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The influence of partner's trust-commitment relationship on electronic commerce strategic planning

ECSP

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Abstract

Purpose – The purpose of this paper is to examine the influence of partnership (i.e. partner's trust and commitment) on electronic commerce strategic planning (ECSP), and the strategic benefits of expanding partnership. Beyond this research objective, this paper attempts to draw conclusions on the benefits of seeing such trust and commitment as common sense.

Design/methodology/approach – A total of 166 Chief information officers were selected from the top 1000 largest firms in Taiwan to test the relations within the research model. Moreover, the structural equation modeling technique was used to evaluate the research model.

Findings – Partner trust significantly influences electronic commerce strategic planning. The results also indicate that the success of ECSP enables firms to achieve the strategic benefits of electronic commerce.

Research limitations/implications – This study demonstrates the need to separate the partner's trust and commitment from the environmental context when discussing certain questions related to environmental issues. Future ECSP studies could seek an enhanced understanding of the effects on investigations of other attributes of partnership.

Practical implications – Top managers and information system executives who are considering the process of ECSP must know that the first step is to acquire the partner's trust. And then, they need to make a commitment to their partners in order to gain the strategic benefits. The skills and actions to achieve these steps should become common sense for these executives.

Originality/value – This paper contributes to ECSP research by clarifying the effects of both partner trust and partner commitment on the ECSP, and provides a valuable reference for EC strategic planners, as well as researchers interested in EC strategic planning and management.

Keywords Partnership, Trust, Electronic commerce, Strategic planning, Taiwan

Paper type Research paper

Introduction

Partnership has been defined as “an inter-organizational relationship to achieve shared goals of the participants” (Lee, 2001), and “the formation of partnership is motivated primarily to gain competitive advantage in the marketplace” (Mohr and Spekman, 1994). Henderson (1990) argued partnership can be divided into internal partnership (relationships of different departments in one firm) and external partnership (relationships between different firms), the good internal partnership can help firm to



achieve their business objectives and the good external partnership can share risks and benefits with their partner firms. The importance of partnership has been widely discussed in diverse fields such as inter-organizational relationships (IOR) (e.g. Hart and Saunders, 1997), marketing (e.g. Geyskens *et al.*, 1996), information system (IS) outsourcing (e.g. Lee, 2001) and IS strategic planning (ISSP) (e.g. Segars and Grover, 1998).

Electronic commerce (EC) involves not only buying and selling goods, but also various processes integrated within and across firms (Chang *et al.*, 2003). Because partners can bring access to useful technologies, new markets, and complementary skills (Powell, 1987), therefore firms need closed cooperation with external partners (Gulati and Kletter, 2005). For example, in Taiwan, EC firms usually concentrate on selling products on the web and use a complex internet-payment mechanism such as personal information certification, credit authorization, collection and payment to the bank. But it is not easy to get a suitable and trustworthy bank to cooperate. Transaction cost theory (Williamson, 1985) argues that the establishment of partnership is very expensive. Incomplete contract theory (Grossman and Hart, 1986) discusses that it is impossible to write and enforce the detailed and complete contracts to avoid the opportunistic behavior of cooperators. Therefore, no policy or procedural restraints can guarantee thorough and comprehensive loyalty in IOR. An ideal situation is if the parties in such IOR are trustworthy, then a more intimate partnership can be established by mutual and effective cooperation. This requires continuous attention to indications of trustworthiness, and such continuous attention will become habitual only if it becomes part of the common sense of those staff members who are in contact with the partners. However, there is little literature, which mentions the influence of partnership to EC from the external partner perspective.

Morgan and Hunt (1994) suggest that both partner's trust and commitment could be considered as the core of cooperative relationship. This perspective implies that partner's trust and commitment can provide a guarantee for more effective cooperation. It has been argued that managers are exhorted to move toward long-term collaborative strategic partnerships with external business partners (Bensaou, 1999).

This study focuses on two partnership attributes, i.e. partner trust and partner commitment, as antecedents for promoting implementation of EC strategic planning (ECSP). The implementation of strategic planning provides the means to achieve strategic goals and increase competitive advantages (Porter, 1985). As ISSP in most firms has shifted toward ECSP (Pai, 2006), ECSP can be seen as a special realization of ISSP. In this study, we refer to the ISSP definition of Lederer and Sethi (1996), and define ECSP as "the process of identifying a portfolio of" internet-based "applications that can not only integrate" EC "processes within and beyond a firm, but also help that firm to achieve strategic benefits". EC ventures may fail due to a lack of strategic planning (Kao and Decou, 2003). Therefore, a formal plan is essential to provide direction and focus for EC planning (Teo and Ranganathan, 2004).

