which tightens the relationship between a strategic orientation and a set of organizational characteristics. This leads to the view that prospectors and defenders have distinctive processes, whereas reactors, lacking a coherent and stable strategy, have no consistent internal arrangements.

Miles and Snow (1978) make a number of arguments about the link between strategic orientation and the internal characteristics of an organization. They focus their arguments largely on formulation processes but also incorporate elements of implementation. Some predictions on the link between strategy and implementation have also been made by Parsa (1999) and Hart (1992). However, there is virtually no empirical evidence that tests these arguments, either for private or public organizations.

Miles and Snow (1978) distinguished between the extent of planning associated with different strategies. Defenders plan intensively and in detail and carefully evaluate any proposed changes in technology and procedures in advance of taking action. In a defender,

The planning sequence proceeds through a series of steps which allows the organization to exploit current and foreseeable environmental conditions fully. These steps mainly involve the setting of output and cost objectives which are then translated into specific operating goals and budgets. (Miles & Snow, 1978, p. 43)
Parsa (1999) and Hart (1992) also suggested that rational approaches to implementation are likely to be linked to a defender strategy. A rational implementation style is likely to work well for defending strategies as its focus on centralized control through methods such as business plans and targets should enable the efficiency of existing operations to be monitored effectively. Our fourth hypothesis is that

**Hypothesis 4:** A rational approach to implementation is especially likely to be positively related to performance in an organization with a defender orientation.

The planning process in a prospector, by contrast, is broad and tentative. Prospectors are poised to expand or contract their activities, depending on the opportunities or threats that they face, so the planning cycle is seldom systematic or complete. Rather, planning is fluid and shifts with new organizational directions. In a prospector,

Organizational objectives are allowed to coalesce around current areas of prospecting and thus seldom achieve a stable equilibrium. Unlike the defender, whose planning process is usually finalised before implementation begins, the prospector must often directly engage a new problem or opportunity before detailed planning can be completed. (Miles & Snow, 1978, p. 61)

Both Parsa (1999) and Hart (1992) predicted that more iterative and incremental approaches are associated with prospector organizations. Similarly, Govindarajan (1988) found that low control over departmental heads was associated with high performance in units that were prospecting. Thus, although the defender is a rational planner, the implementation process in a prospector is similar to “logical incrementalism” (Quinn, 1980). Both defenders and prospectors plan, but the former do so formally and precisely, whereas the latter follow a more informal and iterative process. An incremental style is likely to be helpful for prospecting strategies, as there is less centralized control, allowing staff to innovate and experiment as they proceed with implementation. This should therefore enhance the process of “learning by doing.” We therefore suggest that

**Hypothesis 5:** An incremental approach to implementation is especially likely to be positively related to performance in an organization with a prospector orientation.
Finally, reactors are predicted to exhibit a range of approaches to implementation. In a reactor “management does not fully shape the organization’s structures and processes to fit a chosen strategy” (Miles & Snow, 1978, p. 93). Nevertheless, the absence of a clear vision about where the organization is headed, and the reliance on external pressures to shape strategy, makes it difficult if not impossible for reactors to plan. Any planning process would quickly become redundant as the organization shifts in unpredictable ways. This, combined with a lack of a clear or consistent approach to implementation is likely to lead to even more confusion and uncertainty and hence, worse performance. A lack of a clear approach will lead to worse performance in a reacting organization as it is missing not only a stable strategy but also an established routine for implementation. Our final hypothesis is that

Hypothesis 6: No clear approach to implementation reinforces the negative effect of a reactor orientation on performance.

Research Context, Data, and Measures

Our units of analysis are Welsh local authority departments that are responsible for education, social services, housing, highways, public protection, and benefits and revenues. This range of services represents a suitable context for testing the relationship between implementation style, strategy, and performance across different public organizations. Although local authorities may vary in terms of managerial and political priorities, individual service departments participate in the determination of these priorities and frequently display distinctive approaches to strategic issues (see Dibben, 2006). By restricting our analysis to service departments in Welsh councils, other potential influences on performance, such as the policies of higher tiers of government and legal constraints, are held constant. We examine implementation style, strategy, and performance in 40 of these departments to identify whether the relationships between the variables are consistent with our hypotheses. When estimating the separate and joint effects of implementation style and strategy, we also control for other potential influences on service performance.

