

# Appendix

## SEMI-STRUCTURED QUESTIONNAIRE DESIGN

The semi-structured questionnaire includes four sections:

### Section 1

Section 1 consists of three parts. The objective of the first part was to obtain background (demographic) information about the organizations. The questions included: type of organization, size, number of trading partners, types of products, and the type of e-commerce technology/application adopted. The second part of Section 1 examines factors that motivate the organization to adopt e-commerce and determines antecedent trust behaviours in trading partners. A total of 18 items were applied to evaluate different types of trading partner trust. Competence trust was examined using two antecedent trust behaviour questions that relate to trading partners' ability, skills, competence, and their level of dependence. Predictability trust was examined with four antecedent trust behavioural questions about consistent trading partners' behavioural patterns leading to knowledge gained and enabling other trading partners to make predictions. Finally, goodwill trust was examined with twelve

antecedent trust behavioural questions about care, concern, open communication, training, education, and commitment, and other factors leading to long-term trading partner relationships.

The third part of Section 1 examined factors relating to trust and security-based mechanisms in e-commerce. A total of 20 items identified trust and security-based mechanisms in organizations. Confidentiality was examined with two questions about privacy (encryption mechanisms and firewalls). Integrity was examined with five questions about data accuracy and completeness. Authentication was examined with one question about formal user log-on procedures. Non-repudiation was examined with one question about acknowledgement procedures. Access controls were examined with two questions about authorization mechanisms and network access controls. Availability was examined with one question about segregation of duties. Finally, best business practices were examined with seven questions about audit involvement, risk analysis, top management commitment, and contingency procedures.

## **Section 2**

The object of Section 2 was to examine the organizations' perceived benefits in participation in e-commerce. Perceived benefits derived from both trading partner trust relationships and trust and security-based mechanisms in e-commerce were examined. A total of 13 items were used to examine perceived benefits from four different categories. Perceived direct benefits (or economic benefits) were examined using four questions about tangible economic benefits derived from cost savings. Perceived indirect benefits were examined with four questions about productivity, profitability, and competitive advantage. Perceived relationship-related benefits were examined with three questions about trading partner satisfaction (i.e., improved communication, cooperation, and commitment). Finally, perceived strategic benefits (or symbolic benefits) were examined with two questions about organizations' image, reputation, and long-term investments.

## **Section 3**

Section 3 examines the organizations' perceived risks of e-commerce. Perceived risks derived from both trading partner trust relationships and trust and security-based mechanisms in e-commerce were examined. A total of 25

items was applied to examine perceived risks from three different categories. Perceived technology performance-related risks were examined using seven questions about the e-commerce technology. Perceived relational risks were examined using eight questions about trading partners' uncertainties, unreliability, and signs of opportunistic behaviours. Finally, perceived general risks were examined using ten questions about poor business practices such as a lack of proper standards, written policies, and procedures.

## Section 4

Section 4 examines an organization's extent of e-commerce participation. E-commerce participation was examined from two different perspectives. A total of 11 questions was applied to examine e-commerce participation from two different categories. E-commerce performance was examined with four questions about the intensity, volume, and dollar value of the e-commerce transactions. Trading partner trust relationship development was examined with seven questions about cooperation, communication, commitment, and reputation.

For each of these questions, respondents were asked to indicate their impact level using likert scales (as in Low (0-3), Medium (4-6), and High (7-10)). They indicated explanations and reasons on their responses. Participants provided examples and evidence for each question even if their responses were negative. This helped develop causal links and provided richer explanations. Hence, by consistently applying the semi-structured questionnaire across all cases, reliability of the data was achieved and led to meaningful generalizations and conclusions about the importance of different types of trading partner trust in e-commerce participation. These conclusions yielded consistent results that supported and confirmed the predictions, refuted the predictions, or produced mixed results that made explaining and reasoning difficult at times.