The main purpose of this study is to examine the influence of partnership on the ECSP, and the influence of expanding partnership arrangements on possible strategic benefits. The empirical results of this study will be of interest to top managers who initiate or conduct EC strategic planning, and to researchers in the field of EC management and planning.

Literature review

Two attributes of partnership: partner's trust and commitment

This study examines the influence of partner's trust and commitment on effective partnership relations. Morgan and Hunt (1994) proposed a commitment-trust theory that identifies three reasons why trust and commitment are key attributes. First, both trust and commitment encourage individuals to actively try to preserve relationship investments by cooperating with partners. Second, both trust and commitment resist attractive short-term alternatives in favor of pursuing the expected long-term benefits of staying with existing partners. Third, both trust and commitment view potentially high-risk actions as prudent due to their belief that their partners will not act opportunistically. Therefore, a high-quality partnership must depend on establishing adequate trust and commitment between partners (Bresnen and Marshall, 2000). Only when both trust and commitment exist simultaneously (Morgan and Hunt, 1994), and become part of common sense, such common sense could bring more beneficial outcomes.

Electronic commerce strategic planning (ECSP)

The theoretical framework of ECSP is adapted from the model of planning system success (Venkatraman and Ramanujam, 1987). Lee *et al.* (2005) adopted the model to demonstrate the influence of environmental and organizational factors on the success of internet-based inter-organizational systems planning. In this study, the model of Lee *et al.* is modified to fit the EC environment. This proposed that the domain of ECSP involves three measurable constructs: alignment of ECSP, improvement in ECSP capabilities, and fulfillment of EC strategic benefits. The overall framework for ECSP can be considered a process-output linkage (Henderson and Sifonis, 1988).

The relationship between partners and ECSP

Strategic alignment requires not only an internal business-technology alignment (internal consistency) but also a buyer-supplier relationship alignment (external validity) (Handfield *et al.*, 2000). Consequently, the participation of external partners strongly influences a firm's strategic alignment and outcomes. This view corresponds to an empirical study on a web shopping mall in which buyer-supplier relations are demonstrated to positively influence both alignment and competitive advantage (Lederer *et al.*, 2001). Furthermore, effective strategic planning must have external validity (Henderson and Sifonis, 1988). Partners can be considered as assessors who are located within the external environment and can facilitate the confirmation of planning process validity as well as influencing firm's ECSP (Lee and Lim, 2003; Raymond, 2001). Therefore, the adoption of partnership perspective fits the external validity of strategic planning.

Research model and hypotheses

Based on the literature reviews, e.g. Morgan and Hunt (1994) as well as Lee *et al.* (2005), the research model (Figure 1) comprises two domains: partnership and planning process-output of EC. Choe (2003) pointed out that firms can handle environmental uncertainty by creating inter-organizational links between buyers and suppliers, and then external partners can provide suggestions for coping with certain problems. Therefore, partnerships may significantly influence a firm's ECSP (Lee and Lim, 2003; Raymond, 2001).

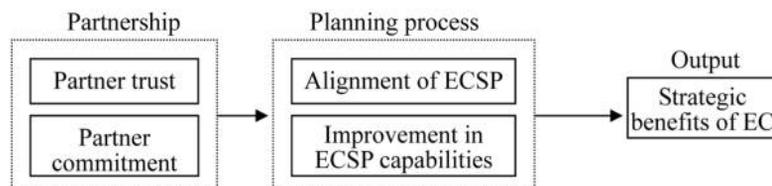
Partner trust

Partner trust refers to the reliance (or confidence) between partners. Two different conceptualizations of trust exist in social reality: viewing trust as a cooperative behavior, and viewing trust as a psychological construct (Lewis and Weigert, 1985). Meanwhile, partner trust has also been defined as one party having confidence in the reliability and integrity of an exchange partner (Morgan and Hunt, 1994). Partner trust can be defined as a belief that partners will act to achieve positive outcomes as well as not unexpectedly taking actions that result in negative outcomes (Anderson and Narus, 1990). Trust enables parties in a relationship to develop confidence that can yield long-term benefits (Anderson and Weitz, 1989).

