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An Inductive Empirical Investigation into Third Party Logistics Contracts

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ABSTRACT: We report an inductive, qualitative investigation into third party logistics contracts whose express purpose was to inform subsequent case study research into the same. A salient feature of the research is the methodology which involved going back-and-forth between data gathering (the principal source of data was flexible interviews) and analysis, which was conducted through formally specified coding techniques. The products of our induction include concepts and categories that are relevant in the study of third party logistics contracts, as well as their synthesis into an anatomical description of such contracts. We also draw several inferences from our data that bear upon future empirical research into third party logistics contracts, especially their effectiveness.

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Background

In keeping with the trend towards outsourcing and the focus of corporations on their core competencies, the third-party logistics industry is on the 'growth' phase of its life-cycle in the US[i], Europe[ii], and elsewhere. For our purposes, we employ Sink and Langley's characterization of third party logistics (3PL): "... using the services of an external supplier to perform some or all of a firm's logistics functions."[iii]

Empirical research on 3PL contracts[iv] is emerging concomitantly. The effectiveness of any such contract, as well as its determinants, is receiving attention but only just. Sink and Langley[v] propose a sequential, managerial framework for the effective acquisition of logistics services that they gleaned from a variety of information sources (the relevant literature, a focus group, eight case studies, and a survey) based in N. America and Europe. The respondents of the survey were senior logistics executives of companies, some of whose apparently successful contracts with 3PL service providers were publicized in the business and trade literature.

The framework proposed by Sink and Langley[vi] is a sequence of the following five steps: (1) identify need to outsource logistics; (2) develop feasible alternatives; (3) evaluate and select supplier; (4) implement service; and (5) [conduct] ongoing service assessment. However, feedback loops between steps are possible.

The motivation for Sink and Langley's investigation is that a framework thus gleaned can "guide the purchasing process."[vii] However, we are aware of at least one rather well publicised 3PL contract in New Zealand with which both the client and the provider are well-pleased although the client apparently departed from the framework in many ways. (This contract, along with certain others engaged in by the provider, has received attention in the New Zealand business press owing to the 'win-win' efficiency gains realized by the provider through consolidation in distribution, which is especially significant in New Zealand in light of its thin population density.) For instance, the client did not send out request for proposals (RFPs). The origination of the contract could be traced back to a certain gathering where the GM of the contract provider happened to meet and converse, for the first time, with the CEO of the client's Australian parent. According to a senior executive of the service provider, "they were talking about what they did and the CEO said I have just taken over YYY. He said how would you like to take a look at XXX (a New Zealand subsidiary of YYY) - the place is a shambles. He was right. We put together a warehouse model and warehouse costs. Then, we sat down and started talking about active issues and how we would handle those issues. Then, we talked about budgets and how we would put those budgets together..." At no stage did the client look at alternative logistics providers: "We told them this is what we are going to do and they evaluated it."

In fact, Sink and Langley themselves note that in the contracts examined by them, the buying process did not always follow the five-step sequence, which departure they attributed to the influence of "the realities of power, conflict, and compromise"[viii]. On occasion, either a step was altogether omitted and/or it was initiated before its predecessor had been completed in its entirety. This observation would imply that buying firms that do not employ the sequence gleaned could yet outsource logistics successfully.

Moreover, as the senior executive referred to earlier noted with regard to the client's refraining from a formal issuance of RFPs, "To be fair, at that stage in New Zealand, the alternatives were limited." Whilst a formal survey of logistics outsourcing in NZ is elusive, one local logistics specialist estimates the rate of local outsourcing at 15%.[ix] This is well short of the proportions of companies in 1997 that used third-party logistics services in Europe (84%) and North America (69%).[x]

Motivating the present study

The above implication was our point of departure for the present study: the effectiveness of 3PL contracts and the determinants thereof could perhaps be investigated in their own right, quite apart from the process by which the buying firms acquired the services. Indeed, the process of building theory from cases[xi] suggests one should not focus exclusively on apparently successful contracts, an indicator of apparent success being the disclosure of the workings of the contract in the open literature as in Whirlpool's contracting its inbound logistics to Ryder[xii]. Rather, theoretical insight is most likely engendered through the comparison of polar cases, which in the present context would entail the comparison of highly successful and highly unsuccessful 3PL contracts.

The need to pay attention to unsuccessful contracts is also expressed by Vincent Gulisano, vice president of USCO Distribution Services which is a logistics service provider operating nearly 10 million square feet of warehouse space throughout the US and Mexico. In a provocatively titled article ("Third-party failures: why keep it Gulisano cites the "sobering" fact from a Warehousing and Research Council pamphlet that 55% of logistics alliances are terminated after 3-5 years, and remarks that "the problem is logistics service providers don't talk about failure… We need to openly discuss and learn from past mistakes…"[xiii] The high proportion of failures is confirmed by a more recent survey conducted by the New York-based Outsourcing Institute: 55% of third party partnerships fail within five years[xiv].

