Negotiation in the Sourcing Process in E-Procurement: Case Study at the Australian Private Sectors

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Abstract: Negotiation is an important part of commerce. With the use of internet-based technologies to procure goods and services, the sourcing process of multiple goods or services usually involves complex negotiations. Advanced technologies such as e-procurement can facilitate effective solutions for negotiation between trading partners, however, in order to support business negotiations with electronic tools effectively, a deep understanding of real life business negotiation is required. This study is aim to explore the negotiation in the sourcing process in e-procurement network at the Australian Private Sectors. Two different companies which operated in the different market were selected to provide valuable information regarding the approach of negotiation in the sourcing process operated in e-procurement environment. Two cases study were conducted via interviews at the Manufacturing Car Company and the Aviation Company. The respondents included the Purchasing Managers and the suppliers for the companies. Actor Network Theory (ANT) will be used as guidance to explore this study. The significance of this study is to improve the value chain between partners in the sourcing process through the understanding and identifying social issues in electronic procurement negotiation. As such, it is hoped that greater success with e-procurement will be achieved.

Keywords: Negotiation, Sourcing Process, E-Procurement, Australian Private Sector, Actor Network Theory

1. INTRODUCTION

E-procurement fundamentally supports the way organizations conduct traditional procurement activities in terms of automating and simplifying many business processes and transaction. One of the processes is a sourcing and it has been identified as an important component of the procurement process (Cerquides et al., 2007). Aguiler et al. (2008) claimed that the sourcing process of multiple goods or services usually involves complex negotiations that include discussion of products' features as well as quality, services and availability issues. As such, there is a need for the negotiation plan to be integrated with the strategic sourcing process, in order to ensure that the negotiation process can be achieved. Thus, the aim of this study is to explore the negotiation in the sourcing process between partners in an electronic procurement (e-procurement) network in the private sector.

The significant of this study is to improve the value chain between partners through the understanding on how negotiation in the sourcing process is operated in e-procurement network and to provide knowledge to practitioners on the importance of the negotiation process between partners in an e-procurement network. By improving the negotiation process, it is hoped that greater success with e-procurement will be achieved.

2. LITERATURE REVIEW

E-procurement is an essential business tools for the organizations to implement in order to

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gain many benefits (Attaran and Attaran, 2002). The concept of e-procurement has changed from only a purchasing process via electronic means to a significant supporting function for the operational and strategic procurement of direct and indirect goods (Prier and McCue 2007, Abu Bakar et al. 2016). E-procurement fundamentally supports the way organizations conduct traditional procurement activities in terms of automating and simplifying many business processes and transactions. These include supplier selection (Ho et al., 2008), contract negotiation (Bichler et al., 2001), price bidding (Rgahavan & Prabhu, 2004, Stein and Hawking 2003), and supplier relations from operational levels to strategic levels (Ho et al., 2008). E-procurement is not a strategy in itself but the use of electronic means to perform the procurement process (Minahan & Degan, 2001).

Sourcing has been highlighted as a part of the procurement process. Furthermore, Sheffi (2008) highlights that the development of sourcing strategically is part of the sourcing process. Likewise, Glassberg et al. (2008) stated a cornerstone of improved procurement performance is strategic sourcing. Strategic sourcing can have a profound impact on a company's finances and can strongly influence the purchasing and procurement process (Yen & Ng, 2003). Smeltzer et al. (2003) claim that the negotiation process and strategic sourcing process is integrated with each other. In order to ensure that the negotiation process can be achieved, managerial teams such as sourcing teams, supply managers and purchasing managers need to understand the importance of all steps to fully integrate the results from sourcing into the negotiation process (Smeltzer et al., 2003).

Negotiation is a critical aspect of purchasing and supply chain management (Carter et al., 2004). The buying organizations that are procuring goods or services from suppliers are determine from the five rights that are: purchasing items at the right price; delivering at the right time; delivering at the quality; delivering at the right quantity and purchasing from the right source (Bailey, 1994). However, Abu Bakar and Peszynski (2010) in their study for the buying organization at the Public Sector found that there are other factors that need to be considered in negotiation with trading partners such issues on culture, trust, win-win outcome. In addition, Kim and Segev (2005)

highlight that business negotiations must be approached from process management perspectives since business negotiations take place in the context of corporate processes such as procurement and sales. Schoop et al. (2008) claim that to support business negotiations with electronic tools effectively, a deep understanding of real life business negotiation is required. The factors that affect the negotiation process need to be acknowledged by purchasing organizations. Actor network theory will be used as guidance to explore the factors influence negotiation in e-procurement.

