# Inter-agency supply chains

## 9

# Alignment of inter-agency supply chains to enhance public sector performance management

Guy Callender Curtin University of Technology, Perth, Australia

#### Abstract

Purpose - This paper seeks to explore sources of political and administrative challenges which arise from an absence of alignment of supply chains linking the activities of public agencies.

Design/methodology/approach - The performance measurement challenges created by an apparent absence of alignment within public sector supply chains are explored from a conceptual perspective, through the supply chain and public sector performance management literature. A case study is provided to highlight the practical and organizational challenges facing politicians, policy makers and public sector managers when they seek to demonstrate to their stakeholders, including the general community, the performance efficiency of their agencies.

Findings – There is an absence of research and debate concerning the alignment of inter-agency supply chains and the potential this creates for delivery performance failure that disadvantages stakeholders.

**Research limitations/implications** – While this is a conceptual paper, the existence of recurring supply chain problems between agencies, as illustrated by the case study, provides practical conclusions of use to practitioners and policy makers.

Originality/value – The paper revisits earlier literature on performance measurement in the public sector and applies this to a supply chain situation to explore problems in measuring and managing inter-organizational supply chains which exist not only between public agencies but also between private sector organisations undertaking outsourced contracts on behalf of government.

Keywords Public sector organizations, Supply chain management

Paper type Conceptual paper

#### Introduction

When a national government funds school education, what determines the standards of delivery of teaching and learning to school students; parents, teachers, students, future employees or the wider society? The authorities may set the policy under which the funds are allocated, but what inter-organisational supply chains exist to ensure the processes are aligned in a way that assures delivery of the desired outcomes? Do teachers have the capability to deliver on the policy? Do parents support the existing of teaching and learning in schools? Does the Family Services (Communities) department of government monitor the attendance of students at school? Does the building department of City Hall (local government) ensure that school buildings are adequate in size, equipment and energy needs? Will the key performance indicators (KPIs) established, that is, the measures that demonstrates the precise achievement of the International Journal of Productivity desired outcomes of both buyer and supplier, be focused on the number of students taught, the number of students attending (inputs), or will the measures seek to establish the student attainment achieved, or the business outcomes within the economy at some future date? Will the different parties to the task of education set



and Performance Management Vol. 60 No. 1, 2011 pp. 9-23 © Emerald Group Publishing Limited DOI 10.1108/17410401111094286



KPIs that confirm the overall performance of the group of agencies comprising the "education sector" or will the outcomes be measured on a school-by-school basis? These questions are extraordinarily difficult to answer at the individual agency level and even more difficult at the inter-agency level.

Boorsma(1996) addressed questions on performance management by examining the Criminal Justice System (CJS) in The Netherlands, which has a significant separation of public sector agencies involved in the array of processes delivering of criminal justice services. This sector also demonstrates the need for inter-agency alignment of supply chains (and is the subject of the later case study). The CJS supply chain may start with a citizen complaint or the apprehension by police of a person suspected of a crime. The police may press charges and the accused brought to a court for formal entering of the charges. The accused will turn either to a publicly or privately employed attorney to defend their case and the procedural process of the court may take some time. If the court process condemns the accused they will be moved to a different part of the CJS system on remand for their entire sentence. In these circumstances, what is the standard of performance expected of the jail and its staff to ensure the criminal remains incarcerated, not to mention returning the criminal to society in a rehabilitated state?

A further example of complex inter-agency and inter-sector supply chains has arisen since "9/11/2001" in relation to airport security. This supply chain involves a range of public and private interests: airlines and their staff; airline investment in overall in aircraft and infrastructure; the state and its need to protect the airliners and passengers from terrorist attacks; and the traveller who is planning to fly to meet business commitments, to vacation or visit relatives. A breakdown in any part of the security supply chain will have different manifestations in each part of the chain. To complicate matters, the whole process is overlaid with travel marketing and promotion which must somehow be preserved if mass travel is to continue. It is difficult to surmise where this supply chain really begins, but it is true to say it has multiple upstream sources, many crossing public sector and private sector responsibilities.

Having highlighted some of the challenges of identifying the nature of supply relationships, this paper will focus predominately on the performance implications of achieving alignment within public sector supply chains. It commences with a discussion of aspects of supply chain theory and then examines the alignment issues that arise within public sector organisations and the cross jurisdictional dilemmas that are related to this lack of alignment. The starting point of this enquiry is the central question: what level of integrated performance is required from the agencies and other organisations comprising a public sector inter-agency supply chain if they are to satisfy the needs of stakeholders?

## Research design

These supply chain issues will be explored, first, through a literature review of the limited research into supply chains within the public sector. Second, a case study has been selected to illustrate the salient points of the supply chain issues developed in the paper. The choice of a single case was purposeful (Yin, 2003) but the subject of the case was serendipitous. The details of the case would have probably remained remote from public scrutiny had there not been a significant failure in the supply chain connecting the players in the case, leading to fatal outcomes.