Construct	Sub-Concepts	Definition	Evaluation Pointers & Instrumentation
<b>Trust in Trading Partners</b>	<b><i>Competence Trust</i></b>	Ability, skills, knowledge and competence of trading partners to perform business to business e-commerce correctly and completely	Examines competence trading partner trust via two items. How, why, to what extent, and in what situations (provide evidence and examples)
	<b><i>Predictability Trust</i></b>	Consistent behaviours of trading partners that allow another trading partner to make predictions and judgements due to past experiences	Examines predictability trading partner trust via four items. How, why, to what extent, and in what situations (provide evidence, and examples)
	<b><i>Goodwill Trust</i></b>	Care, concern, honesty, and benevolence shown by trading partners that allows the other trading partner to further invest in their trading partner relationship	Examines goodwill trading partner trust via twelve items. How, why, to what extent, and in what situations (provide evidence, and examples)
<b>Technology Trust Mechanisms in E-Commerce</b>	<b><i>Confidentiality</i></b>	Protection of e-commerce transactions and message content against unauthorized reading, copying, or disclosure	Examines confidentiality mechanisms via two items. How, why, to what extent, and in what situations (provide evidence, and examples)
	<b><i>Integrity</i></b>	Accuracy and assurance that e-commerce transactions have not been altered or deleted	Examines integrity mechanisms via five items. How, why, to what extent, and in what situations (provide evidence, and examples)
	<b><i>Authentication</i></b>	Quality of being authoritative, valid, true, genuine, worthy of acceptance or belief by reason of conformity to the fact that reality is present	Examines authentication mechanisms via one item. How, why, to what extent, and in what situations (provide evidence, and examples)
	<b><i>Non-Repudiation</i></b>	Originator of e-commerce transactions cannot deny receiving or sending that transaction	Examines non-repudiation mechanisms via one item. How, why, to what extent, and in what situations (provide evidence, and examples)
	<b><i>Access Controls</i></b>	Protection of e-commerce transactions against weaknesses in the transmission media and protection of the sender against internal fraud or manipulation	Examines access control mechanisms via two items. How, why, to what extent, and in what situations (provide evidence, and examples)

	<i>Availability</i>	Assurance that passes or conveys e-commerce transactions without interruption by providing authorized users with e-commerce systems	Examines availability mechanisms via one item. How, why, to what extent, and in what situations (provide evidence, and examples)
	<i>Best Business Practices</i>	Policies, procedures and standards that ensure smooth functioning of e-commerce	Examines best business practices via seven items. How, why, to what extent, and in what situations (provide evidence, and examples)
<b>Perceived Benefits of E-Commerce</b>	<i>Perceived Economic Benefits of E-Commerce</i>	Benefits derived from direct savings in costs and time	Examines direct perceived benefits via four items. How, why, to what extent, and in what situations (provide evidence, and examples)
	<i>Perceived Relationship-Related Benefits of E-Commerce</i>	Benefits derived from closer trading partner relationship such as open communications, information sharing, cooperation, and commitment	Examines human related perceived benefits via three items. How, why, to what extent, and in what situations (provide evidence, and examples)
	<i>Perceived Strategic Benefits of E-Commerce</i>	Benefits derived from long-term business investments and improved reputation of the organization	Examines strategic perceived benefits via two items. How, why, to what extent, and in what situations (provide evidence, and examples)
<b>Perceived Risks of E-Commerce</b>	<i>Perceived Technology Performance Related Risks of E-Commerce</i>	Risks derived from misuse of the e-commerce technology, integrity, viruses, confidentiality, unauthorized access, availability	Examines technology related perceived risks via seven items. How, why, to what extent, and in what situations (provide evidence, and examples)
	<i>Perceived Relational Risks of E-Commerce</i>	Risks derived from trading partner's behaviour, such as opportunistic behaviour, conflict, power	Examines people related perceived risks via eight items. How, why, to what extent, and in what situations (provide evidence, and examples)
	<i>Perceived General Risks of E-Commerce</i>	Risks derived from environmental risks, standards and audit policies	Examines general perceived risks via ten items. How, why, to what extent, and in what situations (provide evidence, and examples)
<b>Outcomes of E-Commerce Participation</b>	<i>Extent of E-Commerce Performance</i>	Intensity, volume and dollar value of the business transactions	Examines e-commerce performance via four items. How, why, to what extent, and in what situations (provide evidence, and examples)
	<i>Extent of Trading Partner Trust Development</i>	Trading partner relationship development	Examines mutual satisfaction in trading partner relationships via seven items. How, why, to what extent, and in what situations (provide evidence, and examples)