Partner commitment

Partner commitment refers to an exchange partner believing that a valued relationship with another is considered sufficiently important to warrant making a maximum effort at maintaining it; that is, the committed party believes the relationship is worth maintaining to ensure it endures indefinitely (Morgan and Hunt, 1994). Commitment has been classified into various types, affective commitment and calculative commitment (Geyskens *et al.*, 1996). Affectively committed channel members wish to maintain relationships because they like the partner and enjoy the partnership, while calculative commitment indicates the extent to which channel members perceive the need to maintain a relationship given the significant termination or switching costs associated with leaving. Simultaneously, the conceptualized affective commitment and calculative commitment have been identified as mutual independence. Kumar *et al.* (1994) contended that two consequences of affective commitment surpass calculative commitment. First, affectively committed partners invest more in the relationship than calculative commitment parties. Second, affectively committed partners are more resistant to opportunistic behavior. Consequently, this study adopts “affective commitment” as a generic term for “partner commitment”.

Partner trust is considered important in understanding expectations for cooperation and planning (Dwyer *et al.*, 1987). Thus, trust reinforces the prospect of continuity in a relationship representing a commitment to maintain an IOR in the future (Hart and Saunders, 1997). Since commitment entails vulnerability, only trustworthy partners are sought after (Geyskens *et al.*, 1996). During development of commitment the parties identify trustworthy partners, the mechanism for governing the cooperative relationship is established, and the commitments among the parties are either codified in a formal legal contract or become an informal psychological contract (Ring and Van de Ven, 1994). This process clearly reveals the relationship between trust and commitment; that is, it uses trustworthiness as a basis for codifying commitment to partners to keep their promises and complete deals. Numerous empirical research has



Note: See Appendix A for all the acronyms

Figure 1.
Research model

demonstrated the existence of these positive trust-commitment relationships (see Lusch *et al.*, 2003; Walter, 2003). Therefore, based on the above, we hypothesize:

H1. Partner trust positively impacts partner commitment.

Some investigations have demonstrated that partner trust leads to benefits (Hosmer, 1995), while other studies have shown that partner commitment achieves benefits (Mathieu and Zajac, 1990). Yet other studies have demonstrated that partnership leads to benefits (Chang *et al.*, 2003). This study argued that is necessary to separate the partnership context into partner trust and partner commitment. Therefore, these two attributes are discussed in relation to the EC strategic benefits, thus avoiding moderation between partner trust and partner commitment. Numerous empirical research has demonstrated the positive relationships between partner trust and fulfillment of EC strategic benefits (see Lee and Lim, 2003), partner commitment and fulfillment of EC strategic benefits (see Kumar *et al.*, 1994). Therefore, based on the above, we hypothesize the following:

H2. Partner trust positively impacts fulfillment of EC strategic benefits.

H3. Partner commitment positively impacts fulfillment of EC strategic benefits.

Alignment of ECSP

Alignment involves a close link between EC strategy and business strategy (Earl, 1993). Alignment is not an event but rather is a process of continuous adaptation and change (Henderson and Venkatraman, 1993), and it is a generally accepted key factor for successful IS planning (Segars and Grover, 1998). Based on the literature of external environment (Choe, 2003), customer relations (Lederer *et al.*, 2001), and partnership (Earl, 1993), there are three empirical studies demonstrating how partnership and alignment of ECSP are related. Additionally, numerous empirical studies have demonstrated that increased alignment leads to IS contributions to business benefits (cf. Bergeron *et al.*, 2004; Choe, 2003). Therefore, the following hypothesis is proposed:

H4. Partner trust positively impacts alignment of ECSP.

H5. Partner commitment positively impacts alignment of ECSP.

H6. Alignment of ECSP positively impacts fulfillment of EC strategic benefits.

