

Vietnam's Small and Medium Sized Enterprises: development by inter-firm relationship

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Inter-firm cooperation has received attention in recent year due to its benefit. However, little has been studied about the way to develop this relationship. In this paper we provide evidence on the development of small and medium-sized enterprises (SMEs) in Vietnam relying on inter-firm relationship. Using a recent national survey in 2014, empirical results indicate that cooperative intention is the main predictor of cooperative decision. Further, it confirms the positive influence of similarities between partners on inter-firm cooperation. Our empirical results indicate that classical determinants of inter-firm relationship including firm age, firm size, location and the ownership are also important in Vietnam. In addition to the traditional indicators we analyze the effect of government support. Direction from the government contributed significantly to the growth of Vietnamese SMEs by fostering inter-firm cooperation, but the importance of this kind of support may be diminishing as private firms do not seem to benefit from this form of support.

Keywords: inter-firm relationship, private, trust, SMEs, Vietnam

1. Introduction

Vietnam has introduced officially the economic renovation (Doi moi) since 1986, but it was only in 1989 that it actually adopted a comprehensive and radical reform package aimed at stabilizing and opening the economy. A new wave of economic reforms has been stirred up with emphasis on private sector development, further trade and investment liberalization with deeper international economic integration especially since 2006 (joining WTO). It is worth noting that the socioeconomic successes have been significantly attributed from the country's small- and medium-sized enterprises (SMEs). The SMEs occupy an overwhelming proportion in total number of country's enterprises accounting for 97, 4 percent and 87 percent by regular workforce and registered capital criteria in 2009, respectively. They have contributed 39 percent of gross domestic product (GDP), 32 percent of total investment outlays in 2006 (Ho Sy Hung, 2007). Apart from being a relatively dynamic sector in the economy, SMEs have also played an important role in creating jobs, maintaining high mobility of the labor market, and narrowing development gaps among localities of the country.

Inter-firm relationship especially inter-firm cooperation has been the main focus of interest among academics

several years. Scholars have conducted various studies to explain the nature of inter-firm relationship (Anderson & Narus, 1990; Close & Kukar-Kinney, 2010; Kennedy et al., 2001; Morgan & Hunt, 1994; Nguyen & Rose, 2009; Nguyen, 2011). Moreover, the relationship between entrepreneurship and its context has been one of primary concern. It has been argued that the environmental context may have a significant impact on entrepreneurship as well as SMEs development (Antonicic and Hisrich 2000; Acs, Desai, and Hessels 2008; Boettke and Coyne 2009). Therefore, strengthening SMEs networking with other stakeholders and developing this relationship have long been considered as an effective way to enhance SMEs competitiveness or capability. Nevertheless, Vietnamese SMEs networks are still limited. Primary assessment suggests that, apart from weak internal networks, there has been not yet a close link between dynamic multinational corporations (MNCs) and non-integrated domestic SMEs (Ho Sy Hung, 2007) and upstream and downstream industries (Vo Tri Thanh et al. 2004).

Therefore, the study tries to explain inter-firm cooperation based on applying theories from various disciplines. Using SME enterprises in Vietnam, the present research contributes not only for theoretical knowledge but also for practical implications. First, the study confirms the role of TPB in explaining human behaviour as well as firm behaviour. Second, the study enhances our knowledge about the impact of social influences on firm behaviour in transition economy especially the impact of government direction. Third, the study suggests the way to facilitate inter-firm relationship.

The remainder of this paper is organized as follows. In the following section, the study highlights theoretical foundations regarding behaviours and its hypotheses. Then the study presents a discussion of the methods, data analyses and results. Finally, the study outlines the contribution of the study and the implications for research and practice.

2. Background and hypotheses

Cooperation has been treated in the literature from several perspectives, as the lack of conflict, joint or collaborative behavior toward some goals or organizational interdependence¹ with different names such as collaboration (Arku, 2002; Payan, 2007), coordination (Anderson & Narus, 1990; Morgan & Hunt, 1994), organization interdependence (John, 1975). In this paper, we use the term cooperation to represent for all other names and adapt the definition of Anderson & Narus. Anderson and Narus (1990), defined cooperation as similar or complementary coordinated actions taken by firms in interdependent relationships to achieve mutual outcomes or singular outcomes with expected reciprocation over time. The party can get single or mutual outcomes from inter-organization relationships.

