

THE PERFORMANCE OF STRATEGIC BUSINESS/IT ALIGNMENT: PROCESS AND SYSTEMS PERSPECTIVES

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Abstract

In responding to calls for research to investigate the performance of business/IT alignment in complex inter-organizational contexts, we present findings from a longitudinal case study of the Australian Government's Department of Education, Skills and Employment (DESE) as it reviewed and replaced its IT-enabled employment services. This alignment required DESE to align its service strategies and processes with contracted service providers and their clients (jobseekers and employers). Through comparatively framing this performance in terms of process and systems perspectives, we demonstrate the relevance of evaluating alignment as a capability rather than as the status of congruence. Further, our findings show the importance of economic alignment as a new dimension that is relevant to sustaining inter-organizational alignment. By showing the contribution of stakeholders' agency to achieving reciprocity required within and across organizational structures to co-evolve alignment, our findings demonstrate the multi-level effects of stakeholders' social capital.

Keywords: alignment; capability; sustainability; inter-organizational; case study

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1. Introduction

The increasing role of digitization in creating interdependencies between organizations (Park et al. 2020) re-energizes the need to understand the challenges of strategic alignment between business and information technology (IT) in inter-organizational scenarios as they coevolve new organizational forms through processes of reinvention, emergence and mutation (Lewin and Volbelda 1999; Yeow et al. 2018). Whilst alignment is variously defined, the consistent theme is that organizational performance is enhanced when alignment ensures strategic alignment and effective governance of key IT and business resources to support business strategies and organizational performance (Coltman et al. 2015; Wu et al. 2015). As such, alignment plays a dual role in organizational performance, being both a process of achieving congruence between business and IT strategies and a capability related to its function in leveraging organizational resources (Sabherwal et al. 2019). Hence alignment is not a state, but rather is dynamic, non-linear and processual (Zhang et al. 2020; Saldanha et al. 2020) as organizational stakeholders learn, adapt and invent how to achieve strategic fit between business and IT for required performance (Benbya and McKelvey 2006). Thus, despite alignment being purposed to deliver positive organizational outcomes (Renaud et al. 2016; Gerow et al. 2014), difficulties arise regarding its operationalization and sustainability (Coltman et al. 2015; Vermerris et al. 2014).

These difficulties with alignment increase in dynamic and complex inter-organizational environments where stakeholders' perspectives and business/IT resources must be integrated at both strategic and process levels (Gerow 2018; Zhang et al. 2020). In response to the growing importance of these environments, there is need to understand the multi-level dynamics of their alignment processes and what constitutes the value proposition for stakeholders (Coltman et al. 2015; Tanriverdi and Lim 2017; Saldanha et al. 2020). By viewing alignment as a connected, mutually dependent, coevolutionary process involving "mutual causal changes ... [with] ... adaptive significance for its stakeholders" (McKelvey 1999, p.299; Zhang et al. 2020), we consider the relevance of co-evolutionary perspectives identified by organizational adaptation research (Lewin and Volberda 1999).

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Accordingly, in this study we investigate the coevolutionary processes of inter-organizational alignment, as these are purposed to create a new organizational form (Coltman et al. 2015). In understanding mutual causal changes associated with these alignment processes, as inter-organizational, interdependent stakeholders reconcile multi-level interests (Allen and Varga, 2006) and align their business/IT systems, we study alignment as an emergent, connected and multi-dimensional entity with dynamic capabilities (Tanriverdi et al. 2010). Specifically we evaluate the sustainability of this alignment by linking the performance of design, implementation and ongoing delivery (process perspectives) to the performance of alignment as an entity with its own properties (systems perspectives). Our process perspectives are informed by stakeholders' narratives as they influence business and IT strategies, infrastructures and processes so that alignment co-evolves and mutates (i.e. Jenkin et al. 2019; Benbya and McKelvey 2006). Then, as an evaluative mechanism, our systems perspectives frame the integrated perspectives of alignment in terms of how well stakeholders' goals are congruent, as well as how alignment enables the required organizational capabilities at a point in time (Karpovsky and Galliers 2015; Sabherwal et al. 2019). In this regard, alignment's capabilities are regarded as being derived by coordinating multi-level, multi-directional, and interdependent resources to achieve goals consistent with the required performance (Sabherwal et al. 2019; Benya and McKelvey 2006; Allen and Varga 2006). Accordingly, we investigate the value proposition for stakeholders in inter-organizational strategic alignment (Saldanha, Lee and Mithas 2020). Our comparative focus provides new insights into the coevolution of alignment, and informs mixed findings regarding alignment and organizational performance (Queiroz 2017; Benbya and McKelvey 2006).

To appraise the performance of inter-organizational alignment, we investigate its capabilities in terms of its intellectual, social and operational dimensions, as these have established credibility (Williams et al. 2019; Gerow et al. 2014; Liang et al. 2017) and permit the depiction of various stakeholders' perspectives. We construe these dimensions as: formal linkages between the strategies manifest in the mission and objectives (the intellectual dimension i.e. Chan et al. 2006); mutual understanding and shared commitment evident through trust and interpersonal communication (the social dimension i.e. Reich and Benbasat 2000; Wu et al. 2015); and fit between business infrastructures and processes (the operational dimension i.e.

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Gerow et al. 2014; 2016). Further, as inter-organizational alignment is co-evolutionary and given the demonstrated influence of social, political and *economic* variables on coevolution (Lewin and Volbelda 1999), we consider the relevance of an economic dimension.

Our context is the Australian Government's employment services program, *jobactive*, with its tailor-made information system, *ESS Web*. Overseen by the Department of Education, Skills and Employment (DESE)¹, *jobactive* is a comprehensive public-private partnership with a forecast average annual budget of \$1.37 billion in 2018-2019 (DJSB 2018b). It relies on a national network of service providers at 1,700 different locations to deliver employment services on behalf of the Australian Government to around 750,000 jobseekers. In reporting findings from our longitudinal case study, conducted over a period of seven years, we focus on how two principal stakeholders (DESE and its contracted public/private service providers) co-evolve *jobactive*. Adopting an interpretivist approach, we: (1) establish two process perspectives; and (2) thereby inform four systems perspectives of strategies and processes in alignment of the new organizational form, *jobactive*. Initial perspectives focus on the first 12 months' operation: later perspectives detail activities in the next 24 months, and outcomes after 36 months' operation.

Our findings indicate several new facets to the performance of alignment as a coevolutionary process. In particular, inter-organizational alignment requires a broader definition that reflects the interdependency of aligning business and IT strategies, infrastructure, and processes of participating organizations (i.e. external and internal focii). Secondly, findings concerning economic alignment as a new dimension directly relate to the inter-organizational context, as without economic benefit for each organization, alignment is unsustainable. Inclusion of this dimension is consistent with Lewin and Volberda's (1999, p.528) findings that "*economic, social, and political macrovariables*" may influence the structure of coevolution and with findings by Saldanha et al. (2020) about the importance of economic considerations to performance outcomes of alignment. Hence, we demonstrate the benefit of evaluating the performance of alignment as

¹ For consistency, we use the term DESE for this Australian Government Department, although during our study it was named Department of Employment (DOE), Department of Employment, Education and Workplace Services (DEEWR), and Department of Jobs and Small Business (DJSB).

a capability, relating to its multi-dimensionality that values the interdependence of underpinning processes, structures and agency (Karpovski and Galliers 2015; Gilchrist et al. 2018) across stages in the evolution of alignment (Saldanha et al. 2020). Further, by showing how social capital enables reciprocal adaptations that improve intellectual, operational and economic alignment, we demonstrate the importance of considering the interdependence of alignment's dimensions (Williams et al. 2019; Reich and Benbasat 2000; Gilchrist et al. 2018; Liang et al. 2017).

Our paper begins by reviewing the literature about business/IT alignment, and the role of social capital in enabling organizational change through agency and structure. Next, we outline the context of our longitudinal case study and methodology before reporting two process perspectives of alignment (Perspectives 1A and 2A) that inform systems perspectives of alignment's performance (Perspectives 1B and 2B). We conclude by discussing the study's contribution, limitations, and research opportunities.

2. Background

In proposing a coevolutionary theory of IS alignment, Benbya and McKelvey (2006) highlight the function of business/IT alignment as a series of adjustments with individual, operational, and strategic dimensions. Therein, alignment is “a coevolutionary and emergent process since strategies continually change, requiring an adaptation at different levels” (Benbya and McKelvey 2006, p. 288). As coevolutionary theory regards “organizations, their populations, and their environments as the interdependent outcome of managerial actions, institutional influences, and extra-institutional changes (technological, sociopolitical, and other environmental phenomena)”, it provides a basis for a longitudinal study of how new organizational forms emerge and mutate (Lewin et al. 1999, p. 535). In this sense the theory accommodates perspectives related to the multi-dimensionality of alignment in inter-organizational scenarios where interdependent technological and socio-political factors (Benbaya et al. 2020) affect more than one organization and influence the emergence and evolution of a new organizational entity.

2.1. Strategic Business/IT Alignment in Inter-organizational Scenarios

For most prior studies of strategic business/IT alignment, the primary focus is upon alignment of business and IT within an organization (Quiroz 2017; Sabherwal et al. 2019; Liang et al. 2017; Renaud et al. 2016). Hence, in seeking an integrated perspective for inter-organizational alignment, we return to the seminal view wherein alignment is built upon two ‘blocks’, namely strategic fit and functional integration (Henderson and Venkatraman, 1999). Here strategic fit accommodates both external positioning and internal arrangements, whilst functional integration concerns integrating business and IT in inter-organizational scenarios. Such alignment requires fusion of IT and business strategies across organizational boundaries rather than “a firm’s relative investments in different areas of IT [being] consistent with the firm’s business strategy” (Sabherwal et al. 2019, p. 457). In so doing, each organization’s stakeholders engage with aligning their strategies and processes to achieve: “a high-quality set of interrelated IT and business plans” (the intellectual component); integrated IT, business processes and infrastructures (operational); and mutual commitment to their goal (social i.e. Reich and Benbasat 2000). Thus, we regard inter-organizational alignment as “the degree to which the needs, demands, goals, objectives, and/or structures of one component are consistent with the needs, demands, goals, objectives, and/or structures of another component” (Nadler and Tushman 1979, p. 451).