The facts of the case created some temptation to explore the notion of accountability, the sense of "setting goals, providing and reporting on results and the visible consequences for getting things right or wrong" (Funnell and Cooper, 1998, quoted by Hodge and Coghill, 2007, p. 676). However it was decided to focus principally on the supply chain alignment issues arising from the case. However, one aspect of the accountability literature provided the inspiration for linking agency mission statements to the inquiry into public sector supply chains: the changing focus of public sector accountability. As Parker and Gould (1999) and Kloot (2009) have recorded, the focus of public sector accountability has shifted significantly in recent decades. Whereas public sector accountability was formerly internally focused on "parliament and government oversight bodies" (Kloot, 2009, p. 129), it now relates also to accountability to a much wider group of stakeholders, namely the entire polity within a particular public jurisdiction.

This shift in focus makes agency and corporate mission statements relevant evidence when establishing the level and nature of accountability to stakeholders offered by each organisation in the supply chain (see Table I) and provides the third focal point of the study. The willingness of organisations to express their goals publicly has been made more accessible to stakeholders by the ubiquitousness of the world-wide-web which has ensured that mission statements have become part of the communication channel informing all stakeholders, the general public as well as parliament, of the goals and objectives of each organisation.

	Organization	Mission/objectives
1.	WA Police Service	"To enhance the quality of life and well-being of all people in Western Australia by contributing to making our State a safe and secure place." (Government of Western Australia, 2010a, p. 1)
2.	Magistrates Court of Western Australia	"The Magistrates Court of Western Australia has multiple registries to deal with: Criminal-offence-based matters" (Government of Western Australia, 2009b, p. 1)
3.	The Department of the Attorney General's (DotAG)	"To provide high quality and accessible justice, legal, registry, guardianship and trustee services to meet the needs of the community" (Government of Western Australia, 2009a, p. 1)
4.	The Department for Communities	"Informs the development of social policy, advocating on behalf of children, parents and their families, young people, seniors, women, carers, volunteers and non-government organisations" (Government of Western Australia, 2009c, p. 1)
5.	G4S	"Our vision is to be a growing and caring organization that achieves the finest results. To achieve the vision we aim to be the most reliable and innovative provider of critical services in all the markets served by the company" (G4S, 2008, p. 1)
6.	The Department of Corrective Services	Fulfils its obligations by providing offender management services that protect the community" (Government of Western Australia, 2010b, p. 1)
_		

Table I. Summary of mission statements of case study organizations



Source: Original table

#### Literature review

The notion of the supply chain is widely discussed in a private sector context and between the public and private sectors where the public sector is a client of the private sector (Cousins et al., 2008; Cai et al., 2009). However, there is very little recent discussion of the supply chains within the public sector, the maintenance of their quality, and whether the performance indicators are "linked" or "unlinked", or aligned within public sector supply chains (Boorsma, 1996, p. 129). Furthermore, significantly different perspectives are found when comparing the perspectives of the limited number of researchers who have investigated this topic, particularly whether public practitioners should even be concerned about the issue. On the one hand, Balogun (2002, p. 363) notes that the "monopolistic role of government confers on its agents the power to choose (sic) the quantity, quality, and timing of services to be delivered to consumers". Yet, on the other hand, it is suggested that the implementation of the New Public Management (NPM) and its associated reforms, led to the creation of instruments to measure and report on public sector performance (Jansen, 2008; Schapper et al., 2009). Furthermore, Jansen (2008, p. 188) reports that while the NPM seeks to focus on "both internal processes and outputs" evidence from his research suggested that "politicians.... are only interested in receiving performance information if this information has financial or political implications". Baguero (2005) claims that traditional government service contracts worldwide have tended to emphasize inputs rather than outcomes; how much does the service cost, rather than the more difficult assessment: what does it deliver?

The term "supply chain" can be formally traced to around 1910 (*OED*, 1989) although its usage in contemporary practice is usually attributed to Oliver and Webber (1982). Its popularity as a term has grown significantly, a factor reflected in scholarly literature, in networks of practitioners and in consultancy practice. Nevertheless, history shows that the value and relationships inherent in a supply chain have been recognised for many centuries (Livy, 15BC; Smith, 1776; Maine, 1861; Roberts, 1983; Shen, 1996). Maine (1861), for example, discusses the origins of contracts during the Roman Empire, showing how the notion of contractual obligation (nexus) was created between buyer and seller. This permitted delay in delivery of the contracted goods as services and allowed the buyer time to pay as well while still ensuring the contract was enforceable.

The growth in popularity of the supply chain concept is worthy of reflection. In public policy parlance, the "supply chain" can be likened to the "rational problem solving" methodology found in classical management literature and modified by Simon (1957) to embrace the notion of "satisficing" – limiting the boundaries of a problem to enable the issues to be examined, evaluated and ranked. While this approach may have helped managers understand relatively static problems, it did not help those facing complex problems that were multi-faceted, inter-organizational, inter-sectoral and containing social, ethical, financial, legislative, contractual and historical elements. Better understanding of the complexity of problem solving can be found in the notion of the "wicked problems" (Rittel and Webber, 1973) – the problem that has no starting and ending point, no rules of behaviour or comprehension and, most likely, no solution (to roughly paraphrase the authors' notion).

