DISSERTATION PAPER

INDIRECT PROCUREMENT OUTSOURCING ISSUES AND OPPORTUNITIES IN CONTEXT OF BANGLADESH BASED FIRMS

Submitted By

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ABSTRACT

Outsourcing of indirect procurement is receiving much attention in Bangladesh recently. The procurement outsourcing market is moving closer to entering a "rapid growth" phase. Yet, not enough is known about the various factors that are driving or impeding outsourcing and whether sufficient value is obtained or expected from outsourcing when compared with the situation prevailing prior to or without outsourcing.

The author is on the verge of completing the 15 subjects required to obtain MCIPS from CIPS (Chartered Institute of Purchasing and Supply) and that theoretical knowledge is applied in Bangladesh context to develop a better understanding of the topic through an empirical survey based study.

Procurement competence, procurement competitive advantage, firm competitive advantage and business risk constituted the key focus areas for the study.

Respondents were picked from Bangladesh based firms and tried to limit the respondents within members of the CIPS or IEB (Institute of Engineers) representing various levels in the supply chain practice within their organizations.

Data collected through the physical mailing survey method and also from some personally known professional whose competence is beyond question, were analyzed using statistical techniques. The total of 197 valid responses received.

The study found certain statistically significant differences between firms that have outsourced their indirect procurement function (OS) compared to firms that have either not considered outsourcing (NUC) *or* considered but decided against (CDA) *or* outsourced but later in-sourced (IS) *or* presently have outsourcing still under consideration (UC). The differences were found to be more widespread and significant in respect of procurement competence, procurement competitive advantage and firm competitive advantage. They were less pronounced for business risk and procurement-transformation-and-end-to-end competence (the latter was found to be a separate factor within the earlier more generic, procurement competence area).

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LIST OF ABBREVIATIONS

ABBREVIATION	DESCRIPTION
P2E2E	Procurement transformation and end to end competence
Tk	Bangladeshi taka
%	Percent
ADM	Application development and maintenance
ACV	Annual contract value
ANOVA	Analysis of variance
Lac	100000 taka
BATNA	Best alternative to a negotiated agreement
BDE	Business development executive
BBS	Bangladesh Bureau of Statistics
BPO	Business Process Outsourcing
BR	Business risk
CapEx	Capital Expenditure
CDA	Considered but decided against
CEO	Chief Executive Officer
CFO	Chief Financial Officer
COO	Chief operating officer
CPI	Critical performance indicator
CPM	Certified purchasing manager
CPO	Chief Procurement Officer
CRM	Customer relationship management
CSE	Client service executive
DB	Database
DF	Degrees of freedom
DPE	Deputy or Delivery Project Executive
ERP	Enterprise resource planning
F&A	Finance and accounting
FAO	Finance and accounting outsourcing
FCA	Firm competitive advantage
FTE	Full time equivalent
GPI	General performance indicator
HR	Human resources
HRO	Human resources outsourcing
I	Individual
IPO	Indirect procurement outsourcing
IS	Outsourced but later in-sourced
CIPS	Chartered Institute of Procurement and Supply

ABBREVIATION	DESCRIPTION
IT	Information technology
ITO	Information technology outsourcing
IV	Industry View
K	Thousand
KPI	Key performance indicator
LAA	Least acceptable agreement
MDA	Most desirable outcome
MRO	Maintenance, Repairs and Operating
mu	Mean
N	Number of observations
NA	Not applicable
NUC	Not under consideration
OS	Outsourced
P2P	Procure to pay
PC	Procurement competence
PCA	Procurement competitive advantage
PE	Project executive
PO	Procurement outsourcing *or* Purchase order
PSP	Procurement service provider
RBV	Resource Based View
RFP	Request for proposal
RTS	Return to sender
S	Simultaneous
S2P	Source to pay
SA	Solution architect
SAT	Satisfaction
SE	Standard error
SIC	Standard industrial classification
SLA	Service level agreement
SPM	Senior procurement manager
StDev	Standard deviation
SWOT	Strengths- weaknesses- opportunities- threats
TCE	Transactional Cost Economics
TCV	Total contract value
TPA	Third party advisor
UC	Under consideration
VP	Vice president

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CHAPTER 1

INTRODUCTION TO THE RESEARCH

1.1 Background

The recent years have witnessed a spurt in outsourcing activity particularly in Bangladesh. Areas covered by outsourcing are typically human resources, customer care, finance and accounting, and more recently procurement. The business sectors that are getting most heavily into outsourcing are manufacturing, retail, telecom and financial services.

According to Everest, "Procurement outsourcing has the potential to become the biggest 'game changer' in business process outsourcing." [1]

The focus of this research is on indirect procurement outsourcing. Indirect procurement refers to the procurement of those goods and / or services that do not end up in the final product delivered to the customer.

Procurement outsourcing refers to the transfer of any specific procurement activity or set of activities to a third party in order to achieve certain business objectives such as reduction in procurement cost or spend (through operational cost reduction, savings realization, etc.), ability to concentrate better and faster on certain strategic or core procurement activities or priorities, improvement in compliance with procurement policies and procedures, etc. For the purpose of this study, procurement related support activities such as procurement helpdesk or maintenance of the procurement IT platform are also included.

It is estimated that roughly 98 percent[2] of all procurement outsourcing engagements fall within the exclusive domain of indirect procurement outsourcing. Typically considered non-core, indirect procurement spend in categories such as temporary labor, travel or entertainment services, office supplies, marketing / print / advertising, IT, telecom, and facilities management is sought to be contained by firms facing ever increasing cost pressures in order to remain competitive in a globally interconnected world. In some rare cases,

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[1] Everest Research Institute. (2009). *"Procurement Outsourcing (PO) Annual Report. Topic: Shifting Buyer Preferences Dictate New Engagement Models."*

[2] Atkinson, W. (2006). "Outsourcing lands in procurement." *Purchasing.com.* Available at: http://www.purchasing.com/article/CA6315354.html.

categories such as transportation and logistics are also candidates for outsourcing. Specific activities that fall within the purview of outsourcing can vary significantly, depending on the client's particular situation.

However, typical areas include analysis of requirements, supplier selection, strategic sourcing, contracting, vendor management, day-to-day purchasing and invoicing and accounts payable. It is possible to outsource activities for one or more indirect spend categories, combining (in rare cases), even some direct spend category or categories In some arrangements, procurement departments outsource portion of the 'Spend' that has been managed internally. In other instances, though, the indirect spend is still being managed by the individual departments and is then directly outsourced to a third-party provider, completely bypassing the procurement department and, in essence, having no impact on them at all. For example, if a company's human resources department, rather than the purchasing department, handles procurement of temporary labor, then the decision to outsource that activity has no prospective impact on the purchasing department.

The main reasons for outsourcing indirect procurement are: cost pressures, ability to tap into readily available procurement skills through service provider firms rather than having to build the organization internally for the purpose (which in many cases is difficult to retain in any case), ability to obtain, integrate, deploy and maintain technology options faster through outsourcing, ability to obtain faster compliance ramp-up for higher realized savings through outsourcing, etc. Specialized procurement knowledge and volume generated leverage can help lower procurement costs for the firm. Yet, despite the huge potential for growth of procurement outsourcing, not enough is understood about the factors that differentiate firms that have outsourced their indirect procurement against those that have not yet outsourced (for which the scenarios are: not yet considered outsourcing, considered but decided against outsourcing, or presently still have outsourcing under consideration; there is one more which has to do with firms that did outsource but later decided to in-source). The research is aimed at reducing this gap in understanding. While there has been general research on outsourcing, the focus has been greater on areas of human resources (HR), customer relationship management (CRM), finance and accounting (F&A); within procurement, the focus has mainly been on direct rather than indirect procurement. Indirect procurement has been the

focus of some studies by consulting firms and trade magazines; research on indirect procurement outsourcing is practically very few.[3]

1.2 Research Objectives

Broadly, the research objectives are:

• Identify some of the key factors that are relevant to indirect procurement outsourcing.

• Find out the differences (in terms of the key factors identified), between those that have outsourced and those that have not with survey-based input from a range of procurement professionals working for Bangladesh based firms.

1.3 Research Questions

1. What are the key factors in indirect procurement outsourcing? What differentiating comparisons can be made between firms that have outsourced and those that have not in terms of their levels of satisfaction on each of the key factors before (or without) outsourcing and their expected or actual level of satisfaction from outsourcing?

2. How do firms representing different outsourcing scenarios compare on considerations such as importance ascribed to procurement by the firm, extent of collaboration that exists between the client firm and service provider firm, perception of the extent to which procurement outsourcing can improve benefits for the firm or result in loss of control over the procurement function.

1.4 Contributions of the Research

The research will further the understanding of indirect procurement outsourcing by taking an encompassing look at the prevailing state of the discipline in Bangladesh in terms of how far outsourcing is expected to meet and is indeed actually meeting those expectations (or falling short), in comparison to without outsourcing. Outsourcing status based comparisons of firms that have outsourced and those that have not, bring to the fore some basic differences that can

[3] Same as Note 1

be the focus of further investigation and research. This has important implications for professional associations in the field of supply chain or procurement, service providers, third party advising firms, trade magazines and indeed, academic research.

Sales professionals can benefit from the research in various ways. An early assessment of a prospective client on a fairly broad-based set of factors, in terms of existing satisfaction or risk perception levels and expectations from outsourcing, can help better understand the opportunity areas where the value proposition needs to be built. It can also help disengage faster from opportunities that are "not likely to go anywhere soon;" This can be good for the client too (e.g. if the time is not yet ripe – an organization that erroneously believes its procurement competitive advantage to be already high as evidenced in their request for proposal (RFP) document or in discussions, will take time till it is prepared to accept the true base case, something that is vital for an apples-to-apples business case comparison with the one proposed by a prospective service provider and on which the win will ultimately depend in large measure; the client needs to do its own internal analysis and validation first without getting distracted in working with prospective service providers on the RFP).

1.5 Overview of the Study

Chapter 1 provides an introduction to indirect procurement outsourcing and gives an overview of the research. Chapter 2 reviews outsourcing in the context of the highly emotive topic that it is and the debate it has engendered. It then examines the relevance or significance of the topic and discusses the available body of literature and the direction that research has taken. Chapter 3 develops the research model based on a review of transactional cost economics, resource based view of the firm and agency theory and then proceeds to develop the constructs that could aid an understanding of the topic of indirect procurement outsourcing. Research questions and hypotheses are also developed here. Chapter 4 discusses the research methodology detailing the manner in which data was collected, describes the study population, the sampling procedure and, the survey instrument with which to measure latent variables. Chapter 5 lays out the data analysis and results. Chapter 6 concludes the dissertation with a discussion on each of the research questions and the available evidence to support or refute the hypotheses, implications for practice, limitations of the research and directions for future research.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter draws from various sources. First, the general topic of outsourcing and the debate that has taken place in recent years are reviewed. Second, the specific significance of indirect procurement outsourcing within the larger context of services outsourcing (as distinct from manufacturing outsourcing) is discussed. Third, the present body of literature on indirect procurement outsourcing (PO) is reviewed in order to understand its relevance, value proposition, and the direction that research on this topic has taken.

2.2 Outsourcing: An emotive and highly debated topic

Outsourcing refers to work contracted to an outside firm, either within country or out of country. The Institute of Supply Management defines the terms as: Outsourcing[4]: "A version of the make-or-buy decision in which an organization elects to purchase an item that previously was made or a service that was performed in-house; often utilized for services. It involves sourcing and using a supplier that provides the completed item or service rather than buying the components and manufacturing them in-house." *Off-shoring* (or "offshore sourcing")[5] is outsourcing overseas or in a separate country.

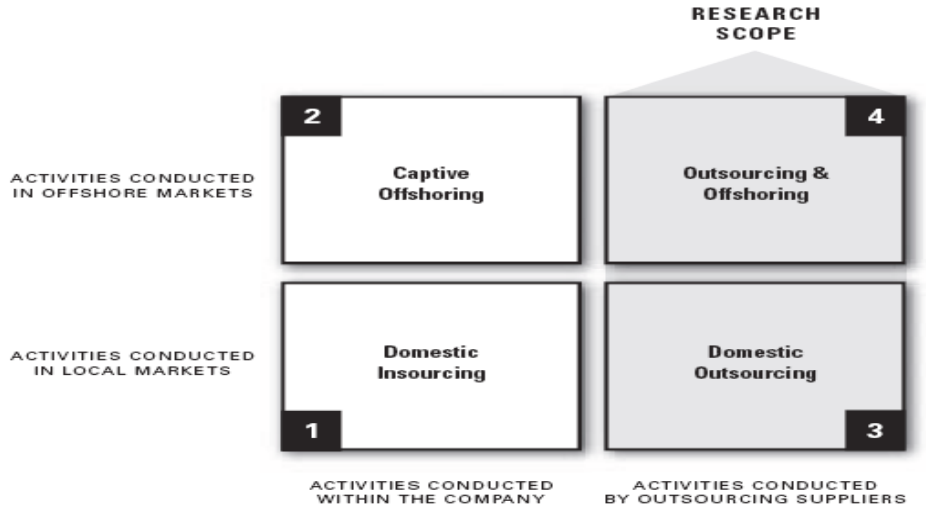

Figure 1: Research Scope (Source: CAPS Research and A. T. Kearney Inc., 2005)

[4] Institute for Supply Management. Official position statement: outsourcing. Available at: http://www.ism.ws/files/About/PSOffshoring-1.pdf

[5] Same as 4

Outsourcing to a contiguous country may be considered near-shore outsourcing. At the outset it is appropriate to mention that for the purpose of this study, the scope of the research shall be as shown in figure 2 (i.e. quadrants 3 and 4)[6].

The Journal of Economic Perspectives article titled, "The Muddles over Outsourcing", sought to provide a balanced perspective on outsourcing. The article concludes, "A productive public debate about outsourcing might usefully begin by restricting the "outsourcing" phraseology to services traded internationally at arm's length and principally on-line: what the WTO calls Mode I services" (where supplier and buyer remain in their respective locations). This is apart from Mode 2: where the service recipient moves to the location of the service provider (as in tourism), Mode 3: where the service provider establishes a commercial presence in another country, requiring an element of direct foreign investment and Mode 4: where the service seller moves to the location of the service buyer (as in construction and consulting services). "Finally, it would be useful to discuss outsourcing as a trade phenomenon, with effects that are not qualitatively different from those of conventional trade in goods. Thus, outsourcing leads to gains from trade and increases in national income, with the caveats that are standard in this literature. At a policy level, one needs to be concerned about workers who are displaced from certain sectors. But outsourcing is not a small step that will take a preponderance of workers off the edge of an abyss into prolonged unemployment and re-employment only at low wages.

2.3 Indirect PO: Relevance, Value Proposition (Global Perspective)

It is estimated that the savings from PO can be nearly five times the savings from outsourcing other process areas such as F&A, HR, etc. (Everest, 2007)[7]. PO is therefore considered a highly attractive means for driving higher profitability and productivity in industry – a potential "game changer." Compared to outsourcing arrangements in most other areas where the focus is mainly on efficiency improvements and headcount reductions, PO can generate additional savings through sourcing and compliance. It can also be an opportunity to transform the procurement organization in order to extract the more durable and strategic benefits. Accenture[8], in their 2003 Procurement Survey projected that in the three years following (i.e., till 2006), PO activity would increase significantly: from 22 percent that used

[6] Monczka, R. M., Markham, W. J., Carter, J. R., Blascovich J. D. & Slaight, T. H. (2005). "Outsourcing Strategically for Sustainable Competitive Advantage." A Joint Research Study by CAPS Research and A.
[7] Everest Research Institute. (2007). "Procurement Outsourcing Annual Report."
[8] Accenture. (2003). "Procurement Outsourcing: The Next Wave – 2003 Procurement Survey." Available at: http://www.accenture.com/NR/rdonlyres/81B904F9-E0F1-4634-B0D1-914DA5ABCFAF/0/procurement_outsourcing.pdf

a Procurement Service Provider (PSP) to 47 percent. It found that the incidence was higher for indirect PO compared to direct – projected to increase from 20 percent to 43 percent (2003 to 2006) compared to from nine percent to 22 percent for direct (it appears there is an error in these numbers since the weighted average of 20 and 9 cannot be 22 and the weighted average of 43 and 22 cannot be 47; despite the apparent error, the key point Accenture tried to make was that indirect PO was likely to see significant growth. The survey was broad based covering 15 countries spread across U.S. and Europe. It found that U.S. PO was likely to grow from 19 percent to 58 percent, the largest projected increase of all countries during the period. Of the 219 responses (only executive responses were solicited), the U.S. responses represented 12 percent – a rather small sample. Taken together with projections from Everest, it appears that there were "great expectations" of growth in PO, both in 2003 and 2006. Indications are that growth has fallen somewhat short of levels then projected. Though the overall growth of 30 percent has been sustained, it is attributable more to the expansion of existing contracts than the signing of new ones.

Analyses and reasons for some apparent shortfall in the growth trajectory of indirect procurement outsourcing need therefore to be reviewed and analyzed through independent research. Indeed, Hadyn Jones and Jules Goffre of A. T. Kearney summarize the insights and conclusions gained at the 2006 CPO Club retreat in Lisbon in their paper bearing the rather skeptical title, "Procurement Outsourcing: A Pathway to Value or a Road to Nowhere."[9] A separate study by Aberdeen Group, found that of the 260 enterprises surveyed, 27 percent currently outsource some form of procurement, another 13 percent are likely to outsource within the next two years and the balance 60 percent have no plans to outsource[10]. Independent (e.g. academic), objective verification of the extent of indirect PO, present or proposed, is lacking; also lacking is research on the topic covering a broader spectrum of firms, rather than some of the bigger firms alone. It may be mentioned that the Accenture survey had 17 percent responses from firms with annual spend less than 0.5 billion Euro, 47 percent between 0.5 billion and 5 billion Euro, 14 percent between 5 billion and 10 billion Euro and 22 percent more than 10 billion Euro. Such a sample does not appear to be a random sample: the spend figures indicate a sample bias in favor of larger firms. For the purpose of the present research, the sample taken will be seen to be representative of

[9] Jones, H. & Goffre, J. (2006). "Procurement Outsourcing: A Pathway to Value or a Road to Nowhere." *European CPO Club, Lisbon Proceedings.* Copyright: A. T. Kearney.

[10] Aberdeen Group. (2007). "Procurement Outsourcing: A Strategic Imperative." Available at: http://www.sourceoneinc.com/downloads/Procurement_Outsourcing_Report.pdf

Bangladeshi various organizations and will be discussed in the chapter on Research Methodology.

Accenture found from their survey that 42 percent of CEO's did not consider indirect procurement as core compared to 18 percent of CEO's who did not consider direct procurement as core. Separately, Atkinson (2006) found that 98 percent of all PO engagements are in the domain of indirect procurement. Though the 98 percent number of 2006 seems to be far higher than the earlier Accenture study of 2003 would indicate (which had indirect PO to direct PO percentages at 20 percent and 9 percent respectively: part of the explanation may be the inherent bias in the type of sample taken), it is important to note that there is agreement that indirect procurement is the area more favored for ready growth for PO. The argument for indirect PO is: what is not a core competency for a certain company can be catered better by outsourcing to another company for which the same scope area is a core competency. Apart from the opportunity to improve efficiencies for indirect spend (which is more often considered non-core) through PO, it is widely believed that significant savings can also result from repositioning and centralizing large numbers of people and technologies and avoiding burdensome investments in upgrades and new systems. In addition, channeling more spend through aggregated contracts and increased compliance, can cut a company's cost of goods sold (one study indicates a figure of as much as four percent for a raise in compliance from 60 percent to 95 percent)[11].Across the board, it is not considered uncommon for PO to reduce the cost of materials and services by up to 15 percent. In terms of the sequence or progression of outsourcing, Accenture found that physical asset based services (e.g. logistics services such as transportation, distribution, manufacturing, warehousing) are normally the ones to be outsourced by firms on priority as service providers are able to offer cost reduction through better asset utilization. Business processes that are less asset-intensive, such as HR, finance and accounting, product development and procurement come next; in none of the cases did Accenture find that a firm had outsourced or was planning to outsource these less asset-intensive business process areas without having outsourced some logistical or IT areas first. It is possible that Accenture, Everest etc. have deliberately been somewhat more focused on larger firms that could generate faster and more substantive sales revenues and therefore be more worthy of spending time and resources on. But, smaller firms too may be amenable to pursuing

[11] Favre, D., Findlay, C., Zaniker J. C. (2003). "The Case for Procurement Outsourcing." Available free at: http://www.ascet.com/assets/header7.gif

outsourcing and be deserving candidates for a better understanding of the PO attributes that fit their requirements. Taken together, this segment of smaller firms may very well offer a larger opportunity for PO than some of the larger firms put together ever will.

Clients that have outsourced or plan to outsource their procurement function have the option of choosing from among the various areas of the procurement (or related areas) outsource first. It appears that IT aspects of procurement such as e-Procurement, e- Hosting, followed by transactional activities such as requisition to payment have seen higher incidence of outsourcing than the more strategic areas such as strategic sourcing. Often, the client may want to test the waters and reach a certain comfort level with service delivery in less strategic areas of procurement before gaining the confidence to delve into areas that are considered more strategic. Accenture (2003) found that satisfaction levels were especially high in areas that firms consider to be priority areas for PO. The next chapter will detail the model for ascertaining whether this is indeed true. One of the reasons for undertaking PO is that it can help keep organizational top performers happy. The best sourcing professionals want to focus on strategic purchases where the maximum impact can be created, not tactical or order management related issues pertaining to certain indirect spend categories where impact potential is rather limited. On the other hand, PSP's can aggregate volume and expertise across clients to a point where specialized professionals can be hired and kept happy addressing larger, leveraged volumes of opportunities (spend, transactions, etc.). Gottfredson, Puryear and Phillipstalk of skills and scale in the following words: "Migrating from a vertically integrated company to a specialized provider of a single function is not a winning strategy for everyone. But all companies need to rigorously assess each of their functions to determine in which they have sufficient scale and differentiated skills and in which they don't. Greater focus on capability sourcing (sometimes called 'right sourcing) can improve a company's strategic position by reducing costs, streamlining the organization, and improving quality. Finding more qualified partners to provide critical functions usually allow companies to enhance the core capabilities that drive competitive advantage in their industries."

For process areas such as F&A, HR, and CRM, the value proposition from outsourcing derives mainly from operational cost reduction. Therefore, most FTE's for these scope areas are positioned in low cost countries in order to obtain the benefit of labor arbitrage. On the other hand, the most value for PO can come through negotiated sourcing savings which typically require significant domestic presence of FTE's. Depending on the scope, the mix of FTE's for delivering PO service to a particular client will vary: routine, transactional scope

areas requiring greater emphasis on improvement in areas such as process, automation, cycle time, etc., will tend to have a greater proportion of the FTE's in low cost countries that have an abundance of adequately skilled resources. On the other hand, PO contracts having sourcing spend in scope will require significant domestic presence (on client site and / or remote) in order to effectively interact with client business units, suppliers, etc.

The focus of this research is on indirect procurement outsourcing. It is estimated that roughly 98 percent of all procurement outsourcing engagements fall within the exclusive domain of indirect procurement outsourcing. It has been seen that significant differences exist between how organizations view procurement: in some organizations, procurement is deeply involved in the strategy-setting process; in others, the role is more limited and focused mainly on transactional activities. As in the case of IT in the years prior (mid 1980's), where IT executives had to decide the direction their firms' IT strategy would take (e.g. develop into a strategic weapon, become an internal utility, transition to an outsourced service), the CPO's should strive to play a major role in deciding the fate of their organizations. The ready availability and power of internet tools, increased volume and quantity of supply needs and options, increasingly transparent market economics, global sourcing requiring in-depth country knowledge, and growth and capability of outsourcing firms are all factors that together or in any combination can be the triggers for PO. The shape of the procurement organization will depend on the potential path or paths chosen to be best suited (figure). In the "strategic weapon" role, procurement combines the supply market for sources of customer-facing innovation and revenue generation with creating strategic cost advantage. Strategic insight and technical capabilities to support outsourcing play a role in this equation.

Figure 2: Procurement Outsourcing at a Turning Point

(Source: Carter, Markham, and Monczka - Supply Chain Management Review, 2007)

For activities with no strategic impact, the company could leverage an internal utility or adopt a shared services approach in the interest of managing at optimal efficiency and cost. Under this option, the activities remain in-house, with emphasis on internal scale and scope to drive procurement effectiveness. Finally, in areas where the procurement organization adds no Strategic value or the company lacks internal scale to operate at high levels of effectiveness, transitioning to an outsourced procurement service can be a logical course.