In coevolving this alignment as a new inter-organizational form, adaptations must be made to each organizations’ processes and strategies, with these reflecting multi-levelness, multi-directional causalities, non-linearity, feedback and interdependence between the organizations, together with history dependence of the co-evolved organizational form (Lewin and Volberda 1999). Investigating process perspectives of performing alignment and systems perspectives of its performance as an entity with its own properties, should provide understanding of its sustainability. In so doing, a process perspective “focuses on accounting for an outcome by referring to a sequence of events involving the focal actors” and assembling these on the basis of how they are formed by events or by organizations’ actions (Burton-Jones et al. 2015, p. 5). Alternatively, a systems perspective is “based on the insight that the interrelations of certain components may result in an entity (system) with its very own properties” (Burton-Jones et al. 2015, p. 5). Thus, the

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process perspective conveys understanding of the adaptations required in aligning the business/IT components of strategies, infrastructure and processes for each stakeholder's business and IT with a focus on the role of feedback and history dependence. Then, alignment associated with the entity is comparatively reviewed as systems perspectives, in terms of the status of congruence and capability relating to the interdependencies of organizations' performance outcomes.

Accordingly, the first step is to detail an initial process perspective. This is achieved by reviewing how stakeholders' business and IT strategies, infrastructures and processes are identified, agreed upon and addressed (Karpovsky and Gallier 2015; Coltman et al. 2015; Benbya et al. 2020). Next two systems perspectives explore the performance and sustainability of this new entity in terms of its agreed purpose (status of congruence) and its inter-organizational capability. The status of congruence depicts the extent to which alignment delivers upon the agreed performance indicators i.e. between the intended and realized business and IT strategies. In inter-organizational scenarios this may reflect how well the primary stakeholder achieves its required outcomes rather than how secondary stakeholders regard performance. Alternatively evaluating alignment's performance in terms of its capability to deliver upon its purpose (Sabherwal et al. 2019; Wu et al. 2015) accords with alignment enabling "collaborating firms to combine assets so as to deliver value" (Teece 2012, 1396). Framing this capability perspective in terms of its intellectual, social and operational dimensions (i.e. Gerow et al. 2014; Williams et al. 2019) should indicate how effectively stakeholders are coevolving a sustainable entity (Gerow 2018; Gilchrist et al. 2018).

In determining a consistent understanding of these three dimensions, we reviewed their meaning and use in prior research, which shows consistency regarding their formulation (see Table 1). The *intellectual* dimension, conceptualized as formal linkages between strategies, embodies "the degree to which the mission, objectives, and plans contained in the business strategy are shared and supported" (Chan et al. 2006, p. 27). It is manifest in artifacts such as strategy, plans and infrastructure (Gerow et al. 2016; Liang et al. 2017). The *social* dimension relates to stakeholders' commitment, mutual understanding, shared values and interpersonal communication (Reich and Benbasat 2000; Wu et al. 2015). The *operational* dimension concerns fit between infrastructures and processes (Gerow et al. 2014, 2016; Wagner et al. 2014).

Table 1 Illustrative Definitions of the Dimensions of Business/IT Alignment

<p>Intellectual alignment:</p> <p>a) “state in which a high-quality set of interrelated IT and business strategies exists” (Reich and Benbasat, 2000, p. 82).</p> <p>b) “manifested in artifacts such as strategic plans that are ontologically objective ... [being] the artifactual alignment between business and IT strategies, which is formalized in organizations through hierarchical control, structural design, incentive systems, and resource allocation.” (Liang et al. 2017, pp. 865-6).</p> <p>c) “the degree to which the mission, objectives, and plans contained in the business strategy are shared and supported by the IS strategy” (Chan et al. 2006, p. 27).</p>
<p>Social alignment:</p> <p>a) “the state in which business and IT executives mutually understand and are jointly committed to each other’s mission, objectives, and plans ... manifested in mutual understanding” (Liang et al. 2017, p. 865)</p> <p>b) “the state in which business and IT executives within an organizational unit understand and are committed to the business and IT mission, objectives, and plans” (Reich and Benbasat 2000, p. 82; Gerow et al. 2014).</p> <p>c) “stakeholders share understanding of a business outcome and they are committed to the outcome and the means of achieving it” (Gilchrist et al. 2018, p. 2).</p>
<p>Operational alignment:</p> <p>a) “the link between organizational infrastructure and processes and I/S infrastructure and processes” (Henderson and Venkatraman 1999, p. 476).</p> <p>b) “cross-domain interconnectedness comprising social capital between IT and business departments and their common knowledge base” (Wagner et al. 2014, p. 243).</p>

Prior research identifies a need to explore their interdependence. For example, by focusing on intellectual alignment (Williams et al. 2019), research overlooks the impact of social alignment in improving organizational agility (Liang et al. 2017; 2018), or the effect of intellectual and social alignment upon operational alignment (Gerow et al. 2016). Yet, by regarding the capability of alignment as being derived through the social dimension of stakeholders’ shared understanding and commitment (Liang et al. 2017), the interplay with operational and intellectual dimensions is evident (Williams et al. 2019; Gerow 2018; Wagner et al. 2014). Accordingly, we focus on the contribution of all dimensions and, given the need for effective stakeholder commitment (Zhang et al. 2020), we consider the role of social capital.

2.2. Organizational Change and Social Capital

By sharing understanding and commitment, key stakeholders may assist organizations’ responses to change by coordinating flexible adaptations of business/IT functions (Liang et al. 2017). These changes may be achieved when key stakeholders’ positive and overt evaluations preclude other stakeholders from reacting negatively to interruptions of well-established patterns and then contribute to organizational sustainability by “energizing restorative action” (Maitlis and Sonenshein 2010, p. 555). In this manner,

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stakeholders orchestrate ongoing reciprocal adaptations to organizational change through “the interplay of action and interpretation” (Weick et al. 2005, p. 409).

To enable this restorative action, “social relations constitute useful forms of capital for individuals through processes such as establishing obligations, expectations and trustworthiness, creating channels for information, and setting norms backed up by efficient sanctions works that have the capacity to generate positive-sum outcomes for members” (Scrivens and Smith, 2013, p.14). Thus, stakeholders’ likely success is related to others’ confidence in their knowledge and credibility, with this derived from their perceived commitment, identity and social capital (Weick 1988; Maitlis and Sonenshein 2010). For example, their organizational identity affects their actual and perceived agency to orchestrate change and is particularly influential when others share their sense of organizational identity and commitment (Weick 1988). Thus, as a network of stakeholders with assets that can be mobilized through coordinated actions, social capital enables actions through: structural linkages such as a pattern of connectedness between stakeholders, including communication; cognitive linkages such as language, shared perspectives, and appreciation of different perspectives; and relational linkages such as trust and respect that generate mutual understanding and commitment (Wagner et al. 2014; Nahapiet and Ghoshal 1998).

In business/IT alignment, stakeholders who possess social capital together with strategic technical and business knowledge (Gerow 2018; Wagner et al. 2014; Gilchrist et al. 2018) may establish cognitive linkages that broker a common vision by making sense of the context and coordinating adaptations (Gilchrist et al. 2018; Jenkin et al. 2019). While studies demonstrate stakeholders’ role in brokering adjustments to IT change (i.e. Gregory et al. 2013), how structure and agency come together to enable both continuity and organizational change is less clear (Whittington, 2015). Thus, we consider the role of communication, commitment, unexpected adaptations and contradictions across the hierarchy in stakeholders’ organizations in resolving challenges related to interorganizational alignment. We investigate this through process and system perspectives of the performance of inter-organizational alignment, which depict its coevolution and sustainability as technical and socio-political factors that influence the status of

congruence between stakeholder organizations and the alignment's capability (Lewin et al. 1999; Benbya et al. 2020).

