

From Telco to Techno – Outsourcing Transitioning in Information Systems

Dr Patricia Thomson
University of Tasmania
Patricia.Thomson@utas.edu.au

Associate Professor John.R.Venable
Curtin University of Technology, Perth
John.Venable@cbs.curtin.edu.au

ABSTRACT

The global phenomenon of the IS/IT outsourcing continues to grow in importance. IS/IT outsourcing presents business challenges to both outsourcers and vendors alike.

While the foundation of IS/IT outsourcing is ostensibly the transfer of financial and structural capital and vendor responsibilities, important issues remain about knowledge transfer and intellectual capital. Effective knowledge transfer and protection of intellectual capital relies on appropriate staff transition processes. However, little outsourcing research exists that focuses on individuals involved in such transitioning processes.

Our research studied the processes and staff concerns during and following the transition of staff in a major strategic outsourcing case in which much of the IS function (particularly software development) was outsourced from a large telecommunications provider to a large technology company, both in Australia. Qualitative and quantitative methods were used to investigate the internal practices associated with merged IS functions. Findings concerning cultural and technical dimensions transitioning related to 'psychological contract' formation are presented. The findings inform outsourcing transitioning practice.

Keywords

Outsourcing, transitions, outsourcing vendor, intellectual capital, psychological contracts

INTRODUCTION

The global phenomenon of the outsourcing of IS functions, departments and divisions is significant for both outsourcers and vendors. Some forms of outsourcing are closely related to the acquisition and merger scenarios of many major global players, particularly in the information technology sector. What began in the mid-1990's as primarily a cost saving measure, developed into formal joint-venture arrangements or takeovers in the high-tech sector, which have become much more based around developing alliances and synergies. IS outsourcing is significant in terms of the financial volume of transactions associated with general outsourcing contracts. Little research has been undertaken on outsourcing that focuses on the perceptions of individuals involved, although, at the time of this research one study into managerial perceptions of staff outsourcing did exist. Both parties benefit from effective transfer of the outsourcer's knowledge (as embedded in its IT personnel) through appropriate transition of personnel to the vendor. Ho, Ang and Straub (2003) identify some advantages of transitioned personnel continuing to service their former employers. The focus of research reported in this paper is on developing an understanding of the behavioural dimensions of the transition, rather than on formal contractual arrangements and service level agreements. At the time of our study (2004), no research had looked at the development of psychological contracts in IT staff transitioned under outsourcing agreements to a new employer.

Our research combines both qualitative and quantitative methods to study a large, complex outsourcing contract. The study details the management of the transition of staff from a telecommunications provider (Telco) to a large technology company (Techno) in Australia during the late 1990's. This paper describes the approaches used to examine the problem situation and the research questions in context. In doing so, we explain our use of a multi-method approach.

THE RESEARCH CONTEXT

Our study is situated in Australia. The case component of the research was conducted over a period of eighteen months during 2001 - 2002. It is a study of the psychological contracts of IT professionals, involved in an outsourcing contract. It focuses on large-scale IS outsourcing contract between Techno (the vendor) and Telco (the client) that occurred in Australia during and post 1997. The study was conducted five years after the contract was operationalised. The strategic business unit studied focused on the provision and management of software development activities. It employs software development professionals who are role structured in project teams. A focus of the research was to study the psychological contracts (Rousseau, 1989, 1995; Guest 1998a) of IS professionals. Outsourcing research (Quinn and Hilmer, 1994; Beaumont and Costa, 2002) has focused on the contractual elements of large and small-scale IS outsourcing. A distinct lack of behavioural research highlights the need for a contribution to knowledge in the social exchange dimensions attached to an individual's psychological perceptions of the employment exchanges involved, rather than the outsourcing contract itself. As such, the unit of analysis at the individual level focuses on the transactional, relational and technical dimensions of the psychological contract (Argyris, 1962; Levinson, Price, Munden, Mandl and Solley, 1962; Rousseau, 1989; 1995; Guest, 1998a).

The study was focused on providing a methodology and model for the client to develop around IS outsourcing. In IS outsourcing, significant attention has been, and continues to be, paid to the changing elements of contracts per se (Lacity and Hirschheim, 1993a, 1993b; Loh and Venkatraman, 1992a, 1992b; Willcocks and Kern, 1998). A macro level unit of analysis has been used extensively in this context. Our research was developed around the theoretical framework of managing intellectual capital in the outsourcing process. It provides an empirical basis for the client to develop and manage transitions of this magnitude better.

LITERATURE REVIEW

The outsourcing of IS Departments has been a growing phenomenon. Since the mid 1990's significant attention has been paid to this in the literature (Lacity and Hirschheim, 1993; Loh and Venkatraman, 1992; Kern, 1997; Willcocks and Kern, 2000.) This phenomenon is set to continue as organisations focus more on core competencies. Most studies into IT outsourcing cite Applegate and Montealegre's (1991) study on the Kodak outsourcing, Lacity and Hirschheim's (1993) work, and Willcocks and Fitzgerald's (1994) work, which primarily focussed on the business and contractual elements of outsourcing at the organisational level. This study is different, instead focussing on the behavioural and relational aspects at the individual level. We have developed a conceptual framework of outsourcing, inspired by the framework in Kern and Willcocks (2000, p. 329), which includes individual behavioural constructs including psychological contract, job satisfaction, and ongoing commitment. Most outsourcing research has been from an American or a European perspective.

