

## **A Business Model for e-Negotiation in Electronic Commerce**

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### **Abstract**

With the rapid growth of electronic commerce, there is growing demand and great potential for online negotiation services. However, like other dot.com companies, it is unclear whether e-negotiation services will succeed by providing real business value and making profit. In this paper we propose a high-level e-negotiation business model and use it to analyze key issues for the success of these services. Specifically, we focus on the value proposition of e-negotiation systems and examine it through surveying potential market segments. While previous literature assesses the efficiency and effectiveness of various online negotiations support methods, this exploratory research examines the online negotiation service itself and its potential from business users' perspective. Our survey demonstrates that there is a low awareness for e-negotiation services though organizations spend large amounts on negotiations each year. Moving some of the traditional face to face negotiations to the Internet sphere could reduce the associated costs. In accordance with our assumptions, the benefits of e-negotiations are clear to the surveyed managers and so are the challenges. Most managers believe that there is a great market potential for online negotiations services and that they will use it in the future as services mature. Based on the survey, we identify critical factors to the success of online negotiation services and suggest some ways to remove the hurdles and create a critical mass of users.

## 1. Introduction

Negotiation is the means through which participants arrive at a specific agreement under conditions of strategic interaction or interdependent decision making (Young, 1975). Negotiation Support Systems (NSS) is a branch of Group Decision Support Systems (Fjermestad and Hiltz 1999) designed to help negotiators achieve optimal settlements (Lim et al. 2003). These systems consist of two or more networked Decision Support Systems (Lim & Benbasat 1993) and provide 3 levels of support for the negotiation process: process support, decision support and decision automation (Yuan et al. 2003). While process support NSS uses the electronic media to facilitate a negotiation process, decision support NSS uses the electronic media to suggest optional solutions in an attempt to improve the outcome of the negotiation. The next level of negotiation support - agent based NSS, attempts to automate negotiation through the use of software agents over the electronic media. (Yuan et al, 2003). Although Negotiation Support Systems have been studied and developed in academia for more than two decades (e.g. Kersten 1985, Jarke et al. 1987, Bocionek 1995, Lomuscio et al. 2003 etc.) , they had very little influence in the industry in the past. One reason was that most traditional Negotiation Support Systems require specific software installation and often implemented in an electronic meeting room setting where computers were locally connected and accompanied with face-to-face meeting [Carmel, 1993]. This type of environment significantly restricted the potential use of computer-based negotiation support systems in business: if people can negotiate face-to-face, why bother to install and use software without significant benefit? However, the situation has changed lately due to major developments in the following three domains:

1. Accessibility - The wide spread connection of Internet and the rapid growth of e-commerce have made online services accessible to businesses as well as to consumers. When more and more people are connected to the Internet and more and more businesses are conducted through the Internet, it is possible and desirable to conduct online negotiation through the Internet as well (Segev & Beam 1999, Kersten & Lo 2001).
2. Online Communication Skills – Social science research suggests that we are facing a dramatic cultural change as we learn to interpret non-verbal cues available online, and hence this channel is becoming equivalent to the face to face communication channel, in terms of the effectiveness of the communications. In particular, teenagers have developed a high level of comfort using the Internet as their main communications media – approximately 56 percent of 12 through 17 years old teenagers use instant messaging services and report that it holds a key place in their lives (Larson 2003). This next generation of users will become part of the target market in 5 to 10 years.
3. Technology – Advancements in technology (namely broadband and processing speeds) enable both greater accessibility and the use of richer media. Studies show that the addition of audio and video to plain text messages in an e-negotiations environment improves the communication efficiency and effectiveness (Yuan et al., 2003). In addition, advancements in agent technology enable the formation of agent-mediated services.

Recognizing this opportunity, a small but growing number of e-negotiation services are coming to the market. For instance, to resolve disputes among buyers and sellers in online auction, SquareTrade started to provide Online Dispute Resolution Services (ODR) to eBay customers [www.squaretrade.com]. NovaForum Inc., Canada's first online arbitration service offers businesses a fast and affordable way to resolve legal conflicts online with a verdict guaranteed within 72 hours – anywhere, anytime [www.novaforum.com]. However, can these e-negotiation services provide real business value and make money? What is the appropriate business model that could lead to the success of e-negotiation services?

In this paper, we propose a high level e-negotiation business model and use it to investigate the sentiment towards current online negotiation services and to analyze key issues for the success of these services. Specifically, we examine the market side components of the business model through the use of a survey. The survey focuses on the value proposition and addresses three potential market segments: labor unions, manufacturing and services, and others (transportation, logistics etc.). Our assumption is that there is a potential demand for web-based negotiation services though service barriers need to be removed in order to exercise the demand. The survey explores and validates this assumption, and helps us to identify and prioritize critical factors to the success of the online negotiation services.

## 2. Existing e-Negotiation services

There is a small but growing number of e-negotiation services emerging into the market in recent years. They provide a variety of services ranging from process support to training. For instance, Contract Management Solutions and UpsideContract are aimed to provide Web-based contract management software including negotiation support. On the other side, Internet Neutral, NovaForum, Online Resolution, Square Trade, All Settle, and SmartSettle are aimed to provide online dispute resolution from online negotiation, mediation, to arbitration. Table 1 outlines some of the e-negotiation services.

**Table 1:** Summary of Some Existing e-Negotiation Services

<b>Process support</b>	<b>Internet Neutral</b>	<a href="http://www.internetneutral.com/">http://www.internetneutral.com/</a>
	Internet Neutral has developed a standard mandatory mediation clause that can be easily inserted into a commercial contract. Mediation for dispute resolution can be arranged and conducted jointly or privately through email, instant message, chatting room or videoconferencing.	
	<b>NovaForum</b>	<a href="http://www.novaforum.com/">http://www.novaforum.com/</a> or <a href="http://www.electroniccourthouse.com">www.electroniccourthouse.com</a>
	Novaforum is Canada's first online arbitration service that offers businesses a fast and affordable way to resolve legal conflicts online with a verdict guaranteed within 72 hours – anywhere, anytime.	
	<b>Online Resolution</b>	<a href="http://www.onlinerresolution.com/">http://www.onlinerresolution.com/</a>
	Onlinerresolution.com provides three types of dispute resolution services including online negotiation, online mediation, and online arbitration. It also sells Resolution Room, a licensed secure online groupware, to dispute resolution professionals for their private practices.	
	<b>Square Trade</b>	<a href="http://www.squaretrade.com/">http://www.squaretrade.com/</a>
<b>Decision Support</b>	<b>All Settle</b>	<a href="http://www.allsettle.com/">http://www.allsettle.com/</a>
	Allsettle is an automated Internet dispute resolution service for a single value settlement. Claimants and Claims Adjusters can make and continuously adjust confidential demands and offers in order to reach a settlement.	

	<b>SmartSettle</b>	<a href="http://www.smartsettle.com">http://www.smartsettle.com</a>
	SmartSettle is a secure negotiation support system using optimization to produce fair and efficient solutions based on negotiator's private preferences.	
<b>Contract Management</b>	<b>Contract Management Solutions</b>	<a href="http://www.cmsi.com/">http://www.cmsi.com/</a>
	Contract Management Solutions provides web-based contract management software and solutions that encompass the entire contract life-cycle including contract negotiation.	
	<b>UpsideContract</b>	<a href="http://www.upsidecontract.com/">http://www.upsidecontract.com/</a>
	UpsideContract is contract management software that offers a fully automated web-enabled contract management process. It also offers online contract negotiation.	
<b>Training</b>	<b>WinSquared Software</b>	<a href="http://www.winxwin.com/">http://www.winxwin.com/</a>
	WinSquared is a negotiation software that offers a systematic guide to help negotiators communicate effectively, reach agreement and obtain cooperation.	
	<b>NegotiatingEdge</b>	<a href="http://www.negotiatingedge.com/">http://www.negotiatingedge.com/</a>
	The Negotiating Edge is a global consulting company that provides training and consulting services in negotiation.	
	<b>International Computer Negotiations</b>	<a href="http://www.dobetterdeals.com/">http://www.dobetterdeals.com/</a>
	ICN is a consulting organization, dedicated to helping technology professionals get the best deals possible when negotiating with suppliers. Using ICN's proven methodology—the Managed Acquisition Process™ —allows clients to manage negotiations as a process, not an event.	