Data Source

The data for the dependent variable are derived from performance indicators set by Welsh local authorities’ most powerful stakeholder: The National Assembly for Wales, which provides over 80% of their funding. The National
Assembly for Wales Performance Indicators (NAWPIs) are based on common definitions and data, which are obtained by councils for the same time period with uniform collection procedures (National Assembly for Wales, 2001). Local authorities in Wales are expected to collect and collate these data in accordance with the Chartered Institute of Public Finance and Accountancy’s Best Value Accounting–Code of Practice. The figures are then independently verified, and the Audit Commission (2001) assesses whether “the management systems in place are adequate for producing accurate information” (National Assembly for Wales, 2001, p. 14). Because Welsh local authorities are judged on the same set of indicators by their primary stakeholder, we are able to compare the performance of organizations with varying strategies and implementation styles. Prospecting, defending, and reacting service departments are all expected to achieve the same objectives, but they are free to do so in distinctively different ways.

Data on implementation style and organizational strategies were derived from electronic surveys of managers in Welsh local authorities undertaken in 2002 and 2003. Survey respondents were asked a series of questions on strategy and implementation in their service. For each question, informants placed their service on a 7-point Likert-type scale ranging from 1 (disagree with the proposed statement) to 7 (agree with the proposed statement).

Data were collected from different tiers of management to ensure that our analysis took account of different perceptions of strategy and implementation within the service departments. This overcomes the sample bias problem associated with surveying informants from one organizational level. Heads of service and middle managers were selected for the survey because research has shown that attitudes differ between hierarchical levels within organizations (Aiken & Hage, 1968; Payne & Mansfield, 1973; Walker & Enticott, 2004). These are also the types of informants who are likely to know most about organizational strategy and processes. Information (including e-mail addresses) for up to 10 key senior and middle managers in every service department was provided by the corporate policy unit in 17 of 22 Welsh authorities agreeing to participate in the study. Informants’ responses within each service were aggregated to generate service level data suitable for our analysis. The average score of these was then taken as representative of that service. So, for instance, if in one authority there were two informants from the housing department, (one from maintenance services and another from rent collection services), then the mean of their responses was used.

The sampling frame consisted of 198 services and 830 informants in October 2002 and 198 services and 860 informants in 2003. Responses were received from 46% of services (90) and 29% of individual informants (237)
in 2002. In 2003, 31% of services replied (62) and a 25% response was achieved from individual informants (260). This is a comparable response rate to studies of organizational performance in the private sector (see, for example, Zahra & Covin, 1993). Some cases could not be matched when we mapped the independent variables on to the dependent variable, due to missing data within the NAWPI data sets. As a result, our statistical analysis of the relationship between strategy, implementation style, and performance was finally conducted on 40 cases, comprising 6 education departments, 9 social services departments, 7 housing departments, 6 highways departments, 7 public protection departments, and 5 benefits and revenues departments. These departments are representative of the diverse operating environments faced by Welsh local authorities, including urban, rural, socioeconomically deprived, and predominantly Welsh- or English-speaking areas.

In addition to carrying out the survey, we undertook interviews with 32 managers in a sample of local authority services in Wales during the period August to November 2004. The interviewees were selected respondents from our survey who were willing to discuss strategic management in their service in more depth. Semistructured interview schedules were used, subject to strict principles of confidentiality. The interviews explored issues arising from the survey return for each respondent’s service. In particular, the nature of implementation and strategy making within services identified by our survey data as primarily prospecting, defending, and reacting were addressed. These interviews provided further information on the links between implementation, strategy, and performance across a range of service areas and authorities. We use the information obtained from these interviews to contextualize the statistical findings and connect the patterns we uncovered with relevant explanatory theories (see Shah & Corley, 2006).