Research and practitioner literature has focused on the outsourcing of IS on the basis of transaction cost economics (Ang and Straub, 1998; Aubert, Rivard and Patry, 1996; Cross, 1995; Lacity and Hirschheim, 1995; Lacity and Willcocks, 1998; Willcocks, Fitzgerald and Lacity, 1996; Willcocks, Lacity and Fitzgerald, 1995). Other IS outsourcing research has focussed on the role of vendor companies in IS/IT outsourcing (Pinnington and Woolcock, 1997); risks and benefits in outsourcing (Altinkemer, Chaturvedi and Gulati, 1994); strategic processes (Huber, 1993); management expectations (Lacity, Hirschheim and Willcocks, 1994); intangible sources of competitive advantages (Bounfour, 1999); service quality and partnering (Grover, Cheon and Teng, 1996); partnering quality (Lee, 2001; Lee and Kim, 1997, 1999); strategic partnering (Zviran, Ahituv and Armoni, 2001); alliance structuring (McFarlan and Nolan 1995), organisational adaptation (Klepper, 1994), evolutionary partnering (Klepper 1995), and strategic partnering (Willcocks and Choi, 1995). Other researchers have focussed on agency theory conceptions of the contractual negotiation process, including Eisenhardt (1988; 1989) and Karake (1992). Pinnington and Woolcock (1995, 1997) and Zviran, et al (2001) provide useful practical international research in both the contractual and relational aspects of IT outsourcing, again at the organisational level, but from global perspectives.

For research purposes, we specifically adapted Kern and Willcocks (2000, p.329) outsourcing relationship model. Figure 1 below is an illustration of this model in its original form, signifying both contractual and embedded interactions. Kern and Willcocks (2000) make a significant contribution to the behavioural dimensions of outsourcing by focussing on contract development issues such as cultural convergence, shared, adapted and reinforced visions and the explicitness of social and personal bonds. Relational aspects of outsourcing are defined as commitment, co-operation, expectations, satisfaction, conflict, dependency, power and trust. Key features of the model (Kern and Willcocks, 2000) in the relational aspects of the model are significant in that they require a 'perceptual' negotiation of the meaning of each exchange. They are often embedded in outsourcing management prerogatives and not fully explicit.

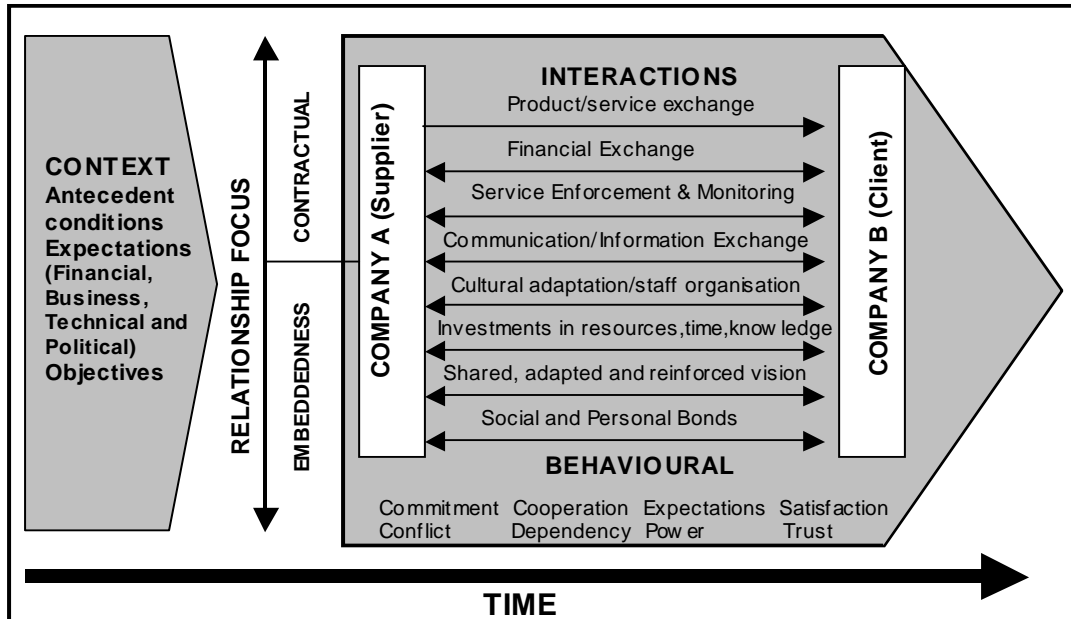


Figure 1. The Outsourcing Relationship Model (Kern and Willcocks, 2000, p. 329)

Figure 2 below illustrates the dynamic of the psychological contract interactions between transactional and relational concerns in this adapted outsourcing relationship model (Kern and Willcocks, 2000).

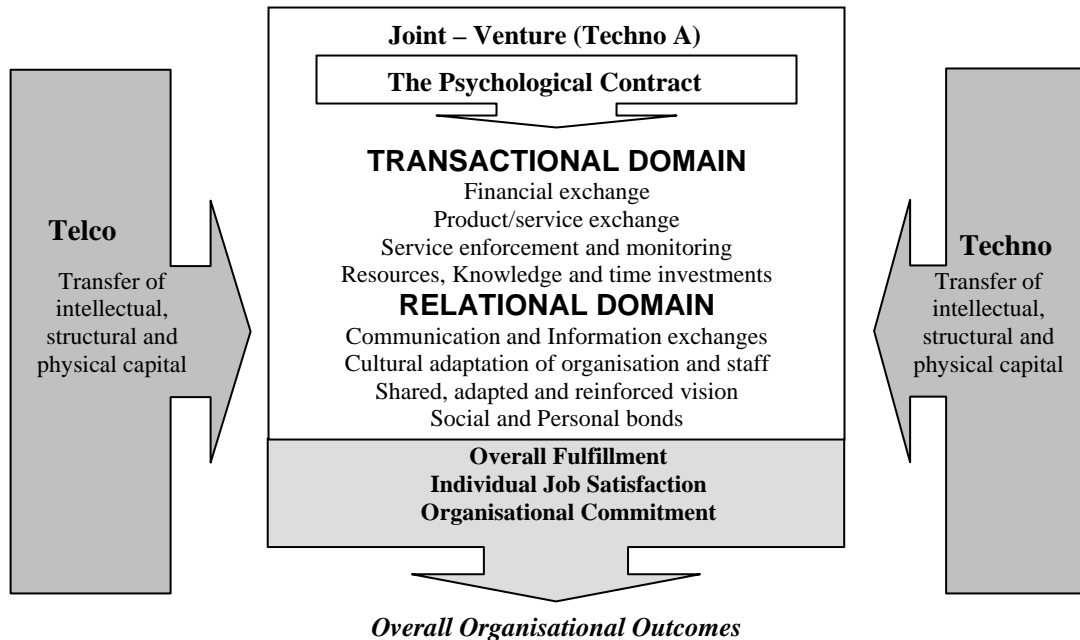


Figure 2. The Adapted Outsourcing Relationship Model delineating Transactional and Relational Contract issues (Kern and Willcocks, 2000, p. 329)

We used the basis of the outsourcing relationship model (Kern and Willcocks, 2000) for distinguishing between transactional and relational issues. The consideration of the business context of the research sponsor (Techno) was important. As the organisational processes involved the use of ICT in dispersed and remote sites, the survey instrument was enhanced.