The perspective of 3PL providers, such as USCO, on the determinants of successful logistics relationships was examined by Leahy, Murphy, and Poist[xv]. Based on rankings returned by respondents (who were leading 3PL providers in the US), they listed a set of determinants in descending order of importance. Service attributes of the provider, such as 'customer orientation' and 'dependability,' rated as more important determinants of the effectiveness of the relationship (alliance) than the 'cost savings' realized by the provider for its client.

Case study research has been deemed to be especially appropriate for gleaning theoretical insight into a nascent empirical topic, such as the effectiveness of 3PL contracts, of which comparatively little is known[xvi]. The study reported here represents an exploratory, qualitative investigation into 3PL contracts, whose primary motivation is informing subsequent theory building case study research into such contracts.

In building theory, *theoretical sampling* governs case selection; it is appropriate to choose cases that vary along the dimension(s) of emerging theoretical importance, while controlling for other possibly confounding dimensions[xvii]. A manufacturer or marketer might enter into just one contract with a service provider but that provider will likely be engaged in the provision of 3PL services for several clients *simultaneously*. Hence, a logical starting point for case study research into 3PL contracts would be to examine various contracts in which the selfsame service provider is engaged concurrently.

Consequently, in the present investigation, we focus on contracts that all involve a certain logistics service provider in New Zealand, which for reasons of confidentiality we refer to as *Theta*. Thus, insofar as we focus on the perspective of a provider of services rather than of its client(s), our study is similar to Leahy, Murphy, and Poist[xviii].

The approach of Leahy, Murphy, and Poist towards data gathering was markedly deductive: they first compiled a list of 25 determinants of successful 3PL alliances based on a review of the literature in academic and practitioner journals, and then elicited rankings of *only those* 25 determinants (without regard for any factors from outside the list that respondents might have considered relevant). On the other hand, our approach towards data gathering and analysis is marked considerably by induction.

The 'products' of our induction include concepts and categories that are relevant in the study of 3PL contracts. Our approach contrasts with that of, for instance, Zinn and Parasuraman[xix] who rather deductively formulate dimensions of contracts such as *scope* (measured through the number of services included in the alliance) and *intensity* (measured by the extent of direct involvement between alliance partners).
Our focus on a single 3PL service provider is not at odds with the purport of the present study, which is to engender theoretical insight into the behaviour of 3PL contracts. Besides, since the unit of analysis in the present study is the contract, a 'single' provider actually includes *several* cases within its fold.

The present paper is organized as follows. The ensuing section details the qualitative methodology employed in the present investigation, with an emphasis on the inductive process of analysis. We then describe the primary product of our analysis, which, in essence, is an anatomy of 3PL contracts, replete with the constituent elements and their relationship to each other as well as to the whole. These findings of our study are tantamount to a rigorous, first-order, conceptual categorization of the qualitative data on-hand. We then conclude the paper with what approaches a second-order interpretation of the data, namely, a discussion of how the present investigation, at large, informs empirical research into 3PL contracts.

Methodology

Iterative data gathering

The issue of what constitutes an appropriate degree of theoretical formulation *prior* to data gathering in qualitative research has been debated upon at length, with one set of authors, including Lofland[xx] among others, holding that ideally, data collection should be commenced from a 'blank state.' For reasons similar to those adduced by Miles and Huberman[xxi], we followed their recommendation of commencing data collection with a rudimentary conceptual framework of sorts. In our context, a 'mundane' reason[xxii] for doing so was that the principal source of data was interviews with a senior executive (SE) of *Theta*. To minimize our imposition on his time and to simultaneously 'get the most' out of the interviews, we saw fit to do some prior 'homework.' This took the form of, among other things, a stock-take of all references to the effectiveness of 3PL contracts in the extant academic literature, as well as the business press in New Zealand.

As it happened, our first introduction to the SE had been at a formal presentation by him on *Theta*'s business and its various, ongoing 3PL contracts in New Zealand. Thus, his presentation suggested issues and topics that we could probe further in research interviews. For instance, in the course of his presentation, the SE had dwelt a little upon two of *Theta*'s larger contracts that, as it happened, respectively involved two non-competing groups of companies in the FMCG sector in New Zealand, *Alpha* and *Beta*. Given our focus on the effectiveness of 3PL contracts, an issue that naturally emerged for subsequent probing was: did *Theta* consider the one contract to be more successful than the other and if so, how and for what reason(s)? (However, it subsequently turned out that the two seemingly similar contracts stood in rather an 'apples-and-oranges' relation to each other, thus rather voiding the question.)

The SE was himself, in the aforesaid manner, a major source of issues for discussion for even the first interview; this accentuated the inductive character of our methodology. Moreover, immediately prior to the first interview, the SE gave us a guided tour of the *Beta* site, during which he described at length various aspects of *Theta*'s business. In turn, the site-visit fed into the first interview.