### 3. E-Negotiation Business Model

Will companies that offer e-negotiation services survive in today's turbulent market? What accounts for their success? To answer these questions we need to study the business model behind online negotiation services. A business model is the method by which a firm builds and uses its resources to offer its customers better value than its competitors and to make money doing so (Afuah and Tucci 2000). Afuah and Tucci analyzed customer value, market scope, pricing, revenue source, connected activities, implementation, capabilities, and sustainability in their business model. Referencing their model, we propose an e-negotiation business model to analyze e-negotiation services on the following aspects:

- 1) Identify the market demand for e-negotiation services and classify existing e-negotiation services that provide customer values to meet these demands.
- 2) Identify the cost structure and source of revenue for e-negotiation services
- 3) Identify issues and challenges for the success of e-negotiation

Table 2 summarizes the components of the business model and defines the framework for our research..

**Table 2: Business Model for e-Negotiation Services**

Market demand	Contract negotiation Dispute resolution	
Types of services	Negotiation process support Negotiation solution support Negotiation in contract management Training and consulting	
Customer value	Improve negotiations efficiency	Reduce time to agreement and associated costs through the facilitation of remote negotiation. Integrate negotiation into other e-business
	Improve negotiations effectiveness	Helps to achieve better solution through decision support and reduction of face-to-face tensions.
Cost structure	Software development cost Service delivery cost Human expert service cost	
Source of revenue	Service charges Software sales and licenses Revenue sharing through embedded services	
Issues of using the services	Communication issues Security and privacy issues Legal issues Cost/benefit justification	
Sustainability	Stable customer demand Strategic business partners Quality of services Demonstrated results	

The next sections elaborate on each component of the business model and set the ground for the following survey.

### 3.1 Market Demand for e-Negotiation Services

The rapid growth of Internet and World Wide Web technology has created a great opportunity for conducting business activities electronically. Customers can search for product information on the

Web and make on-line purchases. However, the price or terms for goods and services are usually pre-specified by the seller or determined by well-defined procedures such as on-line auction. No negotiation is allowed or facilitated. When electronic commerce moves into business-to-business market place or supply chain management, it becomes necessary to negotiate complex, mutually determined deals or contracts electronically (such as negotiating a supply contract between manufacturers and suppliers). Contract management involves request for proposal (RFP) development and posting, vendor submission and evaluation, contract negotiation and signing, deliverables and performance tracking, finance (e.g. payments handling), and on-going monitoring and evaluation. It was estimated that a Fortune 1000 company is managing anywhere between 20,000 and 40,000 total contracts a year. According to Gartner Group, the market for contract management software and services will hit \$20 billion US by 2007. In addition, ineffective control and management of supplier contracts cost businesses \$153 billion per year in missed savings opportunities. (Upside software, Press Release: "United for Families Streamlines Contract Management", June 26 2003).

The demand for negotiation also stems from the need for resolving disputes online. When more and more businesses are moving onto the Internet, disputes also increase in the cyberspace. While online auctions have attracted many customers, many disputes occur between bidders and sellers. Commercial complaints may involve billing, order fulfillment, breach of contract, content, privacy and other issues. Today, government agencies, consumer groups and industry associations are demanding that e-businesses provide online dispute resolution services to ensure consumers have a quick and affordable way to resolve their complaints. The Federal Trade Commission is also promoting online mediation services, as lawsuits or arbitration in court are too expensive and not practical to resolve online disputes [Dennehy, 2000]. It is natural that when businesses are conducted remotely and electronically, negotiation and mediation for contracting and dispute resolution should also be carried out remotely and electronically. Due to the convenience and cost saving, even traditional arbitration services are moving online [Thompson, 2000]. The U.S. Department of justice reported to the Congress in 1992 that businesses in Europe and North America spend \$38 Billion US each year on legal fees associated with commercial litigation. These two regions are the target geographic markets for web based negotiation services as they account for 92% of the world's e-commerce activity and most of the world's commercial litigation. (Kirk, 2003:13).

### **3.2 Value Proposition of e-Negotiation Services**

E-Negotiation services provide multiple values to business, including overcoming geographic and time boundaries, facilitating negotiation process, improving the quality of agreement, and integrating negotiation into contract management and other e-business services.

#### **a) Overcome Geographic and Time Boundaries**

A common feature of all e-negotiation services is to overcome geographic and time boundaries and enable parties negotiate with each other through Internet from anywhere and at anytime, without the needs of traveling. Considering the high cost of making business trips for negotiation in face-to-face meeting, the time and cost saving of using e-negotiation could be tremendous. As an example, Novaforum Inc., Canada's first online arbitration service offers businesses a fast and affordable way to resolve legal conflicts online with a verdict guaranteed within 72 hours – anywhere, anytime. Traditional litigation costs average \$25,345 in service fees per party whereas NovaForum costs only \$2,500 for each. In addition, traditional litigation takes on average 600 days to settle a dispute whereas NovaForum takes only 72 hours. Traditional negotiation services usually limited to local market. In

contrast, many e-negotiation services are aimed to provide services to online business or international businesses.

### **b) Facilitate Online Negotiation Process**

Many e-negotiation services provide process support for online negotiation, mediation or arbitration. The process support focuses on facilitating online negotiation processes from preparing and submitting the case, selecting the mediator, making the mediation agreement, schedule and conduct negotiation and mediation sessions through electronic communication, and finally to reach the final settlement agreement. All the communications and decision making activities are carried out online by the people involved. For instance, Onlinerresolution.com provides three types of dispute resolution services including online negotiation, online mediation, and online arbitration. In cooperation with mediate.com, Online Resolution, Inc. has licensed a secure online groupware called Resolution Room. Dispute resolution professionals may purchase Resolution Rooms for use in their private practices. The rooms are designed to help in organizing issues or topics of concern. As well, the resolution rooms are password protected and accessible from any web browser, so parties do not need special software to participate.

### **c) Improve the Quality of Agreement**

The e-negotiation solution support emphasizes on improving the quality of agreement and mutual acceptance and satisfaction. For instance, AllSettle provides automated settlement according to pre-specified simple rules and procedures and SmartSettle provides decision support based on preference evaluation for the parties involved and suggests an optimal solution generated from optimization algorithm. Quality of agreement can also be improved through providing professional guidance and better training to negotiators, as well as high quality experts for mediation and arbitration. For instance, an innovative negotiation software, Win<sup>2</sup>, can help negotiators communicate effectively, reach agreement and obtain cooperation. Using a database of more than 600 techniques, Win<sup>2</sup> analyzes the unique facts of the negotiators' situation and recommends practical approaches for exchanging information, making proposals and gaining concurrence.