## CASE STUDY QUESTIONNAIRE

Date:

To whom it may concern

Dear Sirs

Re: A Study of Inter-organizational Trust in Business-to-Business E-Commerce Participation

The purpose of this study is to examine the impact of inter-organizational trust in e-commerce participation. E-commerce participation refers to the extent an organization adopts, integrates, or implements business-to-business e-commerce. Inter-organizational trust is actually interpersonal trust; hence it also refers to trading partner trust. We aim to examine how and why inter-organizational trust (or trading partner trust) influences the perception of benefits and risks in e-commerce, thus leading to the extent of e-commerce participation. We believe that you will find it interesting and useful to participate in this study. It is our hope that this knowledge will help increase business to business e-commerce participation.

The questionnaire consists of four sections.

### Section 1

This section seeks to obtain background (demographic) information about your organization. We seek information relating to factors that motivated your organization to adopt e-commerce and determine antecedent trust behaviours relating to trading partner relationships, trust, and security-based mechanisms in e-commerce participation.

### Section 2

This section seeks information about your organization's perception of benefits in e-commerce participation (that is, perceived benefits derived from both trading partner relationships and technology trust mechanisms in e-commerce).

### **Section 3**

This section seeks information about your organization's perception of risks in e-commerce participation (that is, perceived risks derived from both trading partner relationships and technology trust mechanisms in e-commerce).

### **Section 4**

This section seeks information about your organization's extent of e-commerce participation.

### **Confidentiality**

All responses will be kept in its strictest confidence. No individuals or organizations will be named in any outputs, nor will demographic information be revealed, such that the individual organizations can be identified. When the results of this study are published, it will be impossible to identify specific individuals or organizations, unless prior permission was received.

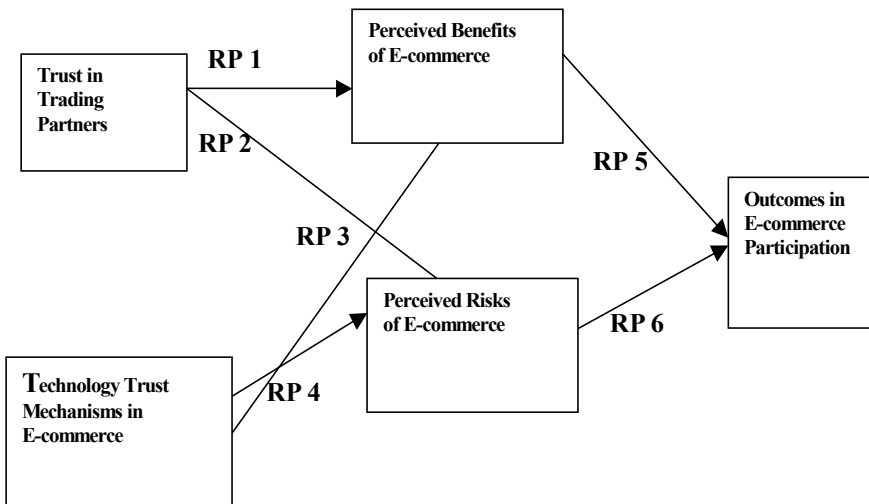
### **Summary Results**

We will send a summary of the results to all organizations that participate in this study. The summary will provide conclusions related to the extent that inter-organizational trust impacts perceived benefits and risks, thus leading to business to business e-commerce participation. We truly appreciate the time and effort you have put into this study. Your response will be of considerable help to this study.