The imperative of 'going back-and-forth' between incipient conceptual frameworks and data gathering is a hallmark of the grounded theory approach[xxiii]. Thus, after the first interview with the SE, we coded the interview transcript along the lines proposed by Rose[xxiv], which is quite similar to, for example, the *open coding* logic of Strauss and Corbin[xxv]. In keeping with our constant endeavour to understand the 'how?s' and 'why?s' concerning 3PL contracts, we also compiled a new set of issues to probe based on the first interview. Then, in the subsequent interview, we sought to explore these issues as well as to 'fill' (and modify, if necessary) the concepts and categories that were emerging from our coding. This process was repeated until we appeared to reach closure with regard to our conceptualization of 3PL contracts, which we present subsequently in the paper.

Other sources of data for the present study included documents furnished by the SE. These included a list of the various KPI's (key performance indices) used by *Theta*, copies of partnering agreements (such as the one between *Theta* on the one hand, and *Alpha* and its two sister companies in New Zealand on the other), and statements of contracts.

We now present a concrete illustration of our approach towards data gathering for clarifying the same. During the first interview, the SE had remarked that *Theta* employed open book costing in its contract with *Beta*. *Alpha*, after starting out with open book costing, subsequently sought merely a variable-cost-per-carton figure from *Theta*, which the SE remarked was a "definite" indication of its growing trust in *Theta*. This begged the question as to whether *Alpha* trusted *Theta* more than *Beta* did (perhaps because *Alpha*'s contract was the older of the two). We duly probed this issue subsequently. The SE responded that *Beta*'s continued use of open book costing proceeded more from its history of gross in-house mismanagement of the warehouse when "there were huge cartels of people doing dodgy things" such as pilferage.

Our coding process

Before we describe our coding process, we set out some definitions. A *concept* is a pattern that emerges from the data. An *indicator* is an empirical phenomenon that fits into a concept. A *category* is an abstract idea that unifies several concepts.

During coding, we scanned the text (e.g., interview transcripts) from start to finish, all the while searching for various patterns or themes that began to manifest in the data and that evinced the potential for subsequent recurrence in manifold ways; each such manifestation constituted an *indicator* of the underlying pattern (*concept*). To illustrate our coding process, we reproduce below a snippet from one of the interviews, wherein "A" refers to the authors.

1 A: You manage *Gamma*'s warehouse and so forth but how does *Theta* win with a
2 contract such as *Gamma*, wherein, because of the nature of *Gamma*'s product
3 (XXXX), you cannot consolidate distribution as you might with, say, *Beta*'s
4 products?
5 SE: *Gamma is a contract that we took on under the impression that it would extend*
6 *its product range, and deliver to other outlets. This did not come about.*
7 A: Did this change your business plan?
8 SE: *Yes. It [Gamma] is a small xxx-dollar contract. We will only get a win out of it*
9 *if it changes to a multipurpose [warehouse].*

In lines 5-6 of the snippet, we discern a potential concept (theme), one that appears likely to recur severally. We label it 'premises/assumptions in the client's business plan that underlie the provider's acceptance of the contract.' Two indicators of this concept are: 'the client's plans to extend its product range'; and 'the client's plans to expand its customer base.' Continuing further, in lines 8-9, we discover another emergent concept, *Theta* gets a win out of a contract'; an indicator of the same is 'operating the contract out of a multipurpose warehouse.'

Such emergent concepts will be 'filled' upon the analysis of subsequent text, failing which they will be explored through subsequent data gathering. In the manner of the *constant comparisons method*[xxvi], upon the gathering and analysis of subsequent data, a concept could well be redefined/relabeled, perhaps as not one but several (lower-level) concepts. It is vital to ensure that at all times, each one of the indicators of a concept truly constitutes a manifestation of the pattern/theme that is referred to by the concept's label. Thus, not only should the indicators of a concept cohere with the label that is assigned to the concept, the various indicators should stand in relation to each other as being different representations of the selfsame pattern/theme.

We clarify this process with reference to another snippet, wherein, to avoid confusion with the preceding extract, the lines are numbered starting from 101.

101 A: Do all contracts have an initial duration of three years?
102 SE: *They vary. It depends on a number of things... With Beta, it was originally a*
103 *three year contract. We have invested in the paperless [warehousing] system, and*
104 *an expensive computer system. We renegotiated the contract for a further length of*
105 *time on the basis that we have made an investment and we need some ROI on this*
106 *investment. Where we don't spend a lot of capital, the shortest term is three years.*

Like Gamma. A normal contract is three to five years. We had a five year contract with Delta and after 3 years this has been extended to be renewed to the year 2002. They have extended this out as they have been happy with the way the contract has been working

In lines 104-106, we uncover a concept relating to renegotiation, which we label 'drivers for renegotiating the contract duration,' of which one indicator is 'the provider's making an investment and needing some ROI.' Proceeding further, it appears, at first glance, that in lines 107-110, this concept is manifesting again as 'the client's being satisfied with the way the contract has been working.' However, while the first indicator refers to a driver from the *provider*'s side, the second refers to a driver from the *client*'s side. Hence, the emergent concept is redefined as two lower-level *provider*'s drivers for renegotiating the length of the contract,' and '*client*'s drivers for renegotiating the length of the contract.'