### **d) Integrate Negotiation into Contract Management and Other e-Business Services**

Negotiation is a very important component of e-business. It can be integrated into the contract management system in B2B electronic market place and supply chain management. For instance, UpsideContract, a contract management software, is provided by Upside Software Inc. located in Edmonton, Alberta, Canada. The software offers a fully automated web-enabled contract management process that starts from creating the contract request to developing the RFX (e.g. RFP) and then to opportunity posting, vendor submissions, evaluation, negotiation, signing, managing, tracking performance and deliverables, handling the finances (e.g. payments) and on-going monitoring. As well, contract renewals, amendments and change orders are all handled smartly and efficiently. The system also offers online contract negotiation. The solution allows companies to streamline their contract management process and improve their supplier relations (part of their supply chain integration process). Dispute resolution services also help to smooth business operation. For instance SquareTrade helps eBay to resolve disputes among sellers and bidders in online auction. The online dispute resolution became the part of eBay offerings in order to provide more protection to its customers and increase their trust and confidence (Katsh & Rifkin, 2001).

### **3.3 Cost structure of e-negotiation services**

#### **a) Software Development Cost**

Although general communication software such as e-mail, chatting room or Internet-based conferencing such as NetMeeting can be used to facilitate e-negotiation, they do not provide structural support and lack the security and privacy features. Special negotiation software therefore needs to be developed. For instance, Online Resolution, Inc. developed and licensed a secure online groupware called Resolution Room. Rooms are password protected and accessible from any web browser. The threaded discussion capability clearly organizes issues or topics of concern. SmartSettle is a comprehensive negotiation support system developed by ICAN Systems Inc. It can handle from very simple single-issue two-party cases to complex problems involving any number of decision makers with conflicting objectives on both quantitative and qualitative issues. Based on the assessment of both parties' private preferences and tradeoffs, SmartSettle is able to suggest a tentative optimal solution for easy acceptance of both parties. Another innovative negotiation software is Win<sup>2</sup>. It will help you communicate effectively, reach agreement and obtain cooperation. Using a database of more than 600 techniques, Win<sup>2</sup> analyzes the unique facts of your situation and recommends practical approaches for exchanging information, making proposals and gaining concurrence.

#### **b) Online Service Delivery Cost**

Most e-negotiation companies deliver their services online. The same as other web-based businesses, these types of services require the installation and operation of web server, application server, and Internet access channels.

#### **c) Expert Service Cost**

Some e-negotiation companies provide expert service for mediation and arbitration. Unlike automated negotiation and dispute resolution services, this human service cost could be very high. However, it is still possible to provide the service cost less than face-to-face services.

### **3.4 Sources of Revenues**

#### **a) Service Charges**

The most common source of revenue is service charges. There are different types of service charges. For instance, the charge can be based on a case to be handled, such as NovaForum, or a charge of renting a virtual Resolution Room offered by Online Resolution.

#### **b) Sales of e-Negotiation Software**

An e-negotiation company may sell or license negotiation software to other companies. This type of business is limited because e-negotiation systems do not have huge market in comparison with general purpose software such as an accounting or order processing software. However, negotiation components can be imbedded into contract management software which will have much bigger market.

#### **c) Cost and Profit Sharing with Business Partners**



Special negotiation or dispute resolution services can be offered through business partners, and revenue can be received through a contract. For instance, SquareTrade is allied with eBay to provide dispute resolution services. It has handled thousands of cases. This can be a very reliable source of revenue.

### **3.5 Issues Related to the Use of Online Negotiation Services**

Although online negotiation and dispute resolution services have great potential, they also face numerous challenges. Here we highlight some important issues from users' perspective:

#### **a) Communication Issues**

Instead of face-to-face meeting, phone call, or fax, online negotiation and mediation often use Internet based communication such as email, instant message, chatting room, or video conferencing. The change of the communication medium may affect the efficiency and effectiveness of the negotiation and mediation process either positively or negatively. For instance, without face-to-face meetings it may reduce the emotional content and make the message exchange more problem-focus. However, typing may limit the expression power and slow down the responsiveness in communication. People may feel more comfortable with traditional face-to-face meeting rather than electronic communication. A good negotiation and mediation software should be able to integrate all the communication channels in order to provide the maximum flexibility, efficiency and effectiveness (Yuan et al, 2003).

#### **b) Security and Privacy Issues**

Disputes often involve very sensitive information. People do not like their dispute or the means of resolving it to be known to the public or their competitors. The two parties involved in dispute may not want to reveal their private information and the mediator or arbitrator is responsible for keeping the consultation secret. In a face-to-face meeting, security and privacy are easy to maintain. But when the process of dispute resolution moves to the Internet, security and privacy become a major concern [Hinde, 1998; Head and Yuan, 2001]. The Internet is public and insecure. Normal email, chatting, and video conferencing do not have built in security. Besides user name and password for access control, more advanced security techniques such as encryption and SSL (Secure Socket Layer) should be used. When the information about the dispute case is stored at the neutral third party site, it is the third party trustee's responsibility to protect the privacy.

#### **c) Legal Issues**

When two parties resolve their dispute either through negotiation, mediation or arbitration, the resolution should be legalized. Traditionally it can be done through signing a paper document by all the parties involved. In the case of a digital document, digital signature should be used and be legally recognized [Ford and Baum 1997]. Recently, many counties passed digital signature laws making the legalization of online dispute resolution possible. However, the digital signature technologies such as PKI (Public-Key Infrastructure) [Ford and Baum 1997] are still not widely accepted in the business and consumer community.

#### **d) Cost/Benefit and Profit Issues**

To use online dispute resolution services, it is important for customers to justify what kind of benefit they can receive and how much they have to pay. It is also essential for the service providers to figure out if they can make money. The benefits a customer may receive can be: cost savings related to

attending at the court, and travel, time savings for quick resolution, and possibly better resolution through decision support or expert mediation. The cost a customer may pay will vary in relation to the quality of service, and service charges. There will be a learning and adaptation process before online services are widely accepted.

### **3.6 Sustainability**

Sustainability refers to the company's capability of making continuous success in a long run. To sustain a competitive advantage, a firm may take some of the three generic strategies: block, run, and team-up. In the block strategy, a firm tries to erect barriers around its business model to prevent others from imitating it. A run strategy admits that perfect protection is not always possible. The innovator must run; that is, it must keep innovating its business model. Often, however, a firm cannot do it all alone. In the team-up strategy, a firm can pool other's resources to strengthen its business model [Afuah & Tucci, 2000].

In the case of e-negotiation services, different strategies have been adopted. Patents and copyrights have been used to implement a block strategy. For instance, NovaForum put its eight-step dispute resolution model into patent protection and SmartSettle has developed its unique software that helps two negotiation parties to find an optimal solution. However, the copyright or patent will be useless if it does not demonstrate the real value. It is important for e-negotiation service providers to provide real case (not simulated) success stories and statistics. So far, we could find 200 cases processed by NovaForum with the success rate of about 80% [www.novaforum.com ] and thousands of cases handled by SquareTrade [www.squaretrade.com].

Some kind of strategic business alliances is a key success factor to generate businesses. Literature suggests that firms that cooperate through alliances have higher probability for outperforming the market (Harbison et al. 2000). As so, alliances are being formed by some of the industry participants. For instance, NovaForum is directly run by lawyers and associated with a group of lawyers in order to provide arbitration services. SquareTrade is associated with eBay, for resolving disputes in person-to-person auction, and Onlinemediators.com is going after the business-to-business market for the larger-scale transactions. The site is receiving considerable interest from employment service sites such as Guru.com, Monster.com, and eLance.com, a reverse auction-style site that enables freelancers to bid on employers' projects. Work projects generate much more possibilities for disagreements and conflicts. There are lots of disputes in the consulting service auction model. [Dennehy, 2000]

## **4. Validation of the e-Negotiation Business Model from Users' Perspective**

Some of the components of the suggested business model relate to the service users side and some relate to the service providers side. Hence, in order to fully verify the business model, one should examine these two perspectives. In this paper we address the business model from a consumer perspective only. Therefore, market demand, customer value and issues of using the service are the focus of this survey. Future research will address the service provider perspective to wholly validate the business model and to identify gaps between users and providers. In order to study the users' perspective domains of the business model and to validate our assumptions, we have conducted a telephone interview and a questionnaire among 70 randomly selected companies in Ontario, Canada. We examined three groups of subjects: Manufacturing & Services organizations, Labor Unions and Others (transportation, logistics etc.). As the nature of this study is more exploratory than explanatory, we used post-hoc descriptive analysis to address the following questions:

- What is the awareness for existing services?
- What are the perceived benefits of online negotiations?
- What are the perceived difficulties of online negotiations?
- What is the sentiment towards using online negotiations?
- Are the answers to these questions industry dependent?