**Measures**

Our dependent variable is an index drawing upon 29 of the 100 service delivery NAWPIs available for 2002 and 2003 that focus most closely on service performance, examples of which include the average General Certificate in Secondary Education score, the percentage of rent arrears, and the percentage of welfare benefit claims processed correctly. We excluded measures of inputs or unscaled outputs, such as the number of teachers employed and the number of elderly people helped to live at home, as these do not accurately reflect the achievements of service departments (the Appendix provides a full list of the indicators we selected for the analysis). To standardize the NAWPIs for comparative analysis across different service areas, we first
divided each of them by the mean score for Welsh authorities, inverting some (e.g., the percentage of unqualified school leavers and the number of pedestrians killed or seriously injured per 100,000 population), so that scores above the mean always indicated higher performance. This also allowed different indicators within a service to be combined to create composite measures of performance. Furthermore, taking performance as a percentage of the Welsh mean also allows the data for different services to be pooled because the measurement process removes service effects from the scores on the indicators (Boyne, Meier, O’Toole, & Walker, 2006). Our aggregation method meant that each indicator was weighted equally, ensuring that our analysis was not unduly influenced by particular indicators. Factor analysis was not used to create proxies for each performance dimension because the number of cases per service area is too small to create reliable factors (for a concise explanation of this problem see Kline, 1994). Table 1 lists the descriptive data and sources for our dependent variable.

Our measures of implementation styles drawn from the 2003 survey are shown in Table 1. To measure a rational approach to implementation, respondents were asked four questions on the presence of formal procedures in their approach to implementing strategies in their service. These included elements such as the extent to which implementation tasks were defined clearly and were monitored (Bourgeois & Brodwin, 1984; Hart, 1992). Our two measures of a logical incremental approach to strategy implementation capture the ideas of adjustment and negotiation and the involvement of organizational members as active participants in the process (Hart, 1992; Ragaopalan & Rasheed, 1995). In addition, we used the statement “there is no discernible approach to implementing strategies” to test whether a lack of a consistent approach had an impact on performance.

A single factor was constructed for rational implementation by carrying out principal components analysis on the survey items above. The relevant factor loadings are highlighted in Table 2. All are above 0.5, indicating that they are important determinants of the variance explained by the factors (Hair, Anderson, Tatham, & Black, 1998). A logical incremental implementation index was created by taking the mean of the two relevant survey items.

Our measures of organizational strategy are listed in Table 3. To explore the extent to which Welsh local authorities displayed defender characteristics, informants were asked three questions assessing whether their approach to service delivery was focused on core activities and achieving efficiency (D. Miller 1986; Snow & Hrebinik, 1980; Stevens & McGowan, 1983). A prospector strategy was operationalized through four measures of innovation and market exploration, as these are central to Miles and Snow’s (1978)
Table 1. Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>Minimum</th>
<th>Maximum</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service performance 2002-2003</td>
<td>1.04</td>
<td>.78</td>
<td>1.67</td>
<td>.18</td>
</tr>
<tr>
<td>Rational planning</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We use a project/business plan to implement strategies</td>
<td>5.52</td>
<td>3.00</td>
<td>7.00</td>
<td>1.02</td>
</tr>
<tr>
<td>When implementing strategies we have clearly defined tasks with targets</td>
<td>5.47</td>
<td>3.00</td>
<td>7.00</td>
<td>0.95</td>
</tr>
<tr>
<td>When implementing strategies we regularly review progress against targets</td>
<td>5.50</td>
<td>3.00</td>
<td>7.00</td>
<td>1.02</td>
</tr>
<tr>
<td>We implement strategies by piloting them initially and then implementing them in full</td>
<td>4.25</td>
<td>1.00</td>
<td>7.00</td>
<td>1.35</td>
</tr>
<tr>
<td>Logical incrementalism</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When implementing strategies we often refine and amend them as we go along</td>
<td>5.26</td>
<td>3.00</td>
<td>7.00</td>
<td>0.91</td>
</tr>
<tr>
<td>We improve the implementation of our strategies by getting all of the affected groups involved in their development</td>
<td>5.11</td>
<td>2.00</td>
<td>7.00</td>
<td>1.08</td>
</tr>
<tr>
<td>Absence of implementation style</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is no discernible approach to implementing strategies in our service area</td>
<td>2.73</td>
<td>1.00</td>
<td>6.00</td>
<td>1.11</td>
</tr>
<tr>
<td>Controls</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service performance 2001-2002</td>
<td>.99</td>
<td>.33</td>
<td>1.91</td>
<td>.23</td>
</tr>
<tr>
<td>Service expenditure</td>
<td>.96</td>
<td>.27</td>
<td>2.00</td>
<td>.32</td>
</tr>
<tr>
<td>Data Sources:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service expenditure (2000-2001)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

definition of this orientation. The specific measures are derived from Snow and Hrebinia (1980) and Stevens and McGowan (1983). To evaluate the presence of reacting characteristics our informants were asked five questions.
Table 2. Factor Analysis of Rational Approach to Implementation