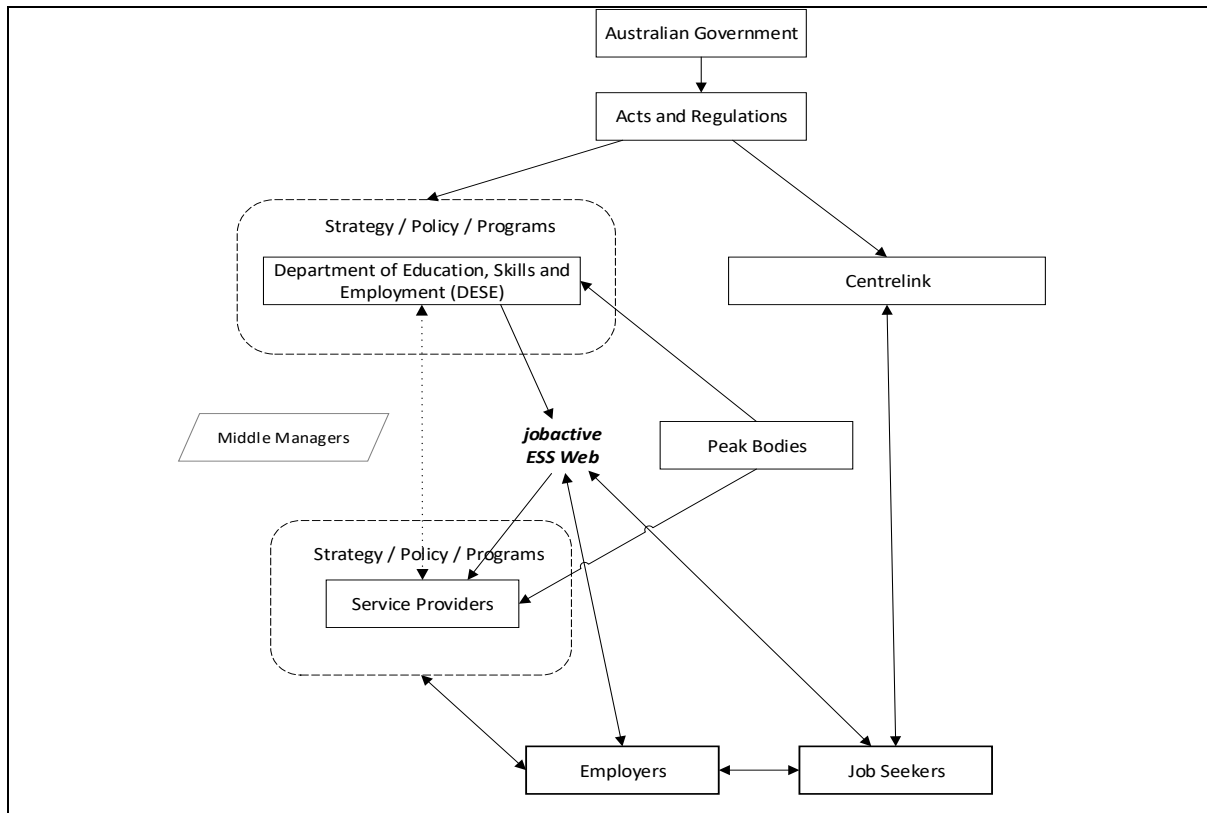
3. Context and Research Method

3.1. Context

In 2011, the Australian Government began redevelopment of its employment services system, with a comprehensive review of its previous employment services (*Job Services Australia*, or *JSA*) and collaborative development of a new web-based service *jobactive* and its IT system *ESS Web*. Development and deployment of *Jobactive*, deployed in July 2015 (DOE 2016), was overseen by the same CIO who had developed *JSA* using strategies of pre-emptive, proactive stakeholder engagement (Wilkin 2013; 2018).

As the current employment services system in Australia, *jobactive* has four stakeholder groups: DESE; service providers; employers; and jobseekers. DESE manages *jobactive* through public-private partnerships, with service providers contracted to deliver employment services to jobseekers, including those with disabilities (see Figure 1). In contracting, providers must deliver upon the needs and expectations of their employees and boards, as well as those of DESE, employers and jobseekers. Service providers are reimbursed for costs associated with providing jobseeker training and case management, and earn payments dependent upon employment outcomes. Our focus concerns two strategic stakeholder groups, DESE and service providers, as they align *jobactive* to deliver employment services for the Australian Government.

Figure 1 Context of the Case Study



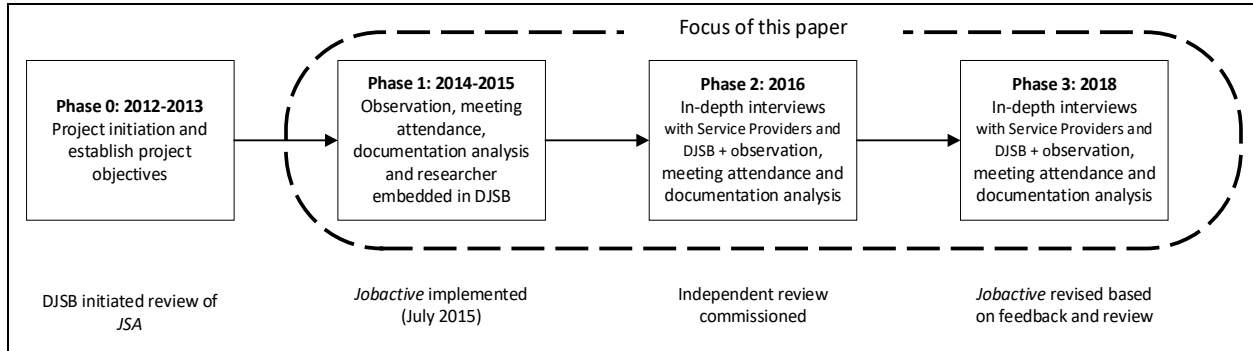
3.2. Methodology

In reporting this longitudinal case study, conducted over a period of seven years, we adopt a “relativist perspective ... acknowledging multiple realities and having multiple meanings, with findings that are observer dependent” (Yin 2018, p. 16). As such our research is process-oriented, and our data is qualitative as we attempt to “capture the perspectives of different participants and ... [focus] on how their different meanings illuminate” our topic (Yin 2018, p. 16). We frame our understanding through process and systems perspectives (Burton-Jones et al. 2015). Process perspectives focus on stakeholders’ narratives and/or sequencing events that are constituted patterns of actions (Van de Ven 2007): systems perspectives focus on the interactions among parts and emergent properties arising from these interactions (Burton- Jones et al. 2015). In so doing:

- Perspective 1A is an initial process perspective, including stakeholders’ roles in reviewing JSA and designing and deploying *jobactive* i.e. 2012-2015;

- Perspective 1B includes initial systems perspectives after *jobactive*'s first year (in 2016);
- Perspective 2A is a later process perspective, including service providers' agency to address alignment issues within and across organizational structures (2016-2018); and
- Perspective 2B includes systems perspectives at the end of *jobactive*'s third year (2018).

Figure 2 Phases in the Case Study and Associated Methods



Our data sources (see Figure 2 below and Appendix A) include in-depth interviews, informal on-site observations, meeting attendance and a wide range of documents (some publicly available, such as annual reports, others such as DESE's review of *jobactive* being confidential). The 30 substantive interviews include: 15 conducted in Phase 2, related to Perspectives 1A and 1B; and 15 in Phase 3 that relate to Perspectives 2A and 2B (details about interviewees are provided in Appendix B and interview protocols in the online appendix). Given the number and scope of interviews, together with evidence of common viewpoints, we have confidence that theoretical saturation² is established (Guest et al. 2013). Most interviewees were managers in service provider organizations, including site coordinators, contract managers, business support systems managers, team leaders, IT managers, and/or operations managers. The four more senior managers were an executive director of a service provider, two senior managers for DESE and Australian Government, and DESE's Chief Information Officer. Given the emergent nature of

² In general, Guest et al. (2006) regards 12 interviews as being sufficient to achieve theoretical saturation.

interview processes and to ensure rigour, the protocols and conduct of interviews were based upon Klein and Myers' (1999) seven principles of interpretive research (see Appendix C, Table C1).

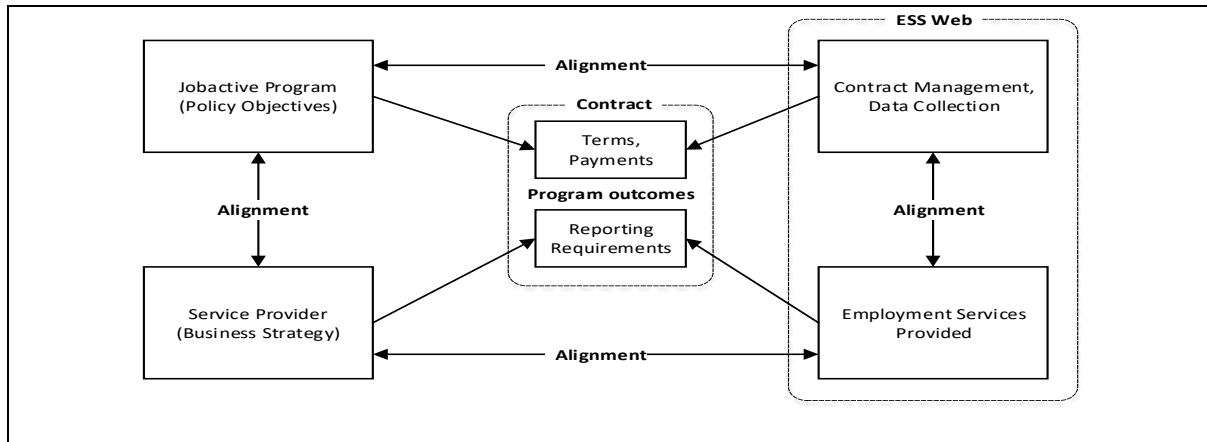
3.3. Analysis

As knowledge is socially constructed (Gioia and Chittipeddi 1991), analysis is informed by themes derived from the literature, extensive documentary sources, surveys and interviews (Klein and Myers 1999).

Interview data was coded in three stages (Saldaña 2009). Initially, transcripts were read to acquire a broad understanding and background information. This established initial insights, contextual understanding and key themes (Klein and Myers 1999). Next, one author used themes and insights from the literature to manually code the data, drawing on Gerow et al.'s (2014) intellectual, social and operational dimensions to understand alignment as a capability. This analysis showed economic issues as important, which accords with research showing both the impact of IT on economic value (Pang et al. 2014; Saldanha et al. 2020) and the role of economic, social, and political forces in external contexts of coevolution (Lewin and Volbelda 1999). Finally, another author refined the coding, which led to identification, classification and integration of 20 higher-level themes. This approach meant we achieved saturation in themes, whilst minimizing bias. In this process, the first coder focused on eliciting "units of meaning" from blocks of information, thereby tabulating and coding the data (Campbell et al. 2013, p. 303). The second coder independently coded these tabulated records. As multiple codes per statement were frequently identified, following small negotiations, inter-coder agreement of 87.8% was reached on the 230 items. This negotiated agreement approach, where coding requires both sensitivity to subtle and overt meanings, and where coders may have different levels of knowledge due to the complexity of the case (Campbell et al. 2013), is justified on the basis that we sought new insights (Morrissey 1974). Further, by following Sandberg's (2005) criteria in our analysis, we have confidence in communicative, pragmatic and transgressive validity (see Appendix C, Table C2).