In the study, "Outsourcing Strategically for Sustainable Competitive Advantage," 160 Chief Procurement Officers (CPO's) were asked to provide the level of PO for six main categories of expenditure: direct materials, MRO (maintenance, repairs and operating supplies), indirect purchases, capital expenditures, services, and goods for resale. For each category, the CPO's had to respond to current and expected levels of PO across three types of activities: strategic procurement (category and commodity strategy, supplier selection), supplier management (supplier assessment and evaluation, supplier development and certification), transaction processing (ordering, replenishment, payment and settlement, coding and catalog management and procurement information systems management). The responses obtained from the study indicate that PO was not widespread, that it had been adopted more widely for transaction processing than for other activities, that it had wider adoption for categories tied

Figure 3: Procurement Outsourcing – Current and Planned

(Source: Carter, Markham, and Monczka - Supply Chain Management Review, 2007)

more closely to the core of the business (e.g. revenue linkages for direct materials and goods for resale, and business infrastructure for capital expenditures) and that even after 18 months the increase was somewhat modest (compared to a later Everest projection in 2007 of 35 percent growth.

While it is evident that the topic of PO has been generating a fair deal of interest, most publications on the subject lack the rigor necessary for objective, impartial, representative research.

2.4 Summary

This chapter reviewed the special significance of the topic of outsourcing, especially in the context of the present global economic crisis. The impact in terms of number of FTE's, domestic for Bangladesh as well as international, both from outsourcing in general and indirect procurement outsourcing in particular were presented at some length to obtain an understanding about the extent of the human impact arising from this practice of outsourcing. Economic issues as well as the value proposition from outsourcing were discussed and it was found that most research into indirect procurement outsourcing was through consulting firms (Everest Group, Accenture, Aberdeen Group, etc.) and very little independent academic research had been conducted. Based on the evidence in this chapter, the development of the research model is attempted in the next chapter.

CHAPTER 3

RESEARCH MODEL

3.1 Introduction

This chapter presents a model of factors that are considered important to indirect procurement outsourcing. The model will be developed based on a review of available theory and literature, trade as well as academic. It will also incorporate various aspects of sourcing, operations, sales and solutions, and delivery; creating and bidding optimal value proposals for indirect PO to various clients covering different industry sectors and diagnosing waste areas and application of lean value levers to improve value of PO service.

3.2 Theoretical Models

Several theoretical Models are applicable in the study of procurement outsourcing. Among them are: Transactional Cost Economics (TCE),Resource Based View of the firm (RBV), the industry view (IV)[12].These theories establish the framework for outsourcing evaluation and management, a framework that encompasses business strategy, economics and inter-organizational relationships. It may be noted that there has been increasing recognition in literature of the role that factors beyond the purely economic play and hence the attention to business strategy and inter-organizational behavior in outsourcing. Another theory that is applicable for outsourcing is Agency Theory. Agency theory suggests that the firm can be viewed as a nexus of contracts (loosely defined) between resource holders[13]. An agency relationship arises whenever one or more individuals, called principals, hire one or more other individuals, called agents, to perform some service and then delegate decision-making authority to the agents. The primary agency relationships in business are those (1) between stockholders and managers and (2) between debt holders and stockholders. These relationships are not necessarily harmonious; indeed, agency theory is concerned with so-called agency conflicts, or conflicts of interest between agents and principals. Agency theory raises a fundamental problem in organizations – self-interested behavior. A corporation's managers may have personal goals that compete with the owner's goal of maximization of

[12] Mclvor, R. (2005). *The Outsourcing Process: Strategies for Evaluation and Management.* Cambridge University Press, U.K.
[13] Available at: http://www.enotes.com/biz-encyclopedia/agency-theory

shareholder wealth. Since the shareholders authorize managers to administer the firm's assets, a potential conflict of interest exists between the two groups. Agency theory suggests that, in imperfect labor and capital markets, managers will seek to maximize their own utility at the expense of corporate shareholders. Agents have the ability to operate in their own self-interest rather than in the best interests of the firm because of asymmetric information (e.g., managers know better than shareholders whether they are capable of meeting the shareholders' objectives) and uncertainty (e.g., myriad factors contribute to final outcomes, and it may not be evident whether the agent directly caused a given outcome, positive or negative). Evidence of self-interested managerial behavior includes the consumption of some corporate resources in the form of perquisites and the avoidance of optimal risk positions, whereby risk-averse managers bypass profitable opportunities in which the firm's shareholders would prefer they invest. Outside investors may recognize that the firm will make decisions contrary to their best interests; accordingly, investors may discount the prices they are willing to pay for the firm's securities. Procurement managers, in deliberations over whether or not to outsource as well as in subsequent actions, may indulge in behavior that falls within the ambit of agency theory.

3.3 Transaction Cost Economics

Transactional cost economics, (TCE) associated with the work of Oliver E. Williamson represents one of the most influential attempts to develop an economic theory that takes seriously the structure of firms[14]. Previously, economic theories tended to treat the firm as a sort of "black box," the internal workings of which were not considered to be important. In many ways, transactional cost economics attempts to explain why firms exist – why are some transactions directed by managers in the context of a hierarchy, as opposed to taking place in an open market? It is more accurate, though, to say that TCE tries to explain the particular structure of a firm, most importantly, the extent to which it will integrate vertically[15]. (The term vertical integration refers to the process in which several steps in the production and / or distribution of a product or service are controlled) by a single company or entity, in order to increase that company's or entity's power in the marketplace).

[14] Williamson, O. E. (1987). The Economic Institutions of Capitalism. Firms, Markets, Relational Contracting. The Free Press, NY.
[15] Available at: http://users.ox.ac.uk/~jesu0073/TCE.pdf

While it is acknowledged that profit maximization by firms requires rational, cost minimization behavior by owners and / or managers, TCE is different in that it stresses transaction costs *as well as* production costs. Williamson considers production costs as analogous to the costs of building and running an "ideal" machine while transaction costs are incurred by departures (such as friction) from such perfection. In economic terms, the "ideal" machine would be a perfectly efficient market. However, it would require full information to be available to all parties and perfect competition, among other factors. Departures (or "market failures") can lead to additional costs; e.g. lack of information can lead to paying too high a price for a good or service. Bad debt can result from lack of information about a customer's creditworthiness. Under some circumstances transaction costs may be lower if the transaction takes place in an open market, while in others, they may be lower under hierarchical or alliance forms of governance structures.

Ronald Harry Coase[16] (who influenced Williamson) in his essay, "The Nature of the Firm," explained why the economy is populated by a number of business firms instead of consisting exclusively of a multitude of independent, self-employed people, who contract with one another. Given that production can be carried out without any organization, why and under what conditions do firms arise? Coase examines the conditions under which an entrepreneur seeks hired help instead of simply contracting out the task or set of tasks. Contrary to traditional economic theory which argued in favor of the market as the most efficient mechanism (whereby those best at providing goods and services most cheaply were already doing so), Coase noted that there were a number of transaction costs that *applied in addition* to using the market: search and information costs, bargaining costs, keeping trade secrets, policing and information costs – all of which can potentially add to the cost of procuring something with a firm. This suggested that firms would arise when they could arrange to produce what they needed internally and thereby avoid some of these costs. There is a natural limit to what can be produced internally, however. Coase underscores "decreasing returns to the entrepreneur function", including increasing overhead costs and increasing propensity for an overwhelmed manager to make mistakes in resource allocation – costs that can be considered as countervailing costs to the use of the firm. Coase argues that the size of a firm (as measured by how many contractual relations are "internal" to the firm and how many "external") is a result of finding an optimal balance between the competing tendencies of the

[16] Available at: http://en.wikipedia.org/wiki/Ronald_Coase

costs outlined above. In general, making the firm larger will initially be advantageous, but the decreasing returns indicated above will eventually kick in, preventing the firm from growing indefinitely. From a procurement outsourcing standpoint, certain scope areas may be decided by the firm to remain internal (for a variety of reasons) while others are identified as prime candidates for outsourcing. TCE lays down two assumptions that are unchanging contextual factors in all organizations: bounded rationality and opportunism. Adopted from the work of Herbert Simon[17] who contended, "Nothing is more important in setting our research methods than our view of the nature of human beings whose behavior we are studying," bounded rationality and opportunism explain cognition and self-interest in human behavior.

Bounded rationality refers to our inability to process all the information at our disposal or accurately work out the consequences of the information that we possess. As in the game of chess where different conclusions and results are achieved by the opponents playing to the same rules: no one is capable of faultlessly analyzing the tremendous complexity of any given position which presents too many alternatives and no one can account for the unpredictable actions of others that impose a dependency on the sequence of events; so also in the case of managers, no matter how knowledgeable or smart they may be, they just cannot consider all the possible alternative courses of action. The unpredictability of how competitors may react only adds to the complexity. From an outsourcing perspective too it has to be assumed that there is bounded rationality at work. This will apply both to stakeholders / managers in the client firm (the one that is outsourcing or considering outsourcing) as well as stakeholders / managers in the service provider (or potential service provider) firm. Competitor reaction adds to the unpredictability and the complexity: when Unilever decided to outsource aspects of its procurement function, they had no way of knowing how one of their competitors, e.g., Colgate, would react or whether a similar action was underway with them (i.e. Colgate) as well, quite independent of Unilever's own choice of governance structure (i.e., outsourcing strategy).Opportunism refers to the possibility that people (or at least some people) will act in a self-interested way "with guile" (which goes beyond just self-interested behavior, which is considered normal), that is, people may not be entirely honest and truthful about their intentions, or they might attempt to take advantage of unforeseen circumstances that gives them the chance to exploit their situation versus another party or other parties. The assumption is not that all people act opportunistically all the time;

[17] Simon, H. "Human Nature in Politics: The Dialogue of Psychology and Political Science." *American Political Science Review*, (79), 1985, p 293-304.

the assumption is that some of the people will act opportunistically some of the time, and that *you can't tell in advance who is an opportunist and who is not.* While the CEO of a firm is wanting to reduce operational expenses and wants to explore outsourcing, the Chief Procurement Officer (CPO) may be exploring the same with a different mindset: e.g., as simply an opportunity to engage the top leadership and create awareness of the true value of the procurement organization (often in itself a problem within many firms) through ongoing, prolonged confabulations through an neutral third party facilitator that shall usher in a gradual "maturing of the minds" and better appreciation of the procurement function's true worth. Or it could simply be playing along, "swimming with the tide," an approach that tries to adapt and respond to what the bosses seem to want and using maneuverability and tact to try gravitate organizational consensus for or against outsourcing, deploying in the bargain, even tactics that the actor may know better to be simply "guileful."

TCE lays down asset specificity, uncertainty and frequency as variables that determine the selection of market, alliance or hierarchical structures. Transactions can involve specific or non-specific assets, have high or low uncertainty or be frequent or rare. These variables are considered key in determining the organizational hue the firm will adopt: market, alliance or vertical integration. Other factors being constant, transactions requiring highly specific assets can be better supported (in terms of realizing lower transaction costs) through vertical integration rather than the market mechanism: e.g., a scope area that allows the outsourcing service provider to cater to only one client is likely risky or less sustainable given the context of bounded rationality and opportunism.

Most firms would not want to integrate vertically and bring "in-house" a good or service that is very rarely used: e.g., consulting services, unless they can be utilized or deployed across a wider base. Still, it is questionable whether the service can be built at a level of expertise that allows differentiation enough to be a core competency. Often, it will be more prudent to hire external consultants who are adept in their field rather than vertically integrate (even if broader application is factored in, which may in fact even risk greater inefficiency through deployment of a level of ineptitude across a wider base!).Uncertainty refers to difficulty in foreseeing the eventualities that may occur during the course of the transaction. One factor is the length of the transaction itself: transactions that take place on "spot markets" have relatively little uncertainly since one does not have to predict the future. On the other hand, transactions that require a longer term commitment have inherent uncertainty built into them. Outsourcing contracts can typically last (say) one to five years – long enough to introduce

uncertainty from the standpoint of both the client firm as well as the service provider. Table below gives the relationship between asset specificity, uncertainty and the type of governance structure that is better suited to each combination:

Table 1 Relationship between asset specificity, uncertainty, and governance structure

(Source: http://users.ox.ac.uk/~jesu0073/TCE.pdf)

		Asset Specificity		
		Low for both parties	High for both parties	High for one party,
Uncertainty	High	Contract / vertical integration	Vertical integration	Vertical integration
	Low	Spot contract	Long-term contract	Vertical integration

While outsourcing the procurement function, the same variables of asset specificity, uncertainty and frequency (frequency has traditionally received lesser focus in TCE literature) are at play. High asset specificity and uncertainty lead to transactional difficulties with the transaction held internally within the firm – hierarchical governance. Firms that are on legacy systems have a choice: either to move to more standard platforms or continue with the legacy system. Moving to a standard platform reduces the asset specificity and allows a structure other than vertical integration to be viable under conditions of both low and high uncertainty. On the other hand, a decision to persist with the legacy system introduces the prospective service provider to the scenario of having to build a one-off, highly specific capability or asset (that will have little if any use for other clients) even as the application continues to have low asset specificity for the client (since it is already available and has not seen many changes either).

Forming a cooperative alliance between the outsourcing firm and the service provider where successful attainment of program objectives requires active collaboration, builds a mutual dependency between the two parties which can help alleviate inter-firm opportunism (opportunism of some individuals though will still continue, more or less, unabated and in a business as usual manner) and the improved communications in such a partnership environment (agreement on priorities, action plans, methodologies, governance mechanisms, etc.) can even mitigate the bounded rationality risks once it is better understood how each party will behave in the face of certain actions by the other and patterns of behavior become

more predictable and definite. As both parties succeed together, solid, responsible, trusting behavior can come to substitute or at least better check sporadic, self-seeking, opportunistic behavior.

3.4 Firm Resources and Sustained Competitive Advantage

While the TCE and the resource based view (RBV) both further the understanding of the boundaries of the organization, they are different in that the focus of the former is more on addressing why firms exist while the focus of the latter is more on why firms differ; the former focuses more on governance skills while the latter focuses more on production skills (for example, production skills refer to the routines, processes and knowledge required to build valuable strategic resources)[18].

With its foundations in the early work of bundle of assets and resources that if employed in distinctive ways can create competitive advantage.

Barney[19] builds on the assumptions that strategic resources are heterogeneously distributed across firms and that these differences are stable over time and examines the link between firm resources and sustained competitive advantage. Resources include all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc., controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness. Possible firm resources can be classified into three categories: physical capital resources[20], human capital resources[21] and organizational capital resources[22]. Physical capital resources include the physical technology used in a firm, a firm's plant and equipment, its geographic location, and its access to raw materials. Human capital resources include training, experience, judgment, intelligence, relationships, and insight of individual managers and workers in a firm. Organizational capital resources include a firm's reporting structure, its formal and informal planning, controlling, and coordinating systems, as well as informal relations among groups within a firm and between a firm and those in its environment. Barney considers a firm to be having a competitive advantage when it is implementing a value creating strategy that is not simultaneously being

[18] Mclvor, R. (2005). *The Outsourcing Process: Strategies for Evaluation and Management.* Cambridge University Press, U.K

[19] Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17, No1, 99-120

[20] Williamson, O. (1975). *Markets and hierarchies*. New York, Free Press.

[21] Becker, G. S. (1964). *Human capital*. New York, Columbia.

[22] Tomer, J. E. (1987). *Organizational capital: The path to higher productivity and well-being*. New York, Praeger.

implemented by any current or potential competitors. A firm is said to have a sustained competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors *and* when these other firms are unable to duplicate the benefits of this strategy. It should be noted that sustainable competitive advantage does not imply that it will "last forever." It only suggests that it will not be competed away through duplication of other firms. Unanticipated changes in the economic structure of an industry may make what was, at one time, a source of sustained competitive advantage, no longer valuable for a firm, and thus not a source of any competitive advantage. What were resources in a previous industry setting may become, over time, in the face of "Schumpeterian shocks" (after the name of Schumpter), weaknesses or simply irrelevant in a new industry setting; however, the firm that enjoyed sustained competitive advantage and now sees it nullified because of different circumstances will still be said to have had sustainable competitive advantage if it was not nullified through duplication. The framework often used to structure research on competitive advantage is depicted below: it suggests that firms obtain sustained competitive advantages by implementing strategies that exploit the internal strengths, through responding to environmental opportunities, while neutralizing external threats and avoiding internal weaknesses.

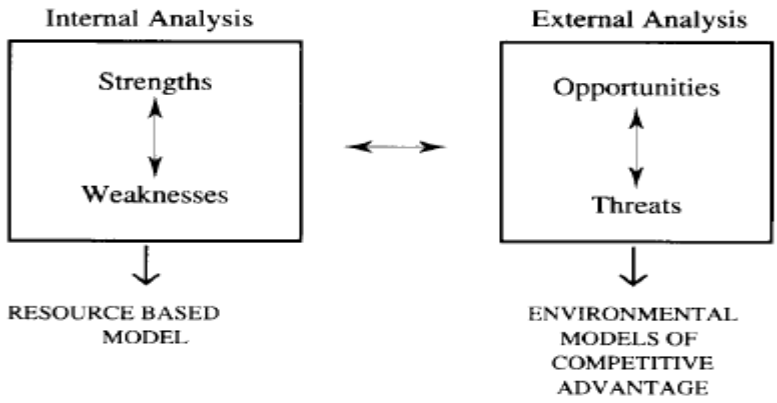

Figure 4: The relationship between traditional "strengths-weaknesses-opportunities-threats" analyses, the resource based model, and models of industry attractiveness. (Source: Barney, 1991)

According to Barney, not all firm resources hold the potential of sustained competitive advantage. To have this potential, a firm resource must have four attributes:

1. It must be valuable, in the sense that it exploit opportunities and / or neutralize threats in a firm's environment,

2. It must be rare among a firm's current and potential competition,

3. It must be imperfectly imitable, and

4. There cannot be strategically equivalent substitutes for this resource that are valuable but neither rare nor imperfectly imitable.

These attributes of firm resources can be thought of as empirical indictors of how heterogeneous and immobile a firm's resources are and thus how useful these resources are for generating sustained competitive advantage.

Firm resources can only be a source of competitive advantage or sustained competitive advantage when they are valuable. However, if a particular valuable firm resource is possessed by large numbers of firms, then each of these firms have the capability of exploiting that resource in the same way, thereby implementing a common strategy that gives no one firm a competitive advantage. One firm resource required in the implementation of almost all strategies is managerial talent. If this particular bundle of firm resources is not rare, then large numbers of firms will be able to conceive of and implement the strategies in question, and these strategies will not be a source of competitive advantage, even though the resources in question may be valuable. Now firms that possess valuable and rare organizational resources can only be sources of sustained competitive advantage if firms that do not possess these resources cannot obtain them, i.e., they are imperfectly imitable. Lastly, for a firm resource to be a source of sustained competitive advantage, there must be no strategically equivalent valuable resources that are themselves either not rare or imitable.

Proponents of the RBV approach argue that it is more appropriate to explaining the existence of the firm than the TCE approach. Conner argues that TCE emphasized the existence of a firm as a means of avoiding negative opportunism, while RBV viewed the firm as a bundle of valuable strategic resources that can be a source of competitive advantage.

Porter[23] in his five forces model (figure 5) describes the attributes of an attractive industry, i.e., an industry that is profitable: one in which opportunities is greater and threats lesser (an unattractive industry is one in which a combination of forces are acting to drive down profitability and a very unattractive industry would be one approaching pure competition). Assuming that certain scope areas (e.g., strategic sourcing for certain categories of spend) have high asset specificity for certain outsourcing customer firms and are therefore kept out

[23] Porter, M. E. (1990). *Competitive Advantage. Creating and Sustaining Superior Performance.* The Free Press.

of scope (being prime candidates for vertical integration), the scope mix offered to service providers to compete on will typically have low to medium asset specificity. The lower the asset specificity, the greater the pressure towards pure competition, and the lower the profitability or attractiveness of the industry. Service provider firms may try to differentiate themselves and thereby attempt to minimize rivalry among competitors. Business strategy is core to the direction the firm should take as it tries to woo different customers: should firms possessing a broad range of end to end procurement capabilities compete with firms which are better known for operational expertise at low cost in general or only when operational scope is only a part of the overall scope? Within the industry segment / model that the service provider operates under, steps will need to be taken to maintain profitability by countering various threats.

Figure 5: Graphical representation of Porter's five forces model

For example, in order to safe guard against customer opportunism, a contract will need to be executed to clearly lay out service level requirements, clauses on termination fees (so that exit costs are equitable), etc. In order to reduce threat of new entrants, service providers will utilize their brand equity, patents, etc. Similarly, to ward against threat of substitutes, differentiated service offerings may be provided (e.g., end-to-end procurement and accounts payable offering compared to procurement operations alone, or cross tower capability in the form of a one-stop shop compared to low cost back-end operations alone, etc.). To ward off competitive rivalry, exit costs, improvisation, economies of scale, etc may be deployed.

In terms of TCE[24], four types of core skills which provide the following advantages:

• Site specificity: location advantage, e.g., through locating close to raw materials or establishing a procurement center in a low cost country to extract lower labor rates.

• Physical asset specificity: technology advantage, e.g. through investments in technology, process development or equipment.

• Human asset specificity: know-how advantages, e.g., developed over time in terms of subject matter expertise about how best to procure business services for the IT industry.

• Dedicated assets: specialized investments, e.g., a management information system for a client that has no alternative uses.

A firm must defend these skills if it is to sustain its competitive advantage. The strategic core skills must be redefined as market and competitive forces continuously change: skills that secured competitive advantage yesterday may be of no advantage in the current year.

The core competence approach and its relationship with outsourcing have evolved from the RBV of the firm. Prahalad and Hamelcontend that core competencies are "the collective learning in the organization, especially how to coordinate diverse production skills and integrate multiple streams of technologies." Competencies are the skills, knowledge and technologies that an organization possesses on which its success depends. To qualify as a core competence, Hamel and Prahalad[25] argue that it must have:

• Customer value: a core competence must provide a fundamental customer benefit and make a contribution to customer perceived value.

• Competitor differentiation: a core competence must be competitively unique and substantially superior to other competitors.

• Extendibility: a core competence must be a gateway to tomorrow's markets; apart from being a source of customer value and providing customer differentiation, the core competence must be a source of creating an array of products and services into the future.

Much of the outsourcing literature uses the core competence approach as a starting point for the outsourcing process. Quinn and Hilmer argue that the firm should concentrate its resources on a set of 'core competences' where it can achieve definable preeminence and

[24] Reve, T. (1990). The firm as a nexus of internal and external contracts. *The Firm as a Nexus of Treaties*, Aoki, M. (ed.). London, Sage

[25] Prahlad, C. K. and Hamel, G. (1990). The core competence of the corporation. *Harvard Business Review*, 68, No. 4, 79-91.

provide unique value for customers and strategically outsource other activities for which it has neither a critical strategic need nor special capabilities. Venkatesan argues that the organization should decide what sub-systems will be indispensable to the firm's competitive position over subsequent product generations. This choice will vary from company to company and ultimately drive product differentiation. Considered in the context of outsourcing, a core activity can be considered as:

• The activity is crucial in the eyes of the customer, i.e., one of the main reasons why the customer purchases the product or service.

• The activity may be a source of competitive differentiation in the marketplace.

• The organization is more competent at performing the activity than suppliers or competitors.

Conversely, activities that contribute little to competitive differentiation or for which the organization has no crucial strategic need can be defined as non-core. There is risk of misinterpretation here: for example, once a company has defined its core competencies, all other activities are described as non-core and can logically be sourced externally. This should not be taken to imply that supplier-provided activities are less important; it is still possible for outsourced activities to be of strategic significance to the organization if they are important in the eyes of the customer. Examples of such situations are when (1) external suppliers become more competent at performing the activity than the customer organization, or (2) when a competitor of the customer organization becomes more competent at performing the activity. It is crucial therefore to be sure why an activity is being outsourced; namely due to more capable suppliers / competitors or no longer a source of competitive differentiation. Activities important in the eyes of the customer and sourced externally will still continue to be of strategic importance.

3.5 Agency Theory

During the 1960's and early 1970's, economic literature delved into risk sharing among individuals or groups – e.g., when co-operating parties have different attitudes toward risk. Agency theory[26] broadened this discussion to include the so-called agency problem that occurs when cooperating parties have different goals and division of labor. Agency theory is concerned with resolving two problems that can occur in agency relationships. The first is the *agency problem* that arises when the desires or goals of the principal and agent conflict and it is difficult or expensive for the principal to verify what the agent is actually doing. In other words, the principal is unable to establish firmly whether the agent has behaved appropriately. The second is the problem of *risk sharing* that arises when the principal and agent have different attitudes toward risk. The problem here is that the principal and the agent may prefer different actions because of the different risk preferences.