Envisaging supply chains from the "rational" perspective turns a complex network of both orderly, but also chaotic activities, into a seemingly linear series of activities



supply chains

and outcomes. This linearity may suit these who try to measure supply chain performance so long as they ignore both unknown or hidden links in the chain but it is based on simplistic assumptions about the ability to control performance across the many parties to a seemingly simple supply chain. Indeed, the belief that a supply chain can be controlled can also be questioned. Is control of the supply chain an essential requirement for minimizing risk? The basic belief that control is needed, and is possible, may be embedded in Anglo-Saxon cultures. This sense of being able to control the environment around us (Schneider and Barsoux, 2003) may encourage the pursuit of goals and outcomes, but may also encourage us to ignore the impenetrable nature of supply chains. It is often difficult to understand what is happening in one part of an organization, let alone a whole organization or group of related organizations.

The theoretical conversion from chaotic to linear implies that the supply chain can be defined in terms of each link, that it is rationally constructed, it behaves in a predictable fashion over time and, most importantly, that it can be measured, may be a myth. At the time of Adam Smith (1776, pp. 406-407) the agricultural market could be defined in terms of a supply chain, in the following words:

The greater part of farmers could still less afford to retail their own corn, to supply the inhabitants of a town, at perhaps four or five hundred miles distance ... as [could] a vigilant and active corn merchant, whose sole business is to purchase the corn wholesale ... and to retail it again.

However, the apparent stability of the supply chain Smith described did not allow for the risk of fire, pestilence, flood or war, or even for economic downtown. Smith's supply chain was comparatively short and simple. Furthermore, in Smith's time, it is possible that everyone in the merchant's supply chain knew, or knew of, each other person although to protect the merchant's contracts, the farmer's knowledge of the supply chain most likely ended at the boundary of his land (assuming this was freehold land) or tenancy. What of today's supply chains? How much knowledge about a supply chain and its performance really exists?

Some practitioners believe it is possible to know the details of each step in a supply chain, thus permitting the supply chain manager to look at each stage both upstream and downstream from their organisation (Kaye, 2008; RMIA, 2009). While this is an attractive thought, the Global Financial Crisis (GFC) has reminded us that control of a supply chain is difficult to achieve. Financial risk is a constant feature of business risk (Sarasvathy *et al.*, 1998). Despite the extended boom of the past 15 years, many commentators have been surprised by the failure of key elements of the financial supply — especially parts of the mortgage market. A common aspect of the commentary has been the speed of economic change. Part of the GFC could be said to have arisen from failure in financial supply chains.

In the twenty-first century and, in commercial circles, it is fair to claim that the potential exists for an end user to be able to track a product to its source. However, the complexity of contemporary supply chains makes reliable tracking difficult to achieve regardless of the reach of information technology. Gattorna (2006, p. 2) suggests that supply chains are now defined as "any combination of processes, functions, activities, relationships and pathways along which products, services, information and financial transactions move in and between enterprises". This approach marks a distinct change from the simplistic assessment of the nature of supply chains found in populist



literature (BITC, 2009). Because of its complexity, and despite the sense that an organisation and its supply chain members form a "virtual organization" (Fenneteau and Naro, 2005), it is often convenient to divide a supply chain into a number of networks.

Indeed, the supply chain relationships of the public sector provide an example of complex networks where each agency or organization has its own systems, enabling legislation, parliamentary portfolio, and budget and management (Hodge and Coghill, 2007). In addition, each agency has a vast group of stakeholders: those who use the services of the agency and those whose professional work interacts with the agency. This extensive subdivision of the supply chain concept is conceptually linked to the traditional notions of internal specialisation and division of labour (Fayol, 1949) and the efficiencies that are potentially available from improving work methods, communication and coordination (Simon, 1957; Peters and Waterman, 1982; Osborne and Gaebler, 1992).

Yet the inter-organizational issues add an additional layer of complexity to public sector supply chains, not anticipated by Gattorna (2006). This exacerbates the difficulties of creating meaningful performance measures. Complexity can also reduce transparency within public sector supply chains by making it difficult for stakeholders to gain service satisfaction when service delivery involves more than one agency (as illustrated by the case study). Public sector managers may adopt performance measures that match rational models of their supply chains which result in simple measures which ignore potential legal, financial, social and political risks. This level of complexity may also help to explain the selective interest of politicians discussed by Jansen (2008), and the absence of monitoring for political advisers (Tiernan, 2007; Kim, 2009). The risks are not readily envisaged, so political or financial risk, the elements reported by Jansen (2008) as most likely to attract politician's attention, are seemingly passed over. Yet public sector supply chains not only contain both direct and indirect links between buyers, sellers, a range of intermediaries including logistics providers and members of the financial services sector, they also carry both political responsibility and the burden of public scrutiny.