<table>
<thead>
<tr>
<th>Measure</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>We use a project/business plan to implement strategies</td>
<td>.768</td>
<td></td>
<td></td>
</tr>
<tr>
<td>When implementing strategies we have clearly defined tasks with targets</td>
<td>.907</td>
<td></td>
<td></td>
</tr>
<tr>
<td>When implementing strategies we regularly review progress against targets</td>
<td>.917</td>
<td></td>
<td></td>
</tr>
<tr>
<td>We implement strategies by piloting them initially and then implementing them in full</td>
<td>.504</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Eigenvalue
Cumulative variance

Table 3. Survey Items and Factor Analysis for Strategy Archetypes

<table>
<thead>
<tr>
<th>Measures</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prospector</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We continually redefine our service priorities</td>
<td>−.31</td>
<td>.71</td>
<td>.07</td>
</tr>
<tr>
<td>We seek to be first to identify new modes of delivery</td>
<td>−.20</td>
<td>.86</td>
<td>.01</td>
</tr>
<tr>
<td>Searching for new opportunities is a major part of our overall strategy</td>
<td>−.38</td>
<td>.74</td>
<td>.20</td>
</tr>
<tr>
<td>We often change our focus to new areas of service provision</td>
<td>.11</td>
<td>.82</td>
<td>−.16</td>
</tr>
</tbody>
</table>

Defender                                                               |          |          |          |
| We seek to maintain stable service priorities                         | −.09     | .07      | .79      |
| The service emphasizes efficiency of provision                        | −.34     | .31      | .62      |
| We focus on our core activities                                       | .00      | −.19     | .79      |

Reactor                                                                |          |          |          |
| We have no definite service priorities                                | .77      | −.21     | −.07     |
| We change provision only when under pressure from external agencies   | .89      | −.04     | −.12     |
| We give little attention to new opportunities for service delivery    | .70      | −.41     | −.10     |
| The service explores new opportunities only when under pressure from external agencies | .90 | −.05 | −.07 |
| We have no consistent response to external pressure                   | .47      | −.35     | −.23     |

Eigenvalues
Cumulative variance

about the existence of definite priorities in their service and the extent to which their behavior was determined by external pressures. These measures were primarily based on prior work (Snow & Hrebiniak, 1980).
Underlying strategic stances among Welsh local services were revealed through exploratory factor analysis of the 12 survey items for all the service departments involved in the survey. This produced three statistically significant and clear factors that explained 67.1% of the variance in the data. The results indicated that measures of defending, prospecting, and reacting load on one common factor each. The eigenvalues for all three factors are high, suggesting that the services sampled in this study display distinctive strategies. The factor loadings are all 0.4 or more and are therefore important determinants of the variance explained by the factors (Hair et al., 1998). The prospecting and reacting factors have excellent Cronbach’s alpha internal reliability scores of .82 and .84, respectively (Nunnally, 1978). Although the defending factor has a comparatively low Cronbach’s alpha score of .60, it is nevertheless suitable for exploratory analysis of new scales (Lowenthal, 1996).

The descriptive statistics show that respondents tended to agree with the prospecting (mean agreement = 4.45) and defending (5.10) statements. This suggests that service departments adopt overlapping strategies, rather than a single, fixed orientation.

Public organizations are widely viewed as autoregressive systems that change incrementally over time (O’Toole & Meier, 1999). This implies that performance in one period is a strong influence on performance in the next. In this case, it is important to include prior performance in statistical models, otherwise the coefficients for other variables such as strategy and implementation may be biased. We therefore entered performance in the previous year in our analysis of service standards in 2002-2003. By including this measure, the potential effects of environmental constraints are also controlled, as their likely impact is contained in the past performance variable. Furthermore, when the autoregressive term is included in the model, the coefficients for implementation style and strategy show what these variables have added to (or subtracted from) the performance baseline.

