13. Public Sector Management and Not-for-Profit
Competitive Session

Joint ventures in the public sector: Translating lessons from the private sector to New Zealand government departments

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ABSTRACT

Many of the challenges facing today's public servants cannot be solved by agencies acting alone. In recent years there has been increasing attention paid to the opportunities and challenges of cross-agency work.

This paper describes the organisational forms currently used in the New Zealand public sector to support cross-agency work. The New Zealand government has become concerned that these models have high transaction costs, and is investigating alternate models. This paper considers the theory and evidence on private sector equity joint ventures to identify three analogous models that may be applicable to the public sector: a statutory interdepartmental joint venture, non-statutory joint ventures, and interdepartmental boards. These alternative models broaden the available toolkit for structuring cross-agency solutions to crosscutting problems.

Keywords: public sector reform; governance; collaborations and networking; joint ventures and alliances

INTRODUCTION

New Zealand was seen as a world leader in implementing New Public Management in the 1980s and 1990s (Schick, 1996; Scott, 2001; Pollitt and Bouckaert, 2003). While New Zealand's State services perform well in many respects, the strongly vertical accountabilities and incentives that were introduced by the New Public Management reforms make it difficult for public service agencies to work together to address complex problems (Boston *et al.,* 1996; State Services Commission, 2001).

The Better Public Services Advisory Group (State Services Commission, 2011) highlighted problems faced by agencies working together across boundaries. Issues include the tendency of vertical (silo) accountabilities to trump cross-boundary priorities. Long-standing concerns about cross-boundary work and the impact of vertical accountability include: lack of commitment, lack of stability, and patch-protection (State Services Commission, 2011). As a result, hard-wired solutions were suggested as part of a wider menu of options to address these issues. This included the ability to establish joint venture arrangements analogous to that used in the private sector. In practice, departments have primarily sought improve their practice through existing collaborative forms, such as the inter-departmental collaboration model and lead department model . Despite improved inter-departmental collaboration (Cabinet Office, 2014; Scott and Boyd, 2015), concern about high transaction costs has driven further exploration of new ways to structure joint activity in order to reduce such costs (Scott *et al*., 2015).

This paper is likely to be of interest to public sector managers and academics concerned with how to design organisational forms for reducing transactions costs of joint work between public service departments. The New Zealand public sector is divided into the Public Service (core departments), State Services (the Public Service plus 'arm's length' bodies), State Sector (State Services, plus state owned enterprises and tertiary education institutions), and the broader Public Sector (the State Sector plus local bodies – State Services Commission, 2015). This paper only considers relationships between the core departments of the public service, and excludes collaborative

relationships between other types of government organisation (see, for example, Sorensen, 2007; Haveria and Airaksinen, 2007; Warner and Bel, 2008; Bel *et al*., 2010; Gradus *et al.*, 2014). Further it is primarily concerned with organisational forms for addressing crosscutting problems, and not efficiency gains from the consolidation of back-office functions, as these have been considered in detail by other authors (Foster, 1997; Lowery, 2000; Warner and Hefetz 2002; Agranoff and McGuire, 2003; Warner, 2006; McGuire and Agranoff, 2007; Feiock, 2007; Hulst and van Montfort, 2007; Warner, 2011).

Collaboration within the public service is a broad and heterogeneous field (Sullivan *et al*., 2002; McGuire, 2006; Carey and Crammond, 2015), and this paper does not attempt to build a comprehensive theory on cross-agency work. Instead it only attempts to understand what lessons the public sector may take from equity joint ventures in addressing crosscutting issues.

This paper is presented in four parts. First, it describes the organisational forms currently used in the New Zealand public sector to support cross-agency work. Second, it reviews theory and evidence on private sector joint ventures, and considers what insights this can provide for structuring joint work between departments. Public-private joint ventures differ significantly in their intent and incentives (Linder, 1999; Akintoye *et al.,* 2002) and were therefore excluded from analysis. The third section then considers what (if any) implications equity joint venture literature has for why/how joint arrangements could be structured in the New Zealand context. Finally, three different approaches to structuring cross-agency work within the New Zealand are described.

CURRENT OPTIONS FOR STRUCTURING JOINT WORK WITHIN THE LEGAL CROWN

The structure of the New Zealand public service today continues to reflect the pervasive influence of its 1980s and 90s New Public Management heritage. While the New Zealand model has evolved and changed considerably (Boston and Eichbaum, 2007) many New Public Management ideas retain currency. Institutional design and selection continues to reflect transaction cost economic origins, with most departments still being organised into vertically oriented specialist hierarchies.

Departments operate as functionally separate *(de facto)* firms, with clear lines of sight between chief executives and Ministers (Treasury, 1987). Departments are commonly viewed as the equivalent of individual firms. However, the 28 departments of the New Zealand public service are more correctly viewed as administrative units within a single legal entity, the legal Crown. Departments provide a way of dividing up functional responsibilities aligned to Ministerial portfolios. In contrast, firms within a market context (or indeed other forms of arm’s length State Sector organisations such as Crown entities) are legally separate entities distinct from the Crown, including joint ventures (for example, the Tamaki Redevelopment Company, a Crown company owned 59% by the Crown and 41% by Auckland Council).

The status of Crown departments as administratively distinct but within a unitary legal form may seem a legal technicality, but it has significant practical implications for collaboration. First, being a single legal form, the Crown cannot contract with itself. This means that formal agreements

between departments are drawn up as 'memoranda of understandings' or more recently 'joint venture agreement', which are not legally enforceable. Second, combining departmental resources into a separate legal entity such as an incorporated company has the effect of transferring resources outside the direct control of Ministers. Finally, a separate joint venture company risks creating another silo which, being at 'arm's length', could compound the cross-boundary collaboration quandary.