Taking the contract as the unit of analysis that governs the relationship between the principal and the agent, the focus of the theory is on determining the most efficient contract governing the relationship given assumptions about people (e.g., self-interest seeking, bounded rationality, risk aversion), organization (e.g. goal conflict among members) and information (e.g., information is a commodity which can be purchased). Specifically, the question becomes: Is a behavior-oriented contract (e.g., salaries, hierarchical governance) more efficient than an outcome-oriented contract (e.g., commissions, stock options, transfer of property rights, market governance)? Agency theory is not only applicable to macro level issues (e.g., regulatory policy) but also to micro level issues (e.g. dyadic phenomena such as blame, impression management, lying and other expressions of self-interest). Most often, agency theory has been applied to organizational phenomenon such as compensation, acquisition and diversification strategies, ownership and financial structures, vertical integration and innovation.

[26] Eisenharadt, K. M. (1989). Agency Theory: An Assessment and Review. *The Academy of Management Review*, Jan 1989, 14, 1. P 57-74

See table below for a summary of agency theory:

Table 2: Agency Theory Overview (Source: EisenhardtK., 1989)

Key idea	Principal-agent relationships should reflect efficient organization of information and risk-bearing costs
Unit of analysis	Contract between principal and agent
Human assumptions	Self-interest Bounded rationality Risk aversion
Organizational assumptions	Partial goal conflict among participants Efficiency as the effectiveness criterion Information asymmetry between principal and agent
Information assumptions	Information as a purchasable commodity
Contracting problems	Agency (moral hazard and adverse selection) Risk sharing
Problem domain	Relationships in which the principal and agent have partly differing goals and risk preferences (e.g., compensation, regulation, leadership, impression management, whistle-blowing, vertical integration, transfer pricing)

From the standpoint of procurement outsourcing, the Chief Procurement Officer or Director of Procurement who is responsible for evaluating and making the decision whether or not to outsource or what areas to potentially outsource may elicit behavior that fits within the realm of agency theory: e.g., managing the CEO's impression (tagging along based on perception of what the CEO wants), risk aversion (not going the logical distance for outsourcing e.g., deciding to explore very narrow operational scope for outsourcing rather than, potentially, a more encompassing end-to-end scope), blaming (e.g., exploiting effectively pent-up employee sentiment against outsourcing to one's own advantage rather than the company's larger interest – this is similar to opportunism in one's self-interest), etc.

3.6 Synthesis of TCE, RBV and Agency Theory

In Procurement Outsourcing, TCE, RBV and agency theory are all contextually relevant and have therefore been adopted in the development of the research model for this research on procurement outsourcing.

Procurement competence (PC) comprised of its various attributes (a mix of capabilities or skills that are typically considered relevant for expertise in the procurement discipline) can be treated as the resource which if available to the firm, can drive significant value in

overcoming threats in the external environment (e.g., of competitors procuring goods and services at an advantage, whether in terms of cost, quality or other factors, and thereby making inroads into the firm's competitive position in industry) or alternatively, in leveraging opportunities that come up toward further consolidation of the competitive position of the firm (e.g., through quick launch of a new product based on an emerging new technology which may involve an acquisition or partnership and requires the ability to work with the supply base of the acquired company or business partner in a seamless manner, or better still, which takes the supplier relationship to an even higher level of early procurement involvement, etc). Nor is this relevant only in the external context – for the internal workings of the firm too require procurement competence to counter weaknesses (e.g., in terms of onerous business processes, tedious inter departmental coordination, etc.) and augment strengths (e.g., retention and consolidation of intellectual capital of the firm through generation of procurement or related patents).

A firm may possess procurement competence or valuable resources but not utilize them effectively (e.g., to extract lower transaction costs) on account of various reasons – e.g., lack of organization, weaknesses in policy formulation and implementation, tactical versus strategic orientation, misplaced priorities, widespread opportunism at the department or business unit level and / or individual level, confusion with too many initiatives being run at the same time, some of which may even be at cross purposes, lack of coherent, objective measurements system, etc. Competitive advantage in industry can only accrue if the valuable resources are aligned and properly deployed and exploited to their true potential, in order for the firm to truly realize benefits in a controlled, assured manner. Procurement competitive advantage (PCA) then has to be the construct that is about realization or actualization of the capability or procurement competence that resides in the firm, either explicitly (quantified, understood vectors of skills) or implicitly (talents that reside in the firm and are relevant to the firm's position in industry but have not surfaced or been appreciated for their value thus far) and differentiates its procurement results from its competitors. It is different therefore from procurement competence (PC).

PC that is well aligned to drive PCA today may not be well aligned to deliver similar PCA tomorrow; new skills may be required to operate under a different reality (e.g., managing relationships with suppliers in a virtual world, sourcing from other regions or countries such as those offering lower costs will require competence in cultural sensitivity and better attuned / diverse negotiation skills, usage of new and better integrated spend analysis, bidding and

contracting tools, etc.). This research does not specifically delve into the longitudinal aspects of outsourcing. However, contextual comments are made where appropriate, including directions that future research could take.

Intuitively, PC should be related to PCA – high PC relating to high PCA and low PC relating to low PCA. However, high PC can also relate to low PCA if the environment is has inherent "friction" (e.g., on account of factors mentioned at the beginning of the last paragraph). It would appear then that PC is a necessary but not a sufficient condition for PCA. Also, in the extreme situation where PC is really high (and expensive too, with the best category experts in industry available in excess of requirements), PCA will be eroded in terms of savings getting compromised by the sheer cost resulting from underutilization of the high PC procurement organization.

Another construct will have to be firm competitive advantage (FCA) from procurement. PC should relate to PCA which in turn should relate to FCA. However, PC and PCA have to be seen in the context of the larger firm: even though ostensibly desirable, not necessarily will these three constructs be in alignment. If PCA is measured in a manner that is not consistent with the larger good of the firm, PCA and resulting FCA from procurement may be out of step. FCA as a construct will also help understand how important a contributor PC or PCA is to the larger firm in the context of whether or not to outsource its indirect procurement function.

Any PO situation shall have to factor in business risk and that forms the fourth construct – one that imposes the ground reality of "friction" into the discussion. As firms decide whether or not to outsource, they must weigh their potential benefits against the risks that shall be in play and that they may be subjected to. Addressing elements of the risk is essential to any contracting process as well – doing so successfully is important to both the client firm as well as the service provider.

For each of the four constructs, i.e., PC, PCA, FCA and BR, it is relevant to understand the following measures for the various items or activities that together form the respective constructs:

1. The relative importance ascribed to each of the items within the construct.

2. The level of satisfaction that exists or existed before a procurement activity (or related support activity) was or is outsourced.

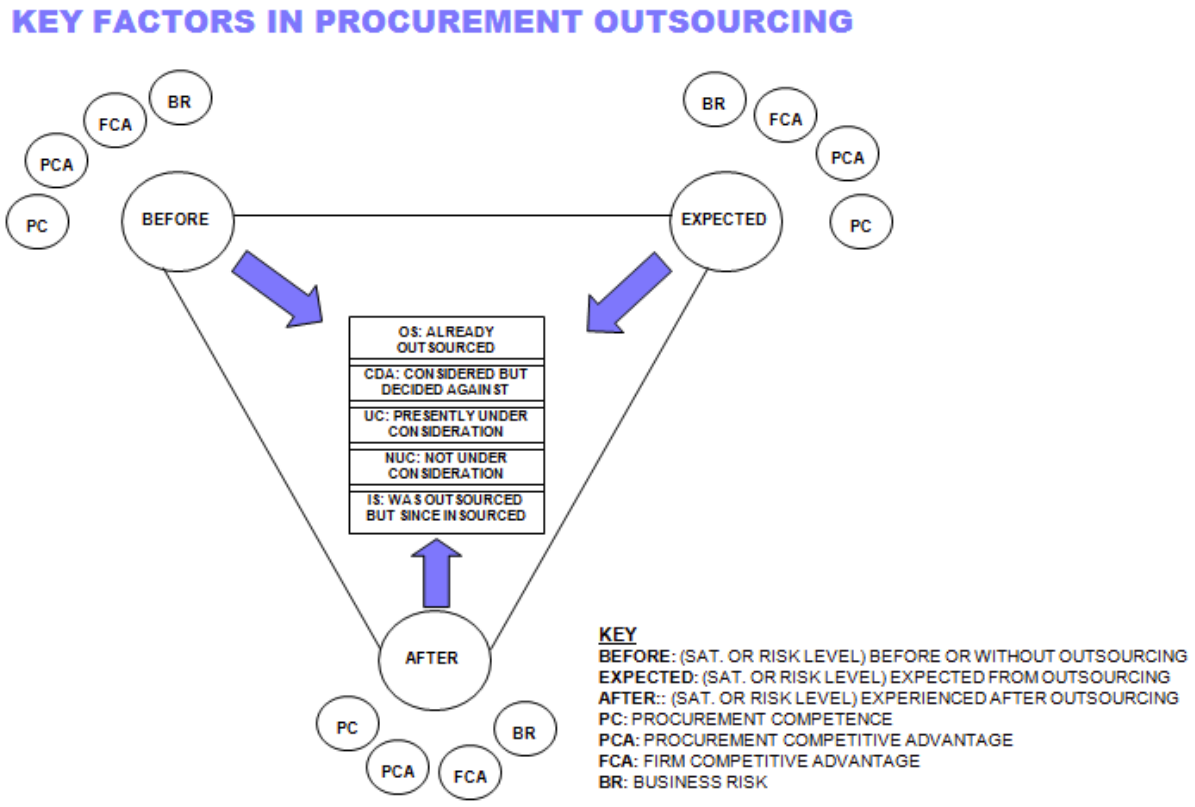

Figure 6: Key factors in indirect procurement outsourcing (initial)

3. The level of satisfaction that is or was expected from outsourcing (not applicable if outsourcing is not under consideration even).

4. The level of satisfaction that is or was realized after outsourcing or prior to in-sourcing (not applicable if outsourcing is under consideration, was considered but decided against or is not even under consideration). Taken together, the model can then be shown as under (reader may substitute “factors” with “constructs” in figure 6):

What should go to define each of the constructs in terms of the various dimensions and items within those dimensions is examined next.

3.7 Procurement Competence (PC)

Procurement is defined as the acquisition of goods and/or services at the best possible total cost of ownership, in the right quantity and quality, at the right time, in the right place and from the right source for the direct benefit or use of corporations, or individuals, generally via a contract[27].

In terms of scope areas, the more traditional view considers procurement as encompassing strategic sourcing, strategy management, tactical buying and order management. In practice, however, it is found that additional scope areas such as accounts payable, information technology and procurement transformation are sometimes thrown into the scope mix on account of their relevance to end-to-end improvement efforts in the procurement domain.

In order to have an appreciation of the dimensions and items included for each of the constructs, it is relevant to discuss these one by one.

STRATEGIC SOURCING: The purpose of strategic sourcing is to identify and source the suppliers that have the potential of maximizing value to the client base. A. T. Kearney's seven-step sourcing process[88] coupled with experience gained over the years indicates the essential components of strategic sourcing to be:

1. Development of category profile during which a detailed understanding of spend has to be gained at the very outset (e.g. spend by supplier, location, users, volumes, pricing, terms and conditions), client need analysis conducted (e.g. to understand what is required and how well the requirements are presently being met or need to be met in future) and also, supplier market analysis conducted (e.g. to understand the ground reality of the marketplace under which the supplier is operating, to understand the suppliers' pricing structure, Porter's five forces model analysis, etc.).

[27] Available at: http://en.wikipedia.org/wiki/Procurement

2. Develop sourcing strategy based on an assessment of what is being sourced and where it fits within the category positioning matrix.

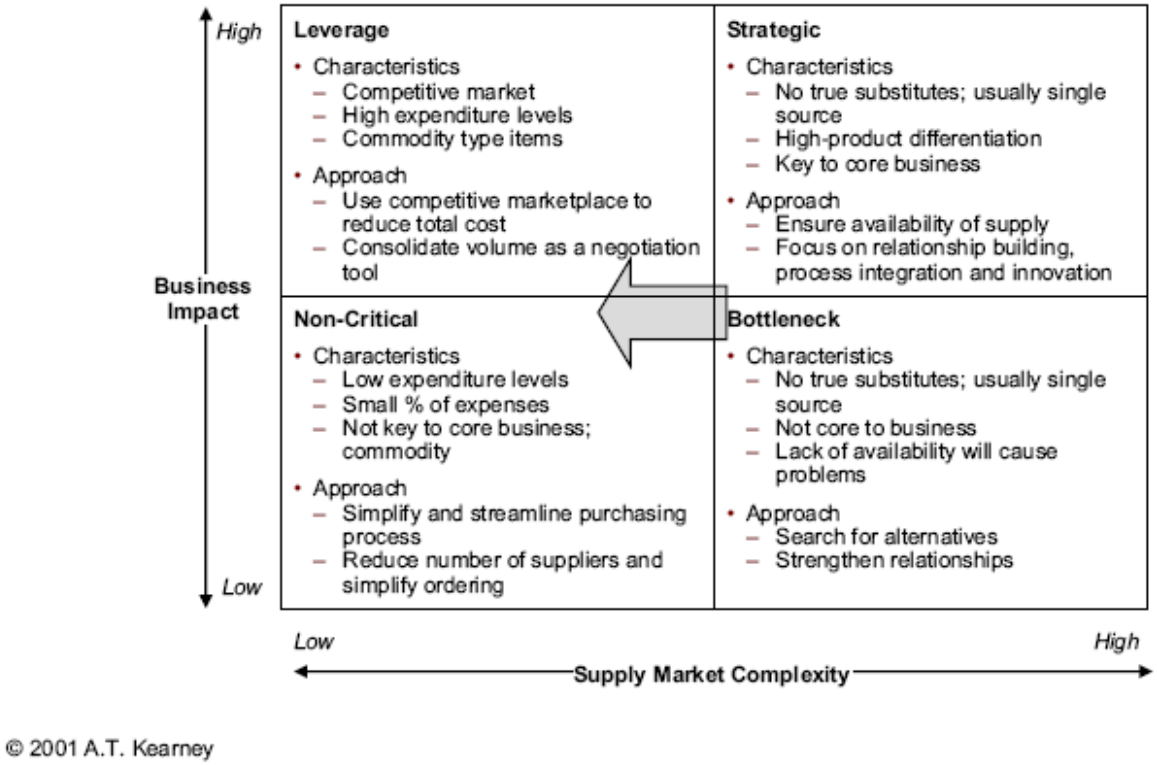

Figure 7: Category Positioning Matrix (Source: Clegg and Montgomery, A. T. Kearney, 2001)

For products or services that fall within the "Non-critical" or "Leverage" categories, the most appropriate sourcing strategies are "Volume Concentration" (combining your organization's total spend to gain leverage with the supplier) and "Best Price Evaluation" (negotiating on price). Global Sourcing refers to opportunities to develop new vendors and extend the geographic vendor base, for example through low cost country sourcing or outsourcing opportunities. For those that fall within the "Bottleneck" or "Strategic" categories, the most appropriate sourcing strategies are "Product Specification Improvement" (can the supplier tailor the product more specifically to your organization's needs?), "Joint Process Improvement" (can you and your supplier work together to provide better value and more usage?) and "Relationship Restructuring" (establish long-term partnerships with key suppliers in return for preferred pricing).

Another strategy to consider is demand management. Now that you have done your groundwork and are clear about your strategy, you are ready to engage the suppliers.

Figure 8: Sourcing Strategies (Source: Clegg and Montgomery, A. T. Kearney, 2001)

3. Generate the supplier portfolio so that all viable suppliers are identified; need analysis conducted during the "develop category profile" stage helps establish the criteria for drawing the "long list" of suppliers. The purpose at this stage is not to restrict or discard suppliers – suppliers that appear unfamiliar at first glance may actually prove to be a good fit later on.

4. Conduct request for proposal to elicit responses from suppliers identified in the previous step following standardized templates, decision criteria, and terms and conditions so that a level playing field is offered to the prospective bidders. Increasingly, electronic / internet tools are being adopted in preference to manual means, considerably facilitating the analysis, negotiation (e.g. through e-auctions) and contracting phases for quicker turnaround.

5. Negotiate and select suppliers – starting with putting together the negotiation team (spokesperson, senior authority, technical expert, user, observer or "note taker) and agree on a negotiation strategy to be pursued. Information here is key – a thorough understanding of needs analysis, information contained in RFP / responses, supplier marketplace and any available knowledge / intelligence of the supplier's bargaining position. It is also essential that the buying firm be clear on its own bargaining position: e.g., what is the most desirable

outcome (MDA), the least acceptable agreement (LAA), the best alternative to a negotiated agreement (BATNA), what bargaining levers are available, what is the contingency plan, is it really true that if LAA is not reached, the buying firm is prepared to walk away? The negotiation stage ends once there is formal, written agreement with the supplier(s).

6. Implement agreements with new suppliers by making the necessary changes, e.g., establishing and making available new catalogs, making users aware of change in suppliers and the offerings to be procured against them, updating rules (e.g., for tactical buying or order management, how charge-backs will be handled) as necessary, etc. Transition plans are usually recommended to ensure smooth oversight over the implementation phase.

7. Monitor performance so that when it is time to renew the contract with the supplier (or make an evaluation of alternative sources of supply), there already exists a set of metrics or benchmarks to compare against and improve upon for the next round, in the spirit of continuous improvement.

STRATEGY MANAGEMENT: Once suppliers with the best potential of providing benefits have been identified and sourced during the strategic sourcing process, strategy management aims to make sure that those benefits are actually realized by the client base. The main activities are: 1. Contract management – Routine (daily) and periodic (e.g. quarterly) tracking of issues and contract metrics tracking to ensure that the supplier is providing goods and services that meet or exceed the contractual commitments to the buyer. 2. Supply market monitoring – Keeping tabs on the supply market, researching and comparing against external benchmarks to identify areas for future improvement (e.g. in price, quality, etc.). 3. Evaluation and performance management – Tracking and reporting benefits, status of compliance management, identify need for fresh strategic sourcing, etc.

TACTICAL BUYING: Not all spend can be sourced strategically and even in situations where strategic sources have been identified, there will always remain the requirement for ad hoc assistance from buyers. The main activities are:

1. Need identification – recognizing and understanding client requirements, obtaining any needed additional information, confirming business objectives, etc.

2. Buying strategy determination – identification of potential suppliers to fulfill need, ensuring sourcing solution is consistent with overall sourcing strategy, determine and address future repetitive nature of buys, etc.

3. Ongoing buying execution and negotiation – implementation of appropriate spot or project based buying strategy, define and execute negotiation strategy for ad hoc buys, documentation of benefits, etc.

ORDER MANAGEMENT encompasses various operational, administrative, transactional and support activities performed for the purpose of providing clear, effective, support to customers and suppliers, enabling them to be better informed and more productive in their transactions. The main activities include:

1. Supplier and end-user enablement support – educate and train suppliers and end users, establish and maintain master vendor files, coordinate with category managers on needed changes, etc.

2. Content / catalog administration – establish content and format for catalogs, coordinate with category managers, timely updates or changes in catalogs (or other similar methods for automated processing).

3. Review requisitions and place purchase orders – review incoming requisitions, route them to appropriate buyers, contracts or catalogs, coordinate with category managers, manage automated or manual order creation and placement, perform changes or alterations on existing purchase orders, etc.

4. Customer and supplier assistance (help desk) – address process questions, provide status updates, resolve or route issues to appropriate team for resolution, provide feedback, address invoice related issues, etc.

ACCOUNTS PAYABLE is an area that is often included in PO discussion – and refers to the "Pay" part of the acronyms "P2P" for Procure to Pay or "S2P" for Source to Pay. Accounts payable is mostly considered transactional (or operational) in nature; with the focus that firms have had on reducing operational expenses, it is natural that accounts payable has become a prime candidate for outsourcing. The fit with procurement is symbiotic: accounts payable cannot succeed without an effective procurement process and procurement cannot

succeed without an effective accounts payable process. For example, if requestors are able to by-pass procurement, sourcing savings will be diluted while invoices issued without purchase orders (called non-PO invoices) will require more labor intensive, manual processing. Process efficiencies are just so much better implemented and tracked if done holistically, i.e. from a source-to-pay or procure-to-pay perspective. The number of invoices processed per FTE is the productivity metric that most clients are interested in improving; open for discussion are measures such as negative confirmation (where the requestor is allowed a certain amount of time to dispute payment against an invoice and if the item is correctly received per requirements, no action is needed and the invoice is paid by accounts payable without further checking), automated invoicing (where the PO items, numbers and prices are matched to the invoice and if the two tally, the system allows automated payment), etc.

INFORMATION TECHNOLOGY today is relevant to any process area, and so also is the case with procurement. Enabling technologies that allow seamless integration between the procurement, finance and accounting and human resources sub-systems are very relevant to firms that are considering PO. Some requests for proposal will include information technology and ask prospective service providers to lay out the IT vision that they consider optimal for the client's situation. Such situations can become rather complex – a client may have invested in disparate systems (some with lifetime licenses, including maintenance and training while others not so) and bundling the IT solution that is right for the client makes it difficult and challenging to retain the purity of and simplicity of just the procurement process. IT is certainly important for the client and service providers to be able to differentiate themselves in the eyes of the clients by their ability to manage the deployment, integration and enhancement of the source to pay (or procure to pay) platform, as a one-stop-shop provider. Application maintenance services, e-business hosting, etc., are other areas that are also similarly relevant to the PO discussion.

3.8 Procurement Competitive Advantage (PCA)

The value proposition from PO has to be understood in the context of the competitive advantage it helps solidify for the firm. The typical range of savings from PO is 10 to 15 percent from operating efficiency, 25 to 50 percent from compliance and 40 to 60 percent from strategic sourcing. It is possible then to treat each of the impact areas as separate

dimensions of PCA. Utilizing insights from Everest coupled with practical experience in PO gained over the years, the dimensions and items are explained below in figure.

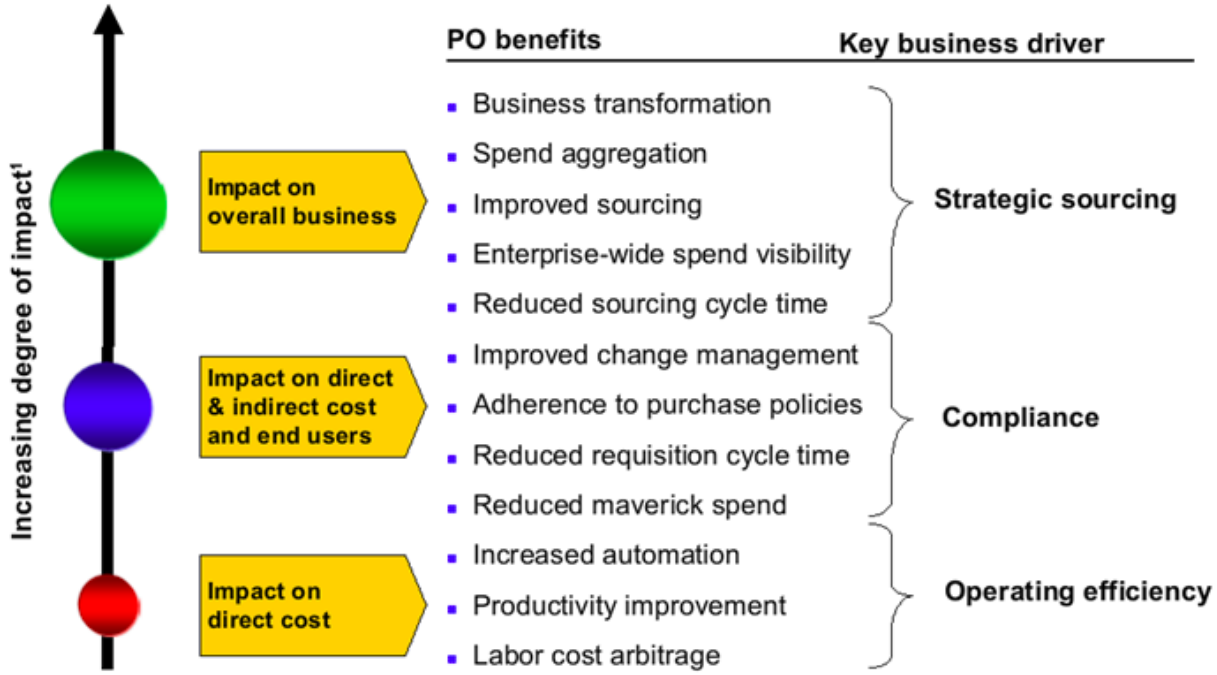

Figure 9: Value Proposition for Procurement Outsourcing (Everest)

(Source: Everest Research Institute, 2007)

IMPACT ON OPERATIONAL COSTS: Compared to other towers such as Finance and Accounting, Customer Relationship Management and Human Resource Management where operational savings can be extracted, especially through off-shoring, PO does not readily lend itself for similar savings. Procurement resources overall are expensive, especially those performing strategic sourcing and strategy management roles. In many cases, the client may only be looking to outsource a portion of their procurement function.