Performance may vary not only because of the characteristics of organizational strategies and implementation style but also because of the financial resources expended on services. Differences in spending across services may arise for a variety of reasons (the level of central government support, the size of the local tax base, and departmental shares of an authority’s total budget). At the extreme, a prosperous service in one authority may be able to buy success, whereas a poor one in another area can afford only mediocrity. Prior research supports the contention that public expenditure levels have a significant positive impact on performance (Boyne, 2003).
We controlled for potential expenditure effects by using figures drawn from the 2001-2002 NAWPIs. To make them suitable for analysis, the service expenditure indicators were divided by the mean score for Welsh authorities. Aggregated measures of expenditure for each service were then created by adding groups of relevant indicators together and taking the mean. So, for instance, we added together the scores for four indicators of education expenditure (expenditure per nursery and primary pupil younger than 5 years, expenditure per primary pupil older than 5 years, expenditure per secondary pupil younger than 16 years, and expenditure per secondary pupil older than 16 years) and divided the aggregate score in each local authority service by the mean score. We then repeated this method for expenditure indicators in social services, housing, highways, public protection and benefits, and revenues, thereby deriving a single measure of expenditure that is comparable across the six service areas. The indicators used for our expenditure measure are shown in the Appendix.

The Effect of Implementation Style on Performance

The results for the statistical tests of the impact of implementation style and strategy on public service performance are shown in Table 4. We present two models in the following sequence: Model 1 contains the control variables and three measures of implementation style and Model 2 adds measures of strategy to show whether this moderates the impact of implementation style on performance, by including interaction terms for the joint effects of these variables.

The models generally provide a good statistical explanation of variations in the performance of local authority services in Wales (the $R^2$ is satisfactory in both Models 1 and 2). Performance is indeed autoregressive—the relative success of service departments tends to be stable from one year to the next. Taken together, the $R^2$ and the effect of the performance baseline suggest that the model provides a solid foundation for assessing the effects of implementation style and whether the impact of implementation style is moderated by strategic orientation.

Implementation Style and Performance

Model 1 shows the results for the basic implementation and performance model. These show that none of the implementation approaches has a positive and significant association with performance.
The results do not provide support for Hypothesis 1. Although a rational approach is positively related to performance, the coefficient is not statistically significant. This contradicts much of the literature, which suggests that this approach will enhance performance (e.g., Pinto & Prescott, 1990). It may be that this approach, in which planning and implementation are separate activities, leads to a lack of motivation from staff who are categorized as “doers” rather than “thinkers.” Kim (2002), for example, found that a participative management style in the strategic planning process is positively associated with job satisfaction. One of our interviewees from a service under threat of central government intervention stated that the introduction of rational implementation processes in their service had spurred a “controlling of the strategy . . . diluted to compliance with national statistics,” that had meant “the element of creativity has been curtailed at a local level.”

Our second hypothesis is not supported by the findings. A logical incremental implementation approach appears to be less helpful than a rational
approach but is negatively rather than positively related to performance. This is surprising as it contradicts much of the available evidence on involvement of stakeholders in strategic implementation. A potential explanation for the negative association between an incremental approach and performance is that it leads to a lack of focus in the implementation process and a tendency to drift (Bourgeois & Brodwin, 1984). For example, a manager in one service with a predominantly incremental approach to implementation noted in interview that “you feel you’re overwhelmed by change, that there’s no time to implement all changes properly. Things are happening and they are changing, but we seem to be always behind with what we plan to do.”

Hypothesis 3 is not supported by the evidence. There is a negative association between having no discernible approach to implementation and performance but the coefficient is not statistically significant. There is very little previous evidence on this issue but our expectation was that those organizations that had no discernible approach to implementation would have low standards of performance because organizational members would be confused about the approach that they should take and strategies might never be fully implemented. One possibility is that organizations with no discernible style of implementation simply vary their approach, either at random or according to the strategy to be implemented at the time. The randomness of implementation style is evident in a comment from an interviewee who stated that implementation typically depended on “who decides what the main drivers are and what the priorities are” but that senior officers in the service seemed to be “pretty unaware of what’s happening—we need people who have the authority to commit funding and budgets.”