Four basic models are commonly used in New Zealand for bringing together the resources of different public service departments: two structural options (departmental mergers and divestitures) and two accountability options (the interdepartmental collaboration model and the lead department model). The models outlined are necessarily over-simplified versions (a form of 'ideal type') but are illustrative of the formal accountability lines that underpin interdepartmental work.

The focus on accountability is not accidental. Bovens (2006) has argued that accountability is a particular obsession of New Public Management whereby it has become an end rather than a means to improve performance. Schick (1996) noted that New Zealand took accountability very seriously. This is mirrored in the core ideas underpinning the 'freedom to manage' in the New Zealand model (Ayto, 2011). Perhaps the most relevant axiom is the idea that it is not practical to hold managers to account for things outside their control (Ayto, 2011). This idea has become embedded in managerial thinking, and underpin calls to 'join up' accountability (Better Public Services Advisory Group Report, 2011, Hughes and Smart, 2012).

Departmental Mergers

Over the past 25 years, merger or splitting up departments has tended to be the most common method of realigning, consolidating or improving coordination of activity. Departmental mergers have three key elements: individual departments are merged into a larger (single) multi-purpose department; the new multi-purpose department may have a single Minister or provide services to multiple Ministers; the accountability chain is via the departmental chief executive to a Minister in all instances (see Figure 1). One example is the 2013 merger of four departments to create the Ministry of Business, Innovation and Employment (Ministry for Business innovation and Employment, 2015a), where the Chief Executive became accountable to 12 ministers (Ministry for Business Innovation and Employment, 2015b).

Insert Figure 1 about here

Despite their popularity, mergers are expensive and disruptive to implement, and difficult to unwind (Horn, 1995, Brunsson and Sahlin-Andersson, 2000). Many mergers in the New Zealand public sector have failed to achieve their expected benefits (Gill and Norman, 2006, Gill, 2008, Gill and Norman, 20011). The resulting organisations may be large and unwieldy with too many competing and conflicting goals, which potentially undermine the clarity of purpose intended by New Public Management (Wollman 2004, Christensen and Laegreid, 2006). There is a need to balance the benefits of shared resources against the benefits of organisational specialisation, with performance trade-offs that potentially limit how many separate functions (or organisations) can usefully be merged together (Wollman, 2004). In many cases, mergers are unfeasible, either because the overlapping

departments are too large, or because the degree of overlap is too small to warrant disrupting the departments' core business.

Department Divestitures

In inverse of the merger is the divestiture (Hokkinson *et al.,* 1994), where parts of one or more departments are separated and then combined to form a new department. As this paper is concerned with accessing resources from multiple departments, the model described below includes only those cases where resources are removed from multiple departments and joined together to form a new department and not the more simple case where a single department is split into multiple parts. Figure 2 shows parts of two departments being separated from their parent department, and then joined together to form a (new) third department.

Insert Figure 2 about here

The department divestiture is used when the resources involved to address the crosscutting problem can be: easily identified; separated from the parent department; and, no longer require access to resources or assets in the parent department. One example is the creation of the Environmental Protection Agency from parts of the Ministry for the Environment and the Environmental Risk Management Authority (Ministry for the Environment, 2014).

Interdepartmental Collaboration Model

The interdepartmental collaboration model is the most common form of joint inter-departmental arrangement. As shown in Figure 3, there is an identified lead Minister, lead department and goals that cross departmental boundaries. This is analogous to the contractually based (that is, non-equity) joint venture model discussed later, and can involve large numbers of departments.

Insert Figure 3 about here

In the interdepartmental collaboration model, primary responsibility for the coordinating activity resides with a single department and Minister (here 'Dept 2' and 'Min 2'). Other departments contribute to the joint goal as agreed with between the respective chief executives. The role of the coordinating department depends on the goal but is likely to involve aligning, coordinating, brokering and/or surfacing conflicting functions/responsibilities (for example, requiring trade-offs between different priorities and objectives) across contributing departments.

Generally coordination is supported through inter-departmental governance and working groups at each level with little resource sharing. Accountability for contributions is individual and vertical back through contributing departments via their respective chief executives to individual Ministers. Eppel *et al*. (2008) describe a continuum of cross-agency working, between co-existence (no formal communication) and collaboration (shared responsibility); the interdepartmental collaboration model falls between these extremes and is primarily used to support coordination efforts, though more recent uses of the model seek to push towards stronger forms of collaboration.

While most arrangements are short-term for discrete pieces of policy development and advice, the model is also used for longer term 'standing' arrangements. One example is the Natural Resources

Sector led by Ministry for the Environment (Ministry for the Environment, 2015), supported by a small coordinating secretariat hosted within the Ministry with secondees from partner agencies.

Lead Department Model

The lead department model involves the transfer of resources and accountability to a single lead department, as shown in Figure 4. In common with the previous model, there is a lead department, and lead chief executive who remains formally accountable to a Minister in relation to a joint goal that crosses departmental boundaries. However, the lead department differs in four main aspects: the lead department operates on behalf of contributing departments but the chief executive of the lead department remains formally accountable for delivering on the joint goals; usually the majority of the resources and/or funding associated with the joint goal are either already within the lead department or transferred to it by contributing departments; depending on the nature and extent of the transfer of resources and responsibilities, contributing department chief executives may retain only residual accountability; and finally, there is no pooling or joint ownership of resources, instead resources are transferred to one department.

Insert Figure 4 about here

Each of the contributing departments may have core services, for example specialist health services which are too difficult to quantify and transfer, but that still need to be accessed by the lead department in order to deliver on the joint goal. A range of governance mechanisms (for example, chief executive boards) and agreements (for example, Memoranda of Understanding) are used to secure access to resources needed by the lead department.

This model is also used for policy taskforces, local-level integration, and common strategic assets, each explained further below. Policy taskforces are used to develop particular policy programmes, where specialists from individual departments are seconded to the lead department for longer periods. For example a combined team, drawing on a number of agencies, was established for Whanau ora policy development and was hosted by the Ministry for Social Development (Te Puni Kokiri, 2015).