There can be many reasons why a company intends to make cooperation with particular partner. Due to superior benefits from cooperative relationship, firm will commit itself into that relationship. Similarly, a firm may engage in cooperative relationship with particular partner because social pressures may enforce this relationship

¹ Andaleeb, S. S. (1995). Dependence relations and the moderating role of trust: implications for behavioral intentions in marketing channels. *International Journal of Research in Marketing*, Vol. 12, pp. 159.

upon the firm. Furthermore, inter-firm cooperation has been considered to be good and worth encouraging. Morgan and Hunt (1994) believed that cooperation requires two parties which are in relationships participate actively to achieve mutual benefits. Due to its significant contribution from responding to rapid technological change, saving cost from transaction as well as learning about each other², interagency cooperation is the suggested corrective strategy³. Finally, a company may feel good and safety for inter-firm cooperation based on the existence of control mechanism. Empirical studies have shown the direct effect of behavioural intention on behaviour (Ajzen, 1991; Davis et al., 1989; Kumar et al., 2003). Moreover, many researches in inter-firm relationships field have tried to know what factors contribute to inter-firm cooperation. All of these important factors can be divided to organizational set, environmental set and the mediator.

2.1. Cooperative intention

An intention is self-assessment of the likelihood of engaging in a particular behaviour (Atkinson, 1964). According to the theory of reasoned action (Fishbein & Ajzen, 1975) and its subsequent version (TPB) (Ajzen, 1991), the predictor of behaviour is person's intention. Similarly, Davis et al. (1989) postulate that behavioural intention is the major determinant of behaviour, and that any other factors that influence user behaviour do so indirectly by affecting behavioural intention. Furthermore, intention derives from one's desire to achieve positively valent outcomes or avoid negatively valent results (Deci & Ryan, 1987). Therefore, the study defines cooperative intention as intention of a firm to build inter-firm cooperation with partners to achieve goals. It is a broad concept, which implies goals and plays multiple roles (cf. Nguyen, 2011, p. 64).

Many researchers have empirically proved that behavioural intention has close relationship with decision making (Armitage & Conner, 2001; Netemeyer et al., 1993; Nysveen et al., 2005). In addition, Sheppard et al. (1988) report the average correlation of 0.53 between intentions and behaviour based on a meta-analysis of 87 studies. Recently, in the effort of examining the applicability of TPB in e-commerce context, De Cannière et al. (2009) indicate that intention does play an important role in fully mediating the impact of other constructs on behaviour. Further, they state that intention indeed predicts actual behaviour. No hypothesis is advanced, but the study expects that in high involvement behaviour like inter-firm cooperation, this component does lead to cooperative behaviour.

H1. Cooperative intention has positive relationship with cooperative decision and fully transmits the effects of all other antecedents.

2.2. Expectation from inter-firm cooperation

The current literature on inter-firm relationships and technology acceptance highlights the importance of

² Arku Godwin (2002). Collaboration in industry: Empirical findings among small electronics manufacturing firms in the Greater Toronto Area. *GeoJournal*, Vol. 57, p. 303.

³ John R. Schermerhorn, Jr.(1975). Determinants of Interorganizational Cooperation. *The Academy of Management Journal*, Vol. 18, p. 486.

motivation for behaviour. They can be expectation of success (Bagozzi & Warshaw, 1990), perceived usefulness (Davis, 1986), and relationship benefit (Morgan & Hunt, 1994). Firm can engage in inter-firm relationship in order to achieve specific goals/rewards (Deci & Ryan, 1987; Huybers & Bennett, 2003; Nguyen, 2011) or perceived desirability (Krueger et al., 2000).