Taken at face value, these results indicate that no single style of implementation is independently likely to lead to service improvement. This suggestion—that style makes no difference—conflicts with much of the research on strategy processes. It also contradicts the available evidence on the impact of implementation style in private organizations. However, many of the previous studies measured success as the implementation of the strategy, rather than an improvement in service performance. Another possible interpretation for these results is that they are only true of our public sector sample. It may, for example, be that the nature of performance in the public sector is more complex than for private organizations and that it is therefore less likely that the style of implementation will affect it. A further alternative explanation is that implementation alone has no direct relationship with organizational performance and that it needs to be considered alongside other important variables such as strategic orientation.
Model 2 shows the results when we introduce the base terms for strategy and the interaction terms for implementation approach and strategy into our base model. Past performance continues to have a highly significant positive association with service performance. The results provide support for our fourth hypothesis. A rational approach to implementation is positively associated with performance when it is combined with a defender orientation. This suggests that it is important for services to align their strategy with their implementation processes. Indeed, one interviewee in a predominantly defending authority felt that overall the whole organization “definitely is getting better” as a result of rational planning, stressing that “if we’re going to make progress [in implementing strategy], we’ve got to pilot it.” This finding confirms the predictions of Parsa (1999) and Hart (1992) that centralized control and specification and monitoring of tasks associated with a rational approach to implementation is associated with good performance for those organizations (defenders) that are focusing on improving existing services.

Hypothesis 5 is also supported. The combination of an incremental approach with prospecting is positively related to performance. This finding concurs with that of Govindarajan (1988) that low central control is associated with high performance for those organizations that are developing new products or services. This may be because the broad and tentative planning process associated with an incremental implementation style allows staff to put forward their ideas, to innovate, and to “learn by doing.” An interviewee in a prospecting service performing well on the NAWPIs indicated that during strategy implementation there is “consultation coming out of our ears.” Our final hypothesis is not supported by the statistical results. We expected that a lack of a discernible approach to implementation in conjunction with a reactor strategy would be especially bad for performance. The results show that the lack of a clear style of implementation is no worse (or better) when organizations adopt this strategic orientation.

Overall, these results confirm that the link between strategy processes and strategic orientation has an influence on organizational performance. In particular, we find that strategic orientation is an important moderator of the relationship between implementation style and performance. A rational style of implementation is positively correlated with performance in organizations that emphasize a strategy of defending. Similarly, a logical incremental style of implementation has a positive impact when it is combined with prospecting. Our findings confirm that a “fit” between an organization’s strategy and its implementation style matters for the performance of public organizations.
Conclusion

Implementation is widely held to be a critical element of strategy and one which can have a significant impact on performance. However, there is only limited evidence that examines the link between implementation style and performance and that which is available is largely focused on the private sector. Our study adds to the knowledge of strategy implementation in a number of ways. First, we provide evidence on the impact of two key implementation styles on organizational performance. A central concern in the strategy process literature has been the relative merits of a rational planned approach or a more adaptive incremental style. Our findings indicate that when considering implementation style there is “no best way” to do it. An important conclusion of this study is that no implementation style by itself is likely to enhance performance.

Second, our study demonstrates that the concept of fit or organizational alignment is important in understanding implementation. The literature on strategic alignment suggests that the alignment of strategy and internal characteristics should enhance organizational performance (Miles & Snow, 1978). We find that implementation style matters but only in conjunction with strategy. This concurs with the small amount of previous work on implementation in a corporate context. It is therefore important to recognize that public organizations may be similar to private organizations in some ways. In particular, they have diverse strategies, and this variety needs to be matched with their internal processes. Universal recommendations on the appropriate implementation style to adopt are therefore inappropriate, as strategic orientation is an important mediator of the impact of implementation on performance. These findings, and the broader literature on strategic alignment, suggest that the determinants of organizational performance are complex in all organizations. It is possible that it is even more so in public organizations, as they face an especially complex environment, with ill-defined goals and multidimensional concepts of performance (Nutt & Backoff, 1993).

Our research has a number of practical implications. The most important is that managers should seek to ensure that the implementation style of their organization is matched to its strategic orientation. Another significant issue is that universal recommendations on implementation style from governments and regulatory agencies (often in favor of a rational approach) are inappropriate. This style of implementation will not improve performance in all organizations.