We incorporated two main literature streams other than the outsourcing literature to provide theoretical foundations for this study – psychological contracts and transition management.

Psychological Contracts

The behavioural interactions and relational focus of this study are based in the psychological contracts (Argyris, 1960; Schein, 1980) of the outsourced (or transitioned) employees. Psychological contract research has been broad and comprehensive, although with limited application to the IT industry and outsourcing in particular.

A psychological contract is part of an individual's belief system, influenced by the organisation, regarding the terms of an exchange agreement between the individual and their organization or another party (Rousseau, 1989, 1995). The concept of the psychological contract is based in social exchange theory (Thibaut and Kelly, 1959; Blau, 1964), implying some mutually understood reciprocal agreement. It is based in the theory of voluntary transactions between parties and the social actions between them. The behavioural dimensions of the interactions of the two parties are critical to the process (Blau, 1964). Rousseau (1995) and Rousseau and McLean Parks (1993) define two dimensions of psychological contracts (transactional and relational). In addition, they have provided a framework for continued work in the areas of psychological contract breach and violations. There appeared to be a large gap in the area of psychological contract research and the IT industry (Davidson, 2002). IT software developers, especially those outsourced, provided us the area for research.

A key aspect of the psychological contract and its measure (Lester and Kickul, 2001; Kickul and Lester, 2001) is that individuals voluntarily assent to make and accept certain promises as they understand them. The perception of a promise or implied agreement is the salient issue. The psychological contract is perceived as potentially idiosyncratic, and often unique to each person who agrees to it (Coyle-Shapiro and Kessler, 1998). The measure we used in our research is based on the instrument developed by Lester and Kickul (2001) and on psychological contract research (Rousseau, 1995) modified to fit IT organisations involved in outsourcing and the specific organisational contexts.

Transition Management

There is significant literature emerging in the area of transition management from a practical perspective. Bridges (1991) provided transition strategies from a behavioural perspective, but not specifically focussed in IT or outsourcing. Buono, Bowditch and Lewis (1985), Buono and Bowditch (1989), Cartwright and Cooper (1990, 1992), and Olie (1990, 1994) contribute to the general acquisition/merger area. Other literature has focused on the leveraging of intellectual and structural capital (Stewart, 1998 and 2001). Chaudhuri and Tabrizi (1999), Quinn (1999) and Ranft and Lord (2000) all contribute practical and theoretical approaches. Intellectual capital in the high-tech acquisition area was a central concern of this research into the outsourcing transition of systems and staff. Marks and Mirvis (1998, 2000) and Frommer and Wikstrom (2000) provided us with practical transitioning perspectives. Ranft and Lord's (2000) work provided more theoretical grounding in the knowledge transfer area of acquisitions, as did Quinn's (1999) focus on knowledge leveraging .

THE RESEARCH QUESTIONS

The research sponsor defined the problem situation in the context of the research. Briefly stated, the research sponsor was unclear as to the cause of an organisational problem perceived important in the business unit. Our questions were based in the research sponsor's view that there were problems with the adjustment of individuals in an outsourcing contract to a new employment situation. The retention of staff was seen as critical. The three research questions were:

1. Does fulfillment of the psychological contract lead to job satisfaction and in turn lead to organisational commitment for outsourced employees?
2. What factors are associated with the fulfillment or otherwise of the psychological contract, job satisfaction and organisational commitment for outsourced employees?
3. What specific variables contribute to the success or otherwise of the transitioning of staff from client to vendor in an IS outsourcing situation?

The specific aims of the study, viewed as important aspects of transitioning included:

- Firstly, to ascertain the composition and fulfillment of individual psychological contracts,
- Secondly, to consider broadly issues related to individual job satisfaction , and
- Thirdly, to determine a level of organisational commitment.

THE RESEARCH DESIGN

Our use of a multi-method research strategy gave us advantages, including combining the initial qualitative approaches to inform the quantitative sampling. One of our specific reasons for combining the approaches was based in the *context* of the research situation (Sarantakos, 1998, p.247, Whitfield and Strauss, 1998, p.25, Punch, 1998, p. 247). Combining an interpretive case approach with a dominant positivist component helped us to alleviate some of the limitations imposed by the client sponsor (Techno) with access in the field situation for prolonged periods for interpretive work. By *nesting* the quantitative survey inside initial interviews and Focus Groups, and then conducting follow up Focus Groups, allowed us to fully explore the research problem. This approach is illustrated in Figure 3 below.