As happens quite often in inductive research of the present kind, some of the concepts that are induced echo those that have been developed (perhaps somewhat deductively) in the literature, while some others have not been expressed extensively. For the sake of illustration, we present below the indicators (in itemized form, and in italics) of three major concepts (whose labels are in boldface). The first concept has been well addressed in its own right in the literature in the context of *decision drivers* (see for example, Coyle, Bardi, and Langley[xxvii], and Rao and Young[xxviii]), while the second and third, though significant, have not. All quotations are of the SE verbatim.

Impetuses to the client for going into contract logistics.

- *Difficulties with managing logistics in-house.* (For instance, at *Beta*, as noted earlier, pilferage was a serious problem. At *Gamma*, "the warehouse was a mess"; the available space was poorly utilized requiring *Gamma* to occasionally use outside storage at considerable expense. *Omega* had had "a whole lot of owner drivers that were making a lot of money." In the Australian beer industry, unions are strong and "the ability to save money in terms of some of the costs may not be as important as the ability to keep the business running [without strikes].")
- *The practice of allied firms overseas to go in for contract logistics.* (The American owners of *Gamma* were employing contract logistics in the US, and hence wished to explore it in New Zealand.)
- *The intent of the parent group of companies to use the client subsidiary as a 'pilot' to test out contract logistics.* (At the time our study commenced, a prominent Australasian group of companies trialled contract logistics in New Zealand with *Theta* for one of its newly acquired subsidiaries, *Omega*.)
- *The special expertise of the provider*. (*Theta*'s special capabilities in the transport of food products, as well as its ability to move product in accordance with the changing needs of the market ["flexible walls"], were the main reasons the aforementioned client-subsidiary approached *Theta*.)

The provider's ways of refraining from making firm and strong monetary commitments early in the contract negotiations.

- *Premising that it is not knowledgeable enough*: "The first thing we do when we go into a new contract is point out that we don't understand your business. That's the

- *Stipulating conditions/qualifications while presenting budgets*: "under certain conditions"; "based on these premises"; "given what we think"; "based on what we ; etc.
- *Giving only ball-park estimates, "indicative costs."*
- *Giving distant time-frames for cost reduction*: "We will say to people 'year one is not a time for saving money.' …We normally say in terms of the contract year one is the cost consolidation and year two is where we look at costs coming down. It depends on the nature of the contract of course. Whether you take over existing staff. We may have an initial capital investment to buy new vehicles, etc."
- *Focusing on possibilities*: "Here are the things we can do for your business to save

The above concept is related to yet another, namely:

Reasons for which the provider refrains from making firm and strong monetary commitments early in the contract negotiations.

- *Lack of complete information from the client.* (In response to a suggestion by us, the SE heartily agreed ["too right"] that during initial negotiations, some clients would cite only selective cost components and express a desire to see the 'total cost' come down from their current estimate through the outsourcing of logistics. It was then incumbent upon *Theta* to systematically ascertain *all* the relevant costs before suggesting what improvements might ensue.)
- *Intrinsic difficulty.* ("We get a lot of people asking us to quote on their business on the basis that they give us some figures and ask us how we are going to improve for them. It is an absolute impossibility for us to go to people and say this is what we will do your business for. There are so many variables in any business that affect the costs. We refuse to get into the area of 'ticking the boxes' or 'our cost' versus 'your cost.' There is nothing more certain than we will get it wrong.")
- *Exposure to risk.* ("We pulled out of a tender for ZZZ because they had a xxx-million dollar inflexible budget. We might have made money but there was a great opportunity to lose our shirt as well.")

The above two concepts are unified by the (higher-level) *category*, 'refraining from making firm and strong commitments regarding costs early in the negotiations,' of which the first concept comprises 'ways of refraining,' and the second concept comprises 'reasons for refraining.' This category is closely related to the avoidance of Gulisano[xxix] cites as a fault of providers that results in failures.

Findings

In the manner described in the preceding section, we first induced lower-level concepts and subsequently, higher-level categories that represented greater degrees of abstraction. We now present the products of our induction, which taken together, constitute an anatomical description of 3PL contracts. We emphasize that inasmuch as the description has been *rigorously* induced from the available data, it is empirically solidly grounded.

A conceptualization of third party logistics contracts

The concepts and categories that we have induced from the data can be grouped into four major categories. These we have labeled as follows.

1. *The prelude*. This pertains to the 'coming into being' of the contract, and includes the origination and initial multilateral negotiations.
2. *The physical actualization/realization of the contract.* This relates to the direct, concrete, and ongoing physical manifestation of the contract and includes, but is not limited to, the logistical services that are provided therein.
3. *The multi-lateral management of the contract*. This refers to the indirect, managerial planning and controlling of the contract/alliance/relationship.
4. *The context embedding the contract.* This relates to influences on the contract that are not intrinsic to any one of the preceding (namely, the prelude, the physical actualization, and the management of the contract) but rather permeate through them all.

The categories along with their included concepts are presented in the appendix. Each concept/category is accompanied with an indicator that is contained in the data and that serves to clarify its definition.