Improvement in ECSP capabilities

The effective planning system criterion has been formally defined as an improvement in system capabilities (Segars and Grover, 1998). However, an effective planning system should continuously improve in terms of its basic capabilities to support the firm (Venkatraman and Ramanujam, 1987). Many studies have demonstrated the relationship between “alignment of ECSP” and “improvement in ECSP capabilities” (Kunnathur and Shi, 2001; Segars and Grover, 1998). Furthermore, their positive relationship has also been demonstrated by empirical research (see Lee and Pai, 2003; Wang and Tai, 2003). Therefore, for consistency with previous studies, this study presents the following hypothesis:

H7. Alignment of ECSP positively impacts improvement in ECSP capabilities.

A planning system with greater capability to anticipate environmental change and maintain management control should provide the firm with a better chance of achieving its planning objectives (Wang and Tai, 2003). Differentiated capabilities can be created via partnerships, and dot-com operations are for assembling complementary strategic capabilities through partnerships (Venkatraman, 2000). The relationship between “improvement in ECSP capabilities” and “fulfillment of EC strategic benefits” has been demonstrated in numerous empirical studies (see Raghunathan and Raghunathan, 1994; Wang and Tai, 2003). Consequently, for consistency with previous studies, the following hypothesis is proposed:

H8. Improvement in ECSP capabilities positively impacts fulfillment of EC strategic benefits.

The hypotheses model shown in Figure 2. King (1983) argued a direct measurement and benefits based approach is used to improve planning management. Meanwhile, a multi-item direct measurement and benefits based indicators are used to measure the research variables, together with a five-point Likert-type scale.

Based on the literature by Butler and Cantrell (1984), partner trust includes four measured key factors: openness, honesty, competence and benevolence. The partner commitment, theory was primarily adapted by Walter (2003). Item development was primarily adapted by Lusch *et al.* (2003), three key measured factors were: continuing investment, short-term sacrifice and long-term benefit orientation.

Item measures for alignment of ECSP were primarily adapted from those developed by Segars and Grover (1998), and retained four items that had demonstrated validity by empirical studies (see Lee and Pai, 2003). Items measured to assess the improvement in ECSP capabilities were also primarily adapted from those developed by Segars and Grover (1998). Five items were retained, and their validity had to be demonstrated through empirical studies (see Wang and Tai, 2003).

This study focuses on measuring four strategic benefits: competitiveness and customer relations (Lederer *et al.*, 2001), market share and customer service quality (Zhuang and Lederer, 2003).

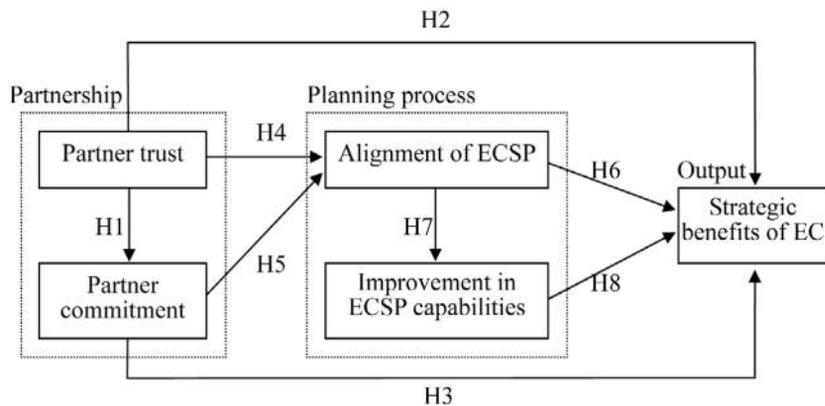


Figure 2.
Hypotheses model

Note: See Appendix A for all the acronyms

Research methodology

Survey procedure

Data were collected via a postal survey. A draft questionnaire was pilot tested by three management information system (MIS) professors to ensure the content validity and no problems in the wording. Five Chief information officers (CIOs) were administered the revised questionnaire and asked to examine it for meaningfulness, relevance, and clarity, which resulted in some minor modification of the wordings of certain survey items. The final instrument was mailed to the CIOs of 784 firms experienced in executed EC, and such firms are from the top 1,000 largest firms in Taiwan.