Procure-to-pay (P2P) contains more of the transactional / administrative workload that is often a good candidate for cost reduction (off-shoring can be part of the solution here) compared to the entire source-to-pay (S2P) scope (where a significant proportion of resources need to remain in high cost host country) where it is important to maintain rapport / relationship with on-site presence at client site or with key suppliers.

1. Procurement labor cost reduction – An organization that spends Tk 1 Crore per year may want to reduce the cost to a lower level and have that as an objective for PO. In some cases, labor cost may actually go up if the procurement team is not skilled and / or staffed at appropriate levels – in such situations too, a determination may be made that the right

procurement organization would cost (say) Tk 2 Crore per year and if PO allows the same to be done for less, it can be considered labor cost reduction for business case purposes, going forward. In some situations, employees spread within the larger organization (e.g., secretaries or office assistants) may be performing procurement related tasks that will fall within the ambit of the procurement organization in an outsourced environment (e.g. assistance with placing requisitions) – even though the labor cost for procurement goes up, overall, the cost comes down for the firm on account of the greater efficiency with which procurement staff can assist and perform procurement related tasks.

2. Employee productivity – Having catalogs, more streamlined requisitioning processes, readily available central help desk, etc., helps improve employee productivity. In reality, service providers find it challenging to include employee productivity benefits in the business case – client firms are hesitant to acknowledge these. In some situations productivity improvement may be acknowledged but not in a manner that truly reduces employee costs – e.g., FTE's need to be whole numbers and fractional reductions are considered inconsequential by business units.

IMPACT ON COMPLIANCE AND END USERS: Enabling end users to procure more effectively helps the firm serve clients better which in turn helps generate greater revenue for the firm. Compliance allows potential benefits that have been identified to be actually realized.

1. Reduced maverick (or by-pass or rogue Spend – Firms that have mature and fully functional procurement organizations have maverick spend (i.e. spend committed without Procurement involvement) of the order of one to two percent of total spend. PO clients often are immature in this regard with a majority of their Spend as by-pass and they look to PO to help change the situation.

2. Service levels – For end users, it is important that PO maintain or improve service levels in terms of various metrics such as cycle time, on-time deliveries, timely resolution of issues, etc. as defined in the contract.

3. Adherence to purchase policies and procedures – An audit of procurement may reveal that even though by-pass Spend is ostensibly meager, there are deficiencies in the manner in which it is being measured. It is important that compliance exists not just in letter but also in spirit.

IMPACT ON OVERALL BUSINESS: If end-users are compliant and procurement is operationally efficient, it should be possible to extract the full potential of benefits that procurement has to offer in order to impact the bottom line.

1. Enterprise-wide spend visibility – Apart from being a needed step for building the category profile during strategic sourcing, spend visibility allows business units / divisions to gain a clearer understanding of the various areas where money is being spent. Depending on the client situation, the means adopted can be manual or IT-tools based.

2. Spend aggregation and leverage – The ability to aggregate category wise spend across business units and geographies brings into play a different dynamic in supplier selection and power positioning.

3. Improved sourcing savings – In some situations, various business units in a firm may have had separate contracts with the same supplier with limited overall leverage. The same supplier may be prepared to offer to corporate procurement the same goods or services at a discounted price (say 90 percent of previous price). As spend compliance improves, the consolidation may become even stronger, with the possibility of still better savings (e.g., rebates which are contingent upon the volume of spend offered and typically increase as a step function, the higher the spend, the greater the rate at which the rebate is offered).

4. Improved supplier relationships – As suppliers are sourced strategically, there is greater focus on managing the relationship well to the mutual benefit of both parties: an open, proactive, trusting relationship ensues between supplier and buyer firms. The supplier will try to bring in new ways of providing value to the customer base and the buying firm will try to empathize with the supplier's situation to understand what is reasonable and what is not.

5. Reduction of existing supply base – Typically, in tandem with routing more business to the few strategic suppliers, a significant number of non-strategic suppliers that may have burgeoned over the years are removed or "blocked" for business. Having to manage fewer contracts allows the procurement organization to become more effective at lower operational cost.

6. Ability to drive business unit budget reductions from savings – In order for procurement savings to have a sustainable impact, downward budgetary adjustments are needed year on year. The CEO would naturally be interested in managing more for less whereas the business units may want to keep their budgetary allocations mostly intact. In a complex environment, it is essential to have a good governance mechanism that involves various stakeholders

(including business unit representatives) so that savings projects are prioritized jointly through a team charter approach and benefits realized are mutually agreed to by procurement, finance and business units working together. This is an important area for PO to provide value since earlier attempts by client firm may not have been successful enough in breaking the logjam.

7. Applying outsourcing lessons learned to avoid repeating mistakes – As in life, it is always better to learn from others' mistakes; PO service providers and third party advising (TPA) firms allow clients to circumvent derailing factors to procurement effectiveness.

8. Ability of procurement team to focus better on key areas – As procurement is executed with an increasingly strategic focus / mission, the entire procurement organization gets permeated with a culture that makes sure that the key priority areas get undiverted attention.

3.9 Firm Competitive Advantage (FCA)

"Outsourcing strategically for sustainable competitive advantage"[28] mentions various goals that firms can seek to achieve through PO that are relevant to the internal or external orientation of the firm. In terms of the ability to better exploit the external environment or opportunities through PO, to the benefit of the firm at large, the following items are relevant:

1. Ability to focus better on core competencies – As discussed earlier in this chapter, Venkatesan as well as Quinn and Hilmer have argued for outsourcing activities that a firm has neither a critical need for nor special capabilities in and focusing its resources (including procurement expertise) on a set of core competences where it can achieve preeminence and provide unique value to its customers.

2. Ability to improve market positioning – In terms of Porter's five forces model (refer figure below), each business unit or process area contributes to how the company is competitively positioned within the industry that it operates under. To the extent that procurement is able to leverage and negotiate with suppliers and requestors for better prices and terms and conditions on behalf of the business unit or process area, its role increases the opportunity for serving clients with greater value-add, thereby making it possible to enhance the firm's

[28] Monczka, R. M., Markham, W. J., Carter, J. R., Blascovich J. D. & Slaight, T. H. (2005). "Outsourcing Strategically for Sustainable Competitive Advantage." A Joint Research Study by CAPS Reseach and A. T. Kearney, Inc

relative position versus its rivals.

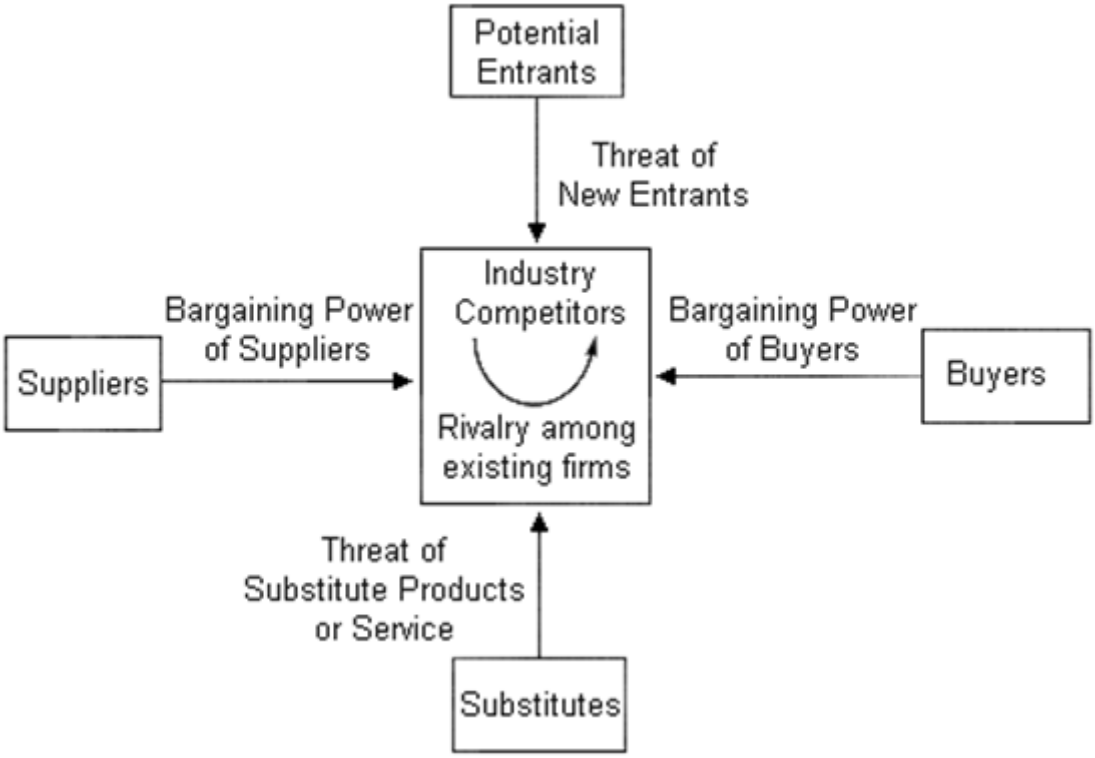

Figure 10: The Five Competitive Forces that Determine Industry Profitability

(Source: Porter, 1998)

3. Ability to improve market share for product or service – the percentage of total market (sum of sales revenue available with the firm divided by total overall sales revenue available in that market) that is being catered is always an important metric and the fruits of better market positioning will result in consolidation of share in the desired segments. It may be noted that the focus of the previous point is on building and sustaining competitive advantage (now and in future) whereas the present focuses on market share on a more immediate basis (now – e.g., by quarter).

4. Ability to enter new or emerging markets – the past decade has seen increased economic growth in developing countries such as Bangladesh and a relative slow-down in most of the developed world. Many firms desirous of sustaining growth are therefore forced to look at emerging countries – some choose captive outsourcing (where outsourcing is done internally within the firm) as one of the options for making an entry while others opt to go with a service provider who may have operations to provide off-shore delivery content. In the latter case, the firm will gain initial experience during the contract duration (e.g., culture, quality of delivery, etc.) and when it comes time to renew the contract, decide to operate on its own. (It

is also possible that a firm wanting to set up operations and not able to build procurement expertise, may choose to outsource it domestically to another firm).

5. Ability to rapidly acquire or divest for growth – The last decade saw significant merger and acquisition and divestiture activity, and procurement expertise is challenged on each occasion as the supply bases are aligned, greater leverage exercised, contracts renegotiated, etc. In an effort to cope, the more experienced procurement team may be utilized for priority areas leaving some of the non-core areas to be outsourced. On other occasions, procurement skills in a certain country may be very rudimentary and PO may offer the faster route to source required expertise.

6. Ability to follow outsourcing trend; not be left behind rivals – If most of a firm's competitors are outsourcing, it may be actually be a risky strategy to not simply follow the trend. Many firms look to outsourcing to quickly build procurement expertise which it did not previously possess in-house in right measure while others look to outsourcing as a means to off-load areas that are not considered a priority.

3.10 Business Risk (BR)

In chapter 2, TCE was discussed and the concepts of uncertainty, opportunism, bounded rationality, information asymmetry and frequency were presented in terms of the impact they have on transaction costs and organizational structure. To the extent these are at play, a firm will experience business risk. Whether or not a firm actually outsources, business risk is a given – the question is whether the risk increases or decreases consequent to outsourcing, compared to prior to outsourcing. UNCERTAINTY refers to difficulty in foreseeing the eventualities that may occur during the course of the transaction. One factor is the length of the transaction itself: transactions that take place on "spot markets" have relatively little uncertainly since one does not have to predict the future. On the other hand, transactions that require a longer term commitment have inherent uncertainty built into them. Outsourcing contracts can typically last one to five years – long enough to introduce uncertainty from the standpoint of both the client firm as well as the service provider. The following items are considered important for curbing uncertainty:

1. Scope of work to be performed needs to be well defined in the contract (e.g. number of transactions, spend by category, number of users, locations, systems, countries requiring coverage, languages to be catered by the help desk, etc.).

2. Service levels to measure against need to be well defined in the contract so that performance is at standards considered acceptable (e.g., cycle time for purchase orders, percent savings by category, automated percentage for purchase orders and invoices, average response time for customer assistance center calls, etc.).

3. Governance model needs to be clearly defined so that the relationship between stakeholders operates along desired lines, with regular reviews, issue resolution plans, joint target setting, etc., so that the prospects of assured benefits realization are maximized on a consistent basis.

4. Contractual requirements in terms of various other areas need to be clearly stated in the contract – e.g. treatment of in-flight projects, displaced resources and costs, termination provisions, amendments or additions / deletions to performance indicators, manner of computing service levels credits and debits, economic inflation, treatment of delays in transition / transformation timeline (including impact from opportunity cost standpoint), indemnity / limitations of liability clauses, intellectual property rights, disengagement assistance, etc.

OPPORTUNISM refers to the possibility that people (or at least some people) will act in a self-interested way "with guile" (which goes beyond just self-interested behavior, which is considered normal), that is, people may not be entirely honest and truthful about their intentions, or they might attempt to take advantage of unforeseen circumstances that gives them the chance to exploit their situation versus another party or parties. The following items are considered relevant:

1. Interactions between players are trustworthy – the stakeholders need to be able to trust each other; open, proactive interactions are important to secure joint success.

2. Reward (or penalty) for over (or under) achievement is equitable – stakeholders should be motivated to overachieve so that they can share the rewards. On the flip side, they should also have to share the burden in case of underperformance.

3. Entry (or exit) cost for starting (or ending) the relationship should be fair to the stakeholders. Satisfactory arrangements covering various scenarios and mitigating risk should be included in the contract.

BOUNDED RATIONALITY refers to our inability to process or remember all the information at our disposal or accurately work out the consequences of the information that we possess. The following items are considered relevant:

1. Ease of grasping information fully on account of individual limitations or environmental complexity – to the extent processes, methodologies, etc., are clearly defined and understood by the stakeholders and complexity reduction is pursued as the objective, business risk can be mitigated. As an example, this requires that the savings methodology be documented and well explained through illustration.

2. Tendency to make quick, rule of thumb decisions rather than painstaking, optimal decisions – writing down the objective function and the various constraints and then optimizing the solution is rarely practiced.

3. Tendency to cooperate with wrong priorities or players – factors such as goodwill, group or peer pressure, etc. may influence a player even though they should not. As an example, a buyer may be somewhat lenient (and short-sighted) and not report a procurement by-pass arising in a business unit that he was originally hired into (at time of joining the firm) and still has happy memories of, in the belief that reporting such a by-pass may get that business unit into trouble.

INFORMATION ASYMMETRY refers to situations where one party has more or better information than the other.

SMALL NUMBERS (or low frequency) refers to transactions that are seldom performed – they do not benefit from scale or synergy effects in the same manner as more frequent transactions do. The items considered are:

1. A few transactions have very high costs – A 10 lacs requisition for which a purchase order needs to be placed quickly by sourcing the supplier tactically, may end up costing twenty times an average tactical buy. Such requests, although small in numbers, can skew the average costs significantly.

2. Frequency of few high cost items varies widely – Coupled with the high cost of processing certain types of transactions, their erratic frequency can further compound the business risk.

3.11 RESEARCH QUESTIONS AND HYPOTHESES

This section presents the research questions and hypotheses to further our understanding of indirect PO. The basic research question on which the study is based is: What are the key differentiators and differences in indirect PO between firms by OS Status, i.e., CDA, IS, NUC, OS and UC? Based on the model shown in the figure 6, the research questions are **extended to include all possibilities**:

1. What are the key factors in indirect procurement outsourcing? What differentiating comparisons can be made BETWEEN each of the five indirect PO situations (i.e., OS Status), with regard to the key factors for outsourcing in terms of the following (Q. 1, 2, 3, 4 of Survey Questionnaire): a. Satisfaction or risk levels that exist 'before' or without outsourcing. b. Increase or decrease in satisfaction or risk level 'expected' from outsourcing compared to 'before' or without outsourcing (not applicable for NUC). c. Increase or decrease in satisfaction or risk level 'after' outsourcing compared to 'expected' from outsourcing (applicable only to IS and OS).

2. What differentiating comparison can be made WITHIN each of the five indirect PO situations (i.e., OS Status), with regard to the key factors for outsourcing in terms of the following (Q. 1, 2, 3, 4 of Survey Questionnaire): a. Increase or decrease in satisfaction or risk level 'expected' from outsourcing compared to 'before' or without outsourcing (not applicable for NUC). b. Increase or decrease in satisfaction or risk level 'after' outsourcing compared to 'expected' from outsourcing (applicable only to IS and OS).

3. Are there significant differences BETWEEN different OS Status types in terms of the extent to which they view procurement as important to the firm? (Q. 11 A, B, C of Survey Questionnaire)

4. Are there significant differences BETWEEN OS Status types IS and OS in terms of the extent of collaboration with the service provider? (Q. 12 A, B, C of Survey Questionnaire)

5. Are there significant differences BETWEEN OS Status types in terms of the extent to which they view outsourcing as capable of increasing savings, reducing costs or improving compliance? (Q. 13. A, B, C of Survey Questionnaire)

6. Are there significant differences BETWEEN OS Status types in terms of the extent to which they view loss of control from outsourcing core or non core activities to be unacceptable or acceptable? (Q. 14. A, B of Survey Questionnaire)

7. What are some of the key demographic or other differences for firms that have not considered outsourcing? The hypotheses for research questions 1–6 are summarized in table 3 below; research question 7 is addressed in Chapter 5 on Data Analysis and Results when evidence related to it is presented, but not in a manner to discuss any hypotheses around it.

Table 3: List of research hypotheses to be tested

RESEARCH QUESTION #	HYPOTHESIS	DESCRIPTION
	HYPOTHESIS 1A	
1, a	1AA0: Null Hypothesis	The mean (CONSTRUCT X) BEFORE or WITHOUT outsourcing is EQUAL, BETWEEN all the different OS Status types
	1AA1: Alternative Hypothesis	The mean (CONSTRUCT) BEFORE or WITHOUT outsourcing is NOT EQUAL, BETWEEN all the different OS Status types
	HYPOTHESIS 1B	
1, b	1BA0: Null Hypothesis	The mean (CONSTRUCT X) EXPECTED from outsourcing MINUS BEFORE outsourcing is EQUAL, BETWEEN all the different OS Status types
	1BA1: Alternative Hypothesis	The mean (CONSTRUCT X) EXPECTED from outsourcing MINUS BEFORE outsourcing is NOT EQUAL, BETWEEN all the different OS Status types
	HYPOTHESIS 1C	
1, c	1CA0: Null Hypothesis	The mean (CONSTRUCT X) AFTER outsourcing MINUS EXPECTED from outsourcing is EQUAL, BETWEEN all the different OS Status types
	1CA1: Alternative Hypothesis	The mean (CONSTRUCT X) AFTER outsourcing MINUS EXPECTED from outsourcing is NOT EQUAL, BETWEEN all the different OS Status types
	HYPOTHESIS 2A	
2, a	2AA0: Null Hypothesis	The mean (CONSTRUCT X) EXPECTED from outsourcing MINUS BEFORE outsourcing is EQUAL TO ZERO, WITHIN each of the OS Status types (all except NUC)
	2AA1: Alternative Hypothesis	The mean (CONSTRUCT X) EXPECTED from outsourcing MINUS BEFORE outsourcing is GREATER THAN ZERO, WITHIN each of the OS Status types (all except NUC)
	HYPOTHESIS 2B	
2, b	2BA0: Null Hypothesis	The mean (CONSTRUCT X) AFTER outsourcing MINUS EXPECTED from outsourcing is EQUAL TO ZERO, WITHIN OS Status types IS and OS
	2BA1: Alternative Hypothesis	The mean (CONSTRUCT X) AFTER outsourcing MINUS EXPECTED from outsourcing is LESS THAN ZERO, WITHIN OS Status types IS and OS

RESEARCH QUESTION #	HYPOTHESIS	DESCRIPTION
	HYPOTHESIS 3	
3	3A0: Null Hypothesis	The mean extent to which different OS Status types view PROCUREMENT AS IMPORTANT to the firm is EQUAL
	3A1: Alternate Hypothesis	The mean extent to which different OS Status types view PROCUREMENT AS IMPORTANT to the firm is NOT EQUAL
	HYPOTHESIS 4	
4	4A0: Null Hypothesis	The mean extent to which Client firms with Status IS or OS COLLABORATE EFFECTIVELY with the SERVICE PROVIDER is EQUAL
	4A1: Alternate Hypothesis	The mean extent to which Client firms with Status IS or OS COLLABORATE EFFECTIVELY with the SERVICE PROVIDER is NOT EQUAL
	HYPOTHESIS 5	
5	5A0: Null Hypothesis	The mean extent to which different OS Status types view BENEFITS AS ACCRUING FROM OUTSOURCING is EQUAL
	5A1: Alternate Hypothesis	The mean extent to which different OS Status types view BENEFITS AS ACCRUING FROM OUTSOURCING is NOT EQUAL
	HYPOTHESIS 6	
6	6A0: Null Hypothesis	The mean extent to which different OS Status types view LOSS OF CONTROL from outsourcing CORE OR NON CORE activities to be unacceptable or acceptable (respectively) is EQUAL
	6A1: Alternate Hypothesis	The mean extent to which different OS Status types view LOSS OF CONTROL from outsourcing CORE OR NON CORE activities to be unacceptable or acceptable (respectively) is NOT EQUAL

The hypotheses shall be tested in the Data Analysis chapter based on the methodology presented in the Methodology chapter, which follows next.

3.12 Summary

In this chapter, the various relevant theories of transactional cost economics, the resource based view and the agency theory were reviewed. These were then synthesized to lay the foundation for establishing the research model. The constructs of procurement competence, procurement competitive advantage, firm competitive advantage and business risk were developed for the research model, with a detailed commentary into what should comprise each construct. The research questions and the research hypotheses that need to be tested to answer those questions were presented next. The methodology that shall be applied for the data analysis and hypothesis testing is the subject of the next chapter.

CHAPTER 4

RESEARCH METHODOLOGY

4.1 Introduction

This chapter describes the methods of data collection and data analysis that were deployed in order to test the various hypotheses mentioned in the previous chapter. Data were collected through use of the survey instrument; there is discussion on sample size, sampling procedures and the survey implementation. In data analysis, it is explained how measures were tested for validity and reliability and the manner in which the hypotheses testing was conducted.

*4.2 Data Collection and Study Population *

A determination was made that the survey instrument would be the appropriate means for collecting data required to conduct this research on indirect PO. In addition to reaching out to respondents in firms that have outsourced their indirect procurement, the mailing list of the survey recipients also included procurement professionals from firms that have not outsourced their indirect PO, i.e., from firms that considered but decided against (CDA), firms that had outsourced but later decided to insource (IS), firms that do not have it under consideration (NUC), or firms that are presently having it under consideration (UC).

4.3 Sampling Procedure

Sectors were carefully chosen taking into account the existing Bangladesh based firms to represent the survey data. Industries that have a common tradition of procurement outsourcing were given preference.

Table 4: Mailing Size by different sectors

INDUSTRY DESCRIPTION	MAILING SIZEREQUESTED	INDUSTRY DESCRIPTION	MAILING SIZEREQUESTED
Garments Industries	30	Communication and related Firms	30
Food products	10	Developer and Construction Firms	30
Paper and allied products	15	Wholesale trade – durable goods	15
Printing and publishing	15	Wholesale trade – nondurable goods	15
Chemicals and allied products	45	Miscellaneous retail	10
Wooden Furniture and allied Products	15	Banking	30
Rubber and miscellaneous plastic products	15	Insurance Companies	30
Hotel and Accommodation Service	30	Educational Institutes	30
Electric/electronic equipment and Service	45	Health services	30
Life Insurance Companies	30	Engineering related services	15
Instruments and related products	15	**TOTAL =**	**500**

To give a flavor of some of the clients, present or prospective, the following list (for illustrative purposes only) is provided (the names of firms mentioned, unless otherwise already known in the public domain, are not intended to bear any reflection whatsoever on whether the firm has already outsourced (OS), is considering outsourcing (UC for under consideration), has considered but decided against (CDA), outsourced but decided to in-source (IS) or has not considered outsourcing (NUC for not under consideration); the names are provided purely for illustrative purposes):

• Garments Industries: e.g. SAAD MUSA , ALLTEX.

•Food products: e.g. Rahima Food, APEX Foods.

•Paper and allied products: e.g. Hakkani Pulp And Paper.