Thank You

Ms. Pauline Ratnasingam

*Figure 1: Conceptual model of trading partner trust in e-commerce participation*



## RESEARCH TOPIC: THE IMPORTANCE OF INTER-ORGANIZATIONAL TRUST IN E-COMMERCE PARTICIPATION

**Research Question:** How and why does inter-organizational trust (trading partner trust) influence the perception of benefits and risks in business-to-business e-commerce, thus leading to the extent of its participation (adoption and integration)?

### Section 1

#### A) Demographic Section

1. Name of your organization?
2. Your job title?
3. What is your organization's reach? (Local, regional, national, or global?)



4. What is the size of your organization – (Large or small-medium-enterprise?)
5. Type of industry and sector your organization is involved in (Public or private?)
6. What is your organization's product line?
7. What is the main role of your organization? (Buyer, seller, manufacturer, or supplier?)
8. Who is responsible for implementing e-commerce and is involved in e-commerce operations in your organization?
9. What types of business transactions are actively supported by e-commerce in your organization?
10. What types of e-commerce technologies/applications did your organization implement or will be implementing?
11. How many trading partners does your organization have?
12. How did your organization choose its trading partners?
13. How long has your organization been trading with these trading partners?
14. How do you maintain your trading partners (Renewal of contracts)?
15. What other measures are used?

#### B) Trading Partner Trust

Trading Partner Trust—refers to the expectation that one trading partner will abide to the trading contract, is honest, and will act in a way not to take advantage of other trading partners. Trading partner trust is categorized as low, moderate, and high.

Please indicate your organization's reflections on behavioural characteristics relating to trading partner trust relationships. If yes, how, why, and in what situations do you relate these behaviours to trading partner trust (please provide examples and evidence)? Are there other trust behaviours that your organization faces in e-commerce participation?

*Competence Trading Partner Trust*

1. Trading partner's ability, skills, and level of competence in business to business e-commerce operations.
2. Trading partner depends on your organization.

*Predictability Trading Partner Trust*

3. Trading partner's consistent behaviour in business interactions.
4. Trading partner's reliability in keeping business promises.
5. Trading partner's adherence to policies, terms of contract, and trading partner agreements.
6. Predictability of your trading partner.

*Goodwill Trading Partner Trust*

7. Trading partner's willingness to share information and provide support relating to e-commerce adoption.
8. Trading partner demonstrates care and concern in important decisions.
9. Trading partner is committed to business arrangements and exhibits cooperation.
10. Positive feelings towards your trading partner.
11. Long-term trading relationships with your trading partner.

12. Your organization is willing to put in more effort and invest in your trading partner relationships.
13. Trading partner is honest in providing information and shows accuracy in meeting deadlines
14. Trading partner behaviour in a situation of conflict and handling discrepancies. Does your organization feel anger, frustration, resentment, or hostility towards your trading partner?
15. Trading partner in a situation of pressure or imbalance of power.
16. Trading partner considers security concerns.
17. Trading partner is the driving force for adopting e-commerce.
18. There are explicit agreements with the trading partners regarding roles and responsibilities.

How do you maintain your trading partner relationships? Is it short-term or long-term? What do you look for? How, why, and in what situations?

On a scale of 10 what would you rate the level of trading partner trust? (Low = 0-3, Medium = 4-6, High = 7-10)

What did you rate the level of trading partner trust to be?  
How, why, and in what situations?

Are there other antecedent trust behaviours your organization perceived in your trading partners?

### C) Technology Trust Mechanisms in E-commerce

Technology trust mechanisms in e-commerce refer to trust assurances such as confidence in the security protection services provided by e-commerce technologies.