All of the participants directly involved in the operational transactions that surround the supply chain and are distinguished from more distant stakeholders such as regulatory bodies, equity holders and, even more remotely, the polity. Most stakeholders will have an interest in the performance of the supply chains affecting their organisation, assuming they are actually aware of the impact of the supply chains. This is because the number of supply chain members and their relative performance affects each group of stakeholders in different ways. As organizations have sought to outsource many non-core activities, their supply chains have created simultaneous, elaborate interdependencies between the buyer and provider of the outsourcing products or services. Where a "make or buy" decision may once have been based on internal capacity and cost, in many organizations now the decision has become both ideological and (hopefully) strategic: let the outsourcing "partners" do what they do "best" (logistics, manufacture, IT service provision) and the buying organization can focus on its "knitting" (Peters and Waterman, 1982). And there is a further issue: the potential number of parties involved in the public agency supply chain.

supply chains

Chan et al. (2006) created a conceptual model of performance measurement which attempts to draw together a range of tangible and intangible supply chain performance indicators to create a single performance index. While the concept is appealing, the types of measurements proposed by the authors remains unclear as many of the elements selected for inclusion in the index are limited to readily available measurements, principally because the supply chain exemplar is drawn from manufacturing. Chan et al. (2006) identify these aspects as customer satisfaction, flexibility, information and material flow, risk management and supplier performance, attributes that address only part of the supply chain performance picture. What happens when the outcomes of service performance is the focus as is the case for much of the public sector?

The service supply chain existing in public sectors tends to fit the organization model described by March and Simon (1993, p. 2), who made the following observations of people in their organisations:

As ... actors deal with each other, seeking cooperative and competitive advantage, they cope with these limitations (the uncertainties and ambiguities of life, ... the limited cognitive and affective capabilities of human actors, ... the complexities of balancing trade-offs across time and space) by calculation, planning and analysis ... they weave supportive cultures, agreements, structures, and beliefs around their activities.

March and Simon (1993, p. 2) summarised this complexity as a "melange" – a mix of elements. Their argument supports the view that many elements of supply chain relationships are described in "soft terms" – culture, agreements and beliefs, rather than the hard measurable data that confirm the level of activity in the supply chain but not the quality of that activity.

Cullen (2000, p. 371) questioned the ongoing relevance of the traditional legal-contractual relationship that is the basis of all buyer-supplier relations, arguing instead for a legal form which recognises "extended and virtual enterprises that transcend traditional legal and contractual boundaries". This model appears to recognize the reality of supply chain relations and expresses the hope that, in some way, the inter-organizational challenges can be solved by regulation. As the later case suggests, this objective is far from achievement.

The struggle to explain performance measurement is neatly encapsulated by the language of practitioner guides such as that published by Berger and Gattorna (2001, p. 177): "The right performance measures and incentives are used to provide an effective management framework, facilitate communications, guide behaviours, foster improvement and assess competitive positioning and operational capability. Effective performance measurement programmes ... include baseline assessments and mechanisms to demonstrate the financial impact of performance changes". Such ideas look profound, but they are short on practical detail. Before examining the case study which reflects so many of these challenges, it is also worth considering whether politicians and political advisors allow public policy developments to create unnecessary challenges.

While we are accustomed to the public sector building and preserving inanimate objects for centuries, the notion of a 50-year contract is quite challenging (Leighton Holdings Limited, 2010). In the case of a road contract, it begs many questions including: will motor cars and airports remain the norm in 50 years? What will the notion of "public good" mean at this time? At a more pragmatic level, what will be the



state of the infrastructure at the end of 50 years? Drawing these questions back to the notion of the public agency supply chain, we introduce some further elements to the "melange" – the issues of time, alignment, efficiency and, as Baquero (2005) notes, outcomes.

Contracts of extreme length (in time), existing beyond the working lifespan of most individuals and possible the life of the corporate supplier, represent a new level of complexity into inter-agency and public-private sector contracts and their associated supply chains. In terms of performance management, the possibility of aligning inter-agency supply chains has not progressed much beyond the observation made by Halachmi (2005, p. 509), that "performance management is thus a simple return to the basic notion of management with some significant elaborations and amplifications of the need to address the human side of the enterprise...". Increasingly complex supply chains (Gattorna, 2006), potentially more regulation (Cullen, 2000) and outsourcing of many previously managed functions suggests that the task of aligning inter-agency supply chain remains elusive. As the case study which follows will demonstrate, that challenge remains the "human side" of public enterprises, their inter-agency and private sector supply chains

# Case study

In Australia, the recent death of an indigenous elder in a prison transport vehicle (Taylor, 2008) brings into public scrutiny the complexity of public sector supply chains, especially where part of the supply chain has been contracted out. In this case, the deceased was arrested for allegedly driving under the influence of alcohol and transported by a private security business some 352 kilometres (218.7 miles) in 43 Celsius (109.4 Fahrenheit) heat without assessment of his capacity to survive the journey (Johnson, 2008). The deceased was travelling in a secure vehicle in which the air-conditioning had failed, a fact known to the private security firm and the WA Department of Corrective Services, the owner of the vehicle (Hope, 2009).