•Printing and publishing: e.g. KPPL. •Chemicals and allied products: e.g. BeximcoPharma.

•Wooden Furniture and allied Products: e.g. Brothers Furniture.

•Rubber and miscellaneous plastic products: e.g. RFL.

•Hotel and Accommodation Service: e.g. The Pavillion.

•Electric/electronic equipment and Service: e.g. RahimAfrooz

•Life Insurance Companies: e.g. Sandhani Life Insurance

•Instruments and related products: e.g. Goldenson Ltd.

•Communication and related Firms: e.g. PBL.

•Developer and Construction Firms: e.g. EPIC Properties Ltd, CPDL.

•Wholesale trade – durable goods: e.g.

•Wholesale trade – nondurable goods: e.g.

•Miscellaneous retail: e.g. AGORA.

•Banking: e.g. CITY Bank Ltd.

• Insurance Companies: e.g. Pioneer Insurance

•EducationalInstitutes: e.g. AIUB.

•Health services: e.g. Metropolitan Hospital

•Engineeringrelated services: e.g. AK Engineering

Responses sought were not only from firms that had already outsourced (OS) (including those that later in-sourced i.e. IS) but also, firms that were considering outsourcing (UC) or had considered and decided against (CDA) and firms that did not have indirect PO under consideration (NUC). The valid responses received are as follows:

Outsourced	52
Outsourced but later in-sourced	8
Under consideration	18
Considered but decided against	16
Not under consideration	103
Total	**197**

4.4 Survey Instrument

The survey instrument (Appendix A) is eight pages long: it contains a cover page, a page of instructions, three pages containing questions pertaining to the main constructs for the study, two pages containing general questions on spend, number of transactions, etc., and also a few questions to obtain additional information to ascertain importance ascribed to procurement. The last page is on demographic information. the items were painstakingly generated to ensure that the right content for the purpose of the study was reflected in the question set.

The questionnaire was pretested with 14 individuals capable of providing a rounded perspective essential to the validation: one from academics (faculty / researcher), two service provider managers (with a good grasp over policy and organizational issues), three professionals (with an understanding of procurement and related support activities) and three client firm representatives (with knowledge of actual issues involving outsourcing). The offered suggestions were incorporated to improve the content and clarity of the instrument. The survey intended to measure respondent perception and attitude towards indirect PO for the five OS situations (CDA, IS, NUC, OS, UC) and this was clearly stated up front in the instructions (as well as the cover letter). The respondents were also told that they were to "think of ANY indirect procurement related activity, including ANY support activity (e.g., procurement help desk, deployment of procurement IT platform or maintenance) that is relevant to the outsourcing (OS) discussion for your firm and provide your answers with that activity or set of such activities as a reference point." On the key constructs, it was considered important to obtain feedback in terms of (1) satisfaction (or risk) levels prevalent before outsourcing, (2) satisfaction (or risk) levels that were expected from outsourcing, and (3)

actual satisfaction (or risk) levels experienced after outsourcing. While it is true and can be argued that opinions change over time (e.g., a respondent may have had a satisfaction of 2 on a five point scale before outsourcing and now, two years later, having actually experienced PO may feel that the satisfaction before outsourcing was a 3 and not a 2, it is also true that what matters in the end, i.e., at the present time, is the respondent's belief of what the satisfaction level was prior to outsourcing (compared to 'expected' or 'after' outsourcing). Laying out the satisfaction (or risk) options (i.e., 'before,' 'expected,' and, 'after,') while ensuring utmost economy (length of survey and time taken to complete) drove the decision on the layout adopted (Appendix A). This was also partly dictated by the need to present the items in a sequence that mirrored some of the known process or key steps within each of the constructs. Presenting items separately to cover the time dimension ('before,' 'expected,' and, 'after) could have resulted in inconsistent responses, caused annoyance to the respondents (who would have had to flip pages to compare their 'after' responses with 'expected' or 'before') and threatened the response rate. In the present format, the respondent makes a 'forced choice' in assessing the scenarios of 'before,' 'expected,' and, 'after' (all laid out on the same row), thereby allowing for more deliberate, comparative responses. It should be mentioned that review of available procurement and outsourcing measures revealed that they would have limited applicability for the present study. Accordingly, separate items that specifically addressed each process and scope area were developed, consistent with what is widely understood from literature on the subject as well as knowledge of the practice. As an example, none of the studies have attempted gauging client perception of their procurement competence 'before', 'expected,' or 'after' outsourcing. Accordingly, it was necessary to first incorporate the various facets of procurement competence into a single construct (later divided into two based on factor analysis) and present all the items to the respondent to clearly provide the comparative responses. The items included did glean and incorporate inputs known to be relevant.

The number of items under each construct, apart from representing a generic set of items (representing process areas, key parameters, etc.) that are encompassing enough to capture the range of the concept is somewhat deliberately kept at the levels seen in the survey questionnaire.

It can be seen that the number of items within the PCA construct are: two items on operational aspects (out of total 13), three items on compliance and end users and the balance

on the overall business (sourcing related but also related to other areas covered under the Competence section where IT, change management etc., are also included). Similarly, for the PC construct, the number of items reflects a level of weight that is commonly known in practice to be attributable to each dimensional area: e.g., order management costs less than strategic sourcing; when the overall score for the construct is arrived at, procurement competence has to be a reflection of cost (as an example) as well. In short, the number of items within each dimension or construct reflects a level of thought and rigor that has gone into the design of the questionnaire. The 'general' items in the questionnaire sought to obtain information on spend and transaction volumes, extent to which the firm considered procurement as important, the collaborative (or lack thereof) nature of the relationship with the service provider, respondents' view of extent of benefits that outsourcing has to offer, risk of loss of control to the core or none core areas of the procurement function, etc. A question on industry sector aims to understand whether some sectors are more prone to outsourcing than some others (within the sectors already chosen per the sampling procedure explained earlier).

4.5 Data Analysis

The data analysis was conducted following the approach of conducting item analysis to ensure consistency to identify the key factors that explain the variance, testing for reliability, and construct validity. These are explained in the data analysis chapter in greater detail. Factor analysis was conducted using satisfaction 'before' scores on various items as the variables (see Appendix B for the list of variables and their descriptions). Once the constructs were identified / validated, the focus of the analysis shifted to comparison of the means between various outsourcing scenarios termed OS Status types in this narrative (i.e. CDA, IS, NUC, OS and UC).

In the comparison of the means, analysis was done at both the overall construct level and at the item / dimension level across OS Status types. Since each construct has multiple items, the average score on each comes close to the continuous distribution assumption needed to conduct analysis of variance. Pair wise comparisons (such as between IS and OS, which alone have both the 'after' and 'expected' scores), were done using the two sample t-test. Comparisons within each OS Status type (e.g. 'expected 'compared to 'before' for within IS

alone) were done using paired t-tests since the independence assumption is not as strong as for other comparisons. (In effect, analysis of variance to compare OS Status type combinations extends the two-sample t-test for testing the equality of two population means to a more general null hypothesis of comparing the equality of more than two means, versus them not all being equal).

Normality was tested using Anderson-Darling's test and it was found that wherever the distribution was not normal, the difference in the median values using the Kruskal - Wallistest (a non-parametric test) was at p-levels higher than p-levels achieved for Tukey's family wise comparisons. In other words, Tukey (at 90 percent simultaneous confidence level) was the most conservative (comparisons were also done using Fisher's method at95 percent individual confidence level but Tukey was more conservative in rejecting the null hypotheses). The comparison between OS Status types as an aggregate of the comparisons at each item level, provides powerful evidence not only of the significant inequality of the means, but also, the pervasiveness of the inequality. After all, as data points increase, even small differences can appear significant; the aggregation approach of providing a score on what percentage of items rejected the null hypothesis, individually, provides a way of comparing support for a broad based difference in the means, across the various items within the construct for different OS types. The comparison of the means requires an assumption that the variance is equal or nearly equal and for this the Levine test was performed and the examples are provided in the next chapter.

A level of creativity was needed in managing with limitations in the number of responses. The 52 responses received from respondents representing firms that have outsourced (OS) and eight representing firms that have in-sourced (IS), together represented a very high response rate from among those that could be targeted as representative of these groups. This is explained in the next chapter under the heading, "Sample Description." CDA and UC responses were somewhat lower than expected – one would have thought that with all the literature indicating the ushering in of the 'rapid growth' phase, many more would have outsourcing under consideration or already considered but decided against. This may indicate that outsourcing is not as prevalent or popular as an agenda, when seen from the point of view of industry as a whole, not just the large firms (which have received most attention in available studies conducted by consulting firms).

In any case, with the number of responses received, and without reducing the number of variables or items which really capture the full breadth of the constructs within the study, it

was necessary to make do with the approach adopted in this research. Once factor analysis revealed the constructs based on satisfaction 'before' scores ('before scores had the maximum number of data points since all OS types could respond to them), other comparisons were built with that as the reference point: 'expected' minus 'before' brought into focus the responses from all OS types except NUC and 'after' minus 'expected' concentrated on just IS and OS.

Comparison of the means provides powerful information about the state of indirect procurement outsourcing. Differences in the predictor variables (i.e., constructs) help shed light on the characteristics that are witnessed for each of the OS types. This is discussed in Chapter 6.

4.6 Summary

This chapter described the data collection and study population. A total of roughly 500 respondents were picked for receiving the mail survey questionnaires from a set of members of a professional association known to have been more inclined to indirect procurement outsourcing. The sampling procedure and data sample are discussed and the contents of the survey questionnaire highlighted. The manner in which the data analysis is conducted (in the next chapter) is summarized.

CHAPTER 5

DATA ANALYSIS AND RESULTS

5.1 Introduction

In this chapter, analysis of data for indirect procurement outsourcing, collected through the survey instrument, will be documented. To begin with, the sample is described in terms of the characteristics of the respondents. This is followed by testing for non-response bias. Next, items, dimensions and constructs are validated using item analysis and factor analysis. Lastly, various combinations of means are compared to identify significant differences that go to prove or disprove the hypothesis laid out in the previous chapter.

5.2 Sample Description

Details on the manner in which the data was collected were provided in the previous chapter. Against a total of 500 mailings (each mailing included the cover letter, survey questionnaire), 197 valid responses were received:

Table 5 :Total number of responses received

Outsourced(OS)	52
Outsourced but later in-sourced(IS)	8
Under consideration(UC)	18
Considered but decided against(CDA)	16
Not under consideration(NUC)	103
Total	**197**

INDUSTRY DESCRIPTION	MAILING SIZEREQUESTED	INDUSTRY DESCRIPTION	MAILING SIZEREQUESTED
Garments Industries	15	Communication and related Firms	8
Food products	2	Developer and Construction Firms	10
Paper and allied products	7	Wholesale trade – durable goods	6
Printing and publishing	3	Wholesale trade – nondurable goods	4
Chemicals and allied products	17	Miscellaneous retail	6
Wooden Furniture and allied Products	2	Banking	11
Rubber and miscellaneous plastic products	3	Insurance Companies	13
Hotel and Accommodation Service	10	Educational Institutes	3
Electric/electronic equipment and Service	10	Health services	10
Life Insurance Companies	13	Engineering related services	10
Instruments and related products	12	Others	22
TOTAL	=	**197**	

The respondents covered a range of work experience with their current employer as summarized in the table below. Approximately 40 percent of the respondents had less than five years of experience with the current firm and 76 percent had less than ten years of work experience with the current firm. Across various OS Status types too, the preponderance of

respondents fell within the category of less than ten years of experience with their current firm.

Table 6: Respondent's Number of Years of Experience

OSSTATUS	<5yrs	5–10yrs	10–15yrs	15–20yrs	>20yrs	Total
CDA	5	6	4	1		**16**
IS	2	2	2	2		**8**
NUC	41	27	11	5	19	**103**
OS	21	11	7	5	8	**52**
UC	9	5	1	2	1	**18**
Total	**78**	**51**	**25**	**15**	**28**	**197**

Of the 52 OS responses, 13 had outsourced within the past one year, 15 for over a year but less than 2 years, 6 for more than 2 years but less than 3 years and the remaining 18 for over 3 years. In terms of the contract duration, 21 had outsourced for 3 years, 21 for more than 3 but less than 5 years, 3 for more than 5 years but less than 7 years; 7 did not provide the duration of the contract.

Table 7: Annual spend by respondent's firm

OS STATUS	Less than10 lac	Tk 10lac-1 cr	Tk 1-10 Crore	OverTk 10 Cr	N/A	Total
CDA	1	1	2	1	11	**16**
IS	2	4	1	1		**8**
NUC	4	4			95	**103**
OS	18	19	5	3	7	**52**
UC	4	4	4	1	5	**18**
Total	**29**	**32**	**12**	**6**	**118**	**197**

Annual transaction volumes are summarized in table. Of 76 respondents that provided inputs other than N/A, 45 (i.e. 59 percent) had less than 10K annual purchase order transactions in scope for their PO discussion. Only 13 percent had annual transactions exceeding 100K. Both OS and UC had only 12 percent and 14 percent of the respondents belonging to firms that had annual purchase order transactions more than 100K in scope for the PO discussion.

Table 8: :Number of procurement employees in respondent's firm

OSSTATUS	1–25	26–50	51–75	76–100	100+	TOTAL
CDA	10	1		2	3	16
IS	3	2			3	8
NUC	74	12	3	5	9	103
OS	28	10	4	2	8	52
UC	5	6	3		4	18
TOTAL	**120**	**31**	**10**	**9**	**27**	**197**

5.3 Scale Development and Purification

Churchill provides the following sequence of steps and related calculations that can be performed in developing measures for multi item constructs. Multi item constructs help reduce measurement difficulties since (1) the specificity of the items can be averaged out when they are combined, (2) by combining items, relatively fine distinctions can be made between respondents, and (3) the reliability tends to increase and measurement error reduces as the number of items in a combination increases.

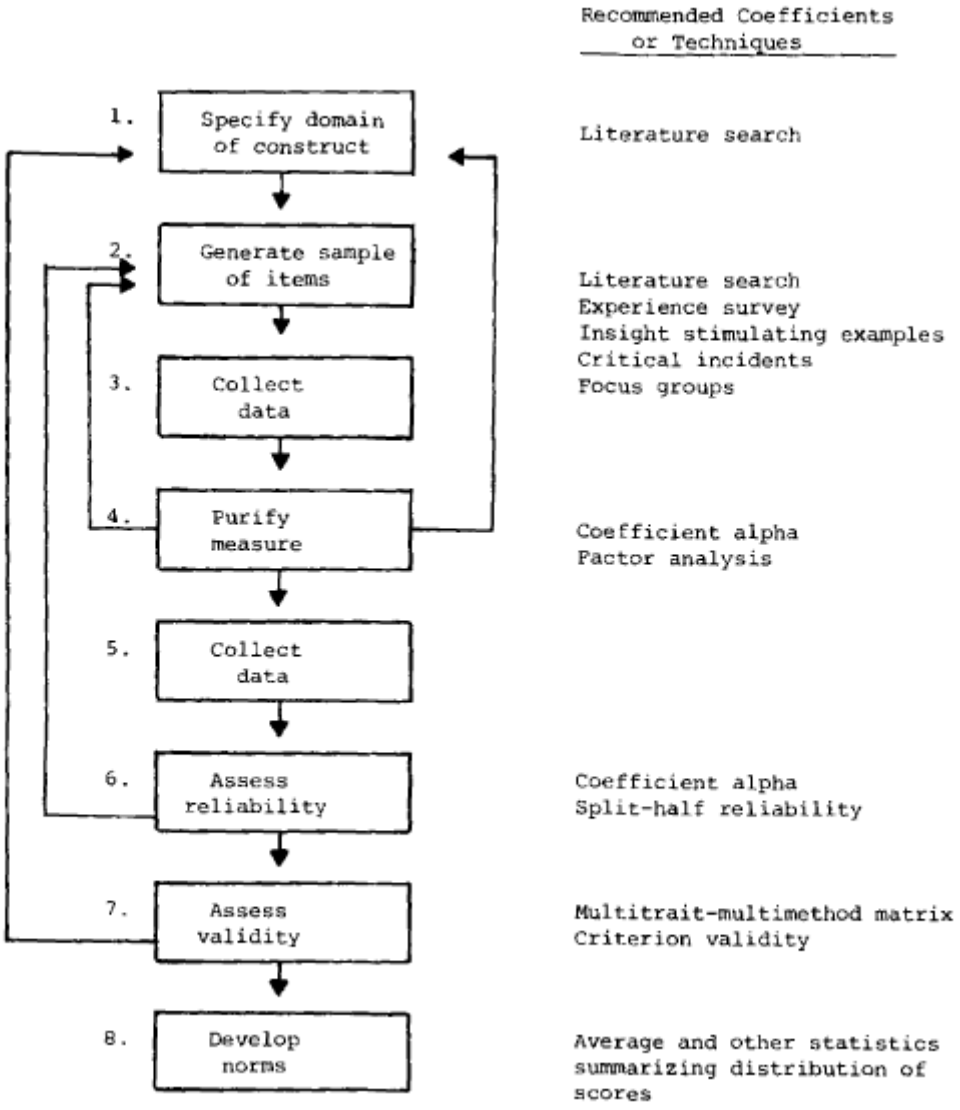

Figure 11: Suggested procedure for developing better measures

(Source: Churchill, 1979)

5.4 SPECIFY DOMAIN OF THE CONSTRUCT & GENERATE SAMPLE OF ITEMS

The constructs explained in the previous chapter were developed through careful analysis of the gamut of activities involved in indirect PO. Literature review, first-hand in-depth knowledge of the state of the discipline through participation in PO delivery, sales and operational excellence covering various clients over a period of over six years and brainstorming discussions held with faculty members and colleagues in industry constituted the steps that went into conceptualizing the constructs for this study.

MEASURE PURIFICATION

The purpose of measurement is to estimate the score if all the items in a domain are used. In practice, however, only a sample of items is used and to the extent the items correlate with the true scores, the sample is good.[104] The key assumption in the domain sampling model is that all items belonging to the domain of the concept have an equal amount of the common core. Therefore, if all items are drawn from the domain of a single construct, responses to those items should be highly correlated.

Coefficient Alpha:

The recommended measure of internal consistency of a set of items is provided by coefficient alpha.[105] It is full of meaning since the square root of coefficient alpha is the estimated correlation of the k-item test with errorless true scores (Nunnally). Cronbach's α has long been considered a measure of the consistency of test components, that is, it measures how well a set of variables or items measures a single, uni-dimensional latent construct.

Accordingly, item analysis was conducted for each of the multi-item dimensions within the constructs (example below). High values of coefficient alpha indicate that the k-item test correlates well with the true scores. In the example provided, the three items show coefficient alpha of 0.9023 indicating high correlation of the items within the dimension of ‘satisfaction with tactical buying before outsourcing’; dropping one item at a time (omitted variable) does not bolster the already high coefficient alpha (there is only a very minor increase when the NI or need identification variable is dropped). As a result, all items within the dimension are retained. Similar analysis was conducted for all the other dimensions as well; in view of the

generally high coefficient alpha numbers achieved, no items were identified for elimination at this stage.

Correlation Matrix

	SB_PC_TB_NI	SB_PC_TB_SD
SB_PC_TB_SD	0.743	
SB_PC_TB_EXN	0.693	0.829

Cell Contents: Pearson correlation

Item and Total Statistics

Variable	Total Count	Mean	StDev
SB_PC_TB_NI	160	3.2625	0.9809
SB_PC_TB_SD	160	3.1625	1.0024
SB_PC_TB_EXN	160	3.3188	1.0423
Total	160	9.7438	2.7683

Cronbach's Alpha = 0.9023

Omitted Item Statistics

Omitted Variable	Adj. Total Mean	Adj. Total StDev	Item-Adj. Total Corr	Squared Multiple Corr	Cronbach's Alpha
SB_PC_TB_NI	6.481	1.955	0.7502	0.5710	0.9061
SB_PC_TB_SD	6.581	1.861	0.8557	0.7419	0.8176
SB_PC_TB_EXN	6.425	1.852	0.8158	0.7003	0.8525

Figure 12: Extract showing Item Analysis

Factor Analysis

Factor analysis is conducted next to identify / confirm the constructs as well as the dimensions within the constructs. Churchill recommends the iterative sequence of calculation of coefficient alpha, elimination of items (through item analysis as discussed earlier), re-calculation of coefficient alpha till a satisfactory level of 0.7 or above is achieved (in certain situations, lower levels have been considered acceptable) followed by factor analysis.

While conducting factor analysis, it was considered relevant to do so using the satisfaction (or risk) 'before' with regard to items in questions 1–4. Among them, the first four questions have 57 variables whereas the number of responses are 197 (i.e. valid surveys received). As will be seen in the subsequent analysis, there are indeed some unique aspects of the situation 'before' that are peculiar to the various OS status types and to that extent, it is appropriate to validate the constructs using the 197 data points. Since NUC which comprises 103 responses were not required to respond to 'expected' and only IS and OS were required to respond to 'after,' there were limitations in using the latter options for the factor analysis. One approach could be to reduce the number of items (and hence variables). However, since the items were generally mapped to the procurement process and also showed high coefficient alphas, it was considered prudent to not make any changes at this stage in the item set. Factor analysis, then, was conducted using questions 1–4 (satisfaction or risk before elements for the 57 items) and questions 11 and 13 (comprising 3 items each). Items 5, 6, 7, 8, 9, 10, 12, and 14 are either not applicable or were not responded to by NUC and have not been included in the factor analysis. They have however, been used to demonstrate the broad spread and representativeness of the sample (covered earlier in this chapter) and will be used for further focused research in this area of PO. *Iteration:* While conducting factor analysis, different iterations were tried to explore the minimum possible number of factors (or constructs) needed to adequately explain an acceptable level of variance. Factor Analysis was conducted using the Maximum Likelihood method of extraction. Below are sorted factor loadings obtained 125 with Varimax rotation. Communality figures show extent to which each variable is explained by the factors listed.

SB_BR_BR_EOG	-0.014	0.114	**-0.786**	-0.013	0.101	-0.061	0.638
SB_BR_O_ERP	0.050	0.078	**-0.756**	0.056	0.004	-0.101	0.589
SB_BR_BR_WP	0.022	-0.063	**-0.755**	-0.004	0.097	-0.128	0.604
SB_BR_O_EEE	0.051	0.064	**-0.753**	0.021	0.044	-0.118	0.588
SB_BR_U_SLA	0.007	-0.072	**-0.724**	-0.084	-0.063	0.031	0.571
SB_BR_BR_ROT	0.066	0.072	**-0.715**	-0.033	0.173	-0.067	0.560
SB_BR_U_SOW	0.097	0.174	**-0.706**	-0.102	-0.129	-0.002	0.540
SB_BR_O_TI	0.040	-0.061	**-0.694**	0.047	0.115	-0.071	0.551
SB_BR_IA_VI	-0.015	0.114	**-0.688**	0.124	0.135	-0.040	0.535
SB_BR_SN_WF	0.137	0.221	**-0.687**	-0.014	0.143	0.130	0.546
SB_BR_SN_HC	0.163	0.089	**-0.670**	-0.026	0.202	0.009	0.517
SB_PC_IT_OMH	0.128	0.096	-0.028	**-0.735**	0.224	-0.042	0.707
SB_PC_IT_DIP	0.268	0.102	-0.024	**-0.710**	0.201	-0.073	0.663
SB_PC_OM_CA	0.233	0.206	0.028	**-0.684**	0.013	-0.037	0.677
SB_PC_PT_PA	0.336	0.240	-0.120	**-0.637**	0.041	0.021	0.760
SB_PC_OM_EUE	0.518	0.306	0.084	**-0.566**	-0.053	-0.010	0.584
SB_PC_PT_C	0.395	0.263	0.030	**-0.465**	0.063	0.033	0.522
	0.369	0.313					
		0.405					

Table 9 Six factors identified through factor analysis

Variable	Factor1	Factor2	Factor3	Factor4	Factor5	Factor6	Communality
SB_PC_AP	0.416	0.133	0.069	**-0.458**	0.235	-0.052	0.463
13B_Labor_Savings	-0.173	-0.218	-0.130	0.154	-0.059	0.038	0.123
SB_FCA_MP	0.349	0.205	-0.083	-0.056	**0.817**	-0.092	0.851
SB_FCA_MS	0.321	0.261	0.002	-0.116	**0.792**	-0.016	0.812
SB_FCA_DG	0.253	0.232	-0.250	-0.160	**0.594**	-0.049	0.561
SB_FCA_CC	0.188	0.493	-0.095	-0.172	**0.561**	-0.053	0.634
SB_FCA_EM	0.248	0.283	-0.120	-0.207	**0.553**	-0.051	0.508
SB_FCA_FO	0.134	0.373	-0.224	-0.031	**0.505**	-0.069	0.468
SB_FCA_AU	0.207	0.373	-0.125	-0.087	**0.471**	-0.016	0.427
SB_FCA_WS	0.231	0.209	-0.291	-0.111	**0.451**	-0.005	0.397
13A_Sourcing_Savings	-0.320	-0.292	0.073	0.013	-0.106	0.028	0.205
11B_Top_Mgmt_Support	-0.011	-0.066	0.127	0.068	-0.051	**0.885**	0.811
11C_Proc_Vital	0.006	-0.084	0.093	-0.022	-0.085	**0.826**	0.706
11A_Proc_Attn	-0.087	-0.110	0.105	0.046	-0.035	**0.824**	0.714
13C_Compliance_Imp	-0.270	-0.272	0.065	-0.001	-0.051	0.042	0.155
Variance	**9.5255**	**7.8294**	**7.7608**	**4.5435**	**4.4794**	**2.4121**	**36.5508**
% Var	**0.151**	**0.124**	**0.123**	**0.072**	**0.071**	**0.038**	**0.580**

It can be seen that the six factors explain 58 percent of the variance in 'satisfaction or risk before' scores of various variables. (If 8 factors were instead extracted, the variance explained would be 62.1 percent and with 12, it would be 70.6 percent. When principal component analysis was conducted, Eigen-values showed 12 components as having values of 1 or above; this is relevant since various sources recommend extracting factors till this value of 1 is reached as being significant while those below 1 correspond to factors that are too weak or insignificant. For the 63 items, a component with an Eigen- value of 1 only explains 1/63 i.e. 1.59 percent of the variance. Interestingly, factors started getting extracted at the level of dimensions which are included within the constructs and without any real overlap between the constructs. It was therefore considered appropriate to remain parsimonious in the number of factors utilized to account for the variance).