The answers to these questions are then taken as the basis for industry diagnosis and for our recommendations.

#### **4.1 Survey Results – Demand for and Intension to Use e-Negotiation Services**

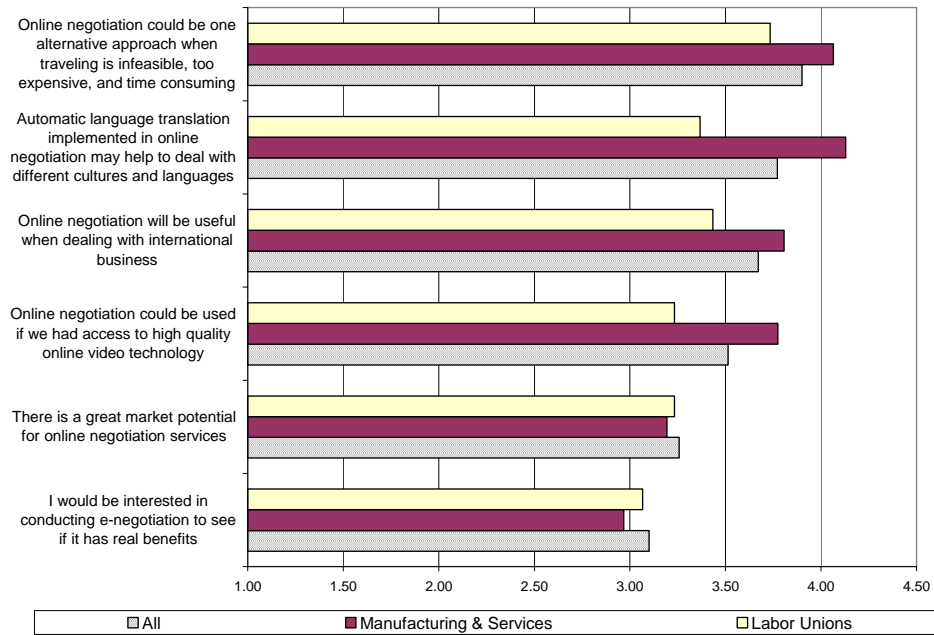
Our survey shows that Internet has become prevalent within businesses in Ontario, Canada. In addition, it demonstrates that commercial contract management and dispute resolution are vital business processes within the surveyed industries. 90 percent of the surveyed organizations do use e-commerce, but mainly for web presence. Only 19 percent of the surveyed companies use the internet media for real commerce in a form of online-sales. Similarly to the Internet, negotiations are prevalent within the surveyed organizations. 99 percent of the surveyed organizations exercise some form of negotiations. However, dispute resolution is not as common as contract negotiations. Only 70 percent of the surveyed organizations use it. Together with the fact that dispute resolution consumes fewer resources than contract negotiation does, it implies that the potential market for contract negotiations is larger as it represents larger saving opportunities. In the case of dispute resolution, there is a clear difference between the various subject groups in the survey. While only 42 percent of the manufacturing and services companies are involved in dispute resolution, it is very common with labor unions and being used by 97 percent of them. This difference demonstrates that the contract negotiations market as a whole is much bigger than the dispute resolution one in terms of volume and revenues, and that for dispute resolution services, the labor union market is more attractive.

The communication media for negotiating a contract or resolving a dispute is comprised of mainly face-to-face discussions, phone calls and emails (43 percent, 34 percent and 29 percent respectively). At the bottom of the list there are video conferencing and e-negotiations (3 percent and 0 percent respectively). The low acceptance of video conferencing could be explained through the high costs of the infrastructure (screens, devices and connectivity) and the need that both negotiating sides would have the infrastructure. Both of those barriers seem to apply as well for the first generation of computerized negotiation services. There is a clear difference in the preference for a communication media by the two major surveyed groups. While manufacturers and service providers prefer negotiating face to face (58 percent) and phone negotiations (48 percent), labor unions prefer face to face negotiations (20 percent) and using emails for negotiations (20 percent) equally. This difference might imply on different types of negotiation orientation and levels of complexity. In accordance with Weigand's (et al, 2003) classification of communicative negotiation models, manufacturers and service providers are mainly norm-oriented and use the classical quotation/ ordering process as opposed to labor unions who mainly apply the document based approach through the negotiation of a collaboratively written collective agreements.

In terms of intention to use e-negotiations in the future, a large portion of managers believes that there is a great market potential for online negotiations services (46 percent). They believe that e-negotiations service are suitable when traveling is difficult (80 percent) and especially if translation services are added to bridge language barriers (76 percent). In addition, video technology is perceived as a major contribution to the service. 59 percent of the surveyed managers believe that high quality video can add value and increase the market potential of e-negotiations. The perceived value of video

in this survey is higher than its actual contribution. Previous research (Yuan et al, 2003) revealed that though video adds value to communications in web based negotiations; its relative contribution is less significant than audio. Although there is currently low awareness to those services (None of the surveyed managers was aware of any of the mentioned services), 46 percent of managers would be interested in conducting e-negotiations if it could really benefit their organizations.

**Figure 1: Ranked Perceptions and Intentions Regarding E-Negotiation Services**



\* “All” includes Manufacturing & Services, Labor Unions, and Others (e.g. Transportation)

Inline with our assumption, this part of the survey demonstrates that there is a great market potential for e-negotiations, that awareness is a major barrier and that there is a positive sentiment towards using online negotiation services in the future.

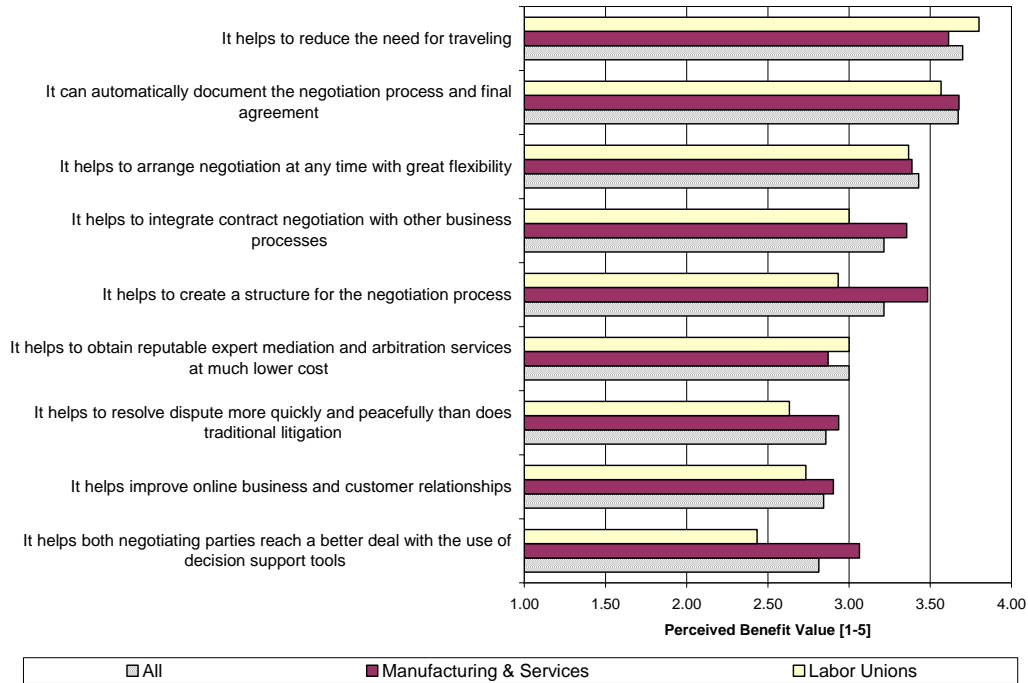
### 4.2 Survey Results – Perceived Value Proposition