Please indicate if your organization has adopted the following technology trust mechanisms in e-commerce. If yes, how, why, and in what situations were they implemented (please provide examples, evidence)? Are there any other technology trust mechanisms that your organization has implemented?

### *Confidentiality*

1. Firewalls
2. Encryption mechanisms

### *Integrity*

3. System integrity tests and audits
4. Sequence numbers in messages
5. Application controls
6. Accounting controls
7. Web seal assurances

### *Authentication*

8. Formal log-on procedures (user-ID's and passwords)

### *Non-repudiation*

9. Message receipt confirmations and acknowledgments
10. Digital signatures

### *Access Control*

11. Network access controls
12. Authorization mechanisms

*Availability*

13. Segregation of duties

*Best Business Practices*

14. Top management commitment
15. Standards (industry and universal) and polici
16. Trading Partner Agreement
17. Audit check
18. Training and education of staff
19. Risk analysis and audit involvement
20. Contingency procedures

On a scale of 1-10, how would you rate the level of trust and security mechanisms in e-commerce? (Low = 0-3, Medium = 4-6, High = 7-10)

What did you rate the level of trust and security-based mechanisms in e-commerce?

How, why, and in what situations?

Are there any other trust and security mechanisms in e-commerce your organization has implemented?

How does trading partner trust influence the perception of trust and security-based mechanisms in e-commerce?

## Section 2: Perceived Benefits in E-commerce Participation

Perceived benefits refer to gains that your organization may receive from adopting e-commerce. The perceived benefits are derived from both your trading partner relationships and from the e-commerce technology. Perceived benefits are categorized as direct (economic), indirect, relationship-related, and strategic benefits.

Please indicate if your organization faces the following benefits. If yes, how, why, and in what situations do you relate to the perceived benefits (please provide examples, evidence)? Are there any other perceived benefits your organization faces? How does trading partner trust influence the perception of benefits in your organization?

### *Perceived Economic Benefits*

1. Reduced operation, transaction, and administrative costs
2. Reduced error rates and improved accuracy of information exchanged
3. Faster response to orders creating reduced lead time
4. Reduced inventory levels and optimized supply chain
5. Improved customer service and product quality
6. Improved productivity, improved profitability, and increased sales
7. Gaining competitive advantage
8. Sharing of risks with your trading partner

### *Perceived Relationship-related Benefits*

9. Improved communication and cooperation with your trading partners
10. Sharing of information that is accurate, timely, speedy, complete, and relevant
11. Increased level of commitment with your trading partners

*Perceived Strategic Benefits*

12. Improved organizational image and reputation
13. Increased long-term investments and continued trading partner relationships

On a scale of 10, how would you rate the level of perceived benefits in e-commerce? (Low = 0-3, Medium = 4-6, High = 7-10)

What is the impact of these perceived benefits as a result of trading partner trust and technology trust mechanisms in your organization?

What did you rate the level of perceived benefits to be?

How, why, and in what situations?

Are there any other perceived benefits in e-commerce your organization faces?

**Section 3: Perceived Risks in E-commerce Participation**

Perceived risks refer to barriers and obstacles your organization faces as a result of adopting e-commerce. Perceived risks are derived from both trading partner relationships and from the e-commerce technology. Perceived risks are categorized as technology performance-related risks, relational risks, and general risks.

Please indicate if your organization faces the following perceived risks. If yes, how, why, and in what situations do you relate to these perceived risks (please provide examples, evidence)? Are there any other perceived risks that your organization faces? How does trading partner trust influence the perception of risks in your organization?