Actor Network Theory is a social theory of technology (Hanseth et al., 2004). In the field of Information Technology (IT), ANT has been recognised as having immense potential for understanding the complex social interactions associated with IT (Walsham 1997, Hanseth et al., 2004). Tatnall et al. (2003) have pointed out that ANT is increasingly used as an analytical framework to inform Information Systems (IS). Actor network theory is appropriate to use for this study because it identifies and acknowledges the key human actors and non-human actors within an organization and the effect on the potential social issues that might occur. ANT is used to investigate issues in the negotiation process that incorporate human actors such as buyers and suppliers, how the interaction between these actors affects the negotiation process, and identifies the factors that influence the negotiation process.

3. METHODOLOGY

This study will be driven by the interpretive paradigm (Denzin and Lincoln, 2005). Interpretive studies assume that people create and associate their own subjective and inter-subjective meanings as they interact with the world around them. Thus, interpretive research attempts to understand a phenomenon through accessing the meanings that participants assign to them (Klein & Myers, 1999; Orlikowski & Baroudi 2002). This research will use the case study research method. Case study research is the most widely used qualitative research in information system research (Stake, 1995; Benbasat et al., 1987). The research methodology has been based on an exploratory analysis aimed at understanding how negotiation in the sourcing process in e-procurement network is operated. In order to pursue that objective, a case study

methodology has been chosen. The multiple cases studies have been chose because analytic conclusions independently arising from multiple case studies will be more powerful than those coming from a single case alone (Yin, 2003 p.53). Herriott and Firestone (1983) pointed that the evidence from multiple cases is often considered more convincing and the overall study is therefore regarded as being more robust. Two cases at the Australian private sectors were selected in which negotiation occurred in e-procurement environment. The two cases were: the Car Manufacturing Company and the Aviation Company at Melbourne Victoria Australia. Two different companies which operate in the different market were selected to provide valuable information regarding the approach of negotiation in the sourcing process operated in e-procurement environment.

The data were collected from the face-to-face interviews between two parties: the buyer and the supplier from each company. One representative from the Purchasing Department of the company and one representative from Supply Company were interviewed via semi-structured interviews. The interviewer recorded the interviews with permission of the interviewees and made use of written notes during the interviews. The one-on-one interviews took approximately 45-60 minutes. Data analysis and interpretation has been mainly qualitative in a within case study in two private sectors that are the Car Manufacturing Company and the Aviation Company at Melbourne Victoria Australia (Miles and Huberman 1984). A cross case approach is also using to expand the finding on the concept of phenomena explored (Miles and Huberman 1984). The findings from the case study will be discussed further in the next section.

4. FINDINGS

4.1 Case studies

Case 1 - Car Manufacturing Company (CMC)

The Car Manufacturing Company started its operation in Melbourne Victoria since 1950. The main operation is to assemble and produce a car. The procurement process with trading partners commences when there is a new planning to build a new model of car. The products procured are the specific types of

product with the cutting edge of technology and the products procured from supplier are determine by the groups of expertise in the company that are the Engineering Team and Cost Estimator Team. The Purchasing Team will choose the best supplier in the market with the assistance from those two teams. There are three types of suppliers that CMC dealing with that are long term supplier, new supplier and similar supplier with the Parent and Branch Company. Request for Quotation (RFQ) is a system used in selecting supplier. Manual approaches were used in dealing with supplier via phone and face-to-face contact.

Case 2 - Aviation Company (AVC)

Aviation Company is the company that provide services as maintenance to the Aircraft Companies in Victoria Melbourne. The procurement process commences when the flight is needed to be repaired. The products procured are more highly specialized products which determine by the manufacturer of the Aircraft Company. Before making a final decision on the preferred supplier, the Procurement Manager needs to get approval on the list of supplier from the Quality Control Department. There are two types of suppliers that AVC dealing with that is long term supplier and new supplier. Ordering and e-mail are the system used in selecting supplier and manual approaches were used via phone and face-to-face contact.

Based on the two cases above there are several elements that the Procurement Manager needs to consider in making decision in procuring goods or services in e-procurement network. The elements involved are related with the determinants of products procured from supplier, types of suppliers chosen and the system used to select supplier. In addition, those elements are related with the negotiation structured comply by the Purchasing Manager because of the involvement of internal and external parties and the association of parties involved with the system used in procuring goods or services. For instance, the Procurement Manager at the Aviation Company (AVC) needs to get the approval from the Quality Control Team in changing supplier because the product procured is determine by the manufacturer of the Aircraft Company. On the contrary, the Procurement Manager in the Car Manufacturing Company (CMC) needs to

discuss with the Engineering Team and the Cost Estimator Team if he wants to change supplier. The similarities and differences of decision making in the sourcing process of two companies affect the way they negotiate with their trading partners. Negotiation approaches or strategies with the trading partners is depend on the approach that the Procurement Manager dealing with the sourcing process. Table 1 represents the factors influence negotiation in the sourcing process in e-procurement from the perspectives of procurers and their suppliers.