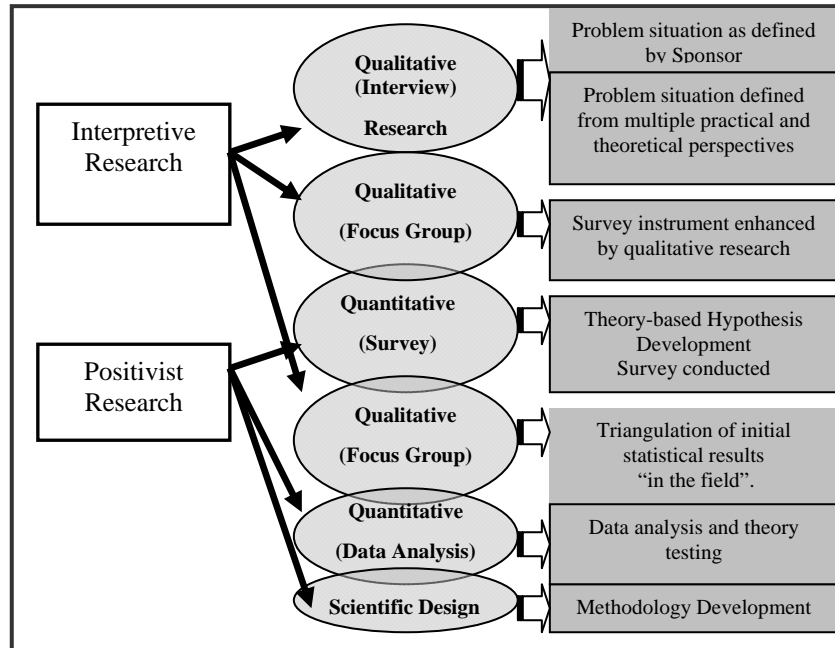


Figure 3. Hybrid Research Approach Adopted in the Telco-Techno Research

Interpretive Research

We used an interpretive approach to the research in the initial stages in order to ascertain the nature of the problem from multiple perspectives. Our approach is discussed in the following subsections.

Qualitative Methods

Interviews were conducted with the Human Resources (HR) Manager, the HR Transition Managers, HR Operational Managers and Line Managers to establish the basis on which the outsourcing transitions were managed, what issues were of importance for staff in the context of the transitions, and further, what gaps appeared in the process of managing the transitions. Discussions centred on the relational and behavioural aspects of outsourcing and the items that appeared to be important at that time. Given the five-year lapse between the transitions and the research, many people involved had either left the company or moved into other positions and were not available for discussion. This is a significant research limitation. However, the client sponsor, who originally defined the problem situation through management staff who raised the issues of providing information for various items including superannuation schemes, leave entitlements and transferability, pay, benefits and remuneration issues. Little comment was made on work-related operational matters for transition. Transition managers suggested that these ‘hygiene’ factors were the issues that people asked about during a series of road shows co-ordinated and organised by Techno’s staff and/or consultants brought in for the transition purposes. A key comment both by operational HR managers and line staff was that there was a significant problem during the transition and beyond of outsourced staff either not adjusting or ‘shifting’ their commitment from their previous employer; in essence not making a good psychological transition to Techno.

Focus Group Methods

Three initial Focus Groups were run in different locations in Australia. Staff had been outsourced from three environments, predominantly from Telco. Focus Group members were either self-selected, invited by management or nominated as the only outsourced employees at a particular location. The purpose was to understand in depth the issues and processes important in the transition process. We also used them as a triangulation mechanism alongside the management interviews.

A second round of Focus Groups was conducted to follow up on issues that arose in the first round and from the survey. The purpose was mainly to clarify what ‘promises’ had been made to outsourced staff in transition. Questions in the second round were broader in scope and were based around transitions, projects and professions, and teams. They also served to understand the nature of the business unit much better.

Positivist Research

A survey was conducted at five of Techno’s sites (all within a business unit) to develop more detailed information about relevant factors and to attempt to correlate these factors with the psychological contract, job satisfaction, and ongoing commitment to Techno. As with many outsourcing deals, individuals were offered the prospect of staying with Telco, redundancy, or transitioning to Techno. With a psychological contract, individuals voluntarily assent to make and accept certain promises *as they understand them*. The individual’s *perception* of a promise or an implied agreement was important.

Survey Questionnaire

The survey instrument was based on standard measures of psychological contracts (Lester and Kickul, 2001; Kickul and Lester, 2001) used in HR practice. We added additional items to explore issues related to professional development, group processes, and technology systems interfaces, which arose during interviews and Focus Groups. It was also important to measure these additional items in order to add to the psychological contract instrument by adapting it specifically to IT personnel. Some items were standard to the measure in its pure form, but most individual items were rephrased both to ‘de-Americanise’ the content and contextualise it for Techno. Specifically, survey changes were made as the study was exploratory. The process consisted of discussing issues of importance in interviews with management staff and focus group participants, and also basing the items in context. The retention of fifteen of the original items was done on the basis that these items appeared significant during the focus group discussions and during the initial interviews.

It is important to note that existing measures (Kickul and Lester, 2001; Lester and Kickul, 2001; Rousseau, 1995; 1998c) do not categorise items in groupings. This is interesting in the context of prior research as items are generally categorised as relational or transactional (MacNeil, 1974) when data is being analysed (Kickul and Lester, 2001; Lester and Kickul, 2001; Rousseau, 1998c) rather than at survey inception. These researchers separate items into transactional and relational categories, according to psychological contract study (Rousseau, 1989; 1995). MacNeil’s (1974; 1980; 1985) perspectives of social contract theory are relevant to this theoretical distinction and separation. They are very specific to the research context. We theoretically ascertained that these variables were pertinent to the research question and industry context at the unit of analysis. Six items were modified.

Table 1 provides an illustration of the modifications made to the survey.