The six factors identified fit the following broad descriptions:

1. Factor 1 accounting for 15.1 percent of the variance is a subset of what was termed PC earlier on – it comprises of 16 of the 23 items contained in question 1 of the survey questionnaire and essentially aligns more closely with the narrower, procurement specific definition, sans (for the most part) the IT, Accounts Payable and Transformation related items which now fall under factor 3.
2. Factor 2 accounting for 12.4 percent of the variance contains all the 13 variables from question 2 of the survey questionnaire pertaining to procurement competitive advantage (PCA). (One item i.e., 'SB_PCA_IOC_LCR' 'loaded' as borderline (last item) under factor 1 is retained under PCA in the interest of consistency).
3. Factor 3 (12.3 percent of the variance) shows up consistent with all the 13 variables covered under question 4 of the survey under the domain of business risk (BR).
4. Factor 4 (7.2 percent of the variance) can be seen as pointing to the remaining seven items of question 1 of the survey questionnaire and generally pertains to what is needed to transform procurement, i.e., IT, change management, process automation / enablement and inclusion of end-to-end scope in the form of accounts payable. (One item, i.e., 13B_Labor Savings shown highlighted in red is dropped since it has weak loading / communality).
5. Factor 5 (7.1 percent of the variance) fits with the various items contained in question 3 of the survey questionnaire and pertains to firm competitive advantage. (One item i.e. 13A_Sourcing Savings shown highlighted in red is dropped since it has weak loading / communality).

6. Factor 6 (3.8 percent of the variance) maps to items contained in question 11 of the survey; this factor recognizes the extent to which procurement is considered a necessary imperative for the firm and may be termed, "strategic importance of procurement or SIP." (Item 13C_Compliance Imp shown highlighted in red is dropped since it has weak loading / communality).

With the introduction of the new factor on procurement transformation and end-to-end competence, the new schematic (update of the one provided in Chapter 3 earlier) showing the various factors and OS Status types is depicted in figure below.

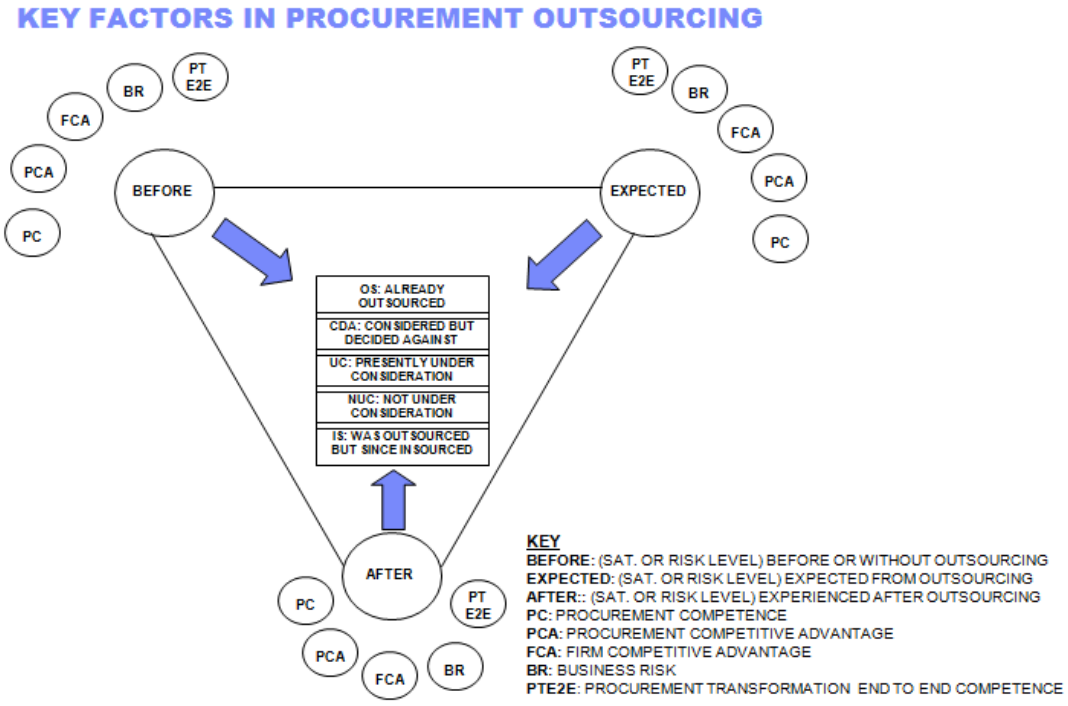

Figure 13- key Factors in Indirect Procurement Outsourcing (Revised)

ASSESS RELIABILITY

It is pertinent to point out that the present situation of high level of consistency witnessed between the variables presented in the questionnaire (notably those clubbed together in the multi-item questions 1–4) and the ones identified during factor analysis is a happy one; careful attention to the manner in which the sample was drawn (as discussed at length earlier) coupled with the detailed list of items utilized to cover the domain of indirect PO, are steps that have helped address face or content validity requirements. Coefficient alpha is the basic statistic for determining the reliability of a measure based on internal consistency. Values of 0.90 and above were calculated through item analysis for each of the factors identified and

omitted item alpha values were consistent with the overall alpha, implying that it was not appropriate to drop and reduce the number of variables.

ASSESS CONSTRUCT VALIDITY

Convergent validity to show that items that should be related to each other are in fact related within the same construct is demonstrated by significant loadings of the individual items on the latent constructs of PC, PCA, FCA, BR and PTE2E. In order to demonstrate discriminant validity, i.e., to show the absence of correlation between unrelated constructs, principal component analysis was conducted and it was found that the respective items loaded most heavily on the factors chosen.

5.5 Data Analysis

DISCRIMINANT ANALYSIS

Before testing the hypotheses, preliminary analysis was done to see whether, at a macro level, there are differences between the OS Status types. Discriminant analysis (refer Appendix H for details) showed the following summary classification:

It is apparent then that there is separation between the OS Status types. What needs to be seen and established is how the variables contribute to the group separation.

COMPARISON OF MEANS

In order to understand the differences between the OS Status groups, it was considered relevant to compare the means to establish whether there were significant differences between them.

For conducting the analysis BETWEEN OS Status types (e.g. between OS and NUC on procurement competence), analysis of variance was performed and the means compared, using Fisher's and Tukey's methods. The question for the analysis was: assuming 95 percent confidence intervals for means (based on pooled standard deviation), can we say that the means are indeed different between various PO Status type combinations?

Tukey's HSD Method was applied with 90 percent simultaneous confidence level (i.e. 10 percent error rate) which worked out to be (as an example) 98.59 percent confidence level (for the satisfaction or risk 'before' case) at the individual level. Fisher's Method was applied at 95 percent individual confidence level (i.e., 5 percent error rate) or 71.69 percent

simultaneous confidence level (for the 'before' case). The former, then, has more exacting a standard than the latter. It was considered relevant to try and understand the rigor with which the null hypotheses could be rejected and hence it was decided to apply both the Tukey and Fisher methods. Tukey is more conservative for the 'expected minus before' case as well (90 percent simultaneous confidence level corresponding to 98.55 percent individual confidence level compared to 95 percent individual confidence level corresponding to 72.08 percent simultaneous confidence level for the Fisher method). However, for the comparison 'after minus expected' where there are only two groups i.e. IS and OS, there is no need for Tukey or Fisher comparisons. Instead, 2 sample t- tests are performed with 95 percent confidence interval.

While conducting the analysis of variance, the normality assumption (a requirement), was tested using the Anderson-Darling normality test which requires p values to be greater than 0.05 for a distribution to be considered normal.

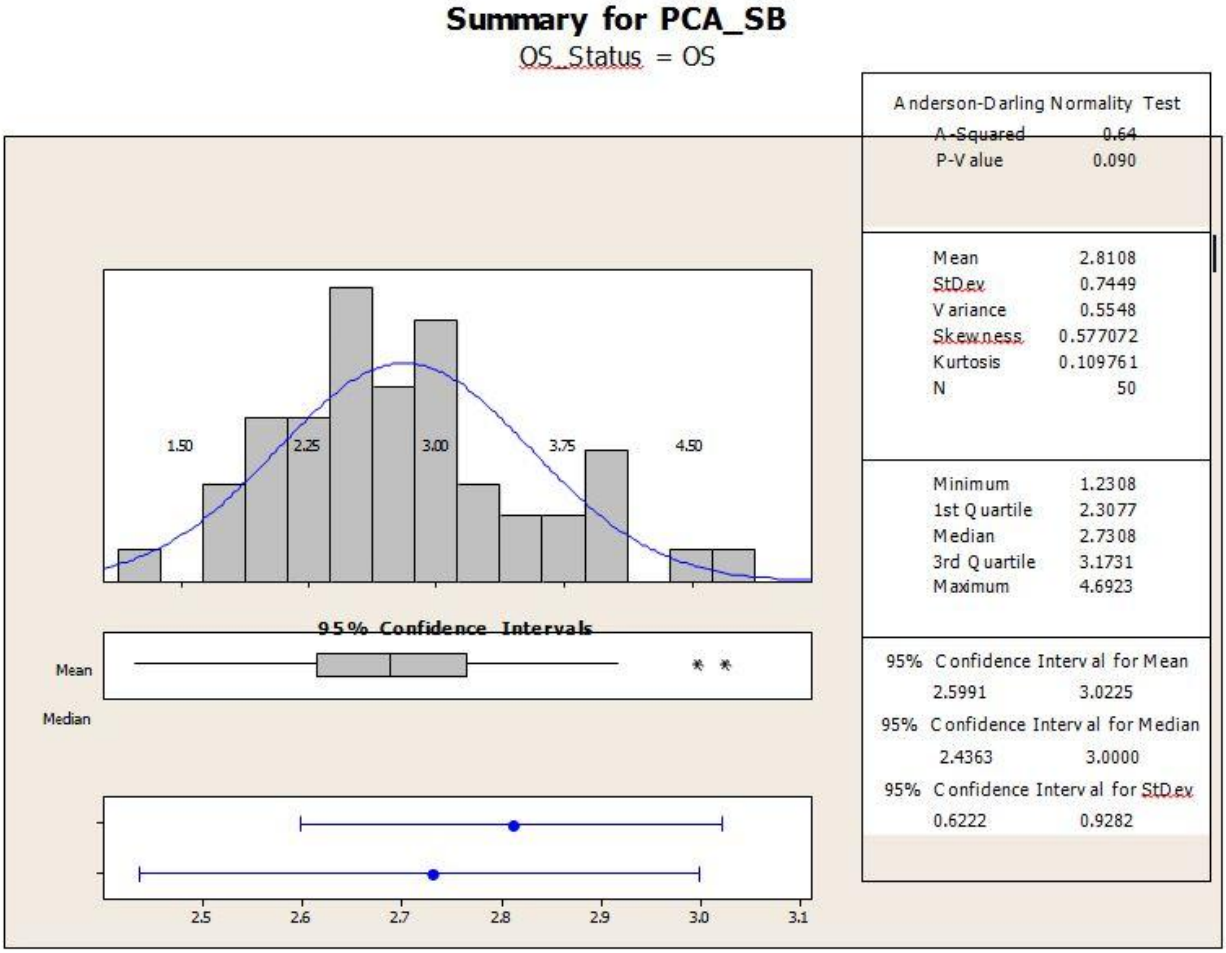

Figure14- Testing for Normality using Anderson-Darling Test

Wherever the normality assumption was not met (some have argued that ANOVA is relatively robust with respect to violations of the normality assumption[*]), the non- parametric Kruskal-Wallis test for comparing medians was applied in addition and it was found that the Tukey method was more conservative in all cases. Specifically, where a family-wide comparison between pairs of means on a certain item or variable showed the p value for Kruskal-Wallis as lower than 0.05 indicating significant difference in the median values, the Tukey test for comparison between means either indicated that there was a significant difference between at least one pair of means (support for the alternate hypothesis) or that the means were equal (the null hypothesis could not be disproved). In other words, in every situation where the distribution was not normal was the Kruskal Wallis test was less conservative than the Tukey test in terms of rejecting the null hypothesis.

While testing the hypotheses, a pragmatic approach was taken in making use of the available data (i.e., based on the 197 valid responses covering various OS Status types). To take the first construct of (perceived) procurement competence (PC) as an example, it is composed of 16 items (straddling 4 dimensions). Analysis was conducted at each item level to see whether the means were different (shown as 'Yes' in table at Appendix) and then the overall percent of cases where the response was 'Yes' (i.e., means are not equal) was arrived at for the overall PC construct (simple addition and dividing the result by 16). Separately, analysis was conducted taking all the items within the construct as a single pool of data and analysis of variance conducted at the macro level, again to ascertain whether the means (for the overall construct) were equal. It was found (and to some extent for obvious reasons), that the former approach is more conservative in identifying means that are indeed different. Also, the former approach makes it possible to provide stronger insight into the areas where the means differ, not just at a macro level, but at the item or dimension levels. Extracts shown at tables 10 and 11 below illustrate the point.

Table 10: % of Items within Construct that Rejected the Null Hypothesis

SATISFACTION BEFORE OR WITHOUT OUTSOURCING						
COMPARISON OF MEANS USING FISHER (RIGHT UPPER OF NA DIAGONAL) AND TUKEY (BOTTOM LEFT) METHODS						
S: Simultaneous, I: Individual; NA: Not Applicable						
% INDICATES ITEMS WITHIN CONSTRUCT FOR WHICH MEANS ARE NOT EQUAL		FISHER (71.70% S; 95% I) TUKEY (90.0% S; 98.59% I)				
CONSTRUCT	**OS STATUS**	**CDA**	**IS**	**NUC**	**OS**	**UC**
PROCUREMENT COMPETENCE	CDA	NA	*6%*	*0%*	*31%*	*13%*
	IS	6%	NA	*19%*	*0%*	*0%*
	NUC	0%	6%	NA	*88%*	*38%*
	OS	13%	0%	75%	NA	*0%*
	UC	6%	0%	19%	0%	NA

Table 11: Null Hypothesis rejection at the Overall Construct Level

SATISFACTION BEFORE OR WITHOUT OUTSOURCING						
COMPARISON OF MEANS USING FISHER (RIGHT UPPER OF NA DIAGONAL) AND TUKEY (BOTTOM LEFT) METHODS						
S: Simultaneous, I: Individual; NA: Not Applicable						
YES INDICATES MEANS ARE NOT EQUAL FOR THE CONSTRUCT		FISHER (71.70% S; 95% I) TUKEY (90.0% S; 98.59% I)				
CONSTRUCT	**OS STATUS**	**CDA**	**IS**	**NUC**	**OS**	**UC**
PROCUREMENT COMPETENCE	CDA	NA	*Yes*		*Yes*	*Yes*
	IS	Yes	NA	*Yes*		
	NUC		Yes	NA	*Yes*	*Yes*
	OS	Yes		Yes	NA	
	UC	Yes		Yes		NA

It can be seen that wherever there is a 'Yes' in table 11, there is either 0 percent or a percentage greater than zero in Table 10. However, whenever there is a percentage greater than zero in Table 10, there is a Yes in all cases in Table 11. Table 10 then allows the ability

to not only say that the null hypothesis was disproved (if any of the cells is greater than zero, meaning that at least one of the means for the overall construct is different from the others), but also, the preponderance with which items within the construct disproved the null hypothesis, individually. This is provided using the Fisher method (cells on upper right of the NA diagonal) and the Tukey method (cells on bottom left of the NA diagonal). In this example, it can be seen that the NUC and OS means are different and the difference is fairly extensive compared to the difference between (say) IS and CDA. (The number of responses also plays an important role; even if the means are ostensibly different but the number of responses is limited, the range, for any confidence level, will have to be broader, making it more difficult for a pair of means to have mutually exclusive ranges). It should be mentioned that the ANOVA requirement of continuous rather than discrete data is met as a result of having multi item constructs so that the scores on each (when averaged) provide continuous data (the basis of table 11 above). Variance should be equal or almost equal for all OS types and this was tested using the 2 Variance method available in Minitab. Both the F-test (for normal distribution) and Levene's test (for any distribution) were performed. Values of $p > 0.05$ indicate that the null hypothesis of equal variance cannot be rejected. Scores at the construct level indicated results such as the following, allowing the assumption of equal variance.

Table 12: Summary Results of Hypotheses Testing

HYPOTHESIS	DESCRIPTION	FINDING
HYPOTHESIS 1A		
1AA0: Null Hypothesis	The mean (CONSTRUCT X) BEFORE or WITHOUT outsourcing is EQUAL, BETWEEN all the different OS Status types	Not supported, except for PTE2E
1AA1: Alternative Hypothesis	The mean (CONSTRUCT) BEFORE or WITHOUT outsourcing is NOT EQUAL, BETWEEN all the different OS Status types	Supported, except for PTE2E
HYPOTHESIS 1B		
1BA0: Null Hypothesis	The mean (CONSTRUCT X) EXPECTED from outsourcing MINUS BEFORE outsourcing is EQUAL, BETWEEN all the different OS Status types (all except NUC)	Not supported, except for BR
1BA1: Alternative Hypothesis	The mean (CONSTRUCT X) EXPECTED from outsourcing MINUS BEFORE outsourcing is NOT EQUAL, BETWEEN all the different OS Status types (all except NUC)	Supported, except for BR

HYPOTHESIS	DESCRIPTION	FINDING
HYPOTHESIS 1C		
1CA0: Null Hypothesis	The mean (CONSTRUCT X) AFTER outsourcing MINUS EXPECTED from outsourcing is EQUAL, BETWEEN OS Status types IS and OS	Not supported, except for PCA and PTE2E
1CA1: Alternative Hypothesis	The mean (CONSTRUCT X) AFTER outsourcing MINUS EXPECTED from outsourcing is NOT EQUAL, BETWEEN OS Status types IS and OS	Supported, except for PCA and PTE2E
HYPOTHESIS 2A		
2AA0: Null Hypothesis	The mean (CONSTRUCT X) EXPECTED from outsourcing MINUS BEFORE outsourcing is EQUAL TO ZERO, WITHIN each of the OS Status types (all except NUC)	Not supported, except for PC (CDA) and BR (IS)
2AA1: Alternative Hypothesis	The mean (CONSTRUCT X) EXPECTED from outsourcing MINUS BEFORE outsourcing is GREATER THAN ZERO, WITHIN each of the OS Status types (all except NUC)	Supported, except for PC (CDA) and BR (IS)
HYPOTHESIS 2B		
2BA0: Null Hypothesis	The mean (CONSTRUCT X) AFTER outsourcing MINUS EXPECTED from outsourcing is EQUAL TO ZERO, WITHIN OS Status types IS and OS	Not supported, except for BR (IS)
2BA1: Alternative Hypothesis	The mean (CONSTRUCT X) AFTER outsourcing MINUS EXPECTED from outsourcing is LESS THAN ZERO, WITHIN OS Status types IS and OS	Supported, except for BR (IS)
HYPOTHESIS 3		
3A0: Null Hypothesis	The mean extent to which different OS Status types view PROCUREMENT AS IMPORTANT to the firm is EQUAL	Supported
3A1: Alternate Hypothesis	The mean extent to which different OS Status types view PROCUREMENT AS IMPORTANT to the firm is NOT EQUAL	Not supported
HYPOTHESIS 4		
4A0: Null Hypothesis	The mean extent to which Client firms with Status IS or OS COLLABORATE EFFECTIVELY with the SERVICE PROVIDER is EQUAL	Not supported
4A1: Alternate Hypothesis	The mean extent to which Client firms with Status IS or OS COLLABORATE EFFECTIVELY with the SERVICE PROVIDER is NOT EQUAL	Supported
HYPOTHESIS 5		
5A0: Null Hypothesis	The mean extent to which different OS Status types view BENEFITS AS ACCRUING FROM OUTSOURCING is EQUAL	Not supported
5A1: Alternate Hypothesis	The mean extent to which different OS Status types view BENEFITS AS ACCRUING FROM OUTSOURCING is NOT EQUAL	Supported

HYPOTHESIS	DESCRIPTION	FINDING
HYPOTHESIS 6		
6A0: Null Hypothesis	The mean extent to which different OS Status types view LOSS OF CONTROL from outsourcing CORE OR NON CORE activities to be unacceptable or acceptable (respectively) is EQUAL	Not supported in respect of core Supported in respect of non-core
6A1: Alternate Hypothesis	The mean extent to which different OS Status types view LOSS OF CONTROL from outsourcing CORE OR NON CORE activities to be unacceptable or acceptable (respectively) is NOT EQUAL	Supported in respect of core Not supported in respect of non-core

5.6 Summary

This chapter covered the sample for the study in terms of its various characteristics. Purification (covering item analysis, factor analysis and validation) were conducted next. Lastly, data analysis was carried out and hypothesis testing results were presented. The conclusions and recommendations from the data analysis are the subject of the next chapter.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter draws conclusions from the results obtained in the previous chapter. Implications of the study for practice are discussed next. Limitations of the study are discussed thereafter followed by directions for future research.

Research Overview

Indirect procurement outsourcing is an area that is widely believed to be growing rapidly. In order to further the understanding of this subject, a more representative sample (compared to earlier samples that have focused almost exclusively on larger firms which have been the focus of mostly trade-based studies) of potential respondents was targeted through a mail survey questionnaire. Given that only a few firms have as yet outsourced (any or all of) their indirect procurement function and the challenge of obtaining a sufficiently large sample of respondents from this set of firms (explained at length in Chapter 4), it was decided that an interesting exploratory study could be made of understanding what is it that differentiates firms that have outsourced (OS) from others that have not – i.e. firms that have considered outsourcing but decided against (CDA), firms that had outsourced but later decided to in-source (IS), firms for whom outsourcing is not under consideration (NUC) or firms that presently have outsourcing under consideration (UC). By so doing and including questions that required respondents to assess their satisfaction or risk perceptions in terms of 'before (or without) outsourcing,' 'expected from outsourcing,' and 'after outsourcing,' on certain key attributes (which could be consolidated into clusters of attributes, i.e., factors), the study has been able to find certain interesting and highly revealing characteristics that are at play in the indirect procurement outsourcing domain. The approach to the analysis has been to carefully construct the survey instrument to include the gamut of scope, process, value, issue areas, etc., that are known (through literature and practice) to be relevant to indirect procurement outsourcing, obtain the sample responses covering various outsourcing scenarios (as mentioned earlier, while maximizing the probability of obtaining responses from firms that

have already outsourced), conducting purification measures addressing reliability and construct validity, and finally, conducting the analysis leading to identification of areas that can help direct future research.

6.2 Discussion of Factors in Indirect Procurement Outsourcing

Procurement competence (PC), procurement competitive advantage (PCA), firm competitive advantage (FCA), business risk (BR) and procurement transformation and end-to-end competence (PTE2E) are the key factors which this study has researched and analyzed to find the extent to which they differ with regard to each of the five indirect procurement outsourcing scenarios. The fifth construct of PTE2E was identified from the factor analysis as a separate construct and is an offshoot entirely of the earlier (and still very much retained) procurement competence (PC) construct: of the 23 items under the original PC, only 16 now remain whereas the other 7 items have been moved under the PTE2E construct. The approach taken was to validate the key constructs using mainly data points provided on perceived satisfaction (or risk levels) 'BEFORE' scores (Q 1 to Q 4 of 141 survey).