The benefits of e-negotiations services are clear to the surveyed managers. Managers identify the time savings and the negotiation cost reduction as major benefits. 40 percent of them agree or even strongly agree with the described benefits as opposed to a minority (21 percent) that tends to disagree with it. The two characteristics managers perceive as most beneficial are reduction of the need to travel (64 percent) and the automatic documentation of the negotiation process (61 percent). In addition to those two characteristics, labor unions have pointed on the additional flexibility as a major benefit (57 percent). The findings regarding the importance of the documentation capabilities of a negotiation support system are in line with previous research. Schoop and Quix (2001) had identified the documentation functionality as a major component of the framework for negotiation support systems.

Characteristics of e-negotiations that were not perceived as major benefits include reaching a better deal through decision support, getting reputable expert mediation and arbitration services at much lower cost and the ability to improve online business and customer relations. In these cases the majority of the surveyed managers disagreed or felt neutral to the perceived benefits. Less than 30

percent of the surveyed managers agreed or strongly agreed with these benefits. The first two ones are an outcome of the lack of trust and lack of experience issues. The third one is a result of inherent face-to-face habits, as supported by their perception of difficulties of e-negotiations. While the feature manufacturers and service providers perceive as least feasible is getting reputable expert mediation and arbitration services at much lower cost (13 percent agreed or strongly agreed), labor unions disagree with the ability to reach a better deal through the use of decision support tools (13 percent agreed or strongly agreed).

**Figure 2: Ranked Perceived Benefits**



\* “All” includes Manufacturing & Services, Labor Unions, and Others (e.g. Transportation)

Existing and new service providers should focus their value proposition on the constructs that matter the most for managers (e.g. time savings and documentation automation) and put less emphasis on lower ranked constructs of perceived value (e.g. reach a better deal). In addition, the value proposition should be better conveyed to the users. Service providers should try to convince users to change their perceptions of e-negotiations by providing some good examples of success stories. It is fairly easy to convey the top ranked benefits (e.g. “helps to reduce traveling time) as these benefits are clear, solid and could be quantified into a measurable cost-benefit justification.

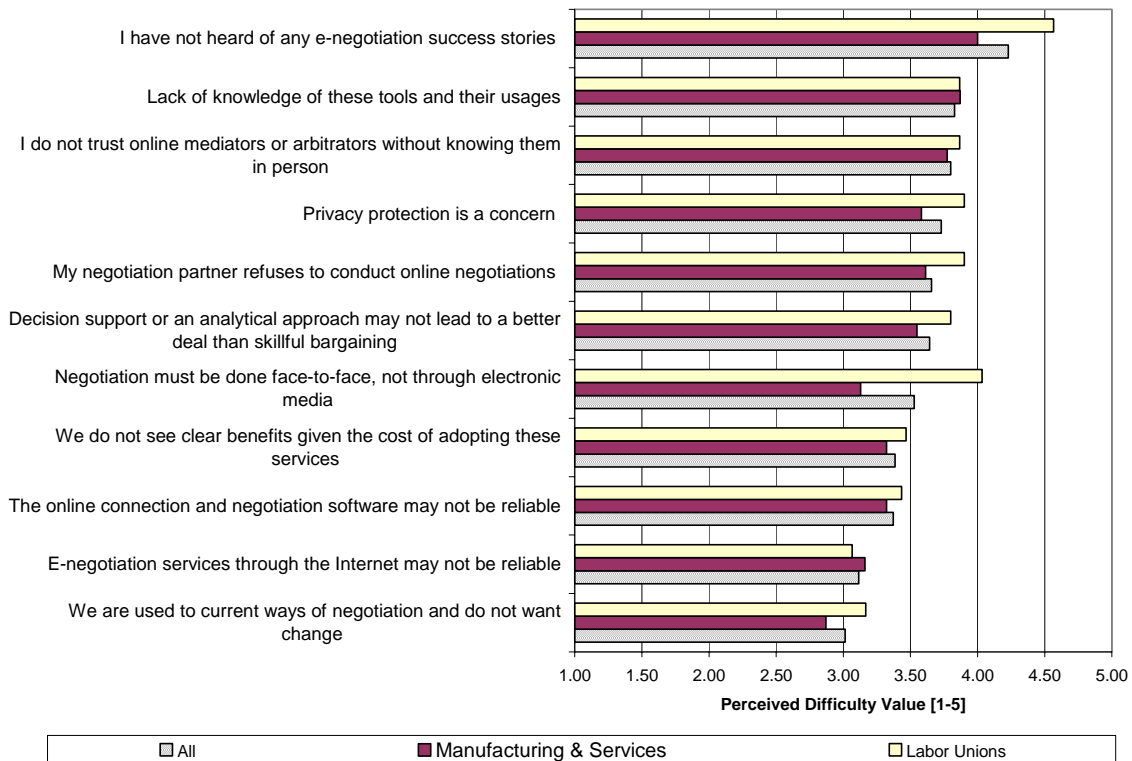
**4.3 Survey Results – Perceived Difficulties**

As listed above, managers feel that e-negotiations impose difficulties in terms of communications constraints, lack of cost/benefit justification, deficient privacy and low trust levels. They believe that these barriers must be removed before they start using the services. The survey demonstrates that the majority of managers does not trust online mediators without knowing them (63 percent) and feel that analytical approach in negotiations may not lead to a better deal than skilful bargaining (59 percent). The two most concerning issues in e-negotiations are lack of success stories (87 percent) and lack of

knowledge of these tools (71 percent). 97 percent of labor unions managers perceive lack of success stories as a major barrier, a fact that implies that in order to penetrate this market, a service provider should build trust and awareness through publication of success stories. Other concerns such as privacy, software reliability and partners’ acceptance of the service are perceived important as well.

All of those perceived difficulties might be a result of the extremely low awareness to the major e-negotiation service providers. No one from the surveyed companies was aware of any participant out of 10 major service providers. This lack of commercial interest in the subject could be changed with the emergence of the driving forces for e-negotiations.