Psychological Contract Items (Kickul and Lester, 2001; Lester and Kickul, 2001)	Items Modified, Retained, or Removed
Freedom to be creative	Retained
A job that provides autonomy and control	Modified
Participation in decision making	Modified
Increasing responsibilities	Modified
Opportunity to develop new skills	Retained
Enough resources to do the job	Modified
Adequate equipment to perform the job	<i>Removed</i>
A reasonable workload	Retained
Pay and bonuses tied to performance	Retained
Flexible work schedule	Retained
Job security	Retained
Competitive salary	Retained
Safe work environment	<i>Removed</i>
Well-defined work responsibilities	Retained
Challenging and interesting work	Retained
Meaningful work	Modified
Recognition of my accomplishments	Retained
Health care benefits	<i>Removed</i>
Retirement benefits	Retained
Vacation benefits	Modified
Tuition reimbursement	Retained
Continual professional training	Retained
Opportunities for personal growth	Retained
Career guidance and mentoring	Retained
Total	24
Retained items	15
Modified items	6
<i>Removed items</i>	3

Table 1. Summary of changes made to Survey Questionnaire

Some twenty-nine items were added as the study was exploratory rather than confirmatory, and because of information gathered during the interpretive research. A major focus of the study as situated in the IS industry was on technical issues. This is a major contribution to existing psychological contract research in IS outsourcing. The four areas where the new items were added contributed to the development of the psychological contract measure. These items were focussed around specific job issues, group processes (as the nature of the business unit is project based), systems and technical interfaces (because of the nature of the business/profession) and corporate culture and lifestyle issues that reflected the organisation programs. It was important to include these items as they reflected issues and our views of matters that individuals felt were of concern in the discussions.

Guest (1998a) notes the paucity of theory in psychological contract research, and hence as our research was exploratory and not a replication of an existing study, there was both theoretical and practical justification for our approach. The items were grouped under five categories: pay and remuneration issues (individual), job issues (individual), work processes (group), systems/technological issues (organisational) and culture and lifestyle issues (organisational/individual), each comprised of between 5 and 15 items. In total, the survey contained 50 independent variable items.

Table 2 summarises the psychological contract items we used (Kickul and Lester, 2001; Lester and Kickul, 2001).

Categories	Independent Variables
Pay and remuneration issues (individual)	Competitive Salary Pay for Performance Leave Benefits Retirement Benefits Tuition Reimbursement
Job issues (individual)	Job security Well defined job responsibilities Challenging and interesting job Feedback on performance Reasonable workload Opportunity to develop new skills Freedom to be creative Recognition of accomplishments Flexible work schedule Increasing work role responsibilities Job training Promotion and advancement opportunities. Continual professional training Opportunities for personal growth Career guidance and mentoring
Work processes (group)	Co-operation & support from co-workers Cross organisation teams mix Participation in group decision making Multiple project responsibilities Assignment to interesting projects Group support through collaborative technologies Time for team development Resources for team development Self managed team environment Group performance
Systems/ technological issues (organisational)	Enough technical resources to do job Web-enabled communication interfaces Access to HQ systems Management interfaces with remote sites Mobile phone & voice mail accessibility Teleconferencing facilities Video-conferencing facilities Web-casting facilities HRIS access and support On-line training
Culture and lifestyle issues (organisational/individual)	Consultative and supportive Management Trust and respect Fair and just treatment of employees Open and honest communication Consideration of employee needs Consideration of travel/Commuting Consideration of lifestyle issues Flexibility for outside work commitments Flexible work arrangements Induction & ongoing cultural training

Table 2. Categorisation of Independent Variable Items in Survey

For each of the 50 independent variable items in the survey, the individual's perceptions were sought on three things: (1) whether a promise was perceived to have been made by Techno at the time of transition, (2) the importance of the promise, and (3) the fulfilment of the promise. The first was simply a yes or no question. For the latter two, the respondents were asked to rate them on a Likert scale from 1 to 5.

The survey also included three dependent variable items (which we called ‘focus’ variables) to measure the respondent’s (1) perceived job satisfaction, (2) personal commitment to the organization, and (3) overall psychological contract being met. These were also rated on a Likert scale from 1 to 5. The intent was to determine whether the fulfilment of the 50 psychological contract items, had strong or otherwise relationships with these three dependent variables. The use of quantitative measures of all items allowed us to perform this analysis.

ANALYSIS AND FINDINGS

Demographics

The survey response rate was 14.8%, with 250 complete responses (excluding 16 survey responses that were incomplete) from the survey sample of all 1700 operational IT employees of a single business unit distributed across five locations in Australia. The average age was 39.8 years and 28.8% of respondents were female. The average length of service with the vendor was 5.02 years. 53.2% of respondents were non-outsourced, with 46.8% outsourced or transitioned staff. No significant differences were found between locations, although ratings of the factor of treatment by management were significantly different at one location. Age was found to be positively related to ongoing job commitment, with older personnel being slightly more committed. No relationships were significantly dependent on gender.

Demographic	Response	%
Average Age	39.8	
Female	72	28.8
Male	178	71.2
Length of Techno Service (years)	5.02	
Outsourced	117	46.8
Not Outsourced	133	53.2

Table 3. Raw Data Demographics

Findings

Only responses from transitioned employees are used in the data reported below.

Firstly, bivariate correlations between the three dependent variables confirmed that overall psychological contract commitment lead to job satisfaction and further to organisational commitment.

Secondly, the Factor Analysis and subsequent regressions indicate that there are specific factors related positively and negatively to the dependent variables. Importantly, in relation to the dependent variable of ongoing commitment, the negative finding was Factor 7 – Technologically Enabled Management Interfaces (-.210), whereas the two most strongly correlated positive factors – Personal and Professional Development (.398) and Treatment by Management (.335) also were significant across overall psychological contract fulfilment and overall job satisfaction.

Thirdly, transactional, relational and technical inducements indicate that there are specific individual psychological contract items that need to be considered for successful transitioning.

In summary, the success of transitioning for those outsourced is related to:

- *Continual professional training* (psychological contract fulfillment, job satisfaction and organisational commitment)
- *Opportunity to develop new skills* (psychological contract fulfillment only)
- *Job security* (psychological contract fulfillment only)
- *Flexible work arrangements* (psychological contract fulfillment only)
- *Fair and just treatment of employees* (psychological contract fulfillment only)
- *Trust and respect for all employees* (psychological contract fulfillment only)
- *Pay and bonuses tied to performance* (job satisfaction only)
- *Enough technical resources to do the job* (job satisfaction and commitment)

From the bivariate correlations between the three dependent variables (Research Question 1) and the factor regressions (Research Question 2), we developed a path model (Figure 4) illustrating the statistical relationships of interest in the study.