While the concepts that are included within each category in the appendix are an illustrative subset of those that we uncovered, they nevertheless suffice to sharpen the definition of the same. The four categories and their relationship to each other are also pictorially depicted in Figure 1.

We now compare and contrast the conceptualization depicted in Figure 1 to the buying process of Sink and Langley[xxx] and to the three-phase process model of logistics alliances proposed by Bagchi and Virum[xxxi]. In the latter, phase 1 is characterised by a "growing awareness of the need for a radical change in the management of the logistics function," phase 2 consists of the "preparation and planning for the alliance," and phase 3 includes "managing the process." Further, as with Sink and Langley's buying process, adjustment feedback loops from phase 3 to the preceding phases can prevail in Bagchi and Virum's process model.

The 'prelude' in Figure 1 roughly corresponds to the first three steps in the buying process and to phase 1 in the process model. However, in our conceptualization, the multi-lateral management of the contract and the physical actualization are, more or less, concurrent processes. The two stand roughly in a first-order/second-order, direct/indirect relation to each other.

The method by which either the five-step buying process or the three-phase process model has been inferred from the associated data is not transparently clear. For example, Bagchi and Virum note merely that "the logic of dividing the process into three phases emerged from the findings of the case studies."[xxxii] We submit that, in contrast, the anatomy depicted in Figure 1 has been rigorously and systematically grounded in empirical data through recourse to formal techniques of inductive analysis of qualitative data.

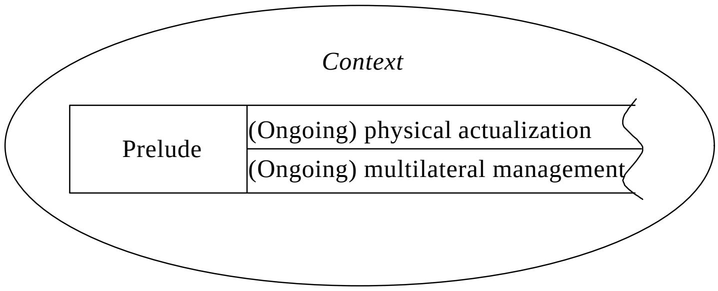

Figure 1. A pictorial conceptualization of third party logistics contracts.

We also note that Figure 1 makes explicit the notion of 'context.' While the context that embeds a contract and shapes it may not be intrinsic to the contract *per se*, the effectiveness of a contract will have to be construed with reference to contextual variables, such as 'flux within the client company and in its environment' (see the appendix). In fact, the impact of a manufacturer's operating environment on the formation of cooperative logistics relationships by it is the very focus of Stank and Daugherty[xxxiii].

Using the conceptual framework

In her discussion of data analysis in case study research, Eisenhardt[xxxiv] distinguishes between *within case* analysis and *cross case* analysis, the former logically preceding the latter. Within-case analysis "typically involves detailed case-study write-ups for each site," while cross-case analysis involves a "search for patterns" across cases, which is accomplished through a variety of tactics[xxxv].

We envisage that the conceptual framework of 3PL contracts described earlier will serve as a handy blueprint for developing in-depth case descriptions (*within case* analysis). Thus, a case write-up on a contract could proceed along four lines, namely, the prelude, the (direct) physical actualization, the (indirect) joint management of the contract, and the embedding context. The concepts within each of these four major categories can be used as a basis for the collection and organization of data.

The resulting descriptions will be fairly consistent across contracts. This feature is important for at least two reasons. First, it facilitates *cross case* comparisons in an obvious way. Second, it conduces joint research by *multiple* investigators who can develop case descriptions, independently of each other, with little loss of coherence in the investigation.

Conclusion And Discussion

We have reported an inductive, qualitative investigation into 3PL contracts with a view to informing subsequent case study research into their effectiveness and the determinants thereof. To this end, we have, among other things, developed a conceptualization of 3PL contracts by dissecting qualitative data that has been gathered principally through flexible interviews. From the data, besides inducing this anatomy, we have drawn various inferences that could be borne in mind during subsequent empirical research into 3PL contracts. Below, we discuss them by turn.

The provider's perspective of contract success

The effectiveness of a contract/alliance should perhaps be related to the extent to which *each* party/signatory perceives it to be a win for itself, as opposed to the extent to which only the client manufacturer/marketer sees it as a win. (The *user-centrism* that is latent in empirical research on third-party logistics has been pointed out by Leahy, Murphy, and Poist as being "somewhat curious, in part because one of the distinguishing features of third-party logistics involves the long-term, mutually beneficial relationships between *users* and *providers* of third-party services."[xxxvi]) *Gamma* "seem perfectly happy" with *Theta* because "we have added value into their operation through the implementation of KPI recording and those sorts of things..., the biggest benefit being they no longer have to concentrate resources on running a warehouse." However, *Theta* does not see it as a win for itself because the consolidation of distribution that had been envisaged when the contract was signed, did not materialise.