The model has also been used to implement a form of devolved local-integration. Resources and decision-making are transferred to a single lead department and in turn delegated to a local decision-maker accountable for integrating local services. One example is the Social Sector Trials (Ministry for Social Development, 2015). Finally, the lead department model is used where one department manages or holds particular assets (for example, debt or information) on behalf of a number of departments. One example is the management of tertiary student loans (Ministry of Education, 2015).

EQUITY JOINT VENTURES

Each of the previously described models has been partially successful in achieving greater collaboration. Their continued use provides some evidence that they are seen as useful by key decision-makers. However, the transaction costs are still perceived as high. It has been argued that the inability to 'join-up accountability' is a significant limitation (State Services Commission, 2011, Hughes and Smart, 2012).

This section explores an organisational form (the equity joint venture) that is prevalent in the private sector and appears to overcome issues similar to those identified in the New Zealand public sector. It then considers, whether any lessons from equity joint ventures may be applied to the public sector. Since the early 2000s there has been a rapid increase in domestic and international joint venture activity in the private sector (Beamish and Lupton, 2009). This has been associated with a similar growth in empirical studies (Crook *et al.,* 2013).

Defining Joint Ventures – Equity and Non-equity Forms

One definition of a joint venture is when two or more firms pool a portion of their resources within a common legal organisation (Kogut, 1988). A wider view would include relationships between two or more parties motivated to act in concert and share core competencies and capabilities in the pursuit of agreed goals or to meet a critical business needs while remaining legally independent organisations (Comino *et al*., 2007, Pekar and Margulis, 2003). In essence, the distinctions are between equity and non-equity joint ventures. In the case of equity joint ventures, two or more firms bring together resources into a separate legal company they establish (and own shares in) for achieving a joint purpose. In non-equity joint ventures, two or more share resources and/or capabilities are governed by licensing or contractual arrangements without combining equity into a separate legal structure (Comino *et al*., 2007).

The *interdepartment collaboration* model currently used in the New Zealand public sector (discussed earlier) is analogous to the non-equity joint venture. As discussed earlier, a formal equity joint venture is not legally possible with the legal Crown ; however the question remains whether some elements could be mimicked.

The following sections focus on theory and evidence in relation to motivations for establishing equity joint ventures. Any review relation to private sector joint ventures cannot be undertaken without some understanding of transaction cost economics. Transaction cost economics has been particularly influential because of its claim that particular attributes of transactions lend themselves to particular structural forms. Further, given its continuing influence within the New Zealand public management system some of the core propositions of transaction cost theory are briefly outlined.

Transaction Cost Theory

Transaction cost economics is interested in the way transactions are governed and seeks to explain why a particular way of transacting is preferred over another (Williamson, 1985; Kogut, 1988). Matching (or 'discriminating alignment') between structural/governance arrangements (market, hybrid, or hierarchy) and the attributes of transactions is a way to reduce transaction costs and improve performance (Williamson, 1991).

A transaction cost is a cost incurred in making an economic exchange, and differs from costs involved with production. Sources of transaction costs include: bargaining, information, agency, division and enforcement costs. Human limitations also open the potential for two 'exchange hazards' (Luo, 2002) that create further transaction costs: opportunism (acting in self interest and/or taking

advantage of others) and maladaptation (even with trustworthy partners, circumstances can change whereby one party may refuse to amend a contract or is unable to fulfil a requirement).

Transaction cost economics proposes three key attributes of transactions that can be mapped against an appropriate governance form: asset specificity; uncertainty (volume, technological or behavioural); and transaction frequency. Williamson (1985, 1991) suggests that the extent to which transactions exhibit one or all of these three key attributes is directly related to the way activity is organised and pushes towards hierarchy (whether hybrid or firm). Greater integration reduces the cost of coordinating transactions via managerial authority to resolve disputes and control the deployment of assets.

These attributes drive managers to protect their position through increasing control via either hybrid or hierarchy. For example, managers move towards hierarchy to control transactions involving: specific assets that are inherently valuable and/or rare that competitors would find difficult to create or purchase; or behavioural uncertainty arising where the tasks involved are 'hidden from view or complex and thus difficult to evaluate.' (Crook *et al.*, 2013: p70).

Proponents of transaction cost economics claim significant empirical support for the theory's core propositions (Gibbons, 2010). However, of the various predictions of transaction cost economics, only behavioural uncertainty (the inability to see and evaluate tasks undertaken by a partner) has a sizeable and consistent effect (Crook *et al.,* 2013). The lesser findings for the other attributions suggest that other factors may also be important. While Crook *et al.* (2013) did find general support for the core predictions, the relationships between the attributes and the size of the effect on structural choice are not as strong as might be expected. A meta-analysis by Carter and Hodgson (2006) concluded that another theoretical perspective (resource based theory) may have greater explanatory power.

Other Explanations For the Use of Equity Joint Ventures

The studies reviewed for this paper are in the main concerned with understanding why hybrids (in particular equity joint ventures) might be a preferred over market or hierarchy. They include a number of domestic and international (inter-country) joint ventures, including meta-analyses and narrative reviews. Research and theory is still developing and significant gaps remain. As Carter and Hodgson (2006: p486) suggest, compared with 'vertical integration, there is less of a consensus over the nature and causes of hybrid relationships.' While transaction cost economics remains influential, it is clear that other theoretical perspectives are increasingly recognised as relevant to understanding equity joint venture motivations. These include strategic behaviour theory, resource based theory, organisational learning, and real option theory, as introduced below.

Where transaction cost economics is concerned with minimising the sum of production and transaction costs, strategic behaviour theory is concerned with maximising profits, usually through market position (Contractor and Lorange, 1992, 2002). This could include defensive behaviour (to hurt competitors) or collusive arrangements (to enhance market power; Kogut, 1988b).