These findings raise a number of issues for further research. Our analysis has been conducted on a specific group of public organizations in a particular time period, which leaves open the possibility that our results are an artifact of where and when we chose to conduct the empirical tests. To what extent
are the findings replicated in other settings and time frames? Our research focused on implementation style, but there are other elements that have been identified as being important determinants of implementation success such as support by external stakeholders, communication, and the provision of adequate resources (Fernandez & Rainey, 2006; Stewart & Kringas, 2004). To what extent do these elements combine with implementation style to influence performance? However, for the present, our conclusion is that implementation style can make a difference to public services, but the style that works best is contingent on organizational strategy.

**Appendix**

**Table 1A.** Service Performance and Expenditure Measures 2001-2003

<table>
<thead>
<tr>
<th>Service area</th>
<th>Effectiveness NAWPI</th>
<th>Expenditure NAWPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>Average General Certificate in Secondary Education (GCSE) or General National</td>
<td>Net expenditure per nursery and primary pupil younger than 5 years</td>
</tr>
<tr>
<td></td>
<td>Vocational Qualification (GNVQ) points score of 15- to 16-year-olds</td>
<td>Net expenditure per primary pupil aged 5 years and older</td>
</tr>
<tr>
<td></td>
<td>Percentage of 15- to 16-year-olds achieving 5 or more GCSEs at grades A* to C</td>
<td>Net expenditure per secondary pupil younger than 16 years</td>
</tr>
<tr>
<td></td>
<td>or the vocational equivalent</td>
<td>Net expenditure per pupil secondary pupil aged 16 years and older</td>
</tr>
<tr>
<td></td>
<td>Percentage of 15- to 16-year-olds achieving one or more GCSEs at grade G or above</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or the vocational equivalent</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Percentage of 11-year-olds achieving Level 4 in Key Stage 2 Maths</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Percentage of 11-year-olds achieving Level 4 in Key Stage 2 English</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Percentage of 11-year-olds achieving Level 4 in Key Stage 2 Science</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Percentage of 14-year-olds achieving Level 5 in Key Stage 3 Maths</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Percentage of 14-year-olds achieving Level 5 in Key Stage 3 English</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Percentage of 14-year-olds achieving Level 5 in Key Stage 3 Science</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Percentage of 15- to 16-year-olds achieving at least grade C in GCSE English or</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Welsh, Mathematics, and Science in combination</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Percentage of 15- to 16-year-olds leaving full-time education without a recognized</td>
<td></td>
</tr>
<tr>
<td></td>
<td>qualification (inverted)</td>
<td></td>
</tr>
</tbody>
</table>

*(continued)*
Table 1A. (continued)

<table>
<thead>
<tr>
<th>Service area</th>
<th>Effectiveness NAWPI</th>
<th>Expenditure NAWPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social services</td>
<td>Percentage of young people leaving care aged 16 years or older with at least 1 GCSE at grades A* to G or GNVQ</td>
<td>Cost of children’s services per child looked after</td>
</tr>
<tr>
<td></td>
<td>Proportion of rent collected&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Average weekly management costs</td>
</tr>
<tr>
<td></td>
<td>Rent arrears of current tenants (inverted)</td>
<td>Average weekly repair costs</td>
</tr>
<tr>
<td>Housing</td>
<td>Rent written off as not collectable (inverted)</td>
<td>Cost of highway maintenance per 100 km traveled by a vehicle on principal roads</td>
</tr>
<tr>
<td></td>
<td>Pedestrians killed or seriously injured in road accidents per 100,000 population (inverted)</td>
<td>Cost per passenger journey of subsidized bus services</td>
</tr>
<tr>
<td></td>
<td>Cyclists killed or seriously injured in road accidents per 100,000 population (inverted)</td>
<td>Average cost of maintaining street lights</td>
</tr>
<tr>
<td></td>
<td>Motorcyclists killed or seriously injured in road accidents per 100,000 population (inverted)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Car users killed or seriously injured in road accidents per 100,000 population (inverted)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other vehicle users killed or seriously injured in road accidents per 100,000 population (inverted)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pedestrians slightly injured in road accidents per 100,000 population (inverted)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cyclists slightly injured in road accidents per 100,000 population (inverted)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Motorcyclists slightly injured in road accidents per 100,000 population (inverted)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Car users slightly injured in road accidents per 100,000 population (inverted)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other vehicle users slightly injured in road accidents per 100,000 population (inverted)</td>
<td></td>
</tr>
<tr>
<td>Highways</td>
<td>Domestic burglaries per 1,000 households (inverted)</td>
<td>Total net spending per capita&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Vehicle crimes per 1,000 of the population (inverted)</td>
<td></td>
</tr>
<tr>
<td>Public protection</td>
<td>Percentage of renewal claims processed on time</td>
<td></td>
</tr>
<tr>
<td>Benefits and revenues</td>
<td>Percentage of cases processed correctly</td>
<td>Cost per benefit claim</td>
</tr>
</tbody>
</table>