This enabled formulation of our conceptual model (see Figure 3 below) depicting alignment of DESE's and service providers' business and IT strategies, infrastructures and processes in *jobactive*.

Figure 3 Conceptual model for business/IT alignment in *jobactive*



4. Findings

While our study covers a continuum from 2012-18, we particularly focus on two phases (see Figure 2): *Phase 2*, the performance of processes in development and deployment of *jobactive* and the outcomes evident at the end of its first operational year; and *Phase 3*, performance in dealing with alignment issues for the period 2016-2018, including resultant outcomes.

4.1. Alignment: Initial Perspectives on *jobactive*

4.1.1. The Initial Process Perspective (Perspective 1A). In developing the new employment services system, DESE followed recommendations from its Advisory Panel (see Table 2 below), using a new Industry Consultation Forum to develop a new employment services model to accommodate geographic spread, the complex mix of public and private providers, as well as improved access for employers and jobseekers. Prior research shows how DESE recognized the need to extend its established stakeholder consultation processes (Wilkin et al. 2018), with service providers being asked to define their needs and provide feedback on results. DESE iteratively used webinars, seminars, feedback on draft proposals and surveys and trialled concepts by ‘hands on’ exercises to test how options would work in everyday situations (Wilkin et al. 2018). DOE’s annual report (2015, p. 2) acknowledged the importance of this approach as

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“[t]he capacity for Employment Providers to develop and deliver flexible servicing arrangements is an essential component of the Employment Services 2015 model”. Thus, acting on service providers’ requests, *jobactive* and its *ESS Web* were developed to include new features such as graphical dashboards, real-time interfaces with DESE and Centrelink, simpler diary processes to display available interview times, dashboards being individually tailorable via widgets and hyperlinks to allow drilling and outcome tracking (for details see Appendix D).

Table 2 Strategies Used in Developing and Aligning *jobactive**

Timeline of strategies in developing <i>jobactive</i>	Strategies for improving alignment in <i>jobactive</i>	Extent and relevance of strategies
Review of the existing system	<ul style="list-style-type: none"> The Advisory Panel on Employment Services Administration and Accountability established by the Australian Government. 	<ul style="list-style-type: none"> Consulted large and small providers (for-profit and not-for-profit), peak bodies, jobseekers and their employers to identify issues with JSA.
Advisory bodies assigned to review project, budget and timelines	<ul style="list-style-type: none"> The new Industry Consultation Forum established and ensured wide consultation and communication. 	<ul style="list-style-type: none"> The forum represented all stakeholder groups (jobseekers, employers, service providers and the Government). Wider engagement in the design phase.
Consultation with stakeholders regarding the new design	<ul style="list-style-type: none"> In order to remove red tape and duplication, DESE and service providers together reviewed case management and file notes. DESE encouraged service innovation among providers such as community collaboration and committed to longer contracts for service providers (encouraging investment), as well as training. DESE undertook to be more transparent re accreditation with a Quality Framework (QAF) and auditing provider services. 	<ul style="list-style-type: none"> DESE treated service providers and itself equally. DESE showed trust in providers, encouraged innovation and investment, and sought to provide better financial security and fostered investment. DESE agreed with many service providers’ concerns about JSA i.e. they had to use ghost systems to capture background information and support reporting requirements (particularly during audit) as JSA had insufficient analytical capabilities to address their strategic priorities.
Consultation with providers regarding prototyping	<ul style="list-style-type: none"> Actively consulted service providers via face-to-face meetings, webinars, testing prototypes etc. Consulted jobseekers and employers via surveys and their peak bodies regarding desired functionalities. 	<ul style="list-style-type: none"> Detailed consultation with providers re design features, desired functionalities and efficacy of prototypes.

4.1.2. The Initial Systems Perspective on Alignment (Perspective 1B). The initial review of *jobactive*’s design and development by the Australian National Audit Office (2017, p. 1) affirmed “[t]here was a sound reason for redesigning the employment services model, the governance arrangements established by the department were comprehensive, stakeholders were adequately consulted...[with] a reasonable level of

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assurance that the *jobactive* program is being administered as designed and expected [and with] Key Performance Indicators developed by the department, which align with program objectives”. Accordingly, in exploring system performance at the end of *jobactive*’s first year, we consider the evident state of congruence and organizational capability of this entity.

Alignment: Status of Congruence. Given alignment’s inter-organizational structure, congruence is evaluated in terms of intended and realized outcomes for *jobactive* (Sabherwal et al. 2019) rather than *realized* business strategy and *realized* IT strategy (Wu et al. 2015). DESE’s annual report for the first year of *jobactive* (DOE 2016) shows that two of the four objectives were met (see Table 3 below), with *jobactive* performing reasonably well on the others (Objectives 1, 3 and 7). Both targets for Objective 4 were met, with *jobactive* organizations achieving service requirements (91%) as well as a reduction in complaints. However, service providers’ satisfaction (71.8%) was below the target (80%). This lack of satisfaction (i.e. Table 3, Objective 8) indicates underlying issues, which is particularly interesting as during *jobactive*’s development service providers sought and gained significant new capabilities. For example: longer contracts; reduced jobseeker streams; an ability to define performance criteria in contracts; a web-based system and apps; quicker payments; and improved star rating measures (see Table 3 and Appendix D).

Table 3 Annual Report Regarding *jobactive*’s Performance at the End of Year 1*

DESE’s Objectives	Outcomes reported for 2015-2016*
1. Help jobseekers find and get a job.	3 of the 6 targets for sustained job placements were met.
2. Jobseekers move from welfare to work.	43% of jobseekers moved off income support or significantly reduced reliance (target 40%).
3. Job seekers meeting mutual obligations to actively seek work i.e. reported improved motivation to work, attend appointments.	94% were actively looking for work (target was 95%).
4. <i>jobactive</i> organizations delivering quality services.	Met both targets. 84% of employers satisfied with the assistance provided (target 80%) + 91% of <i>jobactive</i> organizations met service delivery requirements (target 80%).
5. Sustained jobseeker placements.	Not measured/reported.
6. Cost per employment outcome.	Target \$2,500. Outcome N/A.
7. Calls related to customer services.	Number of calls increased but number of complaints decreased.
8. Level of satisfaction of service providers with contracted information and support	Target 80%. Achieved 71.8%.

*DOE (2016, pp.16-22). Note: Shading shows objectives that were met.

The Capability of Alignment. A review of service providers’ narratives in terms of alignment’s intellectual, social and operational dimensions (see Table 4) shows insights concerning issues related to this evident in a lack of satisfaction. In particular, analysis shows the relevance of economic considerations to alignment performance outcomes (Pang et al. 2014; Saldanha et al. 2020) and the need to consider the role of an economic dimension in alignment (see Section 3.3). As this accords with social, political and economic considerations for coevolution (Lewin and Volbelda 1999), we include an economic dimension.

Table 4 Service Providers’ Perceptions of Alignment After *jobactive’s* Initial 12 Months

Dimension		
Intellectual	Contribution to alignment	Evidence
Positive aspects	<ol style="list-style-type: none"> 1) Providers could bid for specific business that aligned to their unique experience and capabilities i.e. service providers were encouraged to play to their strengths and specific business priorities. 2) Providers were required to competitively tender to DESE to deliver employment services, detailing demonstrated performance (including capacity to get jobseekers employed and meet employers’ needs) and governance (structure, skills and services). 3) Audits gave providers star ratings (DOE 2016; DESE 2020). These were now done quarterly but with an emphasis on achievements over 12 months. Providers were required to show annual results as a star rating on their website and in their offices, which helped jobseekers and employers to identify the best performing providers. 4) Reduced number of jobseeker streams and improved providers reporting requirements, service delivery and administration efficiencies. 5) Better access to jobseeker history when a new provider was involved. 	<ol style="list-style-type: none"> a) <i>It’s an improvement on what was or is ESS the application more so in the fact that it’s now web-based. ... it’s fantastic in that regard because we don’t have to worry about applications and compatibility and things like that. (SP02)</i> b) <i>I think it’s added or given the capacity for more independence of consultants. Rather than having things pushed down to them, they can actually access information more freely. (SP01)</i> c) <i>Yeah, because when, when it works, it’s great. Visually it’s really, it’s a good, quick snapshot, you can see what’s going on (SP09)</i>
Negative aspects	<ol style="list-style-type: none"> 1) Concerns with the management of audits. Providers saw these as a top-down control and time-consuming. 2) Providers and jobseekers were disgruntled with new reporting and failure to reduce red tape. 3) Regarding <i>ESS Web</i>, service providers sought greater consistency between what the system collected and the 	<ol style="list-style-type: none"> a) <i>they audited us on files from the previous contract in the very first week of the new contract. (SP07)</i> b) <i>We’re reporting more back to the department, more than what we ever have under any of the previous contracts, we have to um be um accredited under the Quality Assurance Framework, which we’re going through now yet we’re still getting regular rolling sample requirements from the department as well, so it’s another level of auditing and compliance. (SP07)</i>