A third alternative is to view joint ventures as an opportunity to maximise the utilisation of pooled resources that are not easily imitable ('resource based theory' – Das and Teng, 2000). Resource

based theory views an organisation as the sum of the tangible and intangible assets that it controls (Wernerfelt, 1984). These resources may be a source of persistent firm heterogeneity and economic rent. Firms are more likely to form strategic alliances when they have important resources that are not perfectly mobile, imitable, and not substitutable (Eisenhardt and Schoonhoven, 1996). Joint ventures are an institutional form for accessing these scarce resources (Das and Teng, 2000; Carter and Hodgson, 2006).

Some resources may become more imitable and mobile under certain conditions. While some unique organisational routines may be documented and licensed, others are based on tacit knowledge that can only be transferred by working together. Organisational learning theory (Berrell *et al*., 2002; or 'organisational behaviour', Kogut 1988b) suggests that joint ventures provide a vehicle to the transfer of such unique tacit knowledge.

Finally, joint ventures may be seen as a method for investing in new markets as means to obtain the real (as opposed to financial) option to expand in that market in the future ('real option theory', Myers 1984; Kogut, 1991; Bowman and Moscowitz, 2001). Joint ventures share the risk of entering a new market, and also decrease the total investment where partners possess different and complementary capabilities (Kogut, 1991).

These different theories provide overlapping explanations for why equity joint ventures are chosen in the private sector. Table 1 combines available theory with empirical evidence to identify the five best-supported reasons for equity joint ventures choice.

Insert Table 1 about here

Underpinning many of these motivations (both theory and evidence) are hedging or risk sharing strategies between partner organisations. There is insufficient evidence to warrant description of hedging as a separate or overriding strategy.

Joint Venture Stability and Survival

A primary factor in the success or failure (and overall performance) of joint ventures is attributed to the organisational and governance form (Comino *et al*., 2007). Non-equity joint ventures are relatively simple and quick to establish and disestablish, being based on contractual agreements. Equity joint ventures, requiring greater commitment and separate legal form take longer to establish and have higher exit costs.

However, form is not a silver bullet for resolving the significant challenges and complexities of multi-organisation collaboration. Nor should the significant challenges of governing a joint venture be underestimated (Bamford and Ernst, 2005). For example, failure rates for equity joint ventures are said to be almost 50% (Inkpen and Ross, 2001), and around 70% for non-equity alliances (Gonzalez, 2001). However, failure rates decline over time, and joint ventures that last for three years or longer tend to be enduring (Park and Russo, 1996).

Careful selection of appropriate equity joint venture partners and processes for agreeing the joint endeavour are important (Beamish and Lupton 2009). Identifying the value that a company is

seeking to create and the relative importance of another party's assets to that value creation is critical first step in joint venture formation (Beamish and Lupton 2009).

A significant amount of work needs to be undertaken up front to work through issues between partners, including: goal congruence; organisational motivations for joint venture; different decision-making philosophies/cultures between partner organisations; power asymmetry; and competitive rewards. These factors all point to the fact that establishing and running equity joint ventures involve high set up costs associated with careful negotiation and planning (Peace 1997). A review of 25 years of literature reveals that interpersonal factors, such as trust, honesty and mutual commitment remain vitally important to joint venture performance and success whether for equity or non-equity joint venture forms (Beamish and Lupton 2009). Many of these finding are similar to those encountered in the establishment of collaborative arrangements in the public sector.

Empirical studies have linked equity ownership with commitment and stability (Beamish and Lupton 2009). An optimal range from 20% equity holding through to 80% equity holding has been suggested. A party holding 80% of greater equity may have de facto control of the venture, and a party holding less than 20% share may have negligible influence (Dhanaraj and Beamish, 2004). However, a separate study, while confirming the importance of equity size on joint venture commitment and stability, also has found that the criticality of capability that an individual party brings to a joint venture can provide significant bargaining power even where equity holding is low (Yan and Gray 1994). Overall shared control appears to be preferred to dominant control for equity joint ventures; however it may also increase the potential for conflict between the parent companies (Beamish and Lupton 2009).

While the original promise for transaction cost economics was an empirically based method for selecting the best structural alternative from a set of three transactional attributes, recent empirical work suggests a more complex picture. While the above table provides guidance for establishing an equity joint venture, there is no strict formula that can be applied (Crook *et al.,* 2013).

IMPLICATIONS OF EQUITY JOINT VENTURE LITERATURE FOR EXISTING AND NEW STRUCTURAL FORMS IN THE NEW ZEALAND PUBLIC SECTOR

There are several relevant factors for the public service context from this review. It suggests that a shared ownership stake is important for commitment and stability. While public services do not own resources (they manages resources on behalf of the Crown), a credible commitment to shared funding, staff and/or assets is the closest equivalent. Credible commitment to shared resources is also likely to support tacit knowledge transfer and access to specialised capability. Such arrangements are likely to be preferred where there are high levels of behavioural uncertainty (as with interdepartmental work focusing on 'wicked issues' – Head, 2008) and moderate levels of asset specificity (eg departmental client data and analytics). Joint ventures approaches could also provide a way to more easily share strategic resources (for example data/information assets) and while allowing access to valuable knowledge and capabilities that a partner couldn't make or buy themselves (eg specialist departmental expertise).

The literature also suggests that trust and mutual understanding between partners, in this case between Ministers and chief executives and departmental staff, will be critically important. The quality of existing relationships will be even more important in the public service as partner choice is limited. Further, most equity joint ventures are between two partners and there are likely to be limits to the number of departments that can effectively share asset/resource in a manner that mimics the incentives of equity ownership. Finally, public managers will need to be deliberate in clearly identifying the value to be created and ensure a significant level of agreement and goal congruence between partner departments. This will support identification of important resource and capability interdependences (ie the resources and assets that will need to brought together and shared) for the achievement of joint goals.