Organizations will build the relationship with other parties when cooperation per se takes on a positive value. According to Morgan & Hunt, 1994 and Friman et al., 2002, firms that receive superior benefits from partnership will commit themselves into this type of relation. Moreover, an extra-organizational value which creates the feeling that cooperation is substantially good may stimulate firms to move in the direction of inter-firm cooperation (Schermerhorn, 1975). This is also true for Evan (1965) who suggested that value expectancy will pull organizations into cooperation. Nguyen (2011) finds that firms who expect much of relationship performance have higher probability of inter-firm cooperation. Equally, Bagozzi and Warshaw (1990) state that desires are sufficient motivators to start behavioural intention when self-efficacy exists. In addition, Davis (1986) reveals the importance impact of perceived usefulness on behavioural intention. The expectation from inter-firm relationship can stimulate manager's intention to make cooperation with its partner even if they do not possess a positive attitude toward partner or partner's representatives (see Nysveen et al., 2005 for details). Thus,

H2. There is a positive relationship between expectation from inter-firm cooperation and cooperative intention.

2.3. Attitude toward inter-firm cooperation

According to TRA and TPB, attitude toward behaviour is as an individual's positive or negative feelings about performing specific behaviour (Fishbein & Ajzen 1975, p.216). This element is a function of salient beliefs about consequences of performing behaviour and the evaluation of those results. Attitude toward behaviour is a key element in human behaviour. Scholars have highlighted the importance of this element in activating inter-firm behaviour (Hill et al., 1996); Kulviwat et al., 2009; Tonglet et al., 2004). A study of Carr and Sequeira (2007) in family business indeed shows that attitude towards starting a business partially mediates the main effects of family business experience on entrepreneurial intent. On the same fashion, Lui et al. (2006) state that trust provides basement for inter-firm cooperative formulation by fully mediating the relationship of firm similarity and partner reputation with coercive strategy. Besides, Bagozzi and Warshaw (1990) find that recently trial action will affect the formation of intention to try.

On the other hand, literature on technology suggests that attitude is likely to shape behavioural intention (Davis et al., 1989; Koufaris, 2002; Nysveen et al., 2005). Furthermore, specific type of attitude: attitude toward advertising has shown its positive effect on customer's intention (Durvasula et al., 1993; Heikki et al., 2008). Thus, the study expects that manager's predisposition will have positive impact on cooperative intention.

H3. The higher attitude toward inter-firm cooperation placed in manager, the higher cooperative intention becomes.

2.4. The direction from government through regulation or policy.

Many writers have studied the effect of active public policy on promoting cooperation among businesses. In most developed economy, the government issued local, regional and national policy with the aim at fostering inter-firm cooperation. Rosenfeld (1996) exhibited the efficiency of public program in Denmark. By making a large investment to the support-called program over finite of time, the government hoped that by proving the value of networks, cooperative behavior would become absorbed into the culture. The reasonable object of such programs is to help firms to get the effect of economy of scale, compete better in global market (Arku, 2002). In addition, Kipping (1996) from studying the connection between inter-firm relationships and industrial policy, showed that the governmental policies have important role for the success of French industry. The nature of inter-firm relations resulted in a significantly different level of government involvement in French and Germany. On the other hand, by restricting competitive pressure from foreign companies, Japanese government through MITI and laws has affected inter-firm cooperation in many aspects such as articulating common goals among Japanese firms, supporting R&D projects (Nakamura et al., 1997). Alternatively, Adobor (2006) cited that the government can facilitate cooperation between companies as the role of third party. By encouraging building business development services and the formation of the agency for SMEs development, the government can provide needed information to companies (Cho & Yu, 2000; Tran et al., 2009). Based on these results, we form the following hypothesis:

H4. There is the positive relationship between direction from government and inter-firm cooperation.

2.5. Similarities between partners

A company will not success in managing alliance if it does not understand its partner. The relatively similarity between partners reduce the incentives for free riding and enhances the possibility of inter-firm cooperation (Huyber & Bennett, 2003). Similarities between partners can shape inter-firm relationship and cooperative behaviour because they can facilitate the articulated knowledge among firms (Teece, 1977; Saxton, 1997). In addition, it can help partners build inter-firm trust and inter-firm cooperation as the result. When firms are similarity in strategic decision and culture, they can get along with its partner. Moreover, similarities between partners lead to balanced inter-firm power relationship and impact to level of cooperation in the network-firm (Chassagnon, 2014). Therefore, we expect that:

H5: Similarities between partners will be positively related to cooperation intention.