**Figure 3: Ranked Perceived Difficulties**



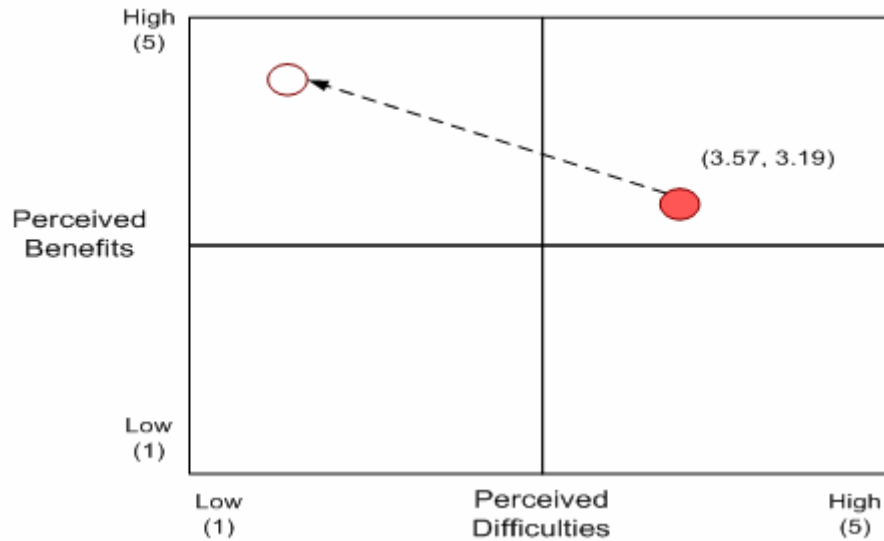
\* “All” includes manufacturing & Services, Labor Unions, and Others (e.g. Transportation)

Interestingly, the most important issues are relatively easy to overcome, and the less important issues are relatively difficult to overcome. For instance, the two top perceived difficulties, lack of knowledge, and lack of success stories, could be easily overcome by means of publishing success stories in a targeted manner. As opposed to that, overcoming less important difficulties, like old habits and reliability is challenging and takes an evolutionary process. Hence, this distribution of difficulties works in favor of the e-negotiation service providers, as it enables them, through a feasible set of steps, to overcome the important difficulties. As well, the higher ranked difficulties are educational rather than technical. Even the security and trust issues are educational as they refer to the perceptions and not to the underlying technology. Thus, the first priority of service providers should be educating the market in order to overcome these set of difficulties.

#### 4.4 Benefits –Difficulties Matrix Analysis

The survey had provided us with a quantitative measure for the perceived benefits and the perceived difficulties of web based negotiation services as well as with qualitative data regarding potential users' views of critical factors for the success of the services. The following matrix and text outline current service perception, and the required steps to turn it into a commercial success.

**Figure 4:** Benefits-Difficulties Matrix



Current perception of the benefits is moderate to high and stands on 3.19 on a 1 to 5 scale. The perception of the difficulties is high as well, and stands on 3.57 on the same scale. In both segments the perception is similar though manufacturers perceive more benefits (3.25) and fewer difficulties (3.47) than labor unions (3.05 and 3.73 respectively). In order to reach a critical mass of users, e-negotiation services need to overcome some major barriers that were identified by the surveyed managers.

Though there is a room for technical advancements in current web-based negotiation services, it seems that major steps are required on the strategic level. There is a need to create awareness for these services. Current marketing efforts (if any) did not reach the target audience. None of the surveyed managers have heard of web based negotiations. As soon as there is an initial group of users, there would be a viral effect as one organization would introduce it to others. Furthermore, large organizations could potentially force their trade partners to use web-based negotiations and help in creating a critical mass of users. Hence, to better utilize the viral effect, service providers should target powerful buyers (e.g. Wal-Mart) that can standardize use of these services as an integrated part of their supply chain. In addition, the awareness should be not only for the existence of the services but for previous success stories as well. Lack of business cases imposes difficulties on justifying the usage of the services. It also creates lack of trust and generates privacy concerns.

As taking an analytical approach frightens potential users and stimulate trust issues, there is a need to focus on support systems as opposed to fully agent mediated systems. One of the main barriers that e-negotiation service providers need to overcome is the experience and trust that users had gained with its main competitor – face-to-face negotiations. The lack of personal cues and non-verbal cues is still a concern for users (Galín et al, 2002). A solution could be found in a combination of face-to-face

negotiations and e-negotiation in this order. Previous research had found that symptoms of anonymity that characterize e-negotiations disappear when face-to-face negotiation is conducted previously (Galin Et al, 2002).

Like a lot of other innovative web based services, adaptation is a major concern for service providers. 54% of the surveyed managers believe that the habit of face to face negotiation is preventing them from using web negotiation services. As this is a major issue, and in addition, the benefits of the services are not clear, service providers should take a two phased approach - start with process support systems, and once people get used to this online approach, the demand for decision support may increase. Some researchers emphasize the importance of communications in negotiation and argue that from this perspective, negotiation support systems are still in a preliminary stage (Hans et Al, 2003). Though technology is ready to revolutionize the way managers negotiate it is better to take an adaptation-oriented approach and slowly build trust in and awareness to web based negotiation services, by starting from process support systems.

Taking the above measures and removing the barriers would help in shifting the perception of web-based negotiation services from the top-right quadrant to the top-left one and in creating a critical mass of users.

## 5. Summary & Conclusions

In this paper we reviewed the recent developments of e-negotiation services and analyzed important issues for its success. We developed a high level framework for e-negotiation services business model and conducted an exploratory study to examine the value proposition from users' perspective. The survey results were positive regarding the future user acceptance of web based negotiation services and were in line with our assumptions. There is a potential demand for e-negotiation services, but at same time there is still a need for much progress in tackling perceived difficulties. Another clear point that rises from the survey is that current awareness to web based negotiations or dispute resolution is extremely low.

As the cost structure and source of revenues of online negotiation service providers is very similar to those of other web based service providers, the success of these companies is dependent on their ability to provide value to customers. By focusing their offering on traveling time reduction, additional timing flexibility and automatic documentation, service providers would be able to enhance their proposition and appeal it to the target market. In addition, by tackling the trust issue, building market awareness and publishing success stories to demonstrate cost –benefit justification, service providers can build a mass market of users.

In accordance with the views of the surveyed managers, we believe that with the continuous effort on improving the technology and service, the market demand for online negotiation services and dispute resolution will finally become the reality.

It should be noted that the conclusion of this survey is based on the manufacturing, services and labor unions segments in Ontario, Canada. Future research might look at additional market segments or explore cross-cultural differences in the sentiment towards online negotiation services. Furthermore, as this research focused on users' view of e-negotiation services, future research will examine the business model from service providers' standpoint and compare it with the views revealed in this research.



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## Appendix 1: Survey – Part 1

### A. General Information

	Type of Organization	Not using e-business	Has company website	Provide online sales	Online connection with partners	Negotiate Business Contracts	Deal with Disputes
Manufacturing/Services	31	1	30	12	11	31	13
Labor Unions	30	4	25	0	2	30	29
Others	9	2	7	1	0	8	7
All	70	7	62	13	13	69	49
MFG/Services	44%	3%	97%	39%	35%	100%	42%
Labor Union	43%	13%	83%	0%	7%	100%	97%
Others	13%	22%	78%	11%	0%	89%	78%
All	100%	10%	89%	19%	19%	99%	70%

### B. Negotiations Communication Media

	Using face to face negotiations	Using telephone for negotiations	Using email for negotiations	Using fax for negotiations	Using mail for negotiations	Using video conference for negotiations	Using e-negotiation software	Using other tools for negotiations
MFG/Services	18	15	10	2	2	1	0	0
Labor Unions	6	4	6	1	1	1	0	0
Others	6	5	4	2	3	0	0	0
All	30	24	20	5	6	2	0	0
MFG/Services	58%	48%	32%	6%	6%	3%	0%	0%
Labor Union	20%	13%	20%	3%	3%	3%	0%	0%
Others	67%	56%	44%	22%	33%	0%	0%	0%
All	43%	34%	29%	7%	9%	3%	0%	0%