The overall purpose of this paper is to explore whether lessons from private sector joint ventures can be used to improve performance in the public sector. The remainder of this section is arranged in five parts. First, each of the existing forms of cross-agency work are reassessed in light of the literature review. Then, three new plausible models are described for applying structures analogous to equity joint ventures in the New Zealand public sector: the statutory joint venture, the non-statutory joint venture, and the interdepartmental board. Each are described below, and the evidence from this review is used to explore the context in which each might be useful. A heuristic device is presented for choosing between the different models. Finally, concluding remarks identify limitations to the study and identify a further research agenda.

Implications From Joint Venture Literature on Existing Forms For Cross-Agency Work in the New Zealand Public Sector.

This paper earlier identified four models currently used in the New Zealand public sector to address cross-cutting problems. The insights from the equity joint venture literature are applied to each model below.

Joint ventures are preferable to mergers in the private sector when it is difficult to assess the strategic value of the target firm, because joint ventures are easier to disentangle if necessary and are therefore represent a lower risk (Hennart and Reddy, 1997). Many joint ventures subsequently result in mergers of acquisition as this knowledge improves (Balakrishnan and Koza, 1993). This suggests that governments could usefully consider joint ventures as an intermediate step when contemplating mergers with uncertain benefits.

When a separate department is formed from two parent departments, the resulting department has clear and separate control of the resulting resources. New departments are created in order to develop a new independent identity and purpose. When created out of other departments this creates a clear sense of separation from their parent departments. The creation of a new and separate department to achieve a purpose previously common to both parent departments should therefore only be considered when the resources to achieve that purpose can be clearly identified and separated, or when creating separation and singular purpose (Wollman, 2004) is the intended effect.

The interdepartmental collaboration model is used when coordination is required and weaker forms of collaboration can be supported through some sharing of resources (for example, jointly resourced secretariats). This suggests that improved resource utilisation is not a key motivation in the context in which the collaboration model is used, and the joint activity is primarily focussed on information sharing to support coordination. While this may be effective for formal knowledge, joint venture literature suggests that credible commitment through the physical co-location of staff may support additional tacit knowledge sharing. It is perhaps for this reason, together with the associated 'credible commitment' of resources, that the Natural Resource Sector has populated its secretariat from the partner departments and co-located them as a single team. The lead department model is predicated on the dominance of one department. Equity joint ventures tend to be more successful where there is more equal ownership and influence. This suggests that the lead department and joint venture models apply to different contexts.

Joint venture literature suggests why both mergers and divestitures should be used cautiously, and how the interdepartmental collaboration model should be implemented to ensure tacit knowledge transfer. None of the existing models combine shared resource use with continuing connections to parent departments. The joint venture literature raises the possibility of three other forms that are not extensively used in the New Zealand public sector.

The Statutory Interdepartmental Joint Venture

The closest analogous structure to the equity joint venture in the private sector would be the creation of a statutory interdepartmental joint venture. A new entity would need to be formally created as a separate administrative unit within the Crown. Options considered here focus primarily on chief executive accountability, and we assume accountability to a single Minister rather than a group of Ministers.

Insert Figure 5 about here

To create a statutory joint venture, two or more chief executives identify resources and bring these together into a newly created department to focus on a joint goal. The new interdepartmental joint venture would report to a Board of the parent department 'shareholding' chief executives. Legislation would make the chief executives jointly accountable to Minister(s) responsible for the entity. This option would in effect be a department governed by a Board of chief executives and would require legislative change to implement.

The purpose of such an arrangement could be three-fold: to share resources; to connect and draw on resources from the parent departments; and to establish joint accountabilty. There appear to be less complicated methods for achieving each goal, as described below.

First, to create an entity, departments must begin by identifying resources (funding, staff, and assets) that should be used together on a common goal. However, if it is possible to identify and circumscribe the relevant resources, it appears more logical to simply create a new department (see the *divestiture model* above).

Second, for certain forms of cross-boundary work it is likely to be difficult to aggregate some resources because only parts or portions of a wide range of different services delivered by a number of organisations might be needed. In addition, it is often difficult to know in advance what the right mix of services might be. Where specialist services are involved, professional oversight and accountability requirements may place practical limits on transferring resources.

Finally, a statutory interdepartmental joint venture would intend to achieve the best of both worlds, by identifying and combining some resources, while retaining linkages to the parent departments. Creating a new structure (out of existing resources within current organisations) redraws existing boundaries but in the process creates different boundaries (and potentially different silos). If, on creating the interdepartmental joint venture as a separate entity, it is still necessary to coordinate effort across the parent departments, it would effectively replicate the inter-departmental collaboration model. Finally, a focus on the creation of a separate entity to jointly own public service activity is somewhat counterintuitive. Establishing an entity seeks to create boundaries, when the lack of boundaries within the legal Crown could be a potential advantage.

Therefore, an alternative statutory model could be more focused on a mechanism establishing the collective accountability of chief executives. Each chief executive would be held accountable for the individual performance of his/her own department, as well as collectively for achieving a joint goal. While balancing individual and collective accountabilities is already a feature of the *lead department model* (see above), the aim of this option would be to give switch the weighting to give precedence to collective accountabilities. A version of this model was proposed as part of the Better Public Services reforms. While Cabinet declined the legislative option, an alternative non-statutory model, as outlined under interdepartmental boards below, was approved (Cabinet Office, 2012).

Non-Statutory Joint Venture Approaches

Non-statutory joint venture approaches rely on mimicking some of the incentive effects of equity joint ventures, for example, 'credible commitments' without the creation of a new structural form. A formal model that seeks to more deliberately mimic the effect of a joint venture has been developed (see Figure 6).