*Perceived Technology Performance-related Risks*

1. Compatibility problems with hardware and software
2. Infrastructure and initial implementation costs
3. Confidentiality concerns due to viruses

4. Lack of adequate accounting controls
5. Internal security error (lack of integrity, as in delayed and inaccurate messages)
6. Complexity in operating business transaction
7. Uncertainties (task and environment)

*Perceived Relational Risks*

8. Trading partner reluctance to change
9. Lack of training, knowledge, and awareness
10. Poor reputation of trading partner
11. Trading partner demonstrating a conflicting attitude
12. Lack of trust in your trading partner
13. Trading partner demonstrating opportunistic behaviours
14. Partnership uncertainty

*Perceived General Risks*

15. Lack of security in your trading partner's system
16. Difficulty in identifying or quantifying costs and benefits
17. Repudiation
18. Authenticity of your trading partner
19. Availability of technology
20. Lack of a standard infrastructure (for data and payments)
21. Lack of government policies



## 22. Poor business practices

On a scale of 10 how would you rate the level of perceived risks in e-commerce to be? (Low = 0-3, Medium = 4-6, High = 7-10)

What is the impact of these perceived risks as a result of trading partner trust and technology trust mechanisms in your organization?

What did you rate the level of perceived risks in e-commerce to be?

How, why, and in what situations?

Are there any other perceived risks your organization faces?

## Section 4: Outcomes in E-commerce Participation

Outcomes in e-commerce participation refers to the extent your organization has adopted e-commerce. Participation in e-commerce is categorized as performance in e-commerce and the extent of mutual satisfaction your organization has with its trading partners.

Please reflect on your organization's extent of e-commerce participation. If yes, how, why, and in what situations do you relate to e-commerce participation (please provide examples and evidence)? Are there any other factors that your organization faces which contribute to e-commerce participation?

### *Extent of E-commerce Performance*

1. How important is e-commerce for your organization?
2. What percentage of your business involves the use of e-commerce?
3. What is the annual monetary value of e-commerce transactions in NZ\$?
4. What is the annual number of e-commerce transactions?

On a scale of 10, how would rate the extent of e-commerce performance in your organization? (Low = 0-3, Medium = 4-6, High = 7-10)

What did you rank the extent of e-commerce performance in your organization?

How, why, and in what situations?

Are there any other performance factors relating to e-commerce your organization has achieved?

How does trading partner trust influence the perception of e-commerce performance?

How do perceived benefits impact e-commerce performance?

How do perceived risks impact e-commerce performance?

*Extent of Trading Partner Trust Relationships Development*

5. The trading partner will continue to be a major source of revenue for us.
6. Has the number of trading partners increased?
7. Do you perceive your organization to engage in long-term business investments with your trading partner?
8. Do you perceive an increase in the level of open communications in your trading partner?
9. Do you perceive an increase in the level of cooperation in your trading partner?
10. Do you perceive an increase in the level of commitment in your trading partner?
11. Has the reputation of your organization increased as a result of your trading partner?

On a scale of 10, how would you rate the extent of satisfaction in your trading partner relationships? (Low = 0-3, Medium = 4-6, High = 7-10)

What did you rate the level of satisfaction in your trading partner relationships to be?

How, why, and in what situations?

Are there other factors relating to trading partner satisfaction that your organization experienced?

How does trading partner trust influence the perception of satisfaction in your trading partner relationships?

How do perceived benefits influence the perception of satisfaction in your trading partner relationships?

How do perceived risks influence the perception of satisfaction in your trading partner relationships?

## **CUSTOMER CONTRACT - PARTNERING FOR SUCCESS**

### **Introduction**

Sadly, relationships with our customers are often characterized by mistrust, poor communication, and adversity. Complex and onerous contracts are developed between the parties; the negotiation process is often long and arduous, setting a negative tone for the on-going relationship. Ultimately, contracts are there to protect each party from the misdemeanors of the other; they are conceived and written from a perspective of worst case scenario, and they are by definition not conducive to a cooperative relationship.

This paper seeks to identify a mechanism to restore trust and cooperation as well as business and cultural alignment between the parties.

### **Concept**

The concept is simply partnering. The key to success is turning this nebulous concept into something tangible and meaningful for both parties and providing a basis for the continuing relationship.