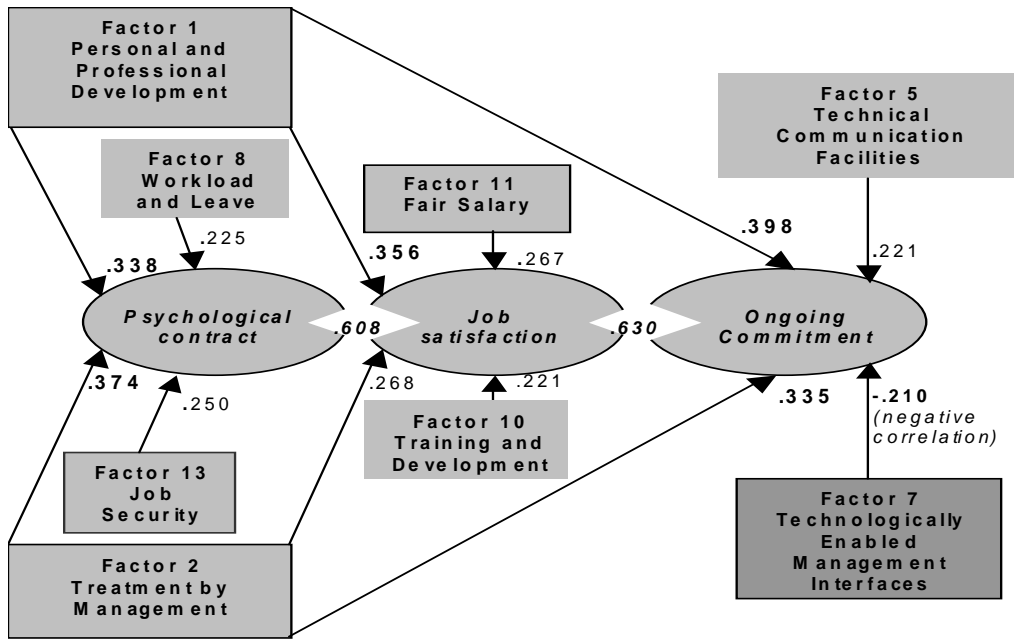


Figure 4. Path Model showing Factor Analysis and Factor Regressions

The most important findings in this research can be seen as illustrated above. The relationships of Personal and Professional Development (Factor 1) and Treatment by Management (Factor 2) are significantly positively correlated against the three focus variables. Technologically Enabled Management Interfaces (Factor 7) has a negative correlation with the focus variable of ongoing commitment. This factor consisted of Timely and adequate access to Headquarters (Techno) systems, Web-enabled communication interfaces, and Good systems management interfaces with remote sites. This finding is consistent with views expressed in the Focus Groups by those who were outsourced from Telco.

LIMITATIONS

Longitudinal research would have assisted us in assessing the both the impact of tenure and contract *drift* in relation to the type of commitment. This could more readily assess values identification (Dose, 1997) and socialisation effects. This may have provided useful insight into psychological contract research. Rousseau (1989; 1995) and Rousseau and McLean Parks (1993) contend that the nature of the psychological contract changes over time as contract *drift* occurs. This is important for the concept of ‘*transition to transformation*’ that the sponsor organisation espoused as practice. It would further research for organisational outcomes proposed by Guest (1998a). Measurement some five years post transition was not ideal.

Commitment was measured by a global construct that was modified by the research sponsor from its original form. It would be more valid to measure this dependent variable from a multidimensional construct to include measurement pertinent to different types of job satisfaction, grounded in the work of Locke (1976; 1985) and Judge, Bono, and Locke (2000); and commitment, grounded in the work of Allen and Meyer (1990) and Meyer and Allen (1991, 1997).

Whilst the study is confined to a single business unit of a single organisation in Australia (Techno) and is cross sectional, there is a concern that external validity is restricted. As we have not yet attempted to replicate the study in other organisations, the reliability of these findings is limited. However, statistical tests, and particularly the Factor Analysis and subsequent regressions provide preliminary evidence for transitioning practice.

CONCLUSIONS

Overall, the findings have specific implications for the outsourcing relationship management of transitions to the organisation in the case-study (Techno) and general concerns for the management of staff in the business unit. The most significant contribution to knowledge includes the cultural and technical dimensions of the psychological contract in relation to the dependent variables of job satisfaction and ongoing commitment. These findings are integrated into a broader conception of the social contract. They contribute to the body of knowledge in both IS outsourcing and psychological contract research.

For practical purposes, the empirical findings of the research were transposed into a proposed methodology for outsourcing transition practice. The methodology, ITSIT, provides a practical perspective from which to manage the intellectual capital of staff and integrate them into a vendor organisation. The method, through theoretical grounding, integrates the antecedent factors of psychological contracts related to job satisfaction and ongoing commitment. ITSIT is yet to be tested, but it has the potential to contribute to the better management of the IS staff involved in outsourcing situations. Our study provides some useful initial evidence related to the behavioural aspects of outsourcing in the high-tech sector in Australia and provides a practical perspective from which to manage the intellectual capital of staff and integrate them into a vendor organisation. This research gives clearer guidance on transition management.