Insert Figure 6 about here

Under this model the director of the joint venture would be formally employed by one chief executive on behalf of others, and has operational control over the joint team but must answer to the collective of contributing chief executives. Venture staff members would be allocated from venture partners and co-located as a single team. Each venture member would retain the employment of their original department, and would still be involved in administrative matters associated with that department.

Before such an arrangement could begin, partners would need to agree on what resources they will supply; what decision-making powers will be delegated to the director; a minimum commitment period before their involvement/contribution can be renegotiated; and dispute resolution and wind-up

provisions. It would also be prudent to undergo significant due diligence to determine the compatability of the partner departments.

Learning from equity joint venture literature, each partner would be required to contribute at least 20% of the resources of the venture. Influence could further be shared by splitting key administrative responsibilities; for example, one partner would host the venture, and another would be the legal employer of the director (Hladik, 1994).

This structure is supported by equity joint venture evidence, regarding commitment, ownership stake, and partner selection. It would theoretically support tacit knowledge transfer, and improved asset utilisation within the joint venture. This is a less formal structure than establishing a new entity or separate department, and may offer significant benefits in retaining connections to partner departments.

This model is similar to that used in the State Sector Performance Hub, a partnership between the New Zealand State Services Commission, Treasury, and Department of Prime Minister and Cabinet (State Services Commission, 2015). Further study is required to determine if the theoretical benefits can be realised.

Another alternative, non-statutory approach, drawing on concepts from resource based theory, would focus more on resource interdependencies. This would involve deliberately structuring Ministerial and chief executive authorities, resources and accountabilities in a manner that created clear interdependences between parties. That is, a structure where no single individual or organisation is able to deliver its part of the bargain without access to another individual or organisation's authority or resources. The review of the private sector theory and evidence suggests such an approach is worthy of further exploration and development.

The Interdepartmental Board

The Better Public Services Advisory Group (State Services Commission, 2011) proposed interdepartmental 'Specific Purpose Boards', but this model has not yet been trialled at the time of writing. Cabinet mandated Specific Purpose Boards have potential applicability when departments need to improve their cross-departmental planning, prioritisation and budgeting to achieve a shared purpose. However, additional governance arrangements are necessary to coordinate delivery.

The creation of an interdepartmental board aims to establishing collective responsibility for a group of chief executives to Ministers for collective advice on policy, strategy, resource allocation/reallocation. Collective accountability of chief executives would be established by Cabinet. While a Cabinet mandate provides greater weight to the collective accountabilities of chief executives it ultimately does not override a chief executives statutory accountability to an individual Minister (ie in contrast to the statutory Specific Purpose Board option described earlier). The accountability model is shown in Figure 7.

Insert Figure 7 about here

Choosing Between Different Collaborative Forms

The models explored in this paper, both existing and theoretical, may be applicable in different contexts. Choosing between them is on the basis of: the kind of value that is being sought (Beamish and Upton, 2009); the certainty with which resources can be specified (Crook *et al.,* 2013); and the level of trust and compatability between potential partners (Peace, 1997). Further work is required to evaluate the use of these models in different contexts, and to provide more definitive guidance as to their selection and use. However, a heuristic device has been prepared on the basis of literature from the private sector.

Insert Table 2 about here

Limitations and Conclusions

This paper specifically explores models for addressing cross-cutting problems through cross-agency work between two or more public service departments using lessons from the private sector. This paper is therefore limited in its scope, and the transferability of its analogies, as described below.

The conclusions relate to coordination between administrative units within the legal Crown. Some public sector problems require coordination and collaboration between the public service and other legal entities (Edwards, 2002), such as: Crown Entities (for example, District Health Boards, School Boards); State Owned Enterprives; for-profit companies and NGO providers. This paper does not explore what models would be appropriate for coordination with parties outside the public service.

The paper uses private sector literature to explore whether analogous models are likely to be of use in the New Zealand public sector. The paper therefore assumes that evidence from the private sector is applicable and relevant to the public sector. Some attempt has been made to link joint venture evidence to relevant theory (Table 1). This then allows subsequent consideration as to whether that theory is likely to apply to the context in which joint venture analogs would be applied in the public sector. However, the applicability of these findings to the public sector remains unproven.

Transaction cost economics was explored to see if it could provide an empirically based method for determining whether, and if so when, a joint venture approach should be used to reduce the costs of public service collaboration. The literature review revealed evidence that was mixed and inconclusive. This study is therefore ultimately more exploratory in nature; the literature suggests and hints at possible heuristics for choosing organisational form best suited to cross-departmental work, but each form requires further testing to determine its value and use.

Applied management research suffers from challenges of external and internal validity (Shadish *et al.,* 2001). It is almost impossible to definitively attribute any effect to its cause due to the wide number of uncontrolled variables, and the differences between the study group and the broader population are unknown (Cavana *et al*., 2001). Business research attempts to overcome these limitations to large scale field experiments (Cooper *et al*., 2006). Though the selection of groups is not randomised, the use of large sample sizes brings greater confidence to identifying correlations, though not causation. In the public sector this challenge is compounded; the population of comparable cases is small, and smaller still if we consider differences between jurisdictions that may mean results are not applicable in different government structures or national/regional cultures. Each of the forms in Table

2 are either in use or planned for use in the New Zealand public sector. The authors invite correspondence from researchers on public sector joint ventures or joint venture-like structures in other jurisdictions, so develop shared evaluation methods for comparing the effectiveness of different forms in different contexts.

Equity joint ventures are used in the business world to leverage shared assets and knowledge. The reported benefits of tacit knowledge sharing and improved asset utilisation appear transferable to the public sector. Additionally, the New Zealand public sector is interested in coordination for shared goals, and mechanisms for achieving collective (felt) responsibility among chief executives (State Services Comission, 2011).