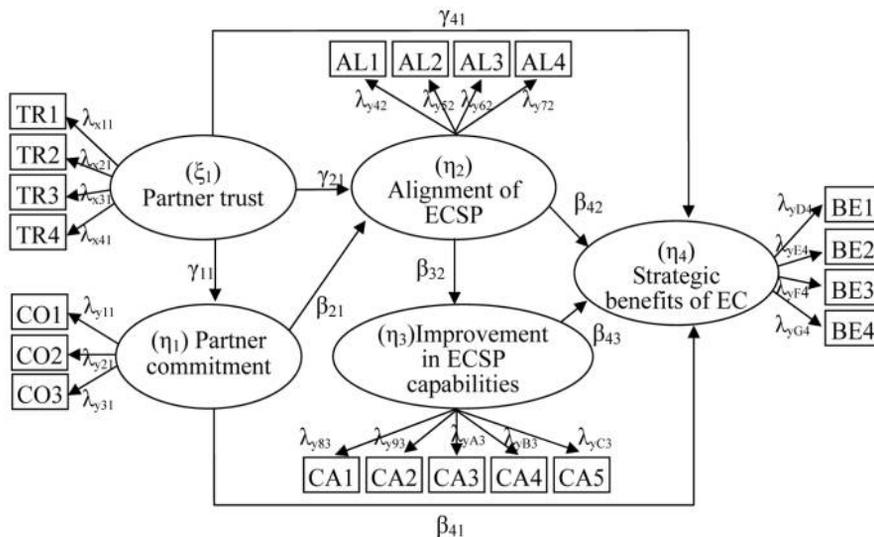
Statistical analysis

A total of 166 completed usable questionnaires were returned, for an effective response rate of 21.17 percent. The structural equation model shown in Figure 3 was analyzed using LISREL 8.72 software. The sample size of 166 was adequate for model testing, since the ratio of sample size (166) to the observed indicators (20) was 8.3 exceeding the recommended ratio of 5.0 (Bentler and Chou, 1987).

Data analysis and results

Sample characteristics

Table I lists the demographic characteristics of the sample and reveals some interesting phenomenon. First, the respondents come from diverse industries. Second, most IS departments are not large. Finally, EC remains in its infancy, 78.9 percent of respondent firms had been carrying out EC for less than three years.



Note: See Appendix A for all the acronyms

Figure 3. Structural equation model

Table I.
Demographic
characteristics of
responding firms
(*n* = 166)

Name of industry	Number of firms	Percentage
Electronics industry	41	24.7
Financial/insurance	37	22.3
Manufacturing	32	19.3
Traditional industry	17	10.2
Building	11	6.6
Transportation	9	5.4
Retailing	7	4.2
Other	12	7.3
<i>Number of IS employees</i>		
< 10	55	33.1
11-50	53	31.9
51-100	17	10.2
> 100	41	24.8
<i>Time of carrying out EC (year)</i>		
< 1	37	22.3
1 ~ 3	94	56.6
3 ~ 5	24	14.5
> 5	11	6.6

Measurement model

Confirmatory factor analysis (CFA) was performed to examine the validity and reliability of the questionnaire. Table II lists the CFA results. This study focuses on three forms of validity: content, convergent and discriminate validity.

Content validity was established by adopting constructs that have been used in former empirical studies, and through conducting a pilot test on experts in related fields (Lee and Lim, 2003). Following the above rules, all the indicators were determined through a review of other similar studies and a pilot test was conducted on three MIS professors and five CIOs.

Convergent validity was conducted from Table II, which showed that each indicator had a higher load on associated construct than any other construct. All factor loadings fitted the threshold value between 0.5 and 0.95 (Bagozzi and Yi, 1988) and all t-values were statistically significant (Bagozzi *et al.*, 1991), indicating that the indicators were one dimensional.

Discriminate validity indicates the degree to which a conceptual and theoretical differences between constructs, and is indicated by a low correlative coefficient between measured variables (Lee and Lim, 2003). Table III reveals the correlative coefficient of any pair construct is below 0.9 (Hair *et al.*, 1998).

Besides, reliability can be defined as the extent to which an indicator or set of indicators is consistent with what the researcher intends to measure (Hair *et al.*, 1998). Reliability assessment was performed using composite reliability, which indicates the degree of internal consistency. In Table II, all constructs indicated adequate reliability when the composite reliability exceeded the threshold value of 0.7 for confirmatory research (Hair *et al.*, 1998).