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	information DESE expected particularly during performance audits.	c) <i>Policy and procedure from the department or compliance [are the most significant external pressures] let's just go compliance actually that's probably a better word, compliance with the department and I guess employer expectation (SP02)</i>
Social	Contribution to alignment	Evidence
Positive aspects	<ol style="list-style-type: none"> 1) The consultative processes instituted by DESE in developing jobactive reinforced communication links (see Table 2). 2) DESE's comprehensive analysis of providers' file notes and case management data showed commitment to understanding their social issues (client management). 	<ol style="list-style-type: none"> a) <i>we are good at communication, making sure that people understand what they do and how it fits into the bigger picture ... and then pass that information down. (GOV1)</i> b) <i>regular communication tells people what is happening, what's coming up, you know... different government changes that sort of thing. (SP05)</i> c) <i>How do you fix problems? conversations and building the relationships since he's basically .. contracting he meets with the CEO's 4 times a year. (SP05)</i> d) <i>we have now made it up to the providers to tell us how they are going to deliver the service – we are not going to tell them. This also means jobseekers can go to the provider that they want based on the provider's service delivery plan. (GOV3)</i> e) <i>we called all our job seekers in for a forum and we had employers there and guest speakers to meet our job seekers face-to-face and give a talk about their business and that's been quite successful as well and that's all good relationships. (SP07)</i>
Negative aspects	<ol style="list-style-type: none"> 1) Wanted more support from DESE in working collaboratively to find solutions to system issues. 2) Service providers faced issues with jobseekers and employers not understanding the new obligations and payments systems. In particular, jobseekers' frustrations directly impacted service provider staff. 3) Difficulties with timely responses when contacted DESE with issues 	<ol style="list-style-type: none"> a) <i>because, yeah, the system's not really there to support the relationship that's going to get them a job. It's compliance-based. (SP06)</i> b) <i>We are getting conflicting information where we have to sort of sort that out so I guess there's the lack of communication, a lack of knowledge between what DHS does and what we do. (SP07)</i> c) <i>if you are running a business and you've got staff who are trained in a particular way of doing things and the Government turns it on a head then you have got a big change control issue. (SP01)</i> d) <i>I was the one that gave them [service providers] the business in the first place. I checked up on them and, if they had done the wrong thing, I fired them. (GOV2)</i> e) <i>one of the hard things is actually getting feedback from the users. We don't get a lot of engagement. (GOV3)</i>
Operational	Contribution to alignment	Evidence
Positive aspects	<ol style="list-style-type: none"> 1) In ESS Web, service providers had more flexible access, improved navigation, better access to client histories, and more streamlined payments. 2) New functionalities included use of multiple screens, dashboards, noticeboards and widgets. 3) Jobseekers and employers able to self-manage better as jobactive used a web-based system (ESS Web). Thus, they could use apps to communicate with providers. 	<ol style="list-style-type: none"> a) <i>The functionality of the changes that has happened from the old to the new is quite good. Personally, change is something that I kind of look forward to. (SP03)</i> b) <i>I know that the case managers here all use their Dashboards and the Noticeboards are just loved (SP03)</i> c) <i>There were some changes made to the diary, when was that? A few months ago towards the end of last year that made it a little bit easier, they took on some of the stuff that we advised was you know, some of the things that weren't working and some of things that we wanted in terms of functionality. (SP07)</i> d) <i>we've actually got an external tool that jobseekers can do a lot more stuff offline, out of sites and not in sites ... to mean that they can actually fulfil some of their</i>

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		<i>requirements when and where they actually want as long as they are still fulfilling those requirements. (SP01)</i>
Negative aspects	<ol style="list-style-type: none"> 1) ESS Web's functionalities i.e. navigation, functionality, complexity, latency, speed, stability and presentation. 2) Providers, consultants and jobseekers were disgruntled with the failure to reduce what was perceived as unnecessary red tape. 	<ol style="list-style-type: none"> a) <i>one of the other challenges we've faced is coming into this contract, the ability to access management information out of it is much more limited. (SP01)</i> b) <i>there was a lot of loss of functionality coming into this contract I think in some areas. (SP01)</i> c) <i>Smart Client compared to the new version it's even slower than what it used to be so you know to do something simple to book an appointment can take you up to six or seven steps. (SP07)</i> d) <i>so it's this tension between the information we need to be able to make sure the services are being delivered and them talking about how much red tapes. (SP05)</i> e) <i>Yeah well the timing was appalling, absolutely appalling, considering that their system didn't work on day one and it didn't work for about two weeks and now staff are doing everything manually and we're pulling out files from a contract which was no longer running. (SP07)</i>
Economic	Contribution to alignment	Evidence
Positive aspects	<ol style="list-style-type: none"> 1) DESE remodeling of star ratings³ meant that service providers are evaluated against three Key Performance Indicators (quality is a new one), with outcomes apportioned against 3 jobseeker streams and evaluations made quarterly but with emphasis on 12 months' achievements. 2) Providers' financial viability improved by DESE enabling quicker payments for services. 3) Employers had incentives for employing jobseekers and fewer controls in listing job vacancies. 4) Better coordination as DESE's payment dates align with Centrelink reporting dates. Jobseekers are less likely to be disadvantaged through under- or over-reporting of income. 5) Providers have 5 year contracts with DESE (previously 3 years) 	<ol style="list-style-type: none"> a) <i>The functionality of the changes that has happened from the old to the new is quite good. Personally, change is something that I kind of look forward to. (SP03)</i> b) <i>I know that the case managers here all use their Dashboards and the Noticeboards are just loved, absolutely loved the Noticeboards. (SP03)</i> c) <i>There were some changes made to the diary, when was that? A few months ago towards the end of last year that made it a little bit easier, they took on some of the stuff that we advised was you know, some of the things that weren't working and some of things that we wanted in terms of functionality. (SP07)</i> d) <i>we've actually got an external tool that jobseekers can do a lot more stuff offline, out of sites and not in sites ... to mean that they can actually fulfil some of their requirements when and where they actually want as long as they are still fulfilling those requirements. (SP01)</i>

³ This is reported in more detail by Author De-identified (2018).

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Negative aspects	<ol style="list-style-type: none"> 1. Slow claim processes, difficulties in reporting to DESE and Australian Government targets. 2. Providers were contracted to deliver these payments and placements but many could not manage the claim process in <i>ESS Web</i>, requiring them to export data into Excel in order to initiate claims. This slowed processes and affected provider viability. Further, it had wider economic consequences related to getting jobseekers off Centrelink (welfare payments), and into work (employer outcomes). 	<ol style="list-style-type: none"> a) <i>the payment structure that they've implemented is very, very tight unless you are have outstanding performance, the board's opinion for our organization is that [compliance re] this contract will send you broke. (SP07)</i> b) <i>we've got sites that - and they just slide across the line for KPIs as a four-or-five star site, and that's just a [financial] break-even figure It's just hard work. (SP02)</i> c) <i>At the start of the jobactive contract, we had some difficulties with the changes around wage subsidies because they were used to getting the higher amount and obviously it's very restricted now. (SP06)</i> d) <i>[Our two most significant internal pressures for our organization]... financial liability and for our organization, mission delivery. (SP01)</i> e) <i>there's incredible tension there between them [service providers] wanting to take the shortest route to make the profit and me [DESE] holding them to account. (GOV3)</i> f) <i>I think [a key value proposition] is probably getting people into work. It's certainly not a profit thing because we're Not for Profit organisation. We actually made a loss this year (SP11)</i>
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Capability was evident in the intellectual dimension where improved efficiencies included fewer jobseeker streams for providers to manage, greater flexibility given to providers to tailor their contracts with DESE, and star ratings judged against the performance of others (not against DESE-driven criteria). Capability regarding the social dimension was predicated on the inclusive practices in developing *jobactive*, training and initial good two-way communication and was operationally improved by inclusion of most of the functionalities that providers requested (dashboards, web-based systems and hyperlinks to allow drilling and outcome tracking).

Whilst DESE had intended to improve economic alignment in *jobactive*, there were significant issues that particularly related to *jobactive's* complexity and the significance of new compliance demands. Of obvious concern were timeliness of payments, increased staffing costs to deal with DESE's compliance requirements for jobseekers and their increased complaints, and system functionality issues that increased time spent by staff on service delivery and thus increased wage expenses. Firstly, *jobactive* was rolled out at the start of a new financial year so that welfare payments for the unemployed that were paid by Centerlink were aligned with jobseeker payments, making compliance and payments easier to manage for jobseekers and service providers (Wilkin et al. 2018). However actual outcomes were unhelpful. Jobseekers were

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frustrated with the new compliance requirements in *jobactive*, which required them to meet their obligations more accurately, with expectation that jobseekers would achieve much of this for themselves using apps and IT. This caused operational problems for service providers as jobseekers vented their frustrations at them and with resulting economic problems as jobseekers' tardiness slowed down payments for both jobseekers and providers:

our clients are not very good with technology, they're not very good with the computer, some of them they don't even have a smart phone, so they can't use that, the new system. So they're still relying on us, and by doing that we're, once again, double handling, we're doing extra work and it takes longer. (SP31)

Supporting evidence includes DEEWR's acknowledgement that "*in 2014–15 its service line received more than 94,000 calls, up from 45,500 calls in 2013–14. The increased call volume was a result of the transition from Job Services Australia to jobactive and the new job seeker compliance arrangements*" (DEEWR 2014, 24). Moreover, with *jobactive*'s roll-out timed at the start of the new financial year, service providers had to concurrently deal with a new system and reporting data for the previous year. Consequent difficulties affected providers' audit processes, their star ratings, and thus their income. This was compounded as service providers had to deal with new *jobactive* contracts and new accreditation requirements at the same time:

we have to pay for that accreditation and it's not cheap. .. in the very first week of the jobactive contract, when we had the whole implementation of the jobactive contract rolled out into our DES program .. and it didn't work and um they audited us, audited us on files from the previous contract in the very first week of the new contract. Yeah well the timing was appalling, absolutely appalling, considering that their system didn't work on day one and it didn't work for about two weeks and now staff are doing everything manually and we're pulling out files from a contract which was no longer running and having to send off audit responses which we didn't get our results on. (SP07)