## Appendix 2: Survey – Part 2

### A. Summary – All of the Organizations

		All										
		1	2	3	4	5	Average	STDV	Confidence Level (95%)		Agree	Disagree
Perceived Benefits	It helps to reduce the need for traveling	4	6	15	27	18	3.70	1.12	3.43	3.97	64%	14%
	It helps to arrange negotiation at any time with great flexibility	6	6	17	34	7	3.43	1.07	3.17	3.68	59%	17%
	It can automatically document the negotiation process and final agreement	3	4	20	29	14	3.67	1.00	3.43	3.91	61%	10%
	It helps to create a structure for the negotiation process	5	8	27	27	3	3.21	0.96	2.99	3.44	43%	19%
	It helps to integrate contract negotiation with other business processes	1	3	47	18	1	3.21	0.61	3.07	3.36	27%	6%
	It helps both negotiating parties reach a better deal with the use of decision support tools	9	15	28	16	2	2.81	1.03	2.57	3.06	26%	34%
	It helps to obtain reputable expert mediation and arbitration services at much lower cost	7	8	37	14	4	3.00	0.98	2.77	3.23	26%	21%
Perceived Benefits	It helps to resolve dispute more quickly and peacefully than does traditional litigation	10	13	27	17	3	2.86	1.08	2.60	3.12	29%	33%
	It helps improve online business and customer relationships	9	15	27	16	3	2.84	1.06	2.59	3.10	27%	34%
Perceived Difficulties	Lack of knowledge of these tools and their usages	2	7	11	31	19	3.83	1.04	3.58	4.08	71%	13%
	We are used to current ways of negotiation and do not want change	4	21	21	18	6	3.01	1.07	2.76	3.27	34%	36%
	Negotiation must be done face-to-face, not through electronic media	1	16	15	21	17	3.53	1.14	3.26	3.80	54%	24%
	E-negotiation services through the Internet may not be reliable	6	15	21	21	7	3.11	1.12	2.85	3.38	40%	30%
	Privacy protection is a concern	2	12	11	23	22	3.73	1.17	3.45	4.01	64%	20%
	The online connection and negotiation software may not be reliable	3	9	24	27	7	3.37	0.98	3.14	3.61	49%	17%
	We do not see clear benefits given the cost of adopting these services	0	10	31	21	8	3.39	0.87	3.18	3.59	41%	14%
	I have not heard of any e-negotiation success stories	0	6	3	30	31	4.23	0.89	4.02	4.44	87%	9%
	My negotiation partner refuses to conduct online negotiations	0	6	28	20	16	3.66	0.93	3.44	3.88	51%	9%
	Decision support or an analytical approach may not lead to a better deal than skillful bargaining	1	7	21	28	13	3.64	0.95	3.42	3.87	59%	11%
Perceived Difficulties	I do not trust online mediators or arbitrators without knowing them in person	0	4	22	28	16	3.80	0.86	3.60	4.01	63%	6%
Intention to use in the future	There is a great market potential for online negotiation services	5	8	25	28	4	3.26	0.99	3.02	3.49	46%	19%
	Online negotiation could be used if we had access to high quality online video technology	4	7	18	31	10	3.51	1.05	3.27	3.76	59%	16%
	Online negotiation will be useful when dealing with international business	2	3	24	28	13	3.67	0.93	3.45	3.89	59%	7%
	Online negotiation could be one alternative approach when traveling is infeasible, too expensive, and time consuming	1	8	5	39	17	3.90	0.95	3.67	4.13	80%	13%
	Automatic language translation implemented in online negotiation may help to deal with different cultures and languages	3	4	10	42	11	3.77	0.94	3.55	3.99	76%	10%
	I would be interested in conducting e-negotiation to see if it has real benefits	6	15	17	30	2	3.10	1.05	2.85	3.35	46%	30%
Summary	Perceived Benefits	54	78	245	198	55	3.19	1.09	3.20	3.43	40%	21%
	Perceived Difficulties	19	113	208	268	162	3.57	1.12	3.33	3.81	56%	17%
	Intention	21	45	99	198	57	3.54	1.08	3.30	3.77	61%	16%

B. Manufacturing and Services

		Manufacturing / Services										
		1	2	3	4	5	Average	STDV	Confidence Level (95%)		Agree	Disagree
Perceived Benefits	It helps to reduce the need for traveling	2	1	9	14	5	3.61	1.02	3.24	3.99	61%	10%
	It helps to arrange negotiation at any time with great flexibility	1	4	9	16	1	3.39	0.88	3.06	3.71	55%	16%
	It can automatically document the negotiation process and final agreement	0	3	8	16	4	3.68	0.83	3.37	3.98	65%	10%
	It helps to create a structure for the negotiation process	0	2	13	15	1	3.48	0.68	3.24	3.73	52%	6%
	It helps to integrate contract negotiation with other business processes	1	3	12	14	1	3.35	0.84	3.05	3.66	48%	13%
	It helps both negotiating parties reach a better deal with the use of decision support tools	2	6	12	10	1	3.06	0.96	2.71	3.42	35%	26%
	It helps to obtain reputable expert mediation and arbitration services at much lower cost	2	5	20	3	1	2.87	0.81	2.58	3.17	13%	23%
Perceived Difficulties	It helps to resolve dispute more quickly and peacefully than does traditional litigation	3	6	13	8	1	2.94	1.00	2.57	3.30	29%	29%
	It helps improve online business and customer relationships	2	7	14	8	0	2.90	0.87	2.58	3.22	26%	29%
	Lack of knowledge of these tools and their usages	1	1	5	18	6	3.87	0.88	3.55	4.20	77%	6%
	We are used to current ways of negotiation and do not want change	3	8	12	6	2	2.87	1.06	2.48	3.26	26%	35%
	Negotiation must be done face-to-face, not through electronic media	1	9	9	9	3	3.13	1.06	2.74	3.52	39%	32%
	E-negotiation services through the Internet may not be reliable	2	6	10	11	2	3.16	1.04	2.78	3.54	42%	26%
	Privacy protection is a concern	1	6	6	10	8	3.58	1.18	3.15	4.01	58%	23%
The online connection and negotiation software may not be reliable	1	5	10	13	2	3.32	0.94	2.98	3.67	48%	19%	
We do not see clear benefits given the cost of adopting these services	0	3	16	11	1	3.32	0.70	3.07	3.58	39%	10%	
I have not heard of any e-negotiation success stories	0	4	2	15	10	4.00	0.97	3.65	4.35	81%	13%	
My negotiation partner refuses to conduct online negotiations	0	3	13	8	7	3.61	0.95	3.26	3.96	48%	10%	
Decision support or an analytical approach may not lead to a better deal than skillful bargaining	0	4	9	15	3	3.55	0.85	3.24	3.86	58%	13%	
I do not trust online mediators or arbitrators without knowing them in person	0	2	9	14	6	3.77	0.84	3.46	4.08	65%	6%	
Intention to use in the future	There is a great market potential for online negotiation services	2	5	11	11	2	3.19	1.01	2.82	3.57	42%	23%
	Online negotiation could be used if we had access to high quality online video technology	1	2	8	12	8	3.77	1.02	3.40	4.15	65%	10%
	Online negotiation will be useful when dealing with international business	2	3	3	14	9	3.81	1.17	3.38	4.24	74%	16%
	Online negotiation could be one alternative approach when traveling is infeasible, too expensive, and time consuming	0	3	1	18	9	4.06	0.85	3.75	4.38	87%	10%
	Automatic language translation implemented in online negotiation may help to deal with different cultures and languages	0	0	4	19	8	4.13	0.62	3.90	4.36	87%	0%
I would be interested in conducting e-negotiation to see if it has real benefits	3	7	9	12	0	2.97	1.02	2.60	3.34	39%	32%	
Summary	Perceived Benefits	13	37	110	104	15	3.25	0.94	2.93	3.58	43%	18%
	Perceived Difficulties	9	51	101	130	50	3.47	1.09	3.12	3.82	53%	18%
	Intention	8	20	36	86	36	3.66	1.11	3.31	4.00	66%	15%