Consequently, this study concluded that all the indicators used had acceptable validity and reliability. Table IV shows that the following measured indices were used

Latent construct	Indicator	Factor loading	Measure error	t-value	Composite reliability
Partner trust (4 items)	TR1	0.75	0.44	10.80*	0.88
	TR2	0.84	0.29	12.87*	
	TR3	0.84	0.29	12.93*	
	TR4	0.77	0.41	11.28*	
Partner commitment (3 items)	CO1	0.86	0.26	13.19*	0.86
	CO2	0.83	0.31	12.55*	
	CO3	0.78	0.39	11.51*	
Alignment of ECSP (4 items)	AL1	0.83	0.32	12.78*	0.92
	AL2	0.86	0.26	13.63*	
	AL3	0.88	0.23	14.03*	
	AL4	0.86	0.27	13.47*	
Improvement in ECSP capabilities (5 items)	CA1	0.83	0.32	12.81*	0.93
	CA2	0.86	0.27	13.57*	
	CA3	0.85	0.28	13.31*	
	CA4	0.90	0.19	14.74*	
	CA5	0.86	0.26	13.69*	
Fulfillment of EC strategic benefits (4 items)	BE1	0.83	0.31	12.69*	0.88
	BE2	0.82	0.33	12.39*	
	BE3	0.69	0.52	9.82*	
	BE4	0.85	0.28	13.17*	

Notes: * $p < 0.001$ (t -value > 3.08)

Table II.
The results of measurement model CFA

Construct	(1)	(2)	(3)	(4)	(5)
(1) Partner trust	1.000				
(2) Partner commitment	0.666*	1.000			
(3) Alignment of ECSP	0.552*	0.444*	1.000		
(4) Improvement in ECSP capabilities	0.498*	0.431*	0.677*	1.000	
(5) Fulfillment of EC strategic benefits	0.548*	0.512*	0.646*	0.685*	1.000

Notes: * $p < 0.001$ (t -value > 3.08)

Table III.
Correlations between constructs

to assess the overall fit of the measurement model. The goodness of fit indices were: $\chi^2/df = 1.103$, RMSEA = 0.025, NFI = 0.98, NNFI = 1.00, CFI = 1.00, GFI = 0.90, AGFI = 0.87. Overall, the CFA results demonstrated that this questionnaire was appropriate for testing the hypothesized model.

Testing the hypotheses

Figure 3 illustrates the structural model with parameters requiring estimation. Table IV and Table V show the structural model with related fit statistics and estimated parameters, respectively. The global fit statistics indicate adequate fit

Table IV.
Fit statistics and recommended values for measurement model and structural model

Fit statistics	Recommended values	Measurement model	Structural model
chi-square/degrees of freedom (χ^2/df)	< 3	Carmines and McIver (1981)	176.52/160 = 1.103
Root mean square error of approximation (RMSEA)	< 0.08	Hair <i>et al.</i> (1998)	0.025
Normed fit index (NFI)	> 0.90		0.98
Non-normed fit index (NNFI)	> 0.90		1.00
Comparative fit index (CFI)	> 0.90	Bentler and Bonett (1980)	1.00
Goodness-of-fit index (GFI)	> 0.80	Etezadi-Amoli and Farhoomand (1996)	0.90
Adjusted goodness-of-fit index (AGFI)	> 0.80		0.87

Table V.
Estimates of the parameter of structural equation model

Hypotheses	Paths	Parameters	Estimate	<i>t</i> -value
<i>H1</i>	$\xi_1(\eta_1)$	γ_{11}	0.38	9.53 ***
<i>H2</i>	$\xi_1(\eta_4)$	γ_{41}	0.03	0.37 (ns)
<i>H3</i>	$\eta_1(\eta_4)$	β_{41}	0.28	2.18 *
<i>H4</i>	$\xi_1(\eta_2)$	γ_{21}	0.32	3.66 ***
<i>H5</i>	$\eta_1(\eta_2)$	β_{21}	0.11	0.64 (ns)
<i>H6</i>	$\eta_2(\eta_4)$	β_{42}	0.26	2.58 **
<i>H7</i>	$\eta_2(\eta_3)$	β_{32}	0.64	9.21 ***
<i>H8</i>	$\eta_3(\eta_4)$	β_{43}	0.44	4.26 ***

Notes: * $p < 0.05$ (t -value > 1.96); ** $p < 0.01$ (t -value > 2.575); *** $p < 0.001$ (t -value > 3.08)

($\chi^2/df = 1.569$, RMSEA = 0.059, NFI = 0.96, NNFI = 0.98, CFI = 0.98, GFI = 0.87, AGFI = 0.83). The results of *H1*, *H3*, *H4*, *H6*, *H7* and *H8* are supported, which are consistent with previous studies.