Table 1 Factors influencing negotiation in the sourcing process in e-procurement network at the Australian Private Sector

Procurer			Seller		
Factors	CMC	AVC	CMC	AVC	Factors
Target price or target costs	X		X	X	Price
Sustainability and Maintaining relationship with supplier	X	X	X	X	Establishing and Maintaining relationship with customer
Trust	X	X	X	X	Trust
Culture	X	X	X	X	Culture
Quality performance of suppliers	X	X	X		Rules and Regulation
Corporate Social Responsibility	X	X	X	X	Corporate Social Responsibility
Coordination between divisions	X	X		X	Different characteristic of market (less market competition)
Communication media	X		X	X	Communication Media
Awareness in choosing suppliers	X			X	Mass volume ordered (quantity of products)
Quality of products purchased	X	X		X	Fixed types of products
Availability of the product		X	X		Demand market
Control with rules and regulation		X		X	Bureaucratic
Quality control		X		X	Delivery security
Lead time		X		X	Experience with customer
Win-win outcome		X		X	Maintaining expectation management
Supplier offer	X				
Personality or attitude of supplier		X			
Fluctuation of currency		X			

Table 1 shows that the factors such culture, trust, establishing and maintaining relationship with supplier or customer and social corporate responsibility becomes the agreeable factors influencing negotiation in the sourcing process in e-procurement environment regardless different industries for procurer and supplier. This is because of the elements in procuring goods or services from the Procurement Manager and selling products or services from their supplier are similar such as specific types of product procured, types of suppliers chosen and the system used. However, there are several differences in opinion in factors influencing negotiation between procurer from AVC and CMC Companies for instance, CMC is more concerned about the suppliers' choice because there are many competitors in the latest technology those CMC needs to strive for, AVC is more concerned about the product choice because it needs to get the right product on time to ensure the aircraft can be operated on schedule. That is the reasons why the factor influencing negotiation for AVC is more on the issue of the availability of product and the quality control because the products

choices and the supplier choices will affect the safety of aircraft passengers.

Another example is on the decision types of products procured in AVC lies on the Manufacturer of Aircraft Companies which is the external parties, that is why rules and regulations becomes one of the factors that influence negotiation in Aircraft. Another reason is because the Aviation bound with the rules and regulation stated by the manufacturer of Aircraft to be service. However, the decision in CMC lies on the Internal groups of expertise in CMC which is internal parties, that is why coordination among divisions becomes one of the factor that influence negotiation.

4. CONCLUSION

E-procurement is merely a vehicle to carry the task of negotiation which the intention of parts to negotiate is basically done in traditional ways such as price, quality and other intentions. Through the understanding the social issues that influence negotiation in the sourcing process will assist the procurer and supplier business process effectively. The value chain created through the understanding of social issues influencing negotiator in e-procurement will ensure the negotiation process operated smoothly. Inevitably, the network becomes more complex in procuring products or services which allows many types of relationship exists not only based on human and human relationship however, human and non-human, non-human and non-human and non-human relationship are existed. Varieties of network had form because of the complexity of business today particularly in e-procurement environment with the use of electronic channel as a communication devices. Therefore, the understanding of the factors influencing negotiation in the sourcing process between procurer and supplier is needed particularly in the electronic global type of business.

As such the Actor Network theory is fitting to explain phenomena on the negotiation in the sourcing process in e-procurement network because the privilege of the theory is about negotiation among the actors either human or non-human. By using the theory as lens to explain the phenomena, new role of actors involved can be revealed and the network among them can be notify. By knowing the roles, networks and factor influencing negotiation in the sourcing process in e-procurement network, the value chain can be improved and strengthen between groups involved in negotiation. Furthermore, the scope of negotiation which the importance of the involvement of non-human actors can be further explored and identified.

The limitation of this case study is that not all concepts of ANT are applied to explain the phenomena. This is because the two concepts chosen are the core concepts that can explain the phenomena being explored. In addition, this case study is only conducted at two industries that are manufacturing and service sector. In future, another similar case study should be conducted in other types of industries to get more robust explanation on the factors influencing negotiation in the sourcing process in e-procurement network.

Finally, to conclude this study, negotiation in e-procurement is essential in procuring goods and services between trading partners. The negotiators need to understand and be alert on the importance of factors influencing negotiation in the e-procurement environment. By valuing the significance of the social issues in the negotiation in e-procurement, it is hoped that the value chain between partners can be enhanced to ensure the procurement process using electronic systems will succeed. The social issues that discovered from this study can become a business strategy to ensure the procurement process can effectively operate in this electronic global business.

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