If all the multiple human aspects of this tragedy can be put to one side, the inter-agency and cross-sectoral supply chain issues are worth examining. The deceased was apparently arrested for an alcohol-related driving offence that the law punishes with a number of sanctions ranging from a caution or reprimand to a prison sentence. The punishment is intended to deter the individual from re-committing the offence and to protect the public from the consequences of drink-driving. In these circumstances, the criminal justice system (CJS) creates a supply chain composed of individuals as service providers and every person in this supply chain has a duty of care ranging from safety of the public to safety of the individual. The punishment may ultimately have been incarceration, yet supply chain failure in this situation created major difficulties for the government, for the civil service, for police and, of course, for the deceased, his family members and his community (where he was greatly missed) (Hope, 2009).

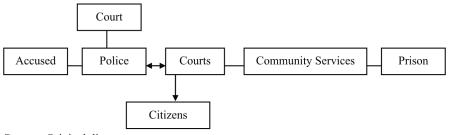
In this case, the supply chain is defined within the legislative context of the parties. While Australia is a federation, all the legal issues in the case relate to laws at the State level. The legal jurisdiction is limited to a state court system, the state police service and the state prison system and any parties to related outsourcing contracts. Diagrammatically, this can be simply represented as:

supply chains

However, the supply chain between these parties is quite different. The source of the supply chain is, arguably, the citizen and their relationship with the law. A set of laws exist to protect citizens from each other (Smith, 1776) and have been created by a legally constituted Parliament. The CJS embraces a number of institutions (Figure 1) but the supply chain between these institutions is triggered by a citizen offence (or the police intervention in that event). The police duly arrest the alleged wrongdoer who must be brought to the court almost immediately in accord with the principles of habeas corpus. Typically the suspect would be placed in a police vehicle and taken to a remand centre attached to the police offices or the court. If alcohol is suspected a doctor must collect blood samples which will be analysed by an official pathologist. The results are brought to the court with the suspect and the matter is heard immediately or held over. At the initial hearing, the suspect will be represented by a lawyer who is typically employed by a legal firm or not-for-profit legal service. Then the suspect appears in court and, if the offence is proved, is sentenced to a fine of term of imprisonment. The court will call for details of the suspect's family and whether provision needs to be made for their welfare. Then the suspect, now convicted is taken to jail for the term of the sentence. The supply chain in Figure 2 now looks very different to the static Figure 1.

The public sector manager's dilemma is obvious. This socio-politico-economic supply chain relies on inter-related activities that involve the government in a range of policy and practice issues, subject to the scrutiny of multiple stakeholders. The diagram in Figure 2 provides a generalized path for the events outlined in the case. There are areas of uncertainty and overlap. Events are assumed to be sequential. Figure 2 is linked to the mission statements in Table I which sets out the principal mission summaries which have been drawn from the web site of each agency or organization, rather than its enabling legislation, or company documents. It was considered that this data reflect the practical, contemporary, management objectives of each agency or company in the supply chain that forms the subject of the case.

The mission statements largely demonstrate a focus on demonstrating suitable performance levels by each organization in relation to their constituent stakeholders – not all the stakeholders along the publics sector supply chain created by the facts of the case. A first examination of the mission statements gives little hint to their potential for creating inter-agency supply chain failure. The statements represent a response to the accountability of demands of parliament and government to ensure they perform according to the internal stakeholders and, externally, to the general public (Parker and Gould, 1999; Kloot, 2009). There is no apparent link between these agencies and the



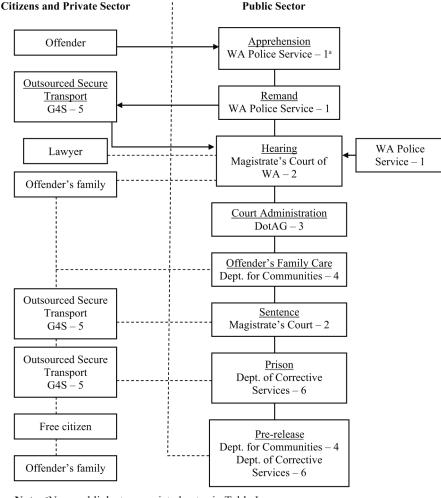
Source: Original diagram

Figure 1.
The Australian criminal justice system (state level only)



IJPPM 60,1

18



**Figure 2.** The criminal justice supply chain

Note: aNumeral links to associated entry in Table I

Source: Original diagram

collective demands for co-ordinated performance of the type seen within a supply chain. They are independent entities, usually with different responsible ministers in the Parliament, even though their roles overlap and they are frequently inter-dependent, as the case demonstrates.

The first observation about the mission statements relates to the use of words such as "quality", "well-being", "accessible", "caring" which appear in Table I. Second, not one mission statement refers to any other player in any supply chain except citizens or the community, even though the functions of these organizations interact on a day-to-day basis. Third, the private provider links its actions to "all the markets served by the company" even though these markets may create very different supply chains.