2.6. Subjective norms

According to Fishbein and Ajzen (1975), subjective norms are norms, which refer to external and interpersonal influence. This variable refers to doing what other people want one to do, and the motivation complies with important referents. This looks similar to injunctive norms (what others expect one to do) in Thøgersen (2008). Subjective norms have received much attention from various disciplines. The literature suggests a positive relationship between subjective norms and intended behaviour (Ajzen, 1991; Hill et al., 1996; Sheppard et al., 1988). Empirical works have shown that subjective norms influence behavioural intentions. Thøgersen (2008), for

instance, discovers that two types of normative beliefs influence cooperation synergistically rather than additively. Similarity, Kulviwat et al. (2009) indicate that social influence has positive effect on consumer intention to adopt an innovation. Therefore, the study hypothesizes that:

H6. There is positive relationship between subjective norms and inter-firm cooperative intention.

3. Method

3.1. Data

The data used for the analysis was generated through an original survey in three representative urban regions in Vietnam (The north: Hanoi, The Central: Da Nang and the South: Ho Chi Minh City). The survey was carried out from March 2014 to June 2014. In the first state, the questionnaire was developed as well as written in English and then translated into Vietnamese. Then, the questionnaire was pretested through in-depth interviews with executives in a sub-sample of seven enterprises (two in the north, three in the central and other in the south. Among these sub-samples, the different sector interviews were also implemented as follows: one from public, one from foreign and the remains from private sector). Modifications of the wording and scaling of item were implemented. For the second stage, sample based on population of registered firms was chosen. The study was conducted among 600 companies which consist of 200 for each region, representing for whole population. Questionnaires which consisted of two versions –printed and soft copy- were sent to target companies including return envelopes. Company's managers can also answer the questionnaire by email. After following-up non-respondents through reminder letter, a total of 262 usable responses were obtained with response rate of 43.7%.

Because this detailed survey is used for many purposes in our studies, the authors only specify the information that is directly used for this paper. From the survey, the majority of participating firms are small size that has less than 200 full-time employees, covers 69.55% of the survey⁴ (medium size: 27.21% and large size: 3.24%). Almost firms involved in services sector activities (71.92%, nearly 10% of enterprises in manufacturing field and remain is mixed. This can be because of Vietnamese still being transition economy. Moreover, about more than half of the formal enterprises originated from private sector and are relatively young.

3.2. Measures

3.2.1. Dependent variable

Cooperative decision has been measured in many ways in previous studies. This variable can be measured by multiple items like Thøgersen (2008); Zhang & Wang (2014) or by single one in Ludin (2007), Pittino and Visintin (2011) and Chassagnon (2014). Following the instruction of Nguyen (2011) and Pittino & Visintin (2011), the study and uses dummy variable as a proxy to measure cooperation decision between firms in tourism region. A dichotomous variable that assumes value 1 if the enterprise has started one or more cooperation agreements at the

⁴ According to decree No. 56/2009/ND-CP of Vietnamese Government. Small firm has less than 200 full-time employees; Medium firm has full-time employees in range 200-300 and Large firm has more than 300 full-time employees.

time of the research or up to three years before and a value of zero otherwise.

3.2.2. Independent variables

3.2.2.1. Expectation from inter-firm cooperation (Expectation)

To measure expectation from inter-firm cooperation, the study has adapted and modified five items developed by Chow et al. (2012) and Venkatesh (2000) in order to fit organizational context. The study uses 7-point Likert scale for this measurement. This construct displays high reliability, which is shown as Cronbach's alpha ($\alpha=0.88$).

3.2.2.2. Attitude toward inter-firm cooperation

Attitude toward behavior in general and attitude toward advertising specifically have been studied in widely literature such as Ajzen (1991), Durvasula et al. (1993). However, the items developed in these researches were found inappropriate for the purpose of present study because they are different from definition as well as field study. Therefore, the scale was developed based on the works of Fang et al. (2008), Lui et al. (2006), and Morgan and Hunt (1994). Four items are used to measure predisposition toward cooperation. The scale shows a high degree of internal consistency ($\alpha=0.87$).