As stated, despite extensive load testing, *jobactive* was not initially reliable so providers had to work with other systems and processes in order to maintain services to jobseekers and employers. Service providers summarised how the operational issues were affecting economic issues as:

Like we found one instance this morning which is a 26 week claim, what's that, 45% of our star rating, where we were, you know, because the system wasn't working, and we'd had an e-mail from

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peak body to say “This is the current work around, system should be fixed in two weeks”, that was a month ago. Still not working, no updates since then. (SP09)

Well not total failure [in reference to ESS Web 2016] but when you're being asked to only have half the people logged on and then what that meant was that we then had to have manual processes plus some people who could log onto the system and it wasn't just that, it was the fact that, this contract required a different skill set for frontline staff. (SP34)

Hence, whilst sharing common purpose with DESE to improve employment services, providers attributed the evident significant difficulties to the extent of change in moving from *JSA*, and complexity of the new entity (*jobactive*) i.e. “*Alignment? just achieving, just being financial, achieving all of our targets and in doing so just making sure that we're staying fresh, making sure that we're staying connected. So just balancing all of the priorities*” (SP35). In acknowledging the range and implications of these difficulties, DESE commissioned an independent review in 2016⁴. At the same time, as acknowledged in its annual report, DESE undertook to work more promptly to address feedback from service providers:

During 2016–17, the Department continued to refine the program in response to feedback from jobactive providers, job seekers and employers. It implemented a number of policy and IT system changes that gave jobactive providers greater flexibility and accuracy in managing employment outcomes, simplified the administration of wage subsidies (DOE 2017, p. 13).

4.2. Improving Alignment of Business and IT in *jobactive*

Analysis of Phase 3 interviews and source documents (including the consultant’s confidential report), shows that *jobactive*’s coevolution materializes through stakeholders’ social capital and their related efforts to achieve reciprocal adaptations.

4.2.1. The Process Perspective on Improving Alignment (Perspective 2A). Service providers were found to make significant contributions by synthesizing what DESE and their own organizations wanted in the context of what their staff, their current systems and processes could manage. Using social capital, they embedded their agency in a lived reality of operational circumstances, whilst working within and across organizational structures.

⁴ This is confidential but was available to the authors.

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One example related to difficulties regarding DESE's compliance requirements for jobseekers. Service providers understood these issues at three levels i.e. for: jobseekers as "*our clients are not very good with technology, they're not very good with the computer (SP 31)*"; their own organization as "*I would say 80 to 90 percent of us, if not 100 on some level definitely the social outcomes motivate us*" (SP35); and DESE as "*especially if you're managing culture within that change, so it's not just a policy procedure coming from the department saying this needs to be done, it's also about how you manage that with a particular culture and ... skillset (SP23)*". In responding, they worked with their own staff, supporting them to manage difficult encounters with jobseekers through orchestrating processes to encourage positivity and innovation whilst ensuring compliance. Strategies included internally building social capital by rewarding staff for innovation and providing support structures as externally they dealt with DESE to gain more flexibility.

One significant economic problem related to *ESS Web* functionalities in enabling provider organizations to compile data for service delivery reports (job placements) to DESE and thus receive payments. *jobactive* would not retain jobseeker ID from one screen to another, nor allow providers to collate data from their different sites into a single report to DESE. Consequent economic issues included additional unbudgeted costs and timeliness. Adaptations included larger service providers spending money developing their own systems to manage this (up to \$50,000), whilst smaller operators kept manual records and then paid staff overtime to collate the data and key it into *jobactive*. In response, service providers leveraged their organizational knowledge and agency within and across organizational structures i.e. across "*from time to time I get frustrated or have a question and I'll just go to her and she'll pass the information on to the Department*" (SP31) and "*we got a round table together last year, tried to get the department there to say listen, we actually think there's still some issues here. ... the department reluctantly agreed*" (SP34); and within "*it's only when you're in the situation that's when you learn. Kind of like trial and error, you make a mistake, OK this is how you do it, this is how the new system works*" (SP31).

Thus, service providers' agency had a significant role in aligning attitudes and expectations, inducing collective willingness in worksites to operationally manage with what they had, whilst resolving strategic capability and congruence issues (Sabherwal et al. 2019). As one service provider expressed "*because*

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there's that communication, it's two way and it seems to be you know in practice something that just sort of sits in the middle". (SP07). Inherent in these adaptations was service providers' social capital, orchestrated through initial stakeholder engagement with DESE as *JSA*, *jobactive* and *ESS Web* were each developed (Wilkin et al. 2013; 2018). This achieved positivity and reciprocity that is reflected in their contribution to the confidential report, and in statements such as "*ESS Web ... I think it's a fantastic program. I think the department has done a phenomenal job over the years in developing it*" (SP21).

4.2.2. Systems Perspective on Alignment after Three Years (Perspective 2B)

Alignment: Status of Congruence. To enable comparison, we again report congruence in terms of the intended and realized outcomes for *jobactive* for 2017-2018 (see Table 5 below). Findings show six objectives were substantially met (DOE 2018a). While providers' satisfaction with contracted information and support was not measured, reported figures regarding *jobactive* organizations delivering quality services noted 81% of providers were meeting service delivery requirements. This figure must be judged in terms of changed criteria as the measure is now reported as the proportion of *jobactive* providers fully meeting $\geq 80\%$ of their assessed commitments over the financial year, whereas previous measures did not report full compliance.

Table 5 Annual Report Regarding *jobactive* at the End of Three Years

DESE's Objectives	Outcomes reported for 2017-2018**
1. Help jobseekers find and get a job.	Job placement sustained to 4 weeks 65.3% (target 55%) Job placement sustained to 12 weeks 58.3% (target 45%) Job placement sustained to 26 weeks 41.3% (target 25%) Proportion of job seekers employed three months after participation in employment services: Stream A 59.1% (Target 55%); Stream B 43.5% (Target 35%); Stream A 49.5% (Target 45%)***
2. Jobseekers move from welfare to work.	Increased the number of jobseekers off income support from 43% to 44.1%.
3. Job seekers meeting mutual obligations to actively seek work i.e. reported improved motivation to work, attend appointments.	Reports of increased motivation at 74.9% (target 75%); increase in those actively seeking work 96.28% (target 95%); number of provider appointments attended 76.8% (target 90%).
4. <i>jobactive</i> organizations delivering quality services.	Met both targets, but at reduced levels. 82% of employers satisfied and 81% of providers meeting service delivery requirements.
5. Sustained jobseeker placements.	Exceeded the 3 targets by at least 4% in each case.
6. Cost per employment outcome.	Placement costs of \$2,188 (target \$2,500).

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7. Calls related to customer services.	11.2% decrease in call volumes.
8. Level of satisfaction of service providers with contracted information and support	Not measured

DJSB (2018a) ** Shadings indicates where outcomes improved from 2015-2016 report. * Streams are categorized by assessing jobseekers' perceived job readiness.*

The Capability of Alignment. Capability (see Table 6 below) shows similar improvements in all dimensions, namely: *intellectual* (reduced red tape, improved reliability of *ESS Diary* and reporting); *social* (more responsiveness concerning how DESE engaged with stakeholders and reduced complaints); *operational* (improved flexibility via a mobile computing platform based on Windows 10 and Office 365, and reduced layers of redundancy); and *economic* (improved timeliness of payments).

Table 6 Improved Strategic Business/IT Alignment for *jobactive*

Dimension	Changes	Evidence
Intellectual	Although some issues remained, there was positivity regarding enhancement in the range of digital services available to job seekers and employers, including: the online employment services trial; and reduced red tape across a range of employment and workplace relation programs (DJSB 2018a).	<ol style="list-style-type: none"> 1) <i>So the framework, that's not negotiable. There are certain things that we are required to do as per a deed or in our guidelines but then we also talk about the space in between that's when you can spread your wings. (SP35)</i> 2) <i>It's in everyone's best interest to embrace that technology. I think it's fantastic. But you've got a lot more ease of access to that information than we've ever had before. (SP29)</i> 3) <i>Innovation I think is what makes you special and ... it's encouraged greatly. (SP32)</i>
Social	As evident in frequent use of phrases such as 'constant communication' to 'build relationships' and 'coordinate the attainment of goals', good communication was important in facilitating social interaction between various communities of knowledge. Improvements include reduced complaints, and more jobseekers placed in work (DJSB 2018a). Due to the complexity of the multi-party system, some alignment issues remained (i.e. 18% of employers were not satisfied with provider assistance). Service providers consistently indicated positive commitment to improved alignment of <i>jobactive</i> mechanisms.	<ol style="list-style-type: none"> 1) <i>the department [DESE] have really listened to both clients and staff in our troubleshooting problems and have pretty much weaned out 90% of it in the new system ... I'm quite excited for the new system. (SP28)</i> 2) <i>it's nice to be able to just pick up the phone and speak to someone ... I have quite a lot [of contact with DESE] when it comes to that quality assurance side of things. Obviously ... the CEO has direct contact with communications that are coming out from the Department, and then regional managers would have a lot of contact as well. (SP33)</i> 3) <i>So there's a lot of feedback going back and forth I believe ... that's my perception. (SP29)</i>
Operational	DESE improvements include: network design incorporating multiple layers of redundancy, thereby reducing high priority incidents; flexibility via a mobile computing	<ol style="list-style-type: none"> 1) <i>Yeah, it was a way better process [in 2018] then earlier on [in 2015] but I think they can still do better (SP34).</i> 2) <i>Improvements to the Rolling Random Sample process have meant that results and feedback to providers are</i>

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	platform based on Windows 10 and Office 365; replacing an aged data centre and desktop hardware; and <i>jobactive</i> 's improved reporting and data analytics capability (DJSB 2018a).	<p><i>now delivered within six weeks of the commencement of an assessment cycle. This has given jobactive providers an opportunity to implement more timely improvements to claiming practices (DJSB 2018a, p. 31).</i></p> <p>3) <i>ESS Web probably look, I think it's a fantastic program, I think the department has done a phenomenal job over the years in developing it. (SP21)</i></p>
Economic	DESE was meeting targets regarding providers' and employers' satisfaction with <i>jobactive</i> assistance and service quality standards and more timely payments to providers (DJSB 2018a).	1) <i>During 2016–17 [DESE made] ... a number of policy and IT system changes that gave jobactive providers greater flexibility and accuracy in managing employment outcomes, simplified the administration of wage subsidies and the Employment Fund, and increased opportunities for young people (DOE 2017, p. 13).</i>

This systems perspective shows improvements to the performance of alignment, with DESE instituting a number of operational improvements (see Table 5) that addressed service providers' earlier issues. These were driven by DESE's focus on improving its communication, both directly with service providers and through its formal review and confidential report (social alignment). Regarding intellectual alignment, aspects such as star ratings and audit remained as relatively immutable, being integral to DESE's governance, but stakeholders recognised that they could be innovative within this context. As a result, there were evident improvements regarding the operational and economic dimensions of alignment.