From the *provider*'s perspective, current performance alone may not be a sufficient criterion to distinguish highly successful contracts from less successful contracts; the prospects for business growth to the provider that stem from the contract also have to be reckoned with. *Theta*'s contract with *Omega* had several teething problems due to serious differences of opinion at the start: "In all of our negotiations with *Omega*, we expressed concern over the vehicle configuration they wished us to use. We spent a lot of time telling them how we thought they should do business (because I knew something about their business). They wanted to do it their way so we made it clear we didn't think it would work. We wrote the issues down [in the contract]... and it became

However, *Theta* hung on ("we had to do it their way") because it saw "long-term value" in the contract. As mentioned earlier, *Omega*'s parent company was trialing contract logistics through *Omega*. *Theta* potentially stood to gain the business of *Omega*'s sister companies in due course. Thus, although *Omega*'s contract was not more profitable than *Gamma*'s contract to *Theta* in the short-run, *Theta* viewed the former far more favourably due to the prospects of "organic growth" that it afforded. In light of this, the NPV of contracts (which incorporates future growth prospects) might be a better basis for gauging the benefit from a contract to the service provider.

This last point perhaps has to be interpreted in light of the difficulties in achieving scale economies and business growth in a country such as New Zealand. While New Zealand has a landmass that is eight percent larger than that of the UK, its population is just one-sixteenth[xxxvii]. In 1996, two-thirds of the manufacturing activity units in New Zealand employed five or fewer full-time equivalent (FTE) persons, and the average number of FTE persons engaged per unit was less than a dozen![xxxviii] Further, in that year, the average annual sales and other income of a manufacturing unit were NZD 2.33 million. Thus, by international standards, New Zealand's manufacturing is quite small-scale.

The scope of 3PL contracts

Our data also suggest a modification to the 2x2 conceptualization of 3PL alliances of Zinn and Parasuraman, wherein, as mentioned earlier, the one dimension is *scope*, and the other is *intensity*.[xxxix] Zinn and Parasuraman characterise a *focused* alliance by the 3PL provider's strong commitment of resources to implement, and perform on an ongoing basis, a limited number of services. For example, the 3PL provider may provide dedicated warehouse space in an expensive area. According to Zinn and Parasuraman, this suggests high financial commitment but low scope, i.e., the 3PL provider may only provide the warehouse and not other aspects of logistics such as transportation.

The data from *Theta* (as does the conceptualization of alliances) indicate that the (indirect) management of a contract must be distinguished from the (direct) services provided as per the contract. Speaking of *Phi*, one of *Theta*'s flagship contracts, the SE remarked: "We manage the warehouse and we manage their [*Phi*'s] transport contract. The reason we do that is the distribution has been excellent in the past so why change a good thing. What we did insist though is that we manage him [the proprietor of the freight company]. There is nothing worse than managing the warehouse and getting things done and having no one to pick it up. There is a very strong link between timings in warehousing and transport. It was important to us that we took a lot of time in talking to this guy..."

Phi is the New Zealand subsidiary of an Australian food manufacturer that has closed down manufacturing facilities in New Zealand. The above quotation underscores the well-known principle of integrated logistics that mandates close co-ordination between transportation, warehousing, and other logistically related activities.[xl] In light of it, *scope* is perhaps better measured through the number of services included in the alliance that are either *(directly) provided* and/or *(indirectly) managed*.

Selection of contracts for case study research

In the nearly eight years that *Theta* has provided 3PL services in New Zealand, not one of its contracts have been terminated by either the client or *Theta*. Our findings suggest that the 'thoroughness' of the contract logistics service provider is a major determinant of contract success and manifests, for instance, in the avoidance of "
in the insistence on managing the client's freight contract (e.g., the *Phi* contract of *Theta*).

Vincent Gulisano, whose company USCO on one occasion "overpromised" on the basis of insufficient data, corroborates this perspective: "…we relied on spreadsheets to tell the story… We won the contract but the relationship failed – the first major failure within our company in nearly 30 years. The fault rested squarely on our shoulders. Our mistake was in not insisting that we understand every aspect of the operation."[xli]

Gulisano explains USCO's lack of understanding of the client's operation thus: "We were not allowed to tour the existing facility. We couldn't speak to upper management or warehouse managers… The client did not want to offer information that might

influence our proposal or hurt contract negotiations. They assumed we, the logistics experts, should have the right answers."
This implied need for "a high degree of communication and interaction between the buying team and supplier personnel" is also highlighted by Sink and Langley[xlii] in the context of step 3 ("evaluate candidates and select supplier") of their buying process. One means of reconciling their findings with our data and USCO's experience is that the 'service provider's avoidance of overpromising' is an *instrumental* cause of effectiveness in outsourcing, and has as its antecedents, the thoroughness of the provider during initial negotiations and/or Sink and Langley's systematic buying procedure.