3.2.2.3. Direction from government

This variable measures the effect of government policy or regulation on inter-firm relationship. In the questionnaire, the respondent will evaluate the effect of government actions on inter-firm relationships particularly from industry policies or direction laws. This construct was evaluated based on four statements using 7-point Likert scale. Four statements were developed based on studies of Ajzen (1991), Conner and McMillan (1999) and Nguyen (2011). This measure displays good reliability ($\alpha=0.85$).

3.2.2.4. Similarities between partners

Similarity between partners is the essential feature of the inter-firm relationship. The similarity scale was based on six items that asked respondents to indicate the similarities between their and its partner on the range of organizational characteristics (Saxton, 1997) ($\alpha=0.89$).

3.2.2.5. Subjective norms

Thøgersen (2008) indicates that people hold both types of normative beliefs in order to cooperate. Hence, the construct of subjective norms in the study is assessed from two perspectives: injunctive norm and descriptive norm using three items. One of the injunctive norm measurements was adapted from Nguyen (2011). The study develops the remains on the foundations of Conner and McMillan (1999), and Okamuro (2007). Four items were used to investigate the effect of social factors on cooperative intention in general. Cronbach's alpha for the scale is 0.77.

3.2.2.6. Cooperative intention

Three items, adapted from Nasco et al. (2008); Beritelli (2011) and Nguyen (2011), were used to measure cooperative intention of executive/owner. This construct presents adequate reliability ($\alpha=0.86$).

3.2.3. Control variables

Company characteristics have been proved to have significant impact on cooperation behavior and that were controlled for the empirical analysis. They conclude establishment size (measured by number of employee), type

of sector, age of company. According to Fritsch and Lukas (2001), firms are engaged in R&D cooperation, tend to be large. The positive effect of firm's size on inter-organization cooperation in R&D field can also be found in Fritsch (2003), Miotti & Sachwald (2003) and Okamuro (2007). Arku (2003) and Felzenstein & Gimmon (2007), on the contrary, from studying inter-firm relationship in general, found the negative effect of size on inter-firm relationship. Based on resources- base perspective, the author thinks that size of firm has negative on inter-firm relationship. The smaller the company which lacks resources or wishes to learn new knowledge..., the more ambition is in this type of relations.

The second control variable relates to ownership. The dummy variables, which value 1 if firm is owned by specific subject (state, private or foreign owned) are added, respectively. Executives of particular type of ownership likely have different objectives and attitudes toward inter-firm relationship (Nguyen & Rose, 2009). The region where the company locates has influenced inter-firm relationship. This will shape the attitude of company's managers toward this relationship. Fritsch & Lukas (2001) and Fritsch (2003) revealed the significant differences in cooperation among regions with regard to the propensity to maintain a cooperative relationship. Based on Vietnamese context, the south will prefer cooperation than the north due to the western influence as the result of market-based experience compare with the bureaucracy-rooted economy in the north (Tran et al., 2009).

3.3. Empirical model

The study aims to test the impacts of determinants of inter-firm relationship on the level of cooperation of these relationships. The dependent variable *Cooperation* is dichotomous and it has its latent variable.

Let $Cooperation_i$ denote the decision of enterprise i whether or not to establish cooperation with its partner with the latent model is as follows:

$$Cooperation_i = \beta_0 + \beta Intention_i + \delta X_i + \varepsilon_i \quad (1)$$

Where $Intention_i$ is cooperative intention; β is coefficient of cooperative intention; X_i is vector controlling for size and ownership; δ is vector of parameters of X_i and ε_i is the error term. According to Rivers and Vuong (1988), the study can obtain consistent estimates by using an instrumental variables (IV) probit model. Therefore, the instrument equation in this study is:

$$Intention_i = \alpha + \varphi Expectation_i + \chi Attitude_i + \gamma Subjective_i + \kappa Direction_i + \lambda Similarities_i + \eta X_i + \tau_i \quad (2)$$

The study jointly estimates both equations (1) and (2) by maximum likelihood method.

4. Results

The study uses two-steps approach to test the proposed hypotheses. The confirmatory factor analysis (CFA) is introduced to test the construction validity of the questionnaire. Then the study uses the structural model approach (Cameron & Trivedi, 2009), which allows simultaneous interaction among constructs, to test research hypotheses.