5. Discussion

In co-evolving alignment, our findings show how stakeholders' social capital, evident in structural, cognitive and relational linkages (Wagner et al. 2014; Nahapiet and Ghoshal 1998), enabled their agency within and across organizational structures to foster reciprocal adaptations to alignment issues. In particular, service providers' social capital with their own staff and with DESE afforded them agency that was enhanced by their structural linkages. Their cognitive awareness of the different perspectives related to the needs of their own organization and to DESE's requirements enabled them to tailor their language to achieve operational 'fixes' whilst concomitantly seeking more strategic reciprocal adaptations. Hence "*we'd go and I'd lobby for months on something, and then someone [from DJSB] would walk into a meeting and go what if we do this, which is exactly what we'd been lobbying for, and I learnt pretty quickly to go what a great idea you have, rather than we've been telling you to do that*" (SP21).

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Whilst working to strategically resolve alignment's structural 'breakdowns', their interim operational 'fixes' were orchestrated operationally as interim solutions rather than work-arounds arising from resistance (Alter 2014). One example is how providers managed operational difficulties (caused by jobseekers' objections to compliance with *jobactive*) in order for jobseekers to be paid employment benefits and their organizations paid for job placements. Here they identified and managed the difficulties with *ESS Web*'s functionalities as an interim solution, whilst concurrently working with jobseekers to resolve their difficulties with new IT such as apps. In so doing, providers' solutions were positive in intent, scalable in action and temporary in nature. Rather than instituting 'workarounds' as responses to 'breakdowns', their agency and knowledge generated intra-organizational solutions as operational 'fixes' until they resolved reciprocal adaptations across organizational structures. Thus, rather than 'trading off' a capability (intellectual alignment), service providers capitalised upon another capability (social alignment), using social capital to enable their agency and orchestrate agile responses.

Further, our systems perspectives show relevance of appraising alignment's capability in terms of key stakeholders' perceptions of its intellectual, social, operational and economic dimensions. While systems perspectives of alignment performance as the status of congruence and as a capability are compatible, the latter gave clearer insights into its sustainability. For example, the dimensional perspective of alignment's capability shows how the key issues are traceable to the related process perspective where DESE and providers committed to wholesale changes to *jobactive*'s IT component (now *ESS Web*) and its platform (the web and windows). Equally as the status of congruence (the extent to which intended strategies are realized) is reported by the principal stakeholder (DESE), it may well unduly reflect DESE's needs despite sustainable alignment requiring performance to be sustainable for all organizations.

Whilst the business and IT strategies of employers as well as jobseekers' needs and IT processes⁵ are relevant to the evolution of *jobactive* as a new organizational entity, the study has focused on those for DESE and service providers. Herein, *jobactive* as a new organizational entity was purposed to enable these

⁵ For details see Wilkin et al. (2018)

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stakeholders to transact employment services by aligning their business and IT strategies. Findings show that despite inclusive strategies and processes to define needs and initiate *jobactive*, the technical and social complexities of evolving alignment resulted in a range of issues whose dimensionalities were principally operational and economic. Findings demonstrate how agency contributed positively to outcomes and how social structure allows both constraint and enablement (Whittington 2015) with communication being a key ingredient to both the process and performance outcomes. As such:

- the initial process perspective shows how DESE's agency within and across organizational structures elicited a myriad of new desirable functionalities such as a web-based system and apps that would improve communication and transacting;
- initial systems capability being hampered by poor IT functionalities that affected communication within structures (such as provider organizations) and between stakeholders (such as between providers and jobseekers, and between providers and DESE); and
- how a focus on communication (evident as part of Process Perspective 2A) enabled agency that bridged organizational structures, thereby improving transacting through *jobactive*.

Thus, as a study of strategy as practice (Whittington 2015), our study of alignment shows how capability was coevolved through the interplay of improvisation and structure that is enabled by agency predicated on social capital and commitment.

6. Conclusion

Findings from this longitudinal case study contribute knowledge regarding the coevolution of strategic business/IT alignment in inter-organizational scenarios. Firstly, inter-organizational alignment requires broader definition to incorporate the reality of aligning business and IT strategies, infrastructure and processes of each participating organization, in order to reflect the coevolutionary complexity of alignment. Secondly, empirically linking the process performance of alignment with performance as outcome through comparative systems perspectives, demonstrates the relevance of understanding alignment's sustainability

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in terms of its capability. By articulating alignment's strengths and weaknesses in terms of its dimensions, we extend research that has typically focused on the intellectual or social dimension (i.e. Williams et al. 2019; Reich and Benbasat 2000; Gilchrist et al. 2018). By investigating the interplay of all dimensions, findings show alignment as evolving through emergent adaptations (Zhang et al. 2020), particularly through the direct effect of social capital in enabling agency within and across organizational structures to improve intellectual, operational and economic alignment. Moreover, by showing the importance of economic influences on alignment's capability, we extend Gerow et al.'s (2014) three-dimensional conceptualization of alignment. This dimension is particularly important in inter-organizational scenarios where alignment must be economic in order to be sustainable for each participating organization. Future research may investigate the role of intangible economic benefits in scenarios such as disaster recovery.

In this regard, a number of limitations arise. Firstly, despite the breadth of the resources used, data is collected from one inter-organizational scenario which limits the generalizability of findings. Secondly, our interviewees provide retrospective accounts. Thirdly, we do not use objective measures of the four dimensions, but rather frame our analysis by adopting conceptualizations used by prior research and linking this with evidence in our data sources. Finally, evaluating alignment as a status of congruence and capability in terms of documents and stakeholders' narratives is inherently subjective.

In summary, findings contribute new knowledge about multi-dimensional processes in the performance of business/IT alignment (Karpovski and Galliers 2015; Gilchrist et al. 2018). Our study shows that coevolving the required capability for sustainable alignment in an inter-organizational scenario is contingent upon stakeholders harnessing structural, cognitive and relational linkages that are situated in their social capital in order to leverage their agency within and across organizational structures.

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Appendix A: Description of the Research Phases

Phase	Purpose	Details
Phase 1 2014– 2015	Scoping	<p>Interpretive components:</p> <ul style="list-style-type: none"> • Observed meetings, attended presentations and briefings, read documentation, and journalised observations. • Interviewed the CIO and other DESE personnel. <p>Two text-based surveys:</p> <ul style="list-style-type: none"> • In 2014, gathered feedback on the prior employment IT system (ESS SmartClient) and employment services from users (DESE staff and service providers) • Repeated in 2015, after the release of ESS Web. • 141 completed surveys were received. Data was coded and thematically analyzed to determine key themes – most favoured a top-down system development.
Phase 2 2016	To explore outcomes from the first year of <i>jobactive</i>	<ul style="list-style-type: none"> • One researcher embedded in DESE • Conducted 15 semi-structured, open-ended interviews either face-to-face, by telephone or Skype (3 with DESE managers and 12 with employment service providers in metropolitan and regional Victoria and New South Wales). Where possible and permitted, audio recorded the interviews for accuracy and permanency. • Accessed a wide range of public and confidential documents. • Observation and attendance at meetings.
Phase 3 2018	To explore outcomes as DESE made changes in response to the independent review	<ul style="list-style-type: none"> • Conducted 15 face-to-face interviews (8 with employment service providers in Sydney, and Canberra and 7 in Melbourne and Ballarat). Conducted 3 informal sessions with operational staff, observing their interactions with ESS Web. • Met with DESE staff (the new acting CIO, a senior branch manager and team leader) and a policy advisor from a peak service provider organization. Meetings were not recorded but provided background information that informed our reading of reports. • Accessed a wide range of public and confidential documents. • Observation and attendance at meetings.