Equity joint ventures established as separate legal entities are not possible within public sector due to the unitary nature of the Crown. However, several analogous structures are possible, and described in this study. A possible statutory interdepartmental joint venture does not appear to offer substantial benefits over other models. It is likely that other joint venture analogs such as the non-statutory joint venture and the interdepartmental board are applicable in a small number of carefully selected settings. Another promising non-statutory option (that is as yet under developed) is to structure authority (ie appropriations and decision-rights) between Ministers and chief executives to 'hard-wire' interdependencies; that is, each would need the other to achieve a common goal.

This study finds that when attempting to apply joint venture analogs to address cross-cutting issues, several considerations are important: careful choosing the most appropriate form to achieving the desired value, as different forms are likely to be appropriate in different contexts; develop joint venture partnerships on the basis of comparable commitment and comparable influence between the venture partners; retain connection and access to assets in parent departments; and follow a period of due diligence to assess organisational compatibility, in particular, the extent of goal congruence. The public sector faces limited choice in selecting venture partners, and joint ventures should only be attempted in a high-trust environment. Cross-agency work remains and important challenge, that likely has no single right answer. Private sector literature on equity joint ventures provides another lens through which to consider this challenge, and broadens the available toolkit for cross-agency work.

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FIGURES

Figure 1: Changes to structural arrangements in a departmental merger
(Min = the responsible minister; App = the appropriation that authorises the government to spend money on a particular purpose; CE = the chief executive of the department; Dept = the department).

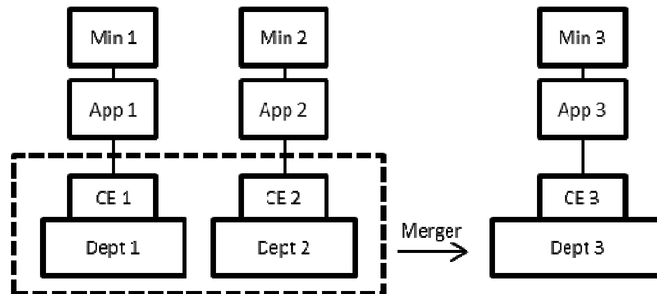


Figure 2: Changes to structural arrangements from department divestiture and the creation of a new department

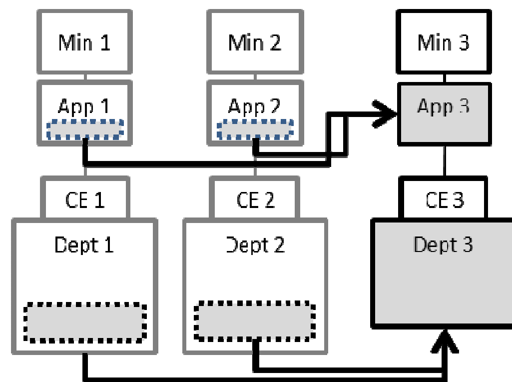


Figure 3: The interdepartmental collaboration model

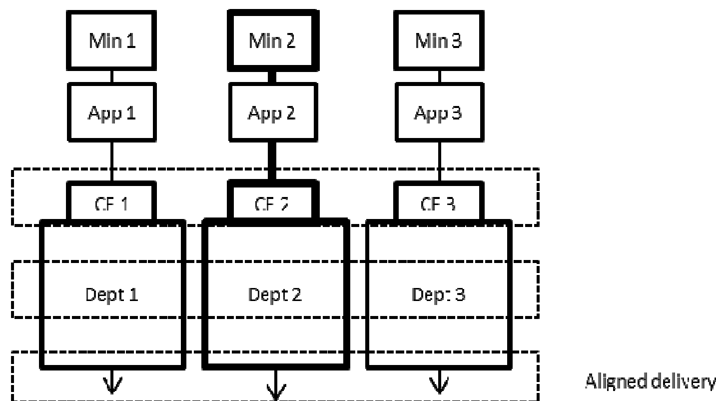


Figure 4: The lead department model

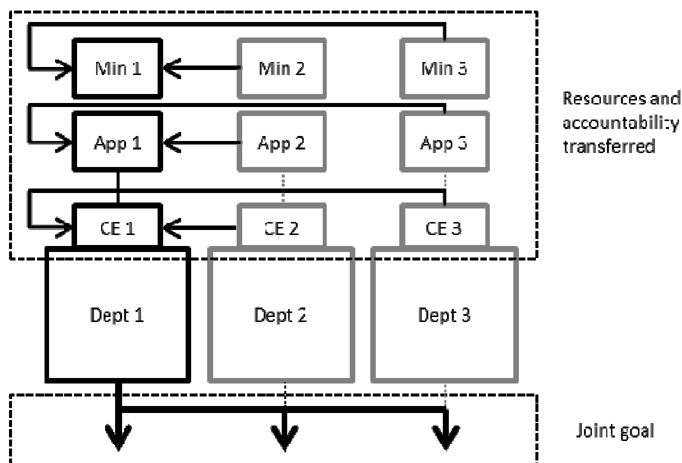


Figure 5: Accountability under a Statutory Joint Venture

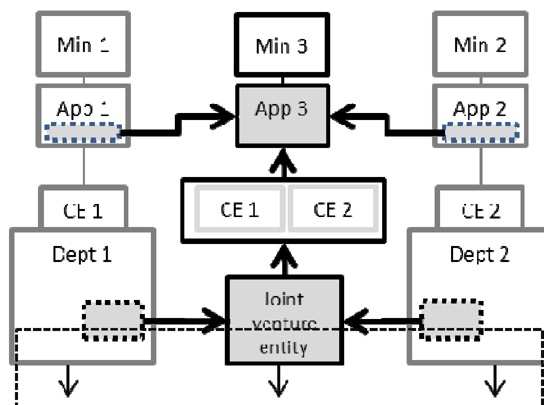


Figure 6 Accountability under a credible commitments model.