REFERENCES

1. Allen, N.J., and Meyer, J.P. (1990). 'The measurement and antecedents of affective, continuance and normative commitment to the organisation', *Journal of Occupational Psychology*, Vol.63, pp.1-18
2. Altinkemer, K., Chaturvedi, A., and Gulati, R. (1994). 'Information Systems Outsourcing: Issues and Evidence', *International Journal of Information Management*, Vol.11, pp.252-268
3. Ang, S., and Straub, D.W. (1998). 'Production and Transaction Economics and IS Outsourcing: A case Study of IS Outsourcing', In *Information Systems Outsourcing: Enduring Themes, Emergent Patterns and Future Directions*, R. Hirschheim, A. Heinzl and J. Dibbern (eds), Springer, Verlag: Berlin, pp 47-76
4. Applegate, L.M., and Montealegre, R. (1991). *Eastman Kodak: Managing Information Systems Through Strategic Alliances*, Harvard Business School Press, Boston, MA
5. Argyris, C. (1960). *Understanding Organizational Behaviour*, Homewood, Dorsey, IL.
6. Aubert, B.A., Rivard, S., and Patry, M..(2004) 'A Transaction Cost Approach to Outsourcing Behaviour: Some empirical evidence', *Information and Management*, Vol.30, pp. 51-64
7. Beaumont, N., and Costa, C. (2002). 'Information Technology Outsourcing in Australia', *Human Resources Management Journal*, Vol.15 (3), July-September, pp. 14- 31
8. Bonfour, A. (1999). 'Is Outsourcing of Intangibles a Real Source of Competitive advantage?', *International Journal of Applied Quality Management*, Vol.2 (2), pp. 127-151
9. Bridges, W. (1991). *Managing Transitions: Making the most of change*, Addison Wesley; Reading, MA
10. Buono, A.F., Bowditch, J.L., and Lewis, J.W. (1985) 'When cultures collide – The Anatomy of a Merger', *Human Relations*, Vol.38, 477-500.
11. Buono, A.F. and Bowditch, J.L. (1989) *The Human Side of Mergers and Acquisitions: managing collisions between People, Cultures and Organisations*, Jossey Bass, San Francisco.
12. Cartwright, S. and Cooper, C.L. (1990) The Impact of Mergers and Acquisitions on People at Work: Existing Research Issues, *British Journal of Management*, Vol.1 (2) 65-76.
13. Cartwright, S. and Cooper, C.L. (1992) *Managing Mergers Acquisitions and Strategic Alliances – Integrating People and Cultures*, 2nd Edition, Butterworth-Heinemann, Oxford
14. Chaudhiri, S. and Tabrizi, B. (1999) Capturing the Real Value in High-Tech Acquisitions, *Harvard Business Review*, September-October, 123 – 129.
15. Coyle-Shapiro, J., and Kessler, I. (1998) The psychological contract in the UK Public Sector: Employer and employee obligations and contract fulfillment, in S.J. Havlovic (ed) *Academy of Management Best Paper Proceedings 58* (NPS, 1-7).
16. Cross, J. (1995). 'IT Outsourcing: British Petroleum's Competitive Approach', *Harvard Business Review*, May-June, pp. 94-102
17. Davidson, P. (2001). 'The Changing Nature of the Psychological Contract in the IT Industry: 1997-2001', Research Paper. Kingston Business School, Kingston University, UK
18. De Vaus, D.A. (2002). *Surveys in Social Research*, Allen and Unwin, Australia
19. Dose, J.J. (1997). 'Work values: An integrative framework and illustrative application to organizational socialisation'. *Journal of Occupational and Organisational Psychology*, Vol.70, pp.219-240
20. Eisenhardt, K. M. (1989). 'Agency theory: An assessment and review', *Academy of Management Review*, 14 (1), pp.57-74
21. Eisenhardt, K.M. (1998). 'Agency and institutional theory explanations: The case of retail sales compensation', *Academy of Management Journal*, Vol.31, pp.488-511
22. Grover, V., Cheon, M.J. and Teng, J.T.C. (1996). 'The Decision to Outsource Information Systems Functions', *Journal of Management Information Systems*, Vol. 12 (4), pp. 89-116
23. Guest, D.E., (1998a). 'Is the Psychological Contract Worth Taking Seriously?', *Journal of Organisational Behaviour*, Vol.19, pp. 649 -664

24. Ho, V.T., Ang, S., and Straub, D. (2003). 'When subordinates become IT Contractors: Persistent Managerial Expectations in IT Outsourcing', *Information Systems Research*, Vol.14 (1), March, pp.66-68
25. Huber, R.L. (1993). 'How Continental Bank Outsourced Its Crown Jewels', *Harvard Business Review*, January-February, pp.121-129
26. Judge, T.A., Bono, J.E. and Locke, E.A. (2000). 'Personality and Job Satisfaction: the mediating role of job characteristics', *Journal of Applied Psychology*, Vol.86, pp.237-249
27. Kern, T. (1997). The gestalt of an information technology outsourcing relationship: an exploratory analysis. *Proceedings of the 18th International Conference on Information Systems*, Atlanta, Georgia
28. Karake, Z.A. (1992). *Information Technology and Management Control: An Agency Theory Perspective*, Praeger, Westport, CT
29. Kern, T. and Willcocks, L. (2000). 'Exploring information technology outsourcing relationships: theory and practice', *Journal of Strategic Information Systems*, Vol.9, pp. 321-350
30. Kickul, J.W., and Lester, S.W. (2001). Promises Made, Promises Broken: equity Sensitivity as a Moderator Between Psychological Contract Breach and Employee Attitudes and Behaviour, available on line <http://www.sba.mohio.edu/management/mwAcademy/2000/3b.pdf> [accessed date 1/05/2003]
31. Klepper, R. (1994). *Outsourcing Relationships: Managing Information Technology with Outsourcing*, M. Khosrowpour (ed), Idea Group Publishing, Harrisbury, PA
32. Klepper, R. (1995). 'The Management of Partnering Development in IS Outsourcing', *Journal of Information Technology*, Vol.10 (4), pp. 249-258
33. Lacity, M.C., and Hirschheim, R. (1993a). *Information Systems Outsourcing: Myths, Metaphors and Realities*, John Wiley and Sons, New York
34. Lacity, M.C., and Hirschheim, R. (1993b). *Information Systems Outsourcing*, John Wiley, Chichester
35. Lacity, M.C. and Hirschheim, R. (1995). *Beyond the Information Systems Outsourcing Bandwagon, The Insourcing Response*, John Wiley and Sons, New York
36. Lacity, M.C., and Willcocks, L.P. (1998). 'An Empirical Investigation of Information Technology Sourcing Practices: Lessons from experience', *MIS Quarterly*, September, pp.363-368
37. Lee, J. N. (2001). 'The impact of Knowledge Sharing, Organisational Capability and Partnership Quality on IS Outsourcing Success', *Information and Management*, Vol.38, pp.323-335
38. Lee, J.N, and Kim, Y.G. (1999). 'Effect of Partnership Quality on IS Outsourcing Success: Conceptual Framework and Empirical Validation', *Journal of Management Information Systems*, Vol.15 (4), pp.29-61
39. Lee, J.N, and Kim, Y.G. (1997). 'Information systems outsourcing strategies for affiliated firms of the Korean conglomerate groups,' *Journal of Strategic Information Systems*, Vol.6 (3), pp.203-329
40. Lester, S.W., and Kickul, J. (2001). 'Psychological contracts in the 21st Century: What Employees Value Most and How Well Organisations are Responding to These Expectations', *Human Resource Planning*, pp.10-21
41. Levinson, H., Price, C.R., Munden, K.J., Mandl, H.J. and Solley, C.M. (1962). *Men, management and mental health*, Harvard University Press, Cambridge, MA
42. Locke, E.A. (1976). 'The nature and causes of job satisfaction', In *Handbook of industrial and organisational psychology*, M.D. Dunnette (ed.), Academic Press, NY pp. 1297-1343,
43. Locke, E.A. (1985). 'The nature and causes of job satisfaction' *Handbook of industrial and organisational psychology*, In M.D. Dunette (ed.) Rand McNally, Chicago, Il., pp.1297-1349,
44. Loh, L. and Venkatraman, N. (1992a). 'Determinants of Information Technology Outsourcing: A Cross Sectional Analysis', *Journal of Management Information Systems*, Vol.9, No.1, pp. 334-358
45. Loh, L. and Venkatraman, N. (1992b). 'Diffusion of information technology outsourcing: influence sources and the Kodak effect', *Information Systems Research*, Vol.4, pp. 334 – 358
46. MacNeil, I.R. (1974). 'The many futures of contracts', *Southern California Law Review*, Vol. 47, pp.691-816
47. MacNeil, I.R. (1980). *The New Social Contract, An Inquiry into Modern Contractual Relations*, Yale University Press, New Haven
48. MacNeil, I.R. (1985). 'Relational contract: What we do and do not know', *Wisconsin Law Review*, pp. 483-52