Most respondents were in a position to respond to 'before' (or without) outsourcing whereas NUC respondents could not respond to 'expected' and only IS and OS respondents could respond to 'after' outsourcing. As will be discussed later in this chapter, there are differences between OS Status types on how they view their satisfaction or risk perceptions 'before' or without outsourcing to be, and these to some extent may be impacting their perception of what they 'expect' from outsourcing and in turn, what they perceive as being realized 'after' outsourcing.

RESEARCH QUESTION 1:

What are the key factors in indirect procurement outsourcing? What differentiating comparisons can be made BETWEEN each of the five indirect PO situations (i.e. OS Status), with regard to the key factors for outsourcing in terms of the following (Q. 1, 2, 3, 4 of Survey Questionnaire):

a. Satisfaction or risk levels that exist 'before' or without outsourcing.

b. Increase or decrease in satisfaction or risk level 'expected' from outsourcing compared to 'before' or without outsourcing (not applicable for NUC).

c. Increase or decrease in satisfaction or risk level 'after' outsourcing compared to 'expected' from outsourcing (applicable only to IS and OS).

With reference to Question 1 a) of the research question, the results showed:

PROCUREMENT COMPETENCE 'BEFORE': Null hypothesis rejected.

Note: All results shown in tables below are provided in consolidated form at Appendix D and therefore tables below are not numbered.

PC	CDA	IS	NUC	OS	UC	Mean
CDA	NA	6%	0%	31%	13%	3.5
IS	6%	NA	19%	0%	0%	2.9
NUC	0%	6%	NA	88%	38%	3.4
OS	13%	0%	75%	NA	0%	2.9
UC	6%	0%	19%	0%	NA	3.0
Mean	3.5	2.9	3.4	2.9	3.0	

In terms of satisfaction with procurement competence (PC), firms that considered but decided against (CDA) and firms that did not have indirect procurement outsourcing under consideration (NUC) had the highest mean scores. Firms that outsourced (OS) or firms that outsourced but later in-sourced (IS) had lower levels of satisfaction mean scores.

Taking a further conservative approach to refuting the null hypothesis, Tukey comparisons (shown in cells below and to the left of the NA diagonal) are considered. Fisher comparisons (upper right of the NA diagonal) provide an additional, balanced perspective about the preponderance or wide ranging nature of the inequality among the respective means, albeit with confidence lower than with Tukey's.

It is interesting to note that those who are not considering outsourcing or those who considered and decided against outsourcing should believe their 'before' procurement competence to be relatively high. While some of this may be indeed true, there may also be an element of "ignorance is bliss," or undue smugness with the state of the discipline within

these firms. While separate research will be needed to objectively determine their true procurement competence and benchmark it against others, this information should be relevant to procurement outsourcing sales professionals who may want to gauge at the very outset, what prospective clients think of their procurement competence. Those that already rate it high on the items in the survey questionnaire (or a similar adaptation) may not after all be the right client firms to pursue, unless of course, that mindset can be changed to recognize the gaps that exist (if indeed they do). Procurement outsourcing engagements (period prior to contract signing) can be long drawn and expensive and an initial validation or 'true up' of the state of procurement competence can potentially help to improve the win rate: if a client is already fairly satisfied, there is less reason to pursue the engagement.

Under consideration firms are similar to the IS and OS firms on PC score; only some of the UC firms in the end will actually outsource, with some ending up as CDA.

PROCUREMENT COMPETITIVE ADVANTAGE 'BEFORE': Null hypothesis rejected.

PCA	CDA	IS	NUC	OS	UC	Mean
CDA	NA	*0%*	*0%*	*62%*	*54%*	3.3
IS	0%	NA	*0%*	*8%*	*23%*	3.2
NUC	0%	0%	NA	*62%*	*62%*	3.2
OS	31%	8%	38%	NA	*0%*	2.8
UC	38%	8%	38%	0%	NA	2.7
Mean	3.3	3.2	3.2	2.8	2.7	

UC and OS firms show the lowest satisfactions scores on PCA 'before' outsourcing with CDA, IS and NUC at higher, similar levels. One would have expected IS to have low 'before' scores as well, for after all they did decide to outsource and it must have been (one would imagine) with good reason. Two arguments to the contrary: it is possible that IS respondents now believe (after having in-sourced, possibly with some grief) that their PCA satisfaction 'before' outsourcing was actually relatively high (especially if they subsequently did not obtain adequate value and therefore had to in- source – more on this later when the difference between 'after' minus 'expected' is discussed); alternatively, it is possible that their PCA was indeed high and they had to (for some reason) outsource (e.g., the transformation executive believed outsourcing was a good idea even though the CPO did not

but in the end decided to simply tow the leadership line), only to discover later that the status quo ante (i.e., without outsourcing) was actually a better situation after all. Of course there can be other interpretations as well.

NUC and CDA firms may have a false sense of comfort that their PCA is in better shape than it really is. Only through careful business case and process analysis (often with help from a neutral third party advising or consulting firm proficient in the discipline) can firms truly begin to appreciate areas where PCA may be lacking – e.g. hidden or "shadow" costs of staff (e.g. secretaries or administrative assistants) performing sundry procurement tasks as part of their normal duties, tasks that do not allow building of "rhythm" and hence better productivity that is possible from a dedicated procurement team or (as another example) where procurement savings are not calculated in a systematic manner with the right controls and the available savings data has not been objectively audited or approved by a third party (e.g., finance).

FIRM COMPETITIVE ADVANTAGE 'BEFORE': Null hypothesis rejected

FCA	CDA	IS	NUC	OS	UC	Mean
CDA	NA	*0%*	*0%*	*50%*	*88%*	3.4
IS	0%	NA	*0%*	*0%*	*38%*	3.2
NUC	0%	0%	NA	*25%*	*75%*	3.2
OS	0%	0%	0%	NA	*25%*	2.9
UC	63%	25%	63%	25%	NA	2.5
Mean	3.4	3.2	3.2	2.9	2.5	

The results for FCA are similar to the results for PCA: there are significant differences between UC and CDA, UC and IS, UC and NUC and UC and OS. BUSINESS RISK 'BEFORE': Null hypothesis rejected.

BR	CDA	IS	NUC	OS	UC	Mean
CDA	NA	0%	0%	0%	0%	3.0
IS	0%	NA	8%	0%	0%	2.9
NUC	0%	0%	NA	23%	15%	3.2
OS	0%	0%	15%	NA	0%	3.0
UC	0%	0%	0%	0%	NA	2.9
Mean	3.0	2.9	3.2	3.0	2.9	

Business risk 'before,' in general, was not much different for various OS Status types. It is relevant to point out that the macro level BR construct is actually disproved more strongly than appears conservatively from the table above. As can be seen below, the null hypothesis at a macro level for the construct is disproved for all combinations of CDA with other OS Status types and not just OS–NUC.

Table 13: Hypothesis Test Results for Business Risk 'Before'

CDA	CDA	IS	NUC	OS	UC	Mean
	NA		Yes			3.0
IS		NA	Yes			2.9
NUC	Yes	Yes	NA	Yes	Yes	3.2
OS			Yes	NA		3.0
UC			Yes		NA	2.9
Mean	3.0	2.9	3.2	3.0	2.9	

PROCUREMENT TRANSFORMATION AND E2E COMPETENCE 'BEFORE': Null hypothesis NOT rejected.

PTE2E	CDA	IS	NUC	OS	UC	Mean
CDA	NA	*14%*	*0%*	*29%*	*14%*	3.4
IS	0%	NA	*0%*	*0%*	*0%*	2.9
NUC	0%	0%	NA	*0%*	*14%*	3.2
OS	0%	0%	0%	NA	*0%*	3.0
UC	0%	0%	0%	0%	NA	2.8
Mean	3.4	2.9	3.2	3.0	2.8	

Firms do not appear to be differentiated from each other in terms of PTE2E satisfaction levels 'before.'

With reference to Question 1 b) of the research question, the results showed:

PROCUREMENT COMPETENCE, 'EXPECTED' MINUS 'BEFORE':

Null hypothesis rejected.

PC	CDA	IS	NUC	OS	UC	Mean
CDA	NA	*19%*	*NA*	*75%*	*56%*	0.3
IS	0%	NA	*NA*	*25%*	*13%*	0.9
NUC	NA	NA	NA	*NA*	*NA*	NA
OS	56%	6%	NA	NA	*6%*	1.8
UC	25%	0%	NA	6%	NA	1.4
Mean	0.3	0.9	NA	1.8	1.4	

OS and UC firms were significantly different from CDA firms with both OS and UC showing much higher 'expected' procurement competence than 'before' in comparison to CDA firms. Interestingly, IS firms did not 'expect' as high an increase in PC to come from outsourcing as OS and UC firms did. Some of the UC firms will later convert to CDA or OS and it is interesting to note therefore that the figure of 1.4 lies between 1.8 (for OS) and 0.3 (for CDA).

PROCUREMENT COMPETITIVE ADVANTAGE, 'EXPECTED' MINUS 'BEFORE':

Null hypothesis rejected.

PCA	CDA	IS	NUC	OS	UC	Mean
CDA	NA	*8%*	*NA*	*77%*	*92%*	0.4
IS	0%	NA	*NA*	*23%*	*46%*	0.6
NUC	NA	NA	NA	*NA*	*NA*	NA
OS	54%	8%	NA	NA	*8%*	1.3
UC	85%	46%	NA	0%	NA	1.7
Mean	0.4	0.6	NA	1.3	1.7	

UC firms 'expect' far greater procurement competitive advantage than 'before' to come from indirect procurement outsourcing in comparison to CDA or IS firms followed by OS firms which too are similarly differentiated from CDA and IS firms.

FIRM COMPETITIVE ADVANTAGE, 'EXPECTED' MINUS 'BEFORE': Null hypothesis rejected.

PTE2E	CDA	IS	NUC	OS	UC	Mean
CDA	NA	0%	*NA*	*14%*	*29%*	0.6
IS	0%	NA	*NA*	*29%*	*29%*	0.7
NUC	NA	NA	NA	*NA*	*NA*	NA
OS	14%	29%	NA	NA	*0%*	1.5
UC	14%	29%	NA	0%	NA	1.7
Mean	0.6	0.7	NA	1.5	1.7	

Somewhat similar to PCA, UC firms followed by OS firms 'expect' greater firm competitive advantage than 'before' to accrue from indirect procurement outsourcing in comparison to CDA or IS firms. It is interesting to note (from the last three sections) that though OS has greater expectation than UC of increasing PC through outsourcing, it is UC that has greater expectation of increasing PCA as well as FCA from outsourcing. So much for "high hopes," some of which are evidently not realistic and will result in less than a 100 percent win rate for outsourcing service providers.

BUSINESS RISK, 'EXPECTED' MINUS 'BEFORE': Null hypothesis NOT rejected.

BR	CDA	IS	NUC	OS	UC	Mean
CDA	NA	*0%*	*NA*	*0%*	*8%*	0.3
IS	0%	NA	*NA*	*0%*	*0%*	0.2
NUC	NA	NA	NA	*NA*	*NA*	NA
OS	0%	0%	NA	NA	*0%*	0.2
UC	0%	0%	NA	0%	NA	0.2
Mean	0.3	0.2	NA	0.2	0.2	

Contrary to what one would expect, the study did not find evidence of differences in extra business risk expected from outsourcing. It is possible that business risk is an element that firms have not focused on enough in a consistent, uniform manner, to be able to have objective responses.

PROCUREMENT TRANSFORMATION AND E2E COMPETENCE, 'EXPECTED' MINUS 'BEFORE': Null hypothesis rejected.

PTE2E	CDA	IS	NUC	OS	UC	Mean
CDA	NA	○ *0%*	*NA*	○ *14%*	◔ *29%*	0.6
IS	○ 0%	NA	*NA*	◔ *29%*	◔ *29%*	0.7
NUC	NA	NA	NA	*NA*	*NA*	NA
OS	○ 14%	◔ 29%	NA	NA	○ *0%*	1.5
UC	○ 14%	◔ 29%	NA	○ 0%	NA	1.7
Mean	0.6	0.7	NA	1.5	1.7	

OS and UC firms differed significantly from CDA and IS firms in terms of the extent to which they 'expected' PTE2E competence to increase compared to 'before.' As will be shown later in the 'after' minus 'expected' scenario, almost all of IS firms' hopes are dashed.

<u>With reference to Question 1 c) of the research question, the results showed:</u>

PROCUREMENT COMPETENCE, 'AFTER' MINUS 'EXPECTED': Null hypothesis rejected.

PC	CDA	IS	NUC	OS	UC	
CDA	NA	*NA*	*NA*	*NA*	*NA*	NA
IS	NA	NA	*NA*	◔ *38%*	*NA*	(1.3)
NUC	NA	NA	NA	*NA*	*NA*	NA
OS	NA	◔ 38%	NA	NA	*NA*	(0.5)
UC	NA	NA	NA	NA	NA	NA
Mean	NA	(1.3)	NA	(0.5)	NA	

Two sample tests (two tailed) were performed for all 'after' minus 'expected' comparisons

(this case plus next 4 cases) to find out the significance of the differences between the means of IS and OS (no need for Tukey or Fisher methods) at 95 percent confidence level. The figure in the OS – IS cell is identical and is shown thus only in the interest of consistency of presentation: as stated earlier, this should not be confused with Tukey or Fisher confidence levels, etc. (which were used for 'before' and 'expected' minus 'before' for the multi group comparisons). Both IS and OS showed a drop in satisfaction 'after' compared to 'expected' but the drop was more dramatic for IS. Comparison of the drop shows that the two OS Status types are differentiated and have unequal means, with no overlap between the 95 percent confidence intervals for the 'after' minus 'before' satisfaction ranges.

PROCUREMENT COMPETITIVE ADVANTAGE, 'AFTER' MINUS 'EXPECTED': Null hypothesis is NOT rejected.

PCA	CDA	IS	NUC	OS	UC	Mean
CDA	NA	*NA*	*NA*	*NA*	*NA*	NA
IS	NA	NA	*NA*	○ *0%*	*NA*	(0.8)
NUC	NA	NA	NA	*NA*	*NA*	NA
OS	NA	○ 0%	NA	NA	*NA*	(0.4)
UC	NA	NA	NA	NA	NA	NA
Mean	NA	(0.8)	NA	(0.4)	NA	

Though PCA 'after' minus 'expected' shows a drop for both the IS and the OS case, the difference between them is not statistically significant at the 95 percent confidence level. Mean satisfaction level for IS actually drops a shade below even the 'before' satisfaction level. This indicates acknowledgement from the respondents that they believe the competence level stagnated or almost deteriorated with the foray into outsourcing.

FIRM COMPETITIVE ADVANTAGE, 'AFTER' MINUS 'EXPECTED': Null hypothesis rejected.

FCA	CDA	IS	NUC	OS	UC	Mean
CDA	NA	*NA*	*NA*	*NA*	*NA*	NA
IS	NA	NA	*NA*	*50%*	*NA*	(1.0)
NUC	NA	NA	NA	*NA*	*NA*	NA
OS	NA	50%	NA	NA	*NA*	(0.4)
UC	NA	NA	NA	NA	NA	NA
Mean	NA	(1.0)	NA	(0.4)	NA	

Firm competitive advantage deteriorated for both IS and OS 'after' outsourcing compared to 'expected' from outsourcing with a statistically significant higher drop for IS compared to OS. This analysis can give an indication to service providers about the extent to which client expectations are falling short.

BUSINESS RISK, 'AFTER' MINUS 'EXPECTED': Null hypothesis rejected.

BR	CDA	IS	NUC	OS	UC	Mean
CDA	NA	*NA*	*NA*	*NA*	*NA*	NA
IS	NA	NA	*NA*	*23%*	*NA*	0.7
NUC	NA	NA	NA	*NA*	*NA*	NA
OS	NA	23%	NA	NA	*NA*	(0.3)
UC	NA	NA	NA	NA	NA	NA
Mean	NA	0.7	NA	(0.3)	NA	

The range for the higher increase in business risk for IS shows significantly different than the range for the lower increase in business risk for OS. Whereas business risk increased for IS, it actually showed a decrease for OS. The 2-sample t-test results showed that 23 percent of the items had means for business risk 'after' minus business risk 'expected' that were significantly different.

PROCUREMENT TRANSFORMATION AND E2E COMPETENCE, 'AFTER' MINUS 'EXPECTED': Null hypothesis NOT rejected.

PTE2E	CDA	IS	NUC	OS	UC	Mean
CDA	NA	*NA*	*NA*	*NA*	*NA*	NA
IS	NA	NA	*NA*	○ *0%*	*NA*	(0.7)
NUC	NA	NA	NA	*NA*	*NA*	NA
OS	NA	○ 0%	NA	NA	*NA*	(0.6)
UC	NA	NA	NA	NA	NA	NA
Mean	NA	(0.7)	NA	(0.6)	NA	

Both IS and OS perceived a drop in PTE2E from outsourcing but the mean drop of each was not significantly different. 2. What differentiating comparison can be made WITHIN each of the five indirect PO situations (i.e. OS Status), with regard to the key factors for outsourcing in terms of the following (Q. 1, 2, 3, 4 of Survey Questionnaire): a. Increase or decrease in satisfaction or risk level 'expected' from outsourcing compared to 'before' or without outsourcing (not applicable for NUC) b. Increase or decrease in satisfaction or risk level 'after' outsourcing compared to 'expected' from outsourcing (applicable only to IS and OS).

With reference to Question 2 a) of the research question, the results showed:

Table 14 Test Results for One-Tailed Test (Mean Expected > Mean Before)

EXPECTED MINUS BEFORE: ONE TAILED PAIRED T TEST RESULTS	CDA		IS		OS		UC	
CONSTRUCT	T TEST	MEAN	T TEST	MEAN	T TEST	MEAN	T TEST	MEAN
PC - PROCUREMENT COMPETENCE	○ 0%	0.3	◑ 56%	0.9	● 100%	1.8	● 100%	1.4
PCA - PROCUREMENT COMPETITIVE ADVANTAGE	◔ 38%	0.4	◔ 31%	0.6	● 100%	1.3	● 100%	1.7
FCA - FIRM COMPETITIVE ADVANTAGE	○ 13%	0.2	◔ 38%	0.7	● 100%	0.9	● 100%	1.3
BR - BUSINESS RISK	◔ 38%	0.3	○ 0%	0.2	○ 15%	0.2	◑ 54%	0.2
PTE2E - PROCUREMENT TRANSFORMATION AND END TO END COMPETENCE	◔ 29%	0.6	◔ 29%	0.7	● 100%	1.5	● 100%	1.7

Paired t-tests were performed on each of the four OS Status types, i.e., CDA, IS, OS and UC to test whether the mean 'expected' score for each (separately for CDA, IS, OS and UC) was equal to the mean 'before' score or greater than the mean 'before' score (i.e., one-tailed test) for each with at least 95 percent confidence level ($p < 0.05$). The percentages in the table above indicate the percent of items in each construct that rejected the null.

Clearly, OS and UC showed greatest expected gains from PC, PCA, FCA and PTE2E, with all items on each of the constructs rejecting the null hypothesis of equality of means (p values < 0.05). For the construct as a whole, the p value is 0.00000001. Business risk perception increased too, albeit not as extensively, and somewhat more for UC (in terms of significance) than for OS.

In general, increases for IS were significant as well, and fairly extensive, except for BR for which the null hypothesis could not be rejected. In the case of CDA, PC means were not expected to increase significantly (null hypothesis of equality not rejected) but other means showed increases that were significant enough to reject the null hypotheses.

With reference to Question 2 b) of the research question, the results showed:

Table 15: Test Results for One-Tailed Test (Mean after < Mean expected)

AFTER' MINUS 'EXPECTED': ONE TAILED PAIRED T TEST RESULTS	IS		OS	
CONSTRUCT	T TEST	MEAN	T TEST	MEAN
PC - PROCUREMENT COMPETENCE	69%	(1.3)	88%	(0.4)
PCA - PROCUREMENT COMPETITIVE ADVANTAGE	62%	(0.8)	92%	(0.4)
FCA - FIRM COMPETITIVE ADVANTAGE	50%	(1.0)	100%	(0.4)
BR - BUSINESS RISK	0%	0.7	62%	(0.3)
PTE2E - PROCUREMENT TRANSFORMATION AND END TO END COMPETENCE	29%	(0.7)	100%	(0.6)

Paired t-tests were performed on IS and OS to test whether the mean 'after' score for each (separately for IS and OS) was equal to the mean 'expected' score or lesser than the mean 'expected' score (i.e. one-tailed test) for each with at least 95 percent confidence level ($p < 0.05$). OS showed widespread evidence of the mean 'after' being significantly lower than the mean 'expected' (despite lower values of mean difference, the evidence for rejecting the null is stronger on account of the larger number of responses for OS, compared to IS).

3. Are there significant differences BETWEEN different OS Status types in terms of the extent to which they view procurement as important to the firm? (Q. 11 A, B, C of Survey Questionnaire).

The questions on the extent to which procurement has caught the attention of the top management, top management support for improving the procurement function and whether procurement is considered a vital part of the firm's corporate strategy showed a high coefficient alpha (0.89) from item analysis. The three items together relate to importance the firm ascribes to procurement. Analysis of the means shows that the null hypothesis of equality of the means cannot be rejected (p value 0.214). OS, UC and NUC firms seem to give roughly equal importance to procurement but it cannot be shown that this is significantly different from the others, i.e., CDA or IS. A larger number of responses are needed to have narrower ranges that may be able to reject the null hypothesis.

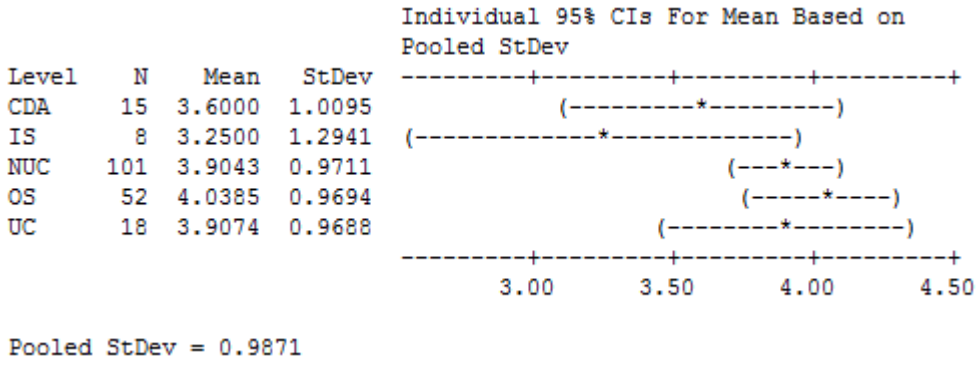

Figure 15 Extract of means comparison of procurement importance to firm 4.

Are there significant differences BETWEEN OS Status types IS and OS in terms of the extent of collaboration with the service provider? (Q. 12 A, B, C of Survey Questionnaire). It was found, based on omitted item analysis, that removing item 12 c) improved Cronbach's alpha (up from 0.7414 to 0.8156). Planning together with the service provider and cooperating with each other to ensure execution of planned initiatives is an indicator of effective collaboration between the two parties. A two sample T-test (in which equal variance does not have to be assumed), found the means to be significantly different.

```
Two-sample T for Average 12

OS
Status
12       N   Mean  StDev  SE Mean
IS       8  2.625  0.991     0.35
OS      47  3.723  0.658    0.096


Difference = mu (IS) - mu (OS)
Estimate for difference:  -1.098
95% CI for difference:  (-1.936, -0.261)
T-Test of difference = 0 (vs not =): T-Value = -3.02  P-Value = 0.016  DF = 8
```

Figure 16 Extract of two sample t-test for collaboration

Firms that in-sourced appear to have lower levels of collaboration than firms that did not. Though data points available for IS are somewhat few, this does point to the need for conducting more case study type research on these firms to better understand the root causes and possible fixes. Each instance of in-sourcing is bad publicity for outsourcing and various stakeholders should be interested in supporting such research. 5. Are there significant differences BETWEEN OS Status types in terms of the extent to which they view outsourcing as capable of increasing savings, reducing costs or improving compliance? (Q. 13. A, B, C of Survey Questionnaire). Extent to which respondents believed that sourcing savings could be significantly improved, labor costs significantly reduced and end user compliance significantly improved can be considered a reflection of how far indirect procurement outsourcing is thought to further procurement competitive advantage. It was seen that with a p- value of 0.000 the null hypothesis of equal means could be rejected.