Fourth, the simplicity of the mission statements is contradicted by the complexity of the supply chain within which each organization operates. It can be concluded that as a statement of strategic intent and inter-organizational supply chain alignment, the mission statements are probably not worth the time and cost required to develop and maintain them in each organization's governance documents and web sites. Any attempts to harmonize objectives are seemingly limited as will be discussed in the next section of the paper.

# Analysis

The case study provides a troubling, but not uncommon, example of inter-organization supply chain failure. It is complicated by the possibility of complacency in the attitude of the transport contractor (contrary to the mission statement) and police and indifference to the needs of the aboriginal person. There are a number of supply chain issues revealed by the case (putting all the human issues to one side).

For the government, the case demonstrated an extraordinary breakdown in the inter-agency supply chain (Boorsma, 1996). The supply chain complexity that exists in this case and highlighted in the literature, is abundantly evident. First, there existed a mix of public and private sector providers who passed responsibility between each other. These public CJS agencies passed the deceased from one to the other via a private sector intermediary with no single person or agency assessing the well-being of the deceased person.

It is not possible to glean from the evidence in this case, the variety of attitudes that existed towards the accused. It is tempting to assume that every party to the incident used their best efforts to do their job – just as the mission statements claim. If we make this assumption we can discuss the overarching issue that is relevant to future supply chain events, without being affected by the presence of conflicting evidence. That question is: what standard of performance is required in a public sector supply chain that satisfies the internal demands of government and the external needs of the community (Parker and Gould, 1999; Kloot, 2009)?

Did all the parties in this inter-organizational supply chain is whether the public sector parties, chose the outcomes they thought were appropriate in the circumstances (Balogun, 2002) regardless of the supply chain performance problems their actions created? Did individual players representing the supply chain participants assess the risk to the accused posed by heat, distance, the availability of water and the presence or absence of air-conditioning? Were their actions governed by the terms and conditions of the original contract that saw the security firm deliver transport services to the state using the state's vehicle (Baquero, 2005; Taylor, 2008; Hope, 2009). Was the completion of the service, in this case, just another contribution to the standard supply chain measures (KPI) entitled:

- · Number of prisoners transported per year.
- Measure of distance covered per year?

How could this complex public-private supply chain be improved? The first difficulty rests with the shift of service responsibilities between public and private sectors. While the government has reviewed its contract with the private provider, it has decided to continue the contract to its conclusion to avoid legal proceedings and claims for breach of contract (Fyfe, 2009).



However, the inter-agency supply chain issues will not be resolved by a simple adjustment of the mission statements or the formal supply chain arrangements between the organizations in this case, they require a completely new, collaborative set of mission statements and inter-agency arrangements.

An examination of just the mission statements or objectives (Table I) of the public sector agencies involved reveals a remarkable "melange" (March and Simon, 1993). How can inter-agency performance demonstrate the ability to manage the supply chain to "protect the community" (Government of Western Australia, 2010b, p. 1), create the "finest results" (G4S, 2008, p. 1), "high quality and accessible justice" (Government of Western Australia, 2009a, p. 1) or generate actions which "enhance the quality of life and well-being" (Government of Western Australia, 2010a, p. 1)? To incorporate supply chain performance goals as an overlay to existing mission statements represents a major challenge to government if the supply chain performance problems illustrated in the case are to be addressed.

Traditionally, each organization has responsibility for different parts of the supply chain and has a different parliamentary representative. In one case, the Department for Communities, two Ministers have responsibility for the entire portfolio. In this case, the legislative, administrative, and social responsibilities of the agencies are much more likely to shift responsibilities from one to the other because there is no one agency responsible for the quality of outcomes (Baquero, 2005). Furthermore, the contractual standards required of the private supply were clearly not sufficiently robust for the contract to be cancelled, and, to be fair, was such an incident likely to have been considered possible? The answer would be in the negative.

Nevertheless, if the public sector performance represented by the case is to be overcome, perhaps the mission statements need to be developed across government in a way that recognises the need for inter-agency collaboration, as well as meeting the internal accountability requirements of government and the external needs of the community. Perhaps one way of approaching the issue is to categorise the supply chain challenges from three perspectives: ideology, operations and community need.

The ideological need refers to the possibility that public agency supply chains have operated for many years in a new, but unacknowledged, ideological environment. In this new environment (Kloot, 2009), the internal accountability requirements that governments have of their public agencies has been given an additional, critical dimension: accountability to communities which have service expectations of each agency and their related supply chain. Simply recognising that change and reflecting it in a more complex evaluation of strategic and objectives for achieving desired agency outcomes (Hodge and Coghill, 2007), creates the potential for more realistic goals attuned to the needs of all agency stakeholders.