49. McFarlan, F.W., and Nolan, R.L. (1995). 'How to Manage an IT Outsourcing Alliance', *Sloan Management Review*, pp. 9-23
50. Meyer, J.P., and Allen, N.J. (1991). 'A three-component conceptualisation of organisational commitment', *Human Resource Management Review*, Vol.1, pp. 61-89
51. Meyer, J.P., and Allen, N.J. (1997). *Commitment in the workplace: Theory, research and Application*, Sage, Thousand Oaks, CA
52. Olie, R. (1990) Culture and Integration Problems in International Mergers and Acquisitions, *European Management Journal*, Vol.8 (2) June, 206-215. Olie, R. (1994) Shades of Culture and Institutions in International Mergers, *Organisation Studies*, Vol.15 (3), 381-405.
53. Pinnington, A., and Woolcock, P. (1997). 'The Role of Vendor Companies in IS/IT Outsourcing', *International Journal of Information Management*, Vol.17 (3), pp.199-210
54. Punch, K.F. (1998). 'Quantitative Research Design', *Introduction to Social Research: Quantitative and Qualitative Approaches*, Sage, London
55. Quinn, J.B. (1999) Strategic Outsourcing: Leveraging Knowledge Capabilities, *Sloan Management Review*, Summer, pp.9-21.
56. Ranft, A.L. and Lord, M.D. (2000) Acquiring New Knowledge: the Role of Retaining Human Capital in Acquisitions of High-Tech Firms, *The Journal of High Technology Management and Research*, Vol.11 (2) 295-319
57. Rousseau, D.M. (1989). 'Psychological and implied contracts in organisations', *Employee Rights and Responsibilities Journal*, Vol.2, pp.121-139
58. Rousseau, D.M. (1995). *Psychological Contracts in Organisations : Understanding Written and Unwritten Agreements*, Sage Publications, Thousand Oaks, USA
59. Rousseau, D.M. and McLean Parks, J. (1993). 'The Contracts of Individuals and Organisations', *Research in Organisational Behaviour*, Vol. 15, pp 1- 43
60. Sarantakos, S. (1998), *Social Research*, 2nd Edition, MacMillan, Australia
61. Schein, E.H. 1980. *Organisational Psychology*, 3rd Edition, Prentice Hall, Englewood Cliffs, NJ
62. Stewart, T.A. (1998) *Intellectual Capital*, Nicholas Brearley Publishing, UK.
63. Stewart, T.A. (2001) *The New Wealth of Knowledge – Intellectual Capital and the 21st Century Organisation*, Nicholas Brearley Publishing, UK.
64. Thibaut, J.W., and Kelly, H.H. (1961). *The Social Psychology of Groups*, John Wiley and Sons, NY
65. Willcocks, L., and Choi, C.J. (1995). 'Co-operative Partnership and 'Total' It Outsourcing: From Contractual Obligation to Strategic Alliance?', *European Management Journal*, Vol.13 (1), pp.67-78
66. Willcocks, I. and Fitzgerald, G. (1994a) *A Business Guide to Outsourcing IT. A Study of Best Practice in the Selection, Management and Use of External IT Services*, Business Intelligence, London.
67. Willcocks, L and Kern, T. (1998). 'IT outsourcing as strategic partnering: the case of the UK inland revenue', *European Journal of Information Systems*, Vol.7, pp 29-45.
68. Whitfield, K., and Strauss, G. (eds). (1998). *Researching the World of Work: Strategies and Methods in Studying Industrial Relations*, ILR Press, Ithaca
69. Zviran, M., Ahituv, N., and Armoni, A. (2001) 'Building outsourcing relationships across the global community: the UPS-Motorola experience', *Journal of Strategic Information Systems*, Vol.10, pp.313-333