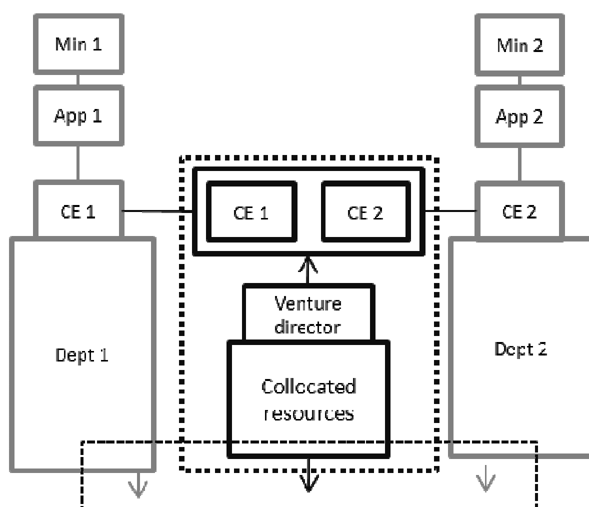
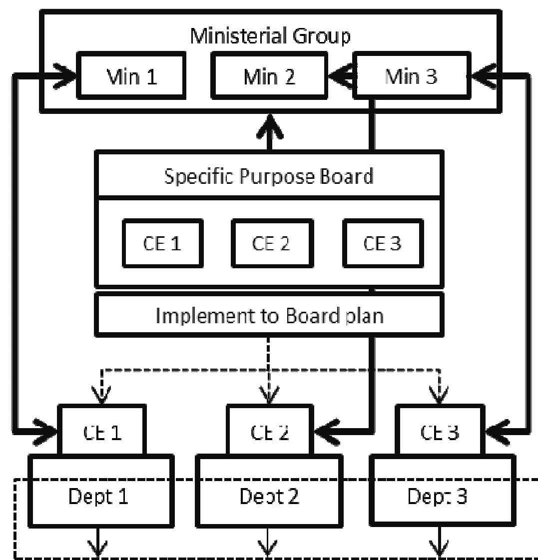


Figure 7: Accountability under an Interdepartmental Board



TABLES

Table 1: Theoretical and empirical basis for choosing an equity joint venture over a non-equity joint venture.

Reasons for selecting equity joint ventures	Theory	Evidence
Equity ownership improves commitment and stability of joint ventures.	Equity ownership creates 'mutual hostages' and 'credible commitments' preventing opportunism (Williamson 1983, Crook *et al*., 2013). Equity helps to resolve behavioural uncertainty of parties with specialised assets (Williamson, 2002).	Equity ownership/ investment is a tangible form of mutual commitment that can improve stability of joint arrangements (Dhanaraj and Beamish 2004).
Equity joint ventures are preferred over purely contractual joint venture arrangements where performance is difficult to specify, monitor or enforce.	Hierarchy (via Hybrid form) improves control, aligns incentives and allows partners to monitor each other's behaviour (Williamson, 2002)	Managers prefer flexibility of joint ventures for volume uncertainty but tend to hierarchy with specialised assets or with high frequency transactions (Crook *et al.,* 2013).
Equity joint ventures enable tacit knowledge transfers between partner organisations.	Allows transfer of tacit knowledge and/or technology of partner that cannot be easily bought or created (Das and Teng, 2000; Crook *et al.,* 2013). Joint ventures allow firms access to new knowledge and allow it to learn and retain capabilities that it gains through joint venture (Kogut, 1988; Jarillo, 1989).	Equity joint ventures are more effective than non-equity joint ventures for knowledge transfer (Mowery *et al.,* 1996). As knowledge transfers partners' capabilities will become similar. The joint venture will perform better if each partner enhances its own capabilities to complement its partner (Nakamura *et al.*, 1996).
Provides strategic or competitive advantage.	Secures access to skills, capabilities inherent in an organisation can provide advantage in the market place (Kogut, 1988; Das and Teng, 2000). Joint ventures can be a defensive strategy to lock out potential competitors (Crook *et al.,* 2013).	Equity joint ventures enable access to another organisation's capabilities, resources and/or assets can provide strategic advantage, and sharing of risk when entering new markets or market segments (Pekar and Margulis, 2003).
Equity joint ventures are a means by which a firm can learn from another firm enhancing capabilities without potential loss.	Enables learning from and retention of capabilities of a partner and allows full access another's resources and capabilities (Berrell *et al*., 2002; Kogut, 1991). Capabilities developed can be retained (are not lost by one organisation to another) and accessed (Berrell *et al.,* 2002).	Equity joint ventures can enhance the capability of partner agencies (Pekar and Margulis, 2003).

Table 2: Heuristic device for choosing accountability form

Organisational form	Summary description	Indication for use
Departmental merger	Departments combined into one	Overlap between goals or service delivery is very high; the scope of the resulting departments is manageable.
Departmental divestiture	Relevant resources of two or more departments combined into a new department	Relevant resources for achieving a particular goal can be identified and separated; limited need for ongoing connection to parent departments
Interdepartmental collaboration model	Lead department coordinates, limited resource sharing	Separate but overlapping outcomes can be achieved by alignment and limited sharing; high trust between partners
Lead department model	Resources shifted to lead departments to deliver on behalf of others	Majority of relevant assets are held by one department, and are less important to other departments.
Statutory joint venture	A new entity within the Crown, joint owned by parent departments	No clear benefit over departmental divestiture; changes required to legislation.
Non-statutory joint venture	Credible commitment of relevant resources co-located together but retain parent department connection.	Some, but not all resources for achieving a particular goal can be identified and held separately; goal requires access to other party's capabilities/assets; the relative resource stake is comparable; and there is high trust between partners.
Interdepartmental board	Chief executives collectively agree strategy, planning and resourcing	A shared outcome requires joint planning, resourcing and aligned but separate delivery