4.1. Common method variance

In order to assess the possibility of common method variance, the study adapts Harman's one-factor test

(Podsakoff et al., 2003). The study enters all items into an exploratory factor analysis with principal axis factoring and orthogonal rotation. At the end of this process, the study use six factors account for 77.85% of the variance explained. No single factor is dominant. The first factor, which contributes most to the explained variance, only accounts for 31.47% of the variance. Therefore, common method variance does not exist in this study.

4.2. Discriminant validity

The study examines the convergent and discriminant validity of study's variables prior to hypothesis testing. The study conducts confirmatory factor analyses (CFA) by using LISREL 8.80 with the maximum likelihood method. Table 1 provides the results of the measurement analysis.

The chi-square for this model is significant ($\chi^2 = 627.60$, $df = 241$, $p < .001$). Because chi-square statistic is sensitive to sample size (Chen et al., 2008), therefore the study uses the normed chi-square ($\chi^2/\text{degrees of freedom}$) as an alternative index. The normed chi-square in this study is below the recommended cutoff of 5.0 (Schumacker & Lomax, 2004). The RMSEA of this model (0.047) meets the requirements of acceptable model (Hair et al., 2009). These indices indicate a good fit to the population. The result indicates that all constructs have adequate internal consistency with Cronbach's alpha ranging from 0.77 to 0.89, ensuring adequate internal consistence of multiple items of each construct (Hair et al., 2009).

Table 1. Convergent and discriminant validity in measurement model

Constructs	1	2	3	4	5	6	CR
1. Expectation from inter-firm cooperation	0.59						0.88
2. Attitude toward inter-firm cooperation	0.38	0.71					0.90
3. Subjective norms	0.13	0.31	0.65				0.80
4. Direction from the government	0.11	0.39	0.03	0.58			0.85
5. Similarities between partners	0.20	0.30	0.11	0.03	0.66		0.90
6. Cooperative intention	0.48	0.62	0.33	0.13	0.25	0.63	0.85

Note: The AVE's are on the diagonal, and the squared coefficients between construct are below the diagonal.

Based on suggestion of Hair et al. (2009), there are three ways to examine convergent validity. First, standardized loadings should be 0.5 and ideally 0.7 or higher. All item loadings, are near or above 0.7 and significant. Second, the average percentage of variance extracted (AVE) should be greater than 0.5, suggesting adequate convergence (Fornell & Larcker, 1981). All constructs in this research meet this requirement (see Table 1). Third, similar to Cronbach's alpha, construct reliability will be used to test reliability. Construct reliability is that 0.7 or higher suggests good reliability (Hair et al., 2009). The study also passes this test. Overall, these results suggest that the proposed model has good convergent validity. Furthermore, the study conducts discriminant validity test by comparing the AVE of each construct with the squared correlation coefficient between constructs. The AVEs are greater than the squared correlations between any pair of constructs, suggesting that this criterion is satisfactory

(Fornell & Larcker, 1981). All the constructs satisfy this test. Therefore, the result indicates good discriminant validity of the model.

4.3. Regression results and test of hypotheses

Following Van Bruggen et al. (2002), the study adapts a confidence-based weighted mean to obtain construct scores. The single overall confidence score, which is standardized loading, applies for the type of weight. Appendix provides an overview of the variable means, standard deviation, and the correlation matrix among the variables. The study uses STATA 13 package for testing hypotheses by implementing instrument variable method, called IVprobit. The result is as Table 2.

Hypothesis 1 proposes that there is positive relationship between cooperative intention and cooperative decision and fully mediates the effect of all other antecedents. The results across all cases are significant. Therefore, hypothesis 1 is supported. Related to the impact of expectation from inter-firm cooperation on cooperative intention, hypothesis 2 predicts that expectation from inter-firm cooperation has positive relationship with cooperative intention. The coefficient has positive sign and is highly. These results provide support for hypothesis 2. Moreover, expectation from inter-firm cooperation seems to be the most influence on cooperation intention, as indicated by highest coefficient among the antecedents of cooperative intention (see Table 2). This finding reveals the importance of this element in explaining behaviours across wide range of theories (Armitage & Conner, 2001; Bagozzi & Warshaw, 1990; Carr & Sequeira, 2007).