H1 and *H3* are supported, partner trust is considerably related to partner commitment ($\gamma_{11} = 0.38$, $p < 0.001$), and partner commitment is significantly related to the fulfillment of EC strategic benefits ($\beta_{41} = 0.28$, $p < 0.05$). Furthermore, partner trust is markedly related to the alignment of ECSP ($\gamma_{21} = 0.32$, $p < 0.001$), the alignment of ECSP significantly and positively influences the fulfillment of EC strategic benefits ($\beta_{42} = 0.26$, $p < 0.01$), *H4* and *H6* are supported.

In the hypotheses of planning process and output, the alignment of ECSP markedly and positively influences the improvement in ECSP capabilities ($\beta_{32} = 0.64$, $p < 0.001$), and the improvement in ECSP capabilities also positively and markedly influences the fulfillment of EC strategic benefits ($\beta_{43} = 0.44$, $p < 0.001$), *H7* and *H8* are supported.

In contrast, *H2* and *H5* are not supported. Partner trust is not significantly related to the fulfillment of EC strategic benefits ($\gamma_{41} = 0.03$, $p > 0.05$), and partner commitment is not significantly related to the alignment of ECSP ($\beta_{21} = 0.11$, $p > 0.05$). The implications of the empirical results are discussed in the next section.

Discussion

H1 demonstrates that partner trust positively influences partner commitment. *H6* successfully demonstrated that if a firm wishes to fulfill EC strategic benefits, they must first align EC strategy and business strategy. Good alignment of ECSP improves ECSP capabilities, as demonstrated by *H7*. Meanwhile, *H8* successfully demonstrated that a firm that is capable of enhancing strategic planning capability will have a higher likelihood of achieving EC strategic benefits.

H2 and *H3* are complex inferences, because most studies discussed the relationship between the fulfillment of EC strategic benefits with partner trust (Hosmer, 1995), or with partner commitment (Mathieu and Zajac, 1990), or with partner trust and partner commitment respectively (Lee and Lim, 2003). There are few studies, which simultaneously examine the fulfillment of EC strategic benefits together with partner trust-commitment relationship. For example, Lee and Lim (2003) not only explored how partnership attributes influence electronic data interchange (EDI) implementation success, but also respectively discussed partner's trust and commitment with the EDI implementation success. We posit that if the causal relationship of partner trust to partner commitment is added to the model of Lee and Lim, their model may become more complete and the results obtained may differ. Common sense suggests that both trust and commitment must be considered simultaneously for the influence of benefits, but this study has some different findings. We find that partnership influences the fulfillment of EC strategic benefits, but partner trust cannot work alone (*H2* is not supported). And partner trust must pass through partner commitment to influence the fulfillment of EC strategic benefits (*H1* and *H3* are supported). This demonstrates that partner commitment mediates partner trust and the fulfillment of EC strategic benefits.

H4 and *H5* are also complex inferences, because the alignment of ECSP together with partner trust-commitment relationship has seldom been discussed in previous literature. For example, the study of Lederer *et al.* (2001) searches for methods of applying the world wide web to achieve strategic advantage. Their final model demonstrates that customer relations positively and significantly influence strategic advantage, and this construct of strategic advantage includes competitive advantage and alignment. Customer relations were viewed as a partnership, while competitive advantage was viewed as a strategic benefit. Therefore, since the partnership influences the alignment of ECSP and the fulfillment of EC strategic benefits. In fact, when partner trust and partner commitment are considered simultaneously, partner commitment is less important (*H5* is not supported) than partner trust in the ECSP alignment. *H4* is supported and *H5* is not supported that demonstrate that partner trust is the main influence on ECSP alignment.

Conclusions

Implications for practitioners

This empirical study in Taiwan has two main implications for practitioners initiating or currently implementing ECSP. First, this study reveals "partner trust" as an important external factor which influences firm's policy and helps to align EC strategy and business strategy. Managers must appreciate the common sense that they need to learn how to take partner advice to appropriately modify a firm's policy; restated, for the purpose of max mutual benefit among partners that firm needs to learn how to modify their strategy to gain partner trust.