The operational needs relate to a new recognition that public agency performance is linked to inter-agency performance and that alignment of supply chain relationships and agency (and supplier) goals can result in a more optimised set of supply chain networks. Finally the community perspective suggests that given the change in ideology that drives aspects of public agency accountability, and its outsourcing partners, means that this wider group of stakeholders expect the public sector to manage its supply chains as well as the overall and continuing responsibilities of each agency. The solutions to these challenges will undoubtedly create a number of "wicked problems" (Rittel and Webber, 1973), but failure to address the complex issues arising

from routine, inter-agency events that go wrong as the case study illustrates, will expose the public sector to greater criticism from its stakeholders.

#### Conclusion

As the concept of the supply chains becomes an increasingly popular way of observing and theorizing about inter-organizational behaviour, it provides a constant reminder of the ease with which a single supply chain event can develop into a significant inter-organizational failure that is seemingly beyond the control of the participants to prevent. While we can observe the interactions of the parties and suggest alternative measures and approaches to managing particular supply chain situations, the case challenges the view that the public sector can choose its desired outcomes (Balogun, 2002), and rather it, and its supply chains are part of a complex web of players whose roles are subject to the social and political demands of both the community and government.

It seems that addressing inter-agency supply chains begins with the recognition of the ideological, operational and community challenges that have arisen over the past few decades. Addressing these challenges is a complex and controversial task, but may yield significant advantages for public managers and politicians, if the alignment of objectives and goals are re-developed to take account of these challenges to arrive at a more sophisticated understanding of the impact of complex supply chains on public sector performance.

#### References

- Balogun, M.J. (2002), "Performance improvement and customer satisfaction as a focus of public sector reforms: trends and challenges in Africa", *Public Administration Quarterly*, Vol. 25 Nos 3/4, pp. 356-83.
- Baquero, P. (2005), "Performance-based procurement. The key to effective basic services provision in developing countries", in Thai, K., Arauji, A., Carter, R., Callender, G., Drabkin, D., Grimm, R., Jensen, K.E., Lloyd, R., McCue, C. and Telgen, J. (Eds), *Challenges in Public Procurement*, Academics Press, Boca Raton, FL, pp. 365-80.
- Berger, J. and Gattorna, J. (2001), Supply Chain CyberMastery, Gower, Aldershot.
- Boorsma, P. (1996), "(Un)connected performance indicators in the criminal justice system", in Halachmi, A. and Grant, D. (Eds), *Reengineering and Performance Measurement in Criminal Justice and Social Programmes*, International Institute of Administrative Sciences and Ministry of Justice, Perth, pp. 127-43.
- Business in the Community (BITC) (2009), *How to Manage Your Supply Chains Responsibly*, Business in the Community, London.
- Cai, J., Liu, X., Xiao, Z. and Liu, J. (2009), "Improving supply chain performance management: a systematic approach to analysing iterative KPI accomplishment", *Decision Support Systems*, Vol. 46 No. 2, pp. 512-21.
- Chan, F., Chan, H.K. and Qi, H.J. (2006), "A review of performance measurement systems for supply chain management", *International Journal of Business Performance Management*, Vol. 8 Nos 2 & 3, p. 110.
- Cousins, P., Lamming, R., Lawson, B. and Squire, B. (2008), *Strategic Supply Management*, FT Prentice-Hall, Harlow.
- Cullen, P. (2000), "Contracting, co-operative relations and extended enterprises", Technovation, Vol. 20 No. 7, pp. 363-72.
- Fayol, H. (1949), General and Industrial Management, Pitman, London (Storr's translation).