Note: NAWPI = National Assembly for Wales Performance Indicators.

<sup>a</sup>This performance indicator was not collected in 2002-2003. Thus, the organizational effectiveness measure for that year is made up of only two housing PIs.

<sup>b</sup>Spending per capita for the local government as a whole is used as expenditure data for this service area are not available.
Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The research reported in this article was funded by the Economic and Social Research Council under grant R000239249.

Notes

1. The survey instrument was piloted with four senior managers drawn from four major services in one local authority. In line with the respondents’ recommendations, we improved the instrument by adding a glossary of terms and further questions about the nature of services as well as stressed the need for respondents to provide an “honest appraisal.” Following the pilot process, e-mail addresses were collected from participating authorities and questionnaires were delivered as an Excel file attached to an e-mail. The electronic questionnaires were self-coding.

2. Time-trend extrapolation tests for nonrespondent bias (Armstrong & Overton, 1977) revealed no significant differences in the views of early and late respondents.

3. Kurtosis tests revealed that the distribution of the performance score for 2001-2002 was leptokurtic with fat tails (test result of 6.715). To correct for excess kurtosis, ranked versions of both the autoregressive term and the dependent variable were used in the statistical analysis.

4. The reliability of these factors was assessed using Cronbach’s alpha coefficient of internal consistency based on the average interitem correlation between the variables, which make up a factor. The rational implementation factor has a good Cronbach’s alpha score of .76, whereas the logical incremental implementation factor has an acceptable score of .60 (George & Mallery, 2003).

5. Coverage of service expenditure data is less comprehensive in the NAWPIs following this year. Furthermore, research has shown that relative levels of spending in local authority departments vary little year on year (Danziger, 1978; Sharpe & Newton, 1984).

6. In all of the models, robust regression corrected for the effects of nonconstant error variance (White, 1980).

7. It should be noted that the coefficients for the base strategy variables show their effects when the value of the relevant implementation style is artificially set to zero. For example, the impact of prospecting is negative when an organization’s implementation style contains no logical incrementalism.
References


**Bios**

**Rhys Andrews** is a Reader in Public Management at Cardiff Business School. His research interests are in strategic management in the public sector and organizational and community social capital and organizational environments. His publications include articles in *Public Administration, Journal Public Administration Research and Theory and Urban Studies*.

**George A. Boyne** is professor of public sector management and Dean at Cardiff Business School. He was President of the Public Management Research Association from 2009-11, and is chair of the Public and Non-Profit Division of the Academy of Management. His current research is on the explanation and evaluation of organizational performance in the public sector. He has published more than 100 articles in academic journals that include the *Journal of Public Administration Research and Theory, Public Administration, Public Administration Review, Public Choice*, and *Urban Affairs Review*.

**Jennifer Law** is a principal lecturer in public management at the University of Glamorgan. Her research focuses on the performance and accountability of public organizations, especially local authorities in the United Kingdom. Her publications include articles in *Public Administration, Public Policy and Administration*, and *Local Government Studies*.

**Richard M. Walker** is professor of public management and policy in the Department of Public and Social Administration at the City University of Hong Kong. He has held professorships at Cardiff University and the University of Hong Kong and is currently Senior Research Associate, Centre for Performance Management, Xi’an Jiaotong university. His research interests include strategic management, innovation red tape and sustainable development. He has published on these issues in journals including *Journal of Public Administration Research and Theory, Public Administration Review, Public Administration*, and *Urban Studies*.