In light of the above, it appears that for the purpose of gaining theoretical insight into contract effectiveness, one could perhaps compare contracts that correspond to *different* service providers. For strategic reasons, manufacturers and marketers that are in direct competition with each other seldom employ the same provider. (Thus, for example, *Theta* has eschewed contracts with certain Australasian marketers in New Zealand in the hope of securing contract(s) with their [larger] competitors.) Hence, theory is probably well built by comparing contracts entered into by direct competitors (with different providers). The choice of direct competitors will help control for the influence of product-type and affiliated attributes on contract effectiveness. For example, *Theta* finds it difficult to effect consolidation in transport while servicing *Gamma*'s contract because *Gamma* is a marketer of XXXX, which are rather "messy" to handle and ship: "You cannot put XXXX and food on the same truck."

We will follow up on the present study through case study research into 3PL contracts. Rather than employ the classification of Zinn and Parasuraman[xliii] as a basis for case (contract) selection, we will, in keeping with our inductively derived findings, compare and contrast *Theta*'s contract with *Gamma* with another contract involving a different service provider and a competing marketer of identical product.

Appendix

An anatomy of 3pl contracts

Note: Categories are labeled in bold-face, concepts are labeled in italics, and lower-level concepts (and indicators of concepts) are bulleted. (Indicators of lower-level concepts are asterisked.)

Prelude (inception and initial negotiations).

– *Impetuses to the client for going for the contract.*
  - Difficulties with managing logistics in-house.
– *Reasons for the provider's entering into the contract.*
  - "An opportunity to expand the XXX side of our operation [those aspects of the provider's business which it does quite well]."
– *Factors determining the length of the initial contract.*
  - The amount of capital investment. ("XXX is a ten year contract because we bought their real estate. Where we don't spend a lot of capital, the shortest term

– *Premises/assumptions in the client's business plan that underlie the provider's acceptance of the contract.*
  - The client's plans to extend its product range.
– *Ways by which the provider sells its custom to the client.*
  - Recommendations by existing clients: "one of the selling points we try and stress is please go and talk to our customers about the things we do for them."
– *Provider's recommendations that are rejected by the client but upheld in hindsight.*
  - Vehicle configuration. ("*Omega* wanted a very low operation [in terms of the positioning of the doors and the sizes of the wheels and tyres]... We made it clear we didn't think it would work... The current tyres wear out twice as fast.")

Physical actualization of the contract.

– *Services provided by the third party operator*.
  - Issues related to warehousing.
    - * Policies concerning existing warehouse staff in the client company.
– *Idiosyncratic complications in serving the client.*
  - Odd shape of product. ("The *Gamma* system is a cold pressed XXXX system so some of the products are square bits of rubber rather than round bits of rubber. There is an added difficulty in moving square and round stuff together.")
– *Kinds of capital investment made by the third party provider*.
  - A paperless warehousing system.
– *Ways in which the provider gets a 'win' from the contract.*
  - Consolidation of distribution with other clients.
– *Benefits to the client from the contract.*
  - Freeing up of resources. ("The biggest benefit being they [*Gamma*] no longer have to concentrate resources on running a warehouse.")
– *Ways by which the provider 'adds value' to the client's business.*
  - The recording of KPI's.
– *Kinds of evolution/growth in an alliance.*

  - Growth in the product range. ("With XXX, we began just doing dry goods in the North Island [of New Zealand], we now do all their goods and are looking at the South Island.)
- *Means of increasing asset utilization.*
  - Seeking other clients whose demands are counter-seasonal with existing client(s).

Multi-lateral management of the contract.

- *Reasons for the provider's persistence with a contract that is performing less than optimally and/or not living up to its promise/initial expectations.*
  - Credibility: "We don't want to lose credibility by taking someone on and saying 'thanks very much, see you later,' we would never do that in a million years."
- *Criteria for gauging the profitability of a contract to the provider.*
  - ROI.
- *Agenda for periodic meetings/reviews.*
  - Examining strategic options: "Look at the strategic things they [e.g., *Beta*] and we are doing."
- *Types of costing mechanisms.*
  - Open book costing. ("We show the clients an operating statement every month which shows all costs and revenues. We give them the total picture. They know how much our margins are. They know all the various cost components.")
- *Factors influencing the client's choice of costing mechanism and/or operating statements.*
  - Facilitation of business planning. ("With *Alpha*, we have gone back [from an 'open book' regime] to a point now of splitting everything up into a unit rate because of how costs have changed over time. We still show them operating statements but it suits their business to work under the unit rate scenario. They know how much each unit rate is so they can relate this back to their sales costs and product costs.")
- *Reasons for entering into a formal partnering agreement, where applicable.*
  - Major changes in the supply chain. ("The reason for the partnering agreement with *Alpha*'s parent company was that there were a lot of issues that affected distribution, that were outside of the distribution area. They were moving manufacturing sites. There were three different operations...")
- *Ways in which the client exhibits trust in the provider's management of the contract.*
  - The client's dispensing with open book costing (e.g., *Alpha*).
- *Provider's drivers for renegotiating the duration of the contract.*
  - The provider's making an investment and needing some ROI.
- *Client's drivers for renegotiating the duration of the contract.*
  - The client's being satisfied with the way the contract has been working.