Partnering is a process of team building and mutual goal setting where both parties are able to appreciate and understand the legitimate business aspiration of the other and through this understanding act appropriately for mutual benefit.

## **The Agreement**

Key to the partnering concept is the “*Partnering Charter*.” The Partnering Charter is a jointly developed document setting out mutually agreed upon objectives. The partnering charter is not a legal document, it is not complex, it is not unintelligible; it is simply an agreement between the interested parties setting out the mechanisms, procedures, and expectations of each party towards the other, in clear, concise, and understandable terms.

The partnering charter is an evolving document being modified and adjusted to suit the changing cultural, business, or political environments. Most fundamentally and overriding is that it is an agreement based on trust.

## **Creating the Charter**

Perhaps even more valuable than the Charter is the process of creating it. Both parties work together to develop the document, and through these discussions an opportunity for relationship building and better understanding of mutual needs is provided.

## **Principles of a Partnering Charter**

A charter will encompass the key needs of each party, specifically:

- Commitment—Partnering agreements are only effective with the buy-in of top management stakeholders.
- Equity – Both parties must recognize and appreciate the legitimate business aspirations of the other and work towards assisting their partner to achieving their objectives.
- Trust—Contracts are about suspicion, Charters are about trust—not only to write about trust but to implement the relationship and maintain it through communication. The creation of a Partnering Charter should be a positive and educational experience for both parties.

- **Mutual Goals or Objectives** – Generally contracts are written with the interest of one party in precedence. The Charter is based on reciprocal benefits and shared interests.
- **On-going Evaluation** – The Partnering Charter provides a mechanism for parties to measure their performance and voice legitimate concerns if or when commitments are not met. The Partnering Charter is a living document and will be constantly reviewed and modified
- **Communications** – Partnering agreements are an opportunity to bring together management stakeholders on a regular basis to evaluate the progress and the efficacy of the current agreement.
- **Conflict Resolution** -- Serious issues can be addressed early and corrections made before relationships break down and contracts are imposed.

## **Partnership Charter Clauses**

The following are some generic clauses that could form part of a bi-lateral Partnership Charter:

### **Siemens Unilateral Commitments**

- **On-going development** – We will keep you up to date with new products and solutions
- **Education** – We will train your staff to operate our products effectively
- **Accuracy** – Information provided will be accurate and honest, no hype, no misleading narrative

### **Customer Unilateral Commitments**

- **No surprises** – If there is a problem we will tell you first
- **Strategic planning** – We will keep you informed of our business planning and future direction

- Forecasting – We will assist you to deliver on time by providing forecasting information

## **Reciprocal Agreements**

- We are accountable – We take whole and total responsibility, no blaming third parties and no excuses.
- Honesty and Integrity – We are ethical business partners
- We keep our promises – What we say is what we do
- Confidentiality – If it's secret we will keep it that way
- Commitments – Verbal commitments are binding on both parties

## **The Process**

One party would initiate the Partnering Charter, generally at senior management level and most effectively through a short presentation. Assuming broad agreement is reached, a follow-up or alignment meeting would be arranged to select a working group to develop the partnering plan.

A partnering workshop will be scheduled where both parties would prepare for the workshop with draft clauses that they wish to include in the Charter. It is recommended that such a workshop be administered by an external facilitator.

The outcome of the workshop will be the Partnering Charter encompassing at a minimum the elements already explored above.

## **Conclusion**

The Partnering Charter can be used as a mechanism to enhance existing relationships or initiate new ones. In the typical vendor-customer relationship, the customer holds the power and therefore controls the relationship. The Partnership contract subtly redresses the balance back towards the vendor and at the same time will be perceived by our customers as a proactive measure to improve our business process.

Good business is built primarily and fundamentally on good people relationships. The partnering charter provides a mechanism to establish and maintain such relationships.