Appendix B: Details Regarding Interviews*

Inter- viewee	Organization	Position	Location – Australian State	Type	Date
SP01	Service Provider	General Manager Operations	Victoria	f2f	04-02-16
SP02	Service Provider	Operations Manager	South Australia	Phone	09-02-16
SP03	Service Provider	Site Coordinators, Operations Staff	South Australia	Phone	09-02-16
SP04	Service Provider	Site Coordinators, Operations Staff	South Australia	Phone	09-02-16
SP05	Service Provider	Site Coordinators, Operations Staff	South Australia	Phone	09-02-16
SP06	Service Provider	Contract Manager	Victoria	f2f	11-02-16
SP07	Service Provider	Business Support Systems Manager	Victoria	f2f	17-02-16
SP08	Service Provider	Business Support Service Officer	Victoria	f2f	17-02-16
SP09	Service Provider	Business and Performance Analyst	Victoria	f2f	17-02-16
SP10	Peak Body	Operations and ICT Manager	Victoria	Phone	18-02-16
SP11	Service Provider	Operations Manager	New South Wales	Phone	15-01-16
SP12	Service Provider	Interim Assessment Consultant	Queensland	Skype	15-01-16
SP21	Service Provider	Exec Director Employment	Victoria	f2f	31-05-18
SP22	Service Provider	Senior IT Manager	New South Wales	f2f	04-06-18
SP23	Service Provider	Performance Manager	New South Wales	f2f	12-06-18
SP24	Service Provider	Senior Performance Manager	New South Wales	f2f	12-06-18
SP25	Service Provider	Site Manager	New South Wales	f2f	12-06-18
SP26	Service Provider	Disability Employment Consultant	New South Wales	f2f	12-06-18
SP27	Service Provider	Administrator with Caseload	New South Wales	f2f	13-06-18
SP28	Service Provider	Team Leader (Site Manager)	New South Wales	f2f	13-06-18
SP29	Service Provider	Acting Performance Manager	New South Wales	f2f	13-06-18
SP30	Service Provider	Work for Dole Administrator	Victoria	f2f	17-07-18
SP31	Service Provider	Work for Dole Consultant	Victoria	f2f	17-07-18
SP32	Service Provider	Senior Central Administrator	Victoria	f2f	17-07-18
SP33	Service Provider	Quality Manager	Victoria	f2f	17-07-18
SP34	Service Provider	National Manager	Victoria	f2f	Arranged visit
SP35	Service Provider	Site Manager	Victoria	f2f	19-07-18
GOV1	AGQIC	Senior Manager	Australian Capital Territory	f2f	24-08-16
GOV2	DESE	Senior Manager	Australian Capital Territory	f2f	24-08-16
GOV3	DESE	Chief Information Officer	Australian Capital Territory	f2f	Extended period

* Shading indicates that some of the participants' comments have been cited in the paper. Acronyms: AGQIC = Australian Government Quality and Integrity Group, DESE = Department of Education, Skills and Employment.

Appendix C: Applying the Principles for Conducting and Evaluating Interpretive Field Studies

Table C1 Application of the Principles for Interpretive Research*

Principles	Application
1. Principle of the hermeneutic circle	Since human understanding is formed by iteratively construing meaning as interdependent parts and as the whole, researchers moved between coding individual transcripts and refining the coding pattern until new data did not change the pattern.
2. The Principle of Contextualization	The subject matter must be placed in its social and historical context so that the emergence of the current situation can be appreciated.
3. Principle of interaction between the researcher and the subjects	As "interpretivism suggests that the facts are produced as part and parcel of the social interaction of the researchers with the participants" (Klein and Myers, 1999, p. 74), so the researcher learns from the participant. By use of an interview protocol and not directly asking about alignment, we sought to minimize the impact of researchers' preconceptions and bias.
4. Principle of abstraction and generalization	In establishing the basis for abstraction and generalization, the key themes were linked to the experiences expressed in the interview statements. These themes were carefully linked to the collected field study materials.
5. The principle of dialogical reasoning	The researchers explored whether their preconceptions were influencing their findings. This was done at several points in the study as evidence of alignment issues was linked with both frustration and support for the initiative (i.e. alignment, misalignment, causes and solutions).
6. The principle of multiple interpretations	As the social context influences human actions, the researchers examine these influences by seeking multiple (alternative) viewpoints and their reasons.
7. The principle of suspicion	As this requires sensitivity to bias in the data collected by interviews, we conducted multiple interviews, including with service providers and government sources and checked this material against field observations and documented sources.

*Source Klein and Myers (1999)

Table C2 Justifying the Knowledge Claims as True*

Criteria	Application
1. Communicative validity	To establish coherence, interviews had a practical focus (the progress of <i>jobactive</i>), rather than upon research constructs such as alignment. The interview protocol encouraged open dialogue about the 'lived' experiences. Further coherence was established by checking that parts of the text fitted with the overall pattern and that the overall pattern fitted the parts. Any conflicting interpretations were tested regarding their coherence with the empirical material from the range of sources.
2. Pragmatic validity	To identify possible discrepancies between people's words and actions, comments and interpretations from interviews were checked against field observations and meeting attendances. In the interviews, additional questions were used clarifying the evident meaning.
3. Transgressive validity	By searching for differences and contradictions rather than for coherence in the expressed experiences, deeper insights were sought. For example, we sought to understand both the positive and negative aspects of providers' interactions with <i>jobactive</i> and DESE. This enabled a deeper understanding of both providers' and DESE's commitment to <i>jobactive</i> .
4. Interpretative Awareness	The researchers controlled and checked their understanding of the data by leveraging their different levels of participation in the field. One author was the primary gatherer of interview data and initially coded it. Another author had longer experience with the case site and had spent significant time in the field. This author established the final coding schema. The other coder had no site experience and so could check plausibility. A final check of the interpretations was also performed by the third author.

*Source Sandberg (2005)

Appendix D: New Functionalities Evident in *jobactive* and its *ESS Web*

Stakeholder	Outcomes delivered in <i>jobactive</i>
DESE	<ul style="list-style-type: none"> • a web-based ESS replacing JSA's Windows 7 ESS, so that it worked on tablets and phones + could accommodate mobile apps; • extensive trialing via 25,000 test cases; • rebuilding 600 screens; • meeting initial requests for 50 new widgets; • building 900 individual pieces of software including new mobile apps; • developing 8 learning modules for training to cover 40,000 users including webinars on the new dashboard that was tailorable to job roles; and • testing the system on 4 browsers.
Service Providers	<ul style="list-style-type: none"> • graphical dashboards; • real-time interfaces with DOE and Centrelink and co-ordinated reporting time-lines with Centrelink payments to jobseekers; • simpler diary processes (for booking interviews) with capacity to display available time slots; • a provider dashboard that is individually tailorable via widgets with hyperlinks enabling drilling, outcome tracking + the ability to open many windows at the same time; and • capacity to benchmark performance against regional, state and national results.
Jobseekers	<ul style="list-style-type: none"> • access to their job history (including with past providers); • co-ordinated reporting time-lines with Centrelink payments • showing timelines graphically; and • enabling them to input their job search efforts via a mobile app with past data automatically included by importing seek.com.
Employers	<ul style="list-style-type: none"> • a new employer app enabling them to create jobs and advertise them instantly; and • enabling them to manage their own listings and number of applications, and to categorize and contact short-listed candidates.

Online Appendix: Interview Guide

Demographic Questions

- What is your job title?
- How many years have you been with your current organization?
- What is your personal experience with delivering employment services
- How would you rate your knowledge of the employment services sector?

General Questions

- What are your views on change in the employment sector?
 - Do you think that change should be handled in a 'top-down' manner (industry best practices or government policy) or a 'bottom-up' manner (grassroots improvisation)?
 - How does your organization mitigate resistance to change?
 - Do incentives work?
 - How is innovation encouraged by your organization?
- How important are *relationships* with colleagues, government agencies, peak bodies, employers, service providers, other stakeholders, to you in delivering employment services?
 - Are relationships managed formally or informally?
 - Is communication ever an issue?
 - How is knowledge collaborated and shared?
 - How are problems resolved between the various stakeholders?
 - Are there problems meeting compliance obligations? What about 'red tape'?
- When managing employment services
 - What tensions do you find with government agencies?
 - What tensions do you find between your organizational practices and the expectations of job seekers/employers?
 - How do you reconcile these tensions?
- What are some of the *trends* you are seeing in employment service delivery?
- What is the *value proposition* for your organization?

Strategy

- From your perspective, what are strategic priorities facing your organization?
 - Can you describe some internal and external pressures?
 - Can you comment on any management or governance issues?
 - What are your thoughts on leadership in the sector?

Operations

- Would you agree that technological resources have achieved expected outcomes?
 - Has *ESS Web* been accepted by the employment sector? How and why?
 - Do you have any specific operational concerns? For example, workarounds, shadow systems, technical constraints, *ESS Web* functionality?
 - How has upskilling of staff, especially IT, been accomplished in the sector?

Technology in Employment Services

- Do you or your organization use any of the new decision support tools, such as the *ESS Web* digital dashboard/noticeboard, to make important decisions?
 - If yes, in what ways are these being used?
- What do you think about the new digital dashboards?
 - Do you find them useful?
 - How has the introduction of the digital dashboards changed behaviors in your organization?
- In what ways do you find the *employment services system* to be an enabler?
- In what ways do you find the *employment services system* to be a controller?

How well do you feel employment services system (*ESS Web*) ...

Operational Efficiency	Helps you to perform your job	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7
	Improves the efficiency of your day-to-day business operations	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7
	Provides timely information for cost control	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7
	Aids with cost recovery	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7

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	Supports specialist roles	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7
	Streamlines processes	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7
Operational Flexibility	Provides the flexibility to adapt to change	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7
	Supports different service delivery models	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7
	Makes it easy to match vacancies with job seekers	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7
	Tracks the developmental needs of job seekers	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7
	Makes it easy to coordinate job seeker interviews	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7
	Enables better engagement with job seekers	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7
Planning	Facilitates <i>long-term</i> strategic business planning	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7
	Provides the data needed to support day-to-day decision-making	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7
	Facilitates outcome tracking	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7
Internal Analysis	Enables you to develop detailed analysis of your present business situation	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7
	Provides reliable information on your organization's financial situation	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7
External Analysis	Assists in establishing your <i>value proposition</i> relative to other employment service providers	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7
	Provides information on developments in the employment services environment	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7