End Notes

[i] R.C. Lieb, "The use of third party logistics services by large American manufacturers," *Journal of Business Logistics* 13, no. 2 (1992): 29-42.
[ii] Helge Virum, "Third party logistics development in Europe," *The Logistics and Transportation Review* 29, December (1993): 355-362.
[iii] Harry Sink, and C.John Langley, , "A managerial framework for the acquisition of third-party logistics services," *Journal of Business Logistics* 18, no. 2 (1997): 163-189.
[iv] In fact, third-party logistics is sometimes referred to as 'contract logistics,' which is a "process whereby the shipper and the third part(ies) enter into an agreement for specific services at specific costs over some identifiable time horizon" – see B.J. Lalonde and M.C. Cooper, *Partnerships in providing customer service: a third party perspective* (Oak Brook, IL: Council of Logistics Management, 1988): 5.
[v] Same reference as Note iii.
[vi] Same reference as Note iii, p. 175.
[vii] Same reference as Note iii, p. 165.
[viii] Same reference as Note iii, p. 174.
[ix] Rob O'Neill, "Competition and technology drive change in logistics," *The Independent*, 21 July (1999): 32.
[x] Robert J. Bowman, "On the bandwagon," *World Trade* 11, no. 11 (1998): 62-63.
[xi] Kathleen Eisenhardt, "Building theories from case study research," *Academy of Management Review* 14 (1989): 532-550.
[xii] Joseph Bonney, "Whirlpool contracts inbound logistics to Ryder," *American Shipper* April, (1995): 52.
[xiii] Vincent Gulisano, "Third-party failures: why keep it secret?" *Transportation & Distribution* 38, no. 9 (1997): 77.
[xiv], Thomas A. Foster, "Lessons learned," *Logistics Management & Distribution Report* 38, no. 4 (1999): 67-72.

[xv] Steven E. Leahy, Paul R. Murphy, and Richard F. Poist, "Determinants of successful logistical relationships: a third party provider perspective," *Transportation Journal* 35, no. 2 (1995): 5-13.
[xvi] Same reference as Note xi, p. 548. See also Lisa Ellram, "The use of the case study method in logistics research," *Journal of Business Logistics* 17, no. 2 (1996): 97.
[xvii] Same reference as Note xi, p. 537.
[xviii] Same reference as Note xv.

[xix] Walter Zinn, and A. Parasuraman, "Scope and intensity of logistics-based alliances: a conceptual classification and managerial applications," *Industrial Marketing Management* 26, (1997): 137-147.

[xx] J. Lofland, *Analyzing social settings* (Belmont, California: Wadsworth, 1971).
[xxi] Matthew B. Miles, and A. Michael Huberman, *Qualitative data analysis,* second edition (Thousand Oaks, Calif: Sage, 1994): 17.
[xxii] Same reference as Note xxi.
[xxiii] Barney G. Glaser, and Anselm L. Strauss, *The discovery of grounded theory* (Chicago: Aldine, 1967).
[xxiv] G. Rose, *Deciphering sociological research* (London and Basingstoke: MacMillan, 1982).
[xxv] Anselm L. Strauss, and Juliet M. Corbin, *Basics of qualitative research: grounded theory procedures and techniques* (Newbury Park, London, and New Delhi: Sage, 1990).

[xxvi] Same reference as Note xxiii.

[xxvii] John J. Coyle, Edward J. Bardi, and C. John Langley Jr., *The management of business logistics*, sixth edition (Minneapolis/St. Paul: West Publishing Company, 1996): 551.

[xxviii] K. Rao, and Richard R. Young, "Global supply chains factors influencing the outsourcing of logistics functions," *International Journal of Physical Distribution and Logistics Management* 23, no. 6 (1993): 11-19.

[xxix] Same reference as Note xiii.

[xxx] Same reference as Note iii.

[xxxi] Prabir K. Bagchi, and Helge Virum, "Logistical alliances: trends and prospects in integrated Europe," *Journal of Business Logistics* 19, no. 1, (1998): 191-213.

[xxxii] Same reference as Note xxxi, p. 205.

[xxxiii] Theodore P. Stank, and Patricia J. Daugherty, "The impact of operating environment on the formation of cooperative logistics relationships," *Logistics and Transportation Review* 33, 1997: 53-65.

[xxxiv] Same reference as Note xi, p. 540.

[xxxv] Same reference as Note xxxiv.

[xxxvi] Same reference as Note xv, p. 6 (emphasis in original).

[xxxvii] "New Zealand in Profile," *Statistics New Zealand*, http://www.stats.govt.nz/statsweb.nsf, January 1999.

[xxxviii] Statistics New Zealand, *New Zealand Official Yearbook 1997* (Wellington, NZ: GP Publications, 1997): Chapter 21.

[xxxix] Same reference as Note xix.

[xl] In this context, we cite Sink and Langley's (see Note 4) finding that among 75 industry executives who indicated their firm used third-party logistics services and who responded to a survey, 43.1% expressed that the extent to which these services were "tied together or integrated by the supplier of third-party logistics services" was "very

[xli] Same reference as Note xiii.

[xlii] Same reference as Note iii, p. 179.

[xliii] Same reference as Note xix.