C. Labour Unions

		Labor Unions										
		1	2	3	4	5	Average	STDV	Confidence Level (95%)		Agree	Disagree
Perceived Benefits	It helps to reduce the need for traveling	2	3	4	11	10	3.80	1.21	3.35	4.25	70%	17%
	It helps to arrange negotiation at any time with great flexibility	5	2	6	11	6	3.37	1.35	2.86	3.87	57%	23%
	It can automatically document the negotiation process and final agreement	3	1	10	8	8	3.57	1.22	3.11	4.02	53%	13%
	It helps to create a structure for the negotiation process	5	5	9	9	2	2.93	1.20	2.49	3.38	37%	33%
	It helps to integrate contract negotiation with other business processes	0	0	30	0	0	3.00	0.00	3.00	3.00	0%	0%
	It helps both negotiating parties reach a better deal with the use of decision support tools	7	8	11	3	1	2.43	1.07	2.03	2.83	13%	50%
	It helps to obtain reputable expert mediation and arbitration services at much lower cost	5	3	12	7	3	3.00	1.20	2.55	3.45	33%	27%
Perceived Difficulties	It helps to resolve dispute more quickly and peacefully than does traditional litigation	7	6	10	5	2	2.63	1.22	2.18	3.09	23%	43%
	It helps improve online business and customer relationships	7	5	10	5	3	2.73	1.28	2.25	3.21	27%	40%
	Lack of knowledge of these tools and their usages	1	3	6	9	11	3.87	1.14	3.44	4.29	67%	13%
	We are used to current ways of negotiation and do not want change	1	9	8	8	4	3.17	1.12	2.75	3.58	40%	33%
	Negotiation must be done face-to-face, not through electronic media	0	4	4	9	13	4.03	1.07	3.64	4.43	73%	13%
	E-negotiation services through the Internet may not be reliable	4	7	7	7	5	3.07	1.31	2.58	3.56	40%	37%
	Privacy protection is a concern	1	3	5	10	11	3.90	1.12	3.48	4.32	70%	13%
Intention to use in the future	The online connection and negotiation software may not be reliable	2	4	8	11	5	3.43	1.14	3.01	3.86	53%	20%
	We do not see clear benefits given the cost of adopting these services	0	5	12	7	6	3.47	1.01	3.09	3.84	43%	17%
	I have not heard of any e-negotiation success stories	0	1	0	10	19	4.57	0.68	4.31	4.82	97%	3%
	My negotiation partner refuses to conduct online negotiations	0	1	10	10	9	3.90	0.88	3.57	4.23	63%	3%
	Decision support or an analytical approach may not lead to a better deal than skillful bargaining	1	3	7	9	10	3.80	1.13	3.38	4.22	63%	13%
	I do not trust online mediators or arbitrators without knowing them in person	0	2	10	8	10	3.87	0.97	3.50	4.23	60%	7%
	There is a great market potential for online negotiation services	3	2	12	11	2	3.23	1.04	2.85	3.62	43%	17%
Summary	Online negotiation could be used if we had access to high quality online video technology	3	4	8	13	2	3.23	1.10	2.82	3.65	50%	23%
	Online negotiation will be useful when dealing with international business	0	0	20	7	3	3.43	0.68	3.18	3.69	33%	0%
	Online negotiation could be one alternative approach when traveling is infeasible, too expensive, and time consuming	1	5	2	15	7	3.73	1.11	3.32	4.15	73%	20%
	Automatic language translation implemented in online negotiation may help to deal with different cultures and languages	3	4	5	15	3	3.37	1.16	2.93	3.80	60%	23%
	I would be interested in conducting e-negotiation to see if it has real benefits	3	7	6	13	1	3.07	1.11	2.65	3.48	47%	33%
Perceived Benefits	41	33	102	59	35	3.05	1.21	3.01	3.46	35%	27%	
Perceived Difficulties	10	42	77	98	103	3.73	1.12	3.34	4.13	61%	16%	
Intention	13	22	53	74	18	3.34	1.05	2.96	3.73	51%	19%	

D. Others

		Others							Confidence Level (95%)			
		1	2	3	4	5	Average	STDV			Agree	Disagree
Perceived Benefits	It helps to reduce the need for traveling	0	2	2	2	3	3.67	1.22	2.73	4.61	56%	22%
	It helps to arrange negotiation at any time with great flexibility	0	0	2	7	0	3.78	0.44	3.44	4.12	78%	0%
	It can automatically document the negotiation process and final agreement	0	0	2	5	2	4.00	0.71	3.46	4.54	78%	0%
	It helps to create a structure for the negotiation process	0	1	5	3	0	3.22	0.67	2.71	3.74	33%	11%
	It helps to integrate contract negotiation with other business processes	0	0	5	4	0	3.44	0.53	3.04	3.85	44%	0%
	It helps both negotiating parties reach a better deal with the use of decision support tools	0	1	5	3	0	3.22	0.67	2.71	3.74	33%	11%
	It helps to obtain reputable expert mediation and arbitration services at much lower cost	0	0	5	4	0	3.44	0.53	3.04	3.85	44%	0%
	It helps to resolve dispute more quickly and peacefully than does traditional litigation	0	1	4	4	0	3.33	0.71	2.79	3.88	44%	11%
Perceived Difficulties	It helps improve online business and customer relationships	0	3	3	3	0	3.00	0.87	2.33	3.67	33%	33%
	Lack of knowledge of these tools and their usages	0	3	0	4	2	3.56	1.24	2.61	4.51	67%	33%
	We are used to current ways of negotiation and do not want change	0	4	1	4	0	3.00	1.00	2.23	3.77	44%	44%
	Negotiation must be done face-to-face, not through electronic media	0	3	2	3	1	3.22	1.09	2.38	4.06	44%	33%
	E-negotiation services through the Internet may not be reliable	0	2	4	3	0	3.11	0.78	2.51	3.71	33%	22%
	Privacy protection is a concern	0	3	0	3	3	3.67	1.32	2.65	4.68	67%	33%
	The online connection and negotiation software may not be reliable	0	0	6	3	0	3.33	0.50	2.95	3.72	33%	0%
	We do not see clear benefits given the cost of adopting these services	0	2	3	3	1	3.33	1.00	2.56	4.10	44%	22%
	I have not heard of any e-negotiation success stories	0	1	1	5	2	3.89	0.93	3.18	4.60	78%	11%
	My negotiation partner refuses to conduct online negotiations	0	2	5	2	0	3.00	0.71	2.46	3.54	22%	22%
Intention to use in the future	Decision support or an analytical approach may not lead to a better deal than skillful bargaining	0	0	5	4	0	3.44	0.53	3.04	3.85	44%	0%
	I do not trust online mediators or arbitrators without knowing them in person	0	0	3	6	0	3.67	0.50	3.28	4.05	67%	0%
	There is a great market potential for online negotiation services	0	1	2	6	0	3.56	0.73	3.00	4.11	67%	11%
	Online negotiation could be used if we had access to high quality online video technology	0	1	2	6	0	3.56	0.73	3.00	4.11	67%	11%
	Online negotiation will be useful when dealing with international business	0	0	1	7	1	4.00	0.50	3.62	4.38	89%	0%
	Online negotiation could be one alternative approach when traveling is infeasible, too expensive, and time consuming	0	0	2	6	1	3.89	0.60	3.43	4.35	78%	0%
Summary	Automatic language translation implemented in online negotiation may help to deal with different cultures and languages	0	0	1	8	0	3.89	0.33	3.63	4.15	89%	0%
	I would be interested in conducting e-negotiation to see if it has real benefits	0	1	2	5	1	3.67	0.87	3.00	4.33	67%	11%
Summary	Perceived Benefits	0	8	33	35	5	3.46	1.02	2.91	4.00	49%	10%
	Perceived Difficulties	0	20	30	40	9	3.38	1.18	2.71	4.05	49%	20%
	Intention	0	3	10	38	3	3.76	0.91	3.28	4.24	76%	6%