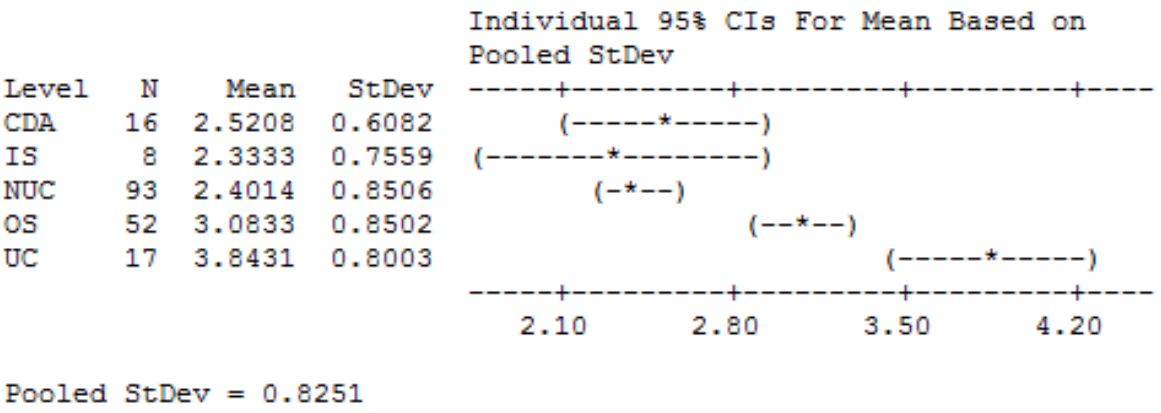

Figure 17- Extract of comparison for benefits potential from outsourcing

Variance needs to be roughly equal for running the ANOVA and this was checked using the 2 variance test, which showed that the equal variance hypothesis could not be rejected.
Interestingly, it can be seen that CDA and NUC did not believe as strongly as did UC or OS that outsourcing could increase the benefits significantly. This corroborates earlier evidence seen in response to Research Question 1 b) where OS and UC had significantly higher expectations for increase in PCA from outsourcing compared to the others. 6. Are there significant differences BETWEEN OS Status types in terms of the extent to which they view loss of control from outsourcing core or non core activities to be unacceptable or acceptable? (Q. 14. A, B of Survey Questionnaire). Firms often fear losing control over the procurement function as a result of outsourcing. The means for responses on whether it was 'not a good thing' that there should be loss of control over core procurement activities were different (with a p value of 0.001), with the highest *agreement* from CDA, IS and NUC. OS and UC were more accepting, with UC the most accepting.

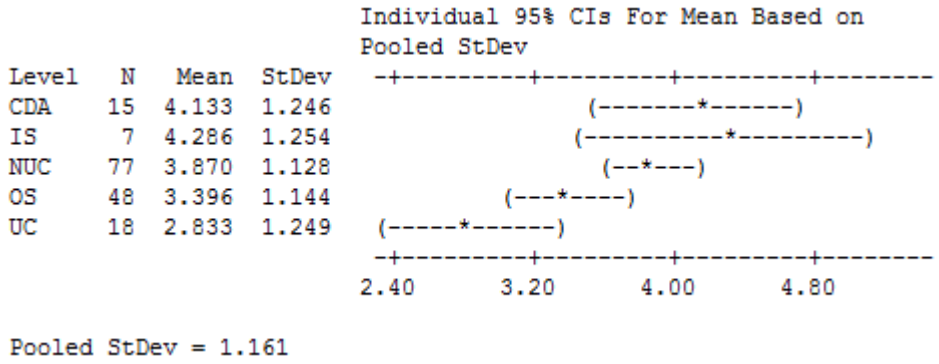

Figure 18: Extract of comparison for loss of control from outsourcing

Similar responses to loss of control over non-core activities from outsourcing showed that OS and UC were more accepting than the others, though the null hypothesis of differences in the means cannot be rejected.

Interestingly, breaking down the loss of control argument into core and non-core showed that while not all the OS Status type means were equal with regard to core activities, they were not significantly different when it came to non-core activities.

6.3 Implications for Practice

It has been established in this study that of the five OS Status types, satisfaction before outsourcing or without outsourcing is higher for firms that considered but decided against outsourcing and those that do not even have outsourcing under consideration. Firms that considered and decided against outsourcing may have made the proper informed decision after due examination of the value proposition from outsourcing. They may therefore be right in concluding that higher levels of satisfaction are available with the status quo. What should be of enormous interest to the practitioner is that firms that have not even considered outsourcing should believe that they are doing fairly well with their existing procurement function. Often the maturity of a firm's procurement organization is a function of its size (revenue, spend, number of employees, etc.). It is seen that of the 197 respondents, 120 represented firms with procurement departments smaller than 25 employees. Thirty-one had between 26 and 50 procurement employees. It appears that most of these firms are small or medium in size. Of the 103 NUC respondents, 74 represented firms with less than 25 employees and 12 with 26 to 50 employees. It is

generally thought that procurement sophistication increases with size of the firm – how is it then that NUC should have distinctly high satisfaction levels with their PC, PCA and FCA? Is it objectively true or is it just a belief with these firms that they are more state of the art than they really are? There is thus an opportunity for understanding this segment better, and part of that understanding might well lead to the identification of a new business model for outsourcing for these firms. For example, is there a "direct" model which can allow them to simply "connect" to an outsourcing "infrastructure" provided by a service provider and pay for services on a per transaction or similar basis?

It is noticed that PTE2E competence, among all the constructs (followed by BR), has the least differentiation between the various OS Status types. Considering that various enabling technologies already exist (e.g. ERP systems, spend analysis and contracting tools, automated and seamless systems from requisitioning to purchase order processing to invoice processing, means to run and analyze RFP's electronically, reverse auctions, etc.) and indeed some of the established service providers do demonstrate these capabilities as their differentiators (Accenture and IBM are generally reputed to be most advanced with regard to IT and end-to-end capabilities), why then is this lack of differentiation the case? Is this just a case of lack of awareness or is it that actual delivery experience has not been all that positive for the good word to go around? In the author's experience, IT integration is an area (if in scope) where the client typically has high expectations of the service provider and if the deployment or

integration, etc., do not go as planned, not only is the rest of the deployment endangered (on account of dependencies on IT systems) but also, the relationship can be soured at the very outset. To usher in a new business model (as discussed in the previous paragraph) will require a new level of innovation and commitment in terms of successfully building the desired level of PTE2E capability. This will remain a major challenge for the practitioners. Even though business risk did not show to be a strong differentiator overall, it is seen that IS Status type was markedly different from OS Status type in terms of business risk increasing from 2.9 ('before') to 3.7 ('after') for IS compared to an increase from 3.0 ('before') to 2.9 ('after) for OS (Appendix C). The 2-sample t-test results showed that 23 percent of the items had means for business risk 'after' minus business risk 'expected' that were significantly different.

Interestingly, 37 of the 45 (out of total 52) OS respondents indicated that their *annual spend in scope* for outsourcing was less than Tk 100 lac.18 of the 37 had annual spend of less than Tk 10 lac. The normal argument made by the reputed service providers has been that outsourcing is viable for them only if there is significant enough scope in play (say more than 1 crore annually). What then about these smaller spend outsourcing instances? This is an area that needs to be investigated and better understood perhaps. There are already some leads available, awaiting to be discovered. It is pertinent to point out that responses were solicited for the question, "ANY indirect procurement related activity, including ANY support activity (e.g. procurement help desk, deployment of procurement IT platform or maintenance) that is relevant to the outsourcing (OS) discussion for your firm and provide your answers with that activity or set of such activities as a reference point." Again, there may be potential to provide a different, better business model to tap smaller spend scope opportunities, of which there already appears to be reasonable evidence of some level of success. This has implications for various constituents, including academic researchers.

Sales professionals can benefit from the research in various ways. An early assessment of a prospective client on a fairly broad-based set of factors, in terms of existing satisfaction or risk perception levels and expectations from outsourcing, can help better understand the opportunity areas where value proposition needs to be built. It can also help disengage faster from opportunities that are "not likely to go anywhere soon." After all, it is important to conserve precious money to chase opportunities where the win rate can be higher. This can be good for the client too. Often the client may erroneously believe its procurement competitive advantage to be already high. This may be inferred by the prospective service provider from discussions with the client or the contents of the RFP documents. In order for the service provider's value proposition to be fully appreciated, it is essential that the client's

base case be better aligned with the true ground reality. An apples-to-apples comparison for the same scope to be assumed by the service provider as is originally catered to by the client is necessary for any meaningful business case analysis. In such a situation, the client may be better served in first taking the time to conduct its own true base case analysis and validation, without getting distracted in engaging prospective service providers on the RFP.

6.4 Limitations of the Research

This research study, like any other, has its limitations. Some of the main ones are:

1. Responses were sought from members of a professional organization (i.e., the CIPS). Therefore, only members of CIPS or IEB will have a chance to provide their inputs to the survey questionnaire. The results will therefore be applicable to this set of respondents and can be generalized to the larger population only to the extent that it resembles the respondents.

2. The overall response rate of 5.04 percent and valid response rate of 4.07 percent is rather small. Admittedly, the response rate for firms that have outsourced or outsourced and later in-sourced is much higher (estimated to be 67 percent) in terms of the number of respondents that could really have belonged to these two OS Status types from among the mail survey respondents. This means that the response rate without OS and IS respondents would have been even lower. It is possible that potential respondents representing other firms, e.g., those that do not have indirect procurement under consideration for outsourcing (i.e. NUC) were somewhat more indifferent to providing their inputs than the ones that did provide their inputs.

3. It limits its scope within Bangladesh based firms, so generalization of indirect procurement outsourcing with a worldwide application will not be appropriate.

6.5 Directions for Future Research

Firstly, the nature of the research in this study has been exploratory and has concentrated mainly on identifying the differences that exist between different OS Status types in terms of the key constructs of PC, PCA, FCA, BR and PTE2E. The constructs themselves will need further rigor in terms of definition, reliability and validity. The differences identified between OS Status types will need to be revisited for separate, independent confirmation, periodically, to ascertain whether they continue to still apply or whether there are measures that have been taken (e.g., by service providers) that have altered the dynamic.

There is an opportunity to research the entire value proposition around indirect procurement outsourcing from various angles. In order to do this effectively, objective and consistent performance metrics are needed. Benchmarking agencies need to better define the boundaries around which comparisons will be made. Too often, performance is measured in a myopic manner (there is some level of opportunism in this too) – e.g., automating more purchase orders makes the hands-on percentage (i.e. manual purchase orders divided by total purchase orders) look less attractive; why then would the procurement operations manager be motivated to improve automation, especially if the client contract has been negotiated on a per transaction basis separately for automated orders (lower rate) and manual orders (higher rate). Obviously, the trick has to be to bring to the fore the core business metrics (that are super-ordinate to the business) and optimize them. How do they get included in the contract effectively, yet simply enough, in order to drive positive behavior on the part of the service provider and the client in the advancement of the supply chain discipline? This is no trivial matter – for starters, the client may just not want or have the patience to change from the earlier metric system or definitions.

One area worthy of independent research (possibly through the center(s) for supply chain research that some business schools have established) is the notion of leverage that service providers are perceived as bringing to the table for clients. The kinds of leverage mostly talked about are – spend, process, technology and people.

Business risk is an area that showed relatively minor significant difference between various OS Status types in this study (except the comparison between OS and IS Status types with regard to 'after' minus 'before' scores). There is need to define the various areas of business risk in outsourcing with greater detail and potentially starting a rating system for certain outsourcing locations, service scope areas, etc. For example, what is the impact of delivering service through low cost delivery locations on compliance with the provisions of the Sarbanes-Oxley Act? Similarly, to what extent does business risk on dimensions such as opportunism, information asymmetry, etc., tie in with the precepts of agency theory? These areas of research should be very relevant given the sensitivity around the general topic of outsourcing that has arisen within the context of the post-2007 decline in world economic conditions.

APPENDIX A

SURVEY QUESTIONNAIRE

PROCUREMENT COMPETENCE

1. Please select the outsourcing (OS) scenario that best represents the situation of your firm regarding the OS of its indirect procurement activity (please check one)
   - ☐ Activity has already been outsourced
   - ☐ Activity was considered for outsourcing (OS) but a decision was taken not to outsource (OS) (LEAVE "SATISFACTION AFTER" COLUMN BLANK)
   - ☐ Activity is presently under consideration for OS and a decision whether or not to OS has still to be made (LEAVE "SATISFACTION AFTER" COLUMN BLANK)
   - ☐ Activity is not under consideration for OS at this time (LEAVE "SATISFACTION EXPECTED" AND "SATISFACTION AFTER" COLUMNS BLANK)
   - ☐ Activity was outsourced but a decision was taken to terminate the contract and in-source back to your firm (in this case AFTER represents before in-sourcing)

Please start by indicating which of the MAIN SCOPE AREAS below (i.e. A, B, C, D, E, F, G) are relevant to your firm's outsourcing (OS) discussion (check those that apply). For main scope areas that ARE NOT CHECKED, only complete the IMPORTANCE and SATISFACTION BEFORE columns.

	Importance		Satisfaction Before		Satisfaction Expected		Satisfaction After	
	V. Unimp.	V Imp.	V. Unsat.	V. Sat.	V. Unsat.	V. Sat.	V. Unsat.	V. Sat.
A. ☐ STRATEGIC SOURCING								
Develop category profile (spend / need / market analysis)	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	
Develop sourcing strategy (category positioning analysis, etc)	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	
Generate supplier portfolio (identify all viable suppliers)	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	
Conduct RFP, reverse auction etc.	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	
Negotiate and select suppliers (negotiation strategy, etc.)	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	
Implement agreements (implementation plan, rules updates)	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	
Continuous improvement (monitor and plan for next round)	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	
B. ☐ STRATEGY MANAGEMENT								
Contract management (e.g. metrics, issue resolution, etc.)	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	
Supply market monitoring (e.g. key indices, benchmarks, etc.)	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	
Evaluation & performance management (e.g. customer sat.)	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	
C. ☐ TACTICAL BUYING								
Need identification	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	
Tactical buying strategy determination	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	
Ongoing buying – execution & negotiation	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	
D. ☐ ORDER MANAGEMENT								
Supplier & end user enablement (WOI, EDI, e-Pro, etc.)	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	
Content / catalog administration	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	
Review requisitions & place purchase orders	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	
Customer & supplier assistance (help desk)	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	
E. ☐ ACCOUNTS PAYABLE								
Invoice processing	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	
F. ☐ INFORMATION TECHNOLOGY								
Deploy / enhance / integrate procurement platform	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	
Ongoing maintenance and hosting, etc.	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	
G. ☐ PROCUREMENT TRANSFORMATION								
Change management	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	
Process automation	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	
Compliance (adherence to policies and procedures) ramp up	1 2 3 4 5		1 2 3 4 5		1 2 3 4 5		1 2 3 4 5	

PROCUREMENT COMPETITIVE ADVANTAGE

2. Please select the outsourcing (OS) scenario that best represents the situation of your firm regarding the OS of its indirect procurement activity *(Check one: copy to repeat selection ☐ from previous page).*

☐ Activity has already been outsourced
☐ Activity was considered for outsourcing (OS) but a decision was taken not to outsource (OS) (LEAVE "SATISFACTION AFTER" COLUMN BLANK)
☐ Activity is presently under consideration for OS and a decision whether or not to OS has still to be made (LEAVE "SATISFACTION AFTER" COLUMN BLANK)
☐ Activity is not under consideration for OS at this time (LEAVE "SATISFACTION EXPECTED" AND "SATISFACTION AFTER" COLUMNS BLANK)
☐ Activity was outsourced but a decision was taken to terminate the contract and in-source back to your firm (in this case AFTER represents before in-sourcing)

Please provide your response on each of the following areas of PROCUREMENT COMPETITIVE ADVANTAGE that may be impacted by indirect procurement OS

	Importance V. Unimp. V Imp.	Satisfaction Before V. Unsat. V. Sat.	Satisfaction Expected V. Unsat. V. Sat.	Satisfaction After V. Unsat. V. Sat.
A. IMPACT ON OPERATIONAL COSTS				
Procurement labor cost reduction	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Employee productivity	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
B. IMPACT ON COMPLIANCE & END USERS				
Reduced maverick or by-pass spend	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Service levels; E.g. cycle time, deliveries, issue resolution	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Adherence to purchase policies & procedures	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
C. IMPACT ON OVERALL BUSINESS				
Enterprise-wide spend visibility	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Spend aggregation and leverage	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Improved sourcing savings	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Improved supplier relationships	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Reduction of existing supply base	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Ability to drive business unit budget reductions from savings	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Applying OS lessons learned to avoid repeating mistakes	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Ability of procurement team to focus better on key areas	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

FIRM COMPETITIVE ADVANTAGE

3. Please provide your response on each of the following areas of FIRM COMPETITIVE ADVANTAGE that may be impacted by indirect procurement OS

□ Ability to focus better on core competencies	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
□ Ability to improve market positioning	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
□ Ability to improve market share for product or service	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
□ Ability to enter new or emerging markets	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
□ Ability to rapidly acquire or divest for growth	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
□ Ability to follow outsourcing trend; not be left behind rivals	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
□ Win favorable rating from Wall Street / financial analysts	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
□ Ability to improve audit and compliance posture (e.g., SEC*)	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

* Securities and Exchange Commission

BUSINESS RISK

4. Please select the outsourcing (OS) scenario that best represents the situation of your firm regarding the OS of its indirect procurement activity
(Check one: copy to repeat selection ☐ from previous page).

☐ Activity has already been outsourced
☐ Activity was considered for outsourcing (OS) but a decision was taken not to outsource (OS) (LEAVE "RISK AFTER" COLUMN BLANK)
☐ Activity is presently under consideration for OS and a decision whether or not to OS has still to be made (LEAVE "RISK AFTER" COLUMN BLANK)
☐ Activity is not under consideration for OS at this time (LEAVE "RISK EXPECTED" AND "RISK AFTER" COLUMNS BLANK)
☐ Activity was outsourced but a decision was taken to terminate the contract and in-source back to your firm (in this case AFTER represents before in-sourcing)

Please provide your response on each of the following areas of BUSINESS RISK that may be impacted by indirect procurement OS

	Importance V. Unimp. V Imp.	Risk Before V. Low V. High	Risk Expected V. Low V. High	Risk After V. Low V. High
A. UNCERTAINTY (ambiguity of transaction definition and performance)				
Scope of work to be performed is well defined	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Service levels to measure against are well defined	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Governance model for responsibility and accountability is clear	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Contractual requirements are well defined	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
B. OPPORTUNISM (people are prone to opportunistic behavior, leading to self interest seeking with cleverness rather than frankness)				
Interactions between players are trustworthy	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Reward (or penalty) for over (or under) achievement is equitable	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Entry (or exit) cost for starting (or ending) relationship is equal	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
C. BOUNDED RATIONALITY (rationality of human behavior is limited by the ability of the person to fully process or remember information)				
Ease of grasping information fully on account of individual limitations or environmental complexity, etc.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Tendency to make quick, rule of thumb decisions rather than painstaking, optimal decisions	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Tendency to cooperate with wrong priorities or players (on account of factors such as goodwill, pressure to conform, etc.)	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
D. INFORMATION ASYMMETRY (asymmetrical or unequal distribution of information among two parties so that one has more knowledge than the other)				
Ease of obtaining complete, verifiable information	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
E. SMALL NUMBERS (transactions which are seldom performed do not benefit from scale or synergy that comes with frequent transactions)				
A few transactions have very high costs	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Frequency of few high cost items varies widely	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

GENERAL

5. If your firm has already outsourced (OS) any indirect procurement, how many years has it been since it was outsourced (OS)? (Choose N/A if not applicable)
   A. Less than 1 year
   B. More than 1 years but less than 2 years
   C. More than 2 years but less than 3 years
   D. More than 3 years
   E. N/A

6. If your firm has already OS any indirect procurement, what is the duration of the OS contract that has been signed with service provider? (Choose N/A if not applicable)
   A. 3 years
   B. More than 3 years up to 5 years
   C. More than 5 years up to 7 years
   D. More than 7 years
   E. N/A

7. If your firm had previously OS any indirect procurement and later decided to terminate the contract and in-source that scope (please fill in the blanks, otherwise state N/A):
   Outsourcing was started in _____ (enter Year, e.g. 20010) for a _____Year contract (# of years) and terminated in _____(enter Year)

8. If your firm has outsourced, is considering outsourcing or previously outsourced procurement, what is the annual managed Spend in scope for OS (please state N/A if not applicable)
   A. Less than 10 lac
   B. 10 lac-100lac
   C. 1 crore-10 crore
   D. Over 10 crore
   E. N/A

9. If your firm has outsourced, is considering outsourcing or previously outsourced procurement, what is the annual # of purchase order transactions in scope for OS (please state N/A if not applicable)
   A. Less than 1,000 transactions
   B. 1,000 – 10,000 transactions
   C. 10,000 – 100,000 transactions
   D. Over 100,000 transactions
   E. N/A

10. Please express your firm's total annual purchase (TK) divided by the total annual sales (TK) as a percentage
    A. Less than 10%
    B. Between 10% and 20%
    C. Between 20% and 30%
    D. Between 30% and 40%
    E. More than 40%

11. Please Indicate the degree to which you agree or disagree with the following statements:

	Strongly Disagree				Strongly Agree
A. Procurement has caught the attention of the top management	1	2	3	4	5
B. Top management is supportive of efforts to improve the procurement function	1	2	3	4	5
C. Procurement is considered a vital part of the firm's corporate strategy	1	2	3	4	5

12. Please indicate the degree to which you agree or disagree with the following statements about Client firm and Service Provider firm (answer only if procurement is already outsourced, otherwise skip this question):

	Strongly Disagree				Strongly Agree
A. We work and plan together	1	2	3	4	5
B. We cooperate with each other to ensure execution of planned initiatives	1	2	3	4	5
C. Disagreements are rare and easily resolved	1	2	3	4	5

13. Please indicate the degree to which you agree or disagree with the following statements:

	Strongly Disagree				Strongly Agree
A. Sourcing savings for my firm can increase significantly from OS	1	2	3	4	5
B. Labor costs for my firm can reduce significantly from OS	1	2	3	4	5
C. End user compliance with procurement policies and procedure can increase significantly from OS	1	2	3	4	5

14. Please indicate the degree to which you agree or disagree with the following statements (select N/A if not applicable):

	Strongly Disagree				Strongly Agree	
A. By OS, my firm runs risk of losing control over core Procurement activities which is not a good thing.	1	2	3	4	5	N/A
B. By OS, my firm runs risk of losing control over non-core Procurement activities which is fine	1	2	3	4	5	N/A

15. What is the primary business of your firm (select ONE from list below)?

- ☐ Garments Industries
- ☐ Food products
- ☐ Paper and allied products
- ☐ Printing and publishing
- ☐ Chemicals and allied products
- ☐ Wooden Furniture and allied products
- ☐ Rubber and miscellaneous plastic products
- ☐ Other (please specify) _____
- ☐ Hotel & Accommodation Ser.
- ☐ Electric/electronic equipment
- ☐ Life Insurance Companies
- ☐ Instruments and related products
- ☐ Communication & related Firms
- ☐ Developer and Construction Firms
- ☐ Wholesale trade - durable goods
- ☐ Wholesale trade - nondurable goods
- ☐ Miscellaneous retail
- ☐ Banking
- ☐ Insurance
- ☐ Educational Ins.
- ☐ Health services
- ☐ Engineering related services

DEMOGRAPHIC INFORMATION

16. Please circle a job title from the list below that best describes your position within your organization:
    A. V.P. of Purchasing / Procurement / Supply Management
    B. Director of Purchasing / Procurement / Supply Management
    C. Procurement outsourcing focal point with service provider
    D. Purchasing / Procurement / Supply Manager
    E. Buyer
    F. Other: (please specify) _____

17. Since how many years have you been employed with this firm?
    A. Less than 5 years
    B. More than 5 years but less than 10 years
    C. More than 10 years but less than 15 years
    D. More than 15 years but less than 20 years
    E. More than 20 years

18. What is the total number of employees in your procurement department?
    A. 1 to 25
    B. 26 to 50
    C. 51 to 75
    D. 76 to 100
    E. 100+

19. Was a third party advising firm engaged to assist in the outsourcing process?
    Yes No

Thank you for your participation.
Please use space below to provide any comments you might have.

COMMENTS:

_____

If you would like to receive a summary of the primary results, please attach your business card or provide your name / e-mail address in a separate sheet while returning the completed questionnaire. The business card or name / e-mail address will be separated from the questionnaire; thus your identity will in no way be linked to your responses while performing data analysis and preparing the findings from the study.