Table 2. IVprobit regression results

Variables	Case 1		Case 2		Case 3	
	Cooperation	Instru. equation Intention	Cooperation	Instru. equation Intention	Cooperation	Instru. equation Intention
Constant	-3.67***	0.72***	-4.19***	0.94**	-4.84***	1.05***
Intention	0.90***		0.89***		0.95***	
Expectation		0.56***		0.60***		0.62***
Attitude		0.37**		0.38***		0.36***
Direction		0.28**		0.25**		0.26***
Subjective Similarities		0.23**		0.24**		0.30**
Small		0.43**		0.44**		0.46***
Medium			0.89***	-0.23*	0.84***	-0.20
Private			0.52***	-0.14	0.49***	-0.12
Foreign					0.53*	-0.18
Age					0.48*	-0.08
athrho					0.232*	-0.165*
χ^2 (Wald test of exogeneity)	-1.507***		-1.523***		-1.526***	
	35.84***		37.59***		41.12***	

Note: N=262, *** p<0.01, ** p<0.05, * p<0.1.

Hypothesis 3 states that attitude toward inter-firm cooperation is positively associated with cooperative intention. As indicated in Table 2 (columns 2), the hypothesis is supported. This result is consistent with the previous research findings (Ajzen, 1991; Armitage & Coner, 2001).

Hypothesis 4 predicts that direction from government is positively related to cooperative intention. It is important to note that this variable is highly significant ($p < 0.05$). The result of the IV probit regression shows that hypothesis 5 is supported. This confirms the role of government in shaping industrial relationships (hypothesis 3) not only in developed countries like French, German, Japan and Korea (Kipping, 1996; Nakamura et al., 1997; Cho & Yu, 2000) but also in transition economy like Vietnam.

Hypothesis 5 expect the positive linkage to cooperation intention among firms. The similarities between partners has a positive influence on the probability of strong inter-firm cooperation. Hypothesis 6 is thus empirically confirmed. The results also revealed the fact that similarities between partners will facilitate inter-firm cooperation due to reduce free riding among partners. This result also supports for the findings of Saxton (1997). Hypothesis 6 is also supported from the empirical result.

4.4. The effect of government direction on sectors.

In order to get better understanding about cooperation and the effect of government direction on each sector, the estimations are run with different type of companies. In this analysis, the foreign sector will be excluded because of the smallest sample size (only 26 respondents came from foreign enterprises) which causes no initial result in regression process. Therefore, only the results of state and private sector will be displayed in Table 3 which called by case 1 and case 2, respectively. Skipping the difference can be generated by sample size, the impact of organizational and environmental set differs from both case. The effect of expectation from the relationship on cooperative intention is higher for private sector. Similarity among these enterprises in this sector such as state ownership, management systems... can enhance level of trust between them and makes the outcome will be likely to satisfy both parties (Zucker, 1986).

Table 3. IVprobit estimation result for public sector and private sector.

Variables	(1) Case 1	(2) Instrument equation	(3) Case 2	(4) Instrument equation
Constant	-7.856***	1.101	-5.303***	3.164***
Intention	2.247***		0.972***	
Expectation		0.170***		0.244***
Attitude		0.299***		0.259***
Direction		0.177***		0.0301
Subjective		-0.123		0.160**
Similarities		0.156*		0.105***
Small	1.489**	-0.251	1.054**	-0.642
Medium	1.340**	-0.366	0.743*	-0.259
Age	0.144	0.00320	0.358*	-0.211
Central	0.782	-0.0622	0.679	-0.160
South	1.017	0.339	0.913*	0.0487
athrho	-1.311**	-1.650***		
rho	-0.8645	-0.9289		
χ^2 (Wald test of exogeneity)	8.23**	25.58 ***		
Observations	74	162		

Note. Robust standard errors in parentheses. Statistically significant at *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

On the other hand, although regulation from government can foster inter-firm cooperation, this effect differs from sectors. From columns 2 and 4