Second, “partner commitment” has been demonstrated to be an important mediator between partner trust and fulfillment of EC strategic benefits. Thus, if firms wish to achieve strategic benefits, they must first win partner trust via cooperative behavior, and then gain partner commitment. After the trust-commitment relationship is established, the commitments are codified either in a formal legal contract or in an informal psychological contract among the partners. Consequently, it may be more possible to fulfill the EC strategic benefits. This is important common sense that managers must take into account.

When firms are developing EC strategic planning, they must know that the partnership is extremely influential in planning development. Firms need to deal carefully with the policy about mutual benefits among themselves and their partners. The skills and actions to achieve these mutual benefits should become common sense for all top managers, IS executives, and those staff members who are in contact with the partners.

Implications for researchers

Different from researches in the past, e.g. Choe (2003) and Raymond (2001), this study demonstrates the need to separate the partner’s trust and commitment from the environmental context when discussing certain questions related to environmental issues. The environmental context can be divided into two parts, environmental uncertainty and partnership. And partnership should be considered an independent construct, which can be distinguished from other environmental constructs.

Much of the literature views the two partnership attributes, i.e. trust and commitment, as a correlation model (Lee and Lim, 2003; Mohr and Spekman, 1994). Based on such a model, the influence of both trust and commitment toward business behavior has been accepted and gradually became common sense. Brett (2004, p. 33) argued that “common sense is not a single unique conception, identical in time and space”. If time and space change, the common sense also changes. Morgan and Hunt (1994) argued that trust and commitment was a causal relationship, however our research model identified the antecedent-consequence relation between trust and commitment by structural equation model. Therefore in future research, we suggest that researchers quote from original literature to carefully make reference to the factors of time and space, which could reasonably build up a research model.

Limitations

This study has two main limitations. First, this study used a single respondent per firm because this helped obtain a good response rate. Chief executive officers (CEO) are generally used as subjects for completing questionnaires in management studies, and the CEO can be an appropriate respondent who has adequate management knowledge. However, this study selected the CIO as the respondent, because the CIO is more likely to possess know-how regarding the research variables, particularly the measurement of ECSP. Asking CEO or senior managers to fill in the questionnaire probably bring different results. Second, the sample population came from largest firms in Taiwan and 78.9 percent of sampled firms had conducted EC for less than three years. The conclusions thus may differ from those in other countries that have performed EC for a long time, and have limited generalizability for small-sized and medium-sized firms.

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Appendix. Questionnaire items

1. Partner trust

- TR1: The EC partners have the willingness to share ideas and information with us.
- TR2: The EC partners have integrity and stick to their obligations in dealing with us.
- TR3: The EC partners are competent and have the technical knowledge and interpersonal skill to perform the job, and good consistency in handling situations.
- TR4: The EC partners are concerned about our welfare and have willingness to protect, support, and encourage us.

2. *Partner commitment*

- CO1: Our relationship to EC partners deserves my firm's maximum effort to maintain.
- CO2: Our relationship to EC partners is something my firm is very committed to even though short-term sacrifice happened.
- CO3: Our relationship to EC partners is something my firm intends to support indefinitely base on long-term benefits.

3. *Alignment of ECSP*

- AL1: Aligning EC strategies with the strategic planning of the organization.
- AL2: Adapting the objectives of EC to changing objectives of the organization.
- AL3: Identifying EC-related opportunities to support the strategic direction of the firm.
- AL4: Adapting EC to strategic change.

4. *Improvement in ECSP capabilities*

- CA1: Capabilities of ECSP in identifying key problem areas was improved.
- CA2: Capabilities of ECSP in identifying new business opportunities was improved.
- CA3: Capabilities of ECSP in anticipating surprises and crises was improved.
- CA4: Capabilities of ECSP in understanding the business and its information needs was improved.
- CA5: Flexibility to adapt to unanticipated changes was improved.

5. *Fulfillment of EC strategic benefits*

- BE1: Fulfillment of ECSP can increase competitiveness.
- BE2: Fulfillment of ECSP can improve customer relations.
- BE3: Fulfillment of ECSP can increase market share.
- BE4: Fulfillment of ECSP can improve customer service quality or increase customer satisfaction.

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ECSP

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