- Fenneteau, H. and Naro, G. (2005), "Contrôle et confiance dans l'entreprise virtuelle: illustrations logistiques", *Revue Français de Gestion*, Vol. 31 No. 156, pp. 203-21.
- Fyfe, M. (2009), "Uproar over new prison contract", *The Age*, 4 October, p. 1, available at: www. theage.com.au/national/uproar-over-new-prison-contract-20091003-ghbp.html
- G4S (2008), About Us, G4S Security, available at: www.au.g4s.com/about\_us/about\_us.asp
- Gattorna, J. (2006), Living Supply Chains, FT Prentice-Hall, Harlow.
- Government of Western Australia (2009a), Corporate Overview, Department of the Attorney-General, available at: www.department.dotag.wa.gov.au/C/corporate.aspx?uid=7279-1390-1218-1496
- Government of Western Australia (2009b), Magistrate's Court of Western Australia, available at: www.magistratescourt.wa.gov.au
- Government of Western Australia (2009c), About Us, The Department for Communities, available at: www.communities.wa.gov.au/AboutUs/Pages/default.aspx
- Government of Western Australia (2010a), *About Us*, WA Police Service, available at: www. police.wa.gov.au/Aboutus/tabid/893/Default.aspx
- Government of Western Australia (2010b), *The Department*, Department of Corrective Services, available at: www.correctiveservices.wa.gov.au/T/thedepartment.aspx
- Halachmi, A. (2005), "Performance measurement is only one way of managing performance", International Journal of Productivity and Performance Management, Vol. 54 No. 7, pp. 502-16.
- Hodge, G. and Coghill, K. (2007), "Accountability and the privatized state", Governance: An International Journal of Policy, Administration, and Institutions, Vol. 20 No. 4, pp. 675-702.
- Hope, A. (2009), Record of Investigation into Death [of Ian Ward], State Coroner, Western Australia, Ref 9/09.
- Jansen, E.P. (2008), "New public management: perspectives on performance and the use of performance information", Financial Accountability and Management, Vol. 24 No. 2, pp. 169-91.
- Johnson, A. (2008), "Police under scrutiny after Aboriginal custody death", The Age, 2 February, p. 1.
- Kaye, S. (2008), *Know Your Supply Chain*, Jaguar Freight Services, available at: www. manufacturing.net/Articles-Know-Your-Supply-Chain-History.aspx
- Kim, P. (2009), "A case for performance management for political appointees", Public Personnel Management, Vol. 38 No. 4, pp. 1-18.
- Kloot, L. (2009), "Performance measurement and accountability in the Australian fire service", International Journal of Public Sector Management, Vol. 22 No. 2, pp. 128-45.
- Leighton Holdings Limited (2010), Eastern Distributor Operations and Maintenance, Leighton Holdings Limited, available at: www.leighton.com.au/about\_us/projects/eastern\_distributor\_motorway\_operations\_\_maintena.html/company/6972
- Livy (15Bc/1966), "History of Rome XXIII.XXI 1-6", in Lewis, N. and Reinhold, M. (Eds), Roman Civilization: Sourcebook 1, The Republic, Harper & Row, New York, NY.
- Maine, H. (1861), Ancient Law: Its Connections with the Early History of Society and its Relation to Modern Ideas, Dorset Press, London.
- March, J. and Simon, H. (1993), Organizations, 2nd ed., Blackwell, Oxford.
- Oliver, R.K. and Webber, M.D. (1982), "Supply-chain management: logistics catches up with strategy", cited by Martin Christopher, *Logistics*, *The Strategic Issues*, Chapman & Hall, London.



supply chains

- Osborne, D. and Gaebler, T. (1992), Reinventing Government: How the Entrepreneurial Spirit Is Transforming the Public Sector, Addison-Wesley Publishing Company, Reading, MA.
- Oxford English Dictionary (OED) (1989), The Oxford English Dictionary, Clarendon Press, London, available at: http://dictionary.oed.com/cgi/entry/00072384 (accessed 24 January 2004).
- Parker, L. and Gould, G. (1999), "Changing public sector accountability: critiquing new directions", *Accounting Forum*, Vol. 23 No. 2, pp. 109-36.
- Peters, T. and Waterman, J. (1982), *In Search of Excellence*, Harper & Row Publishers, New York, NY.
- Rittel, H.W.J. and Webber, M.M. (1973), "Dilemmas in a general theory of planning", *Policy Sciences*, Vol. 4, pp. 155-69.
- RMIA (2009), "Supply chain risk know your partners", *RMIA Annual Conference, Cairns*, 22-25 November, available at: www.rmia.org.au/LinkClick.aspx?fileticket=e5EL%2b% 2bv560g%3d&tabid=103&mid=632
- Roberts, R. (1983), The Pelican History of the World, Penguin Books, Harmondsworth.
- Sarasvathy, D.K., Simon, H.A. and Lave, L. (1998), "Perceiving and managing business risks: differences between entrepreneurs and bankers", *Journal of Economic Behavior and Organization*, Vol. 33 No. 2, pp. 207-25.
- Schapper, P., Veiga Malta, J.N. and Gilbert, D. (2009), "Analytical framework for the management and reform of public procurement", in Thai, K. (Ed.), *International Handbook of Public Procurement*, CRC Press, Boca Raton, FL, pp. 87-104.
- Schneider, S. and Barsoux, J-L. (2003), *Managing across Cultures*, 2nd ed., FT Prentice-Hall, Harlow.
- Shen, F. (1996), Cultural Flow between China and the Outside World throughout History, Foreign Language Press, Beijing.
- Simon, H. (1957), Administrative Behavior, 2nd ed., Macmillan, New York, NY.
- Smith, A. (1776), An Inquiry into the Nature and Cause of the Wealth of Nations, George Routledge & Sons, London.
- Taylor, P. (2008), "Death in custody guard told of 'bloody hot' van", *The Australian*, 31 January, p. 3.
- Tiernan, A. (2007), Power without Responsibility, UNSW Press, Sydney.
- Yin, R. (2003), Case Study Research: Design and Methods, 3rd ed., Sage Publications, Thousand Oaks, CA.

#### About the author

Guy Callender, PhD, is Foundation Chair and Professor of Strategic Procurement at Curtin University of Technology, Perth, Australia. His broad research interests include strategic procurement, public policy and organizational behaviour, with specialist interests in supply risk, procurement spend analysis and supply chain efficiency. Guy Callender can be contacted at: Guy.Callender@cbs.curtin.edu.au

To purchase reprints of this article please e-mail: reprints@emeraldinsight.com Or visit our web site for further details: www.emeraldinsight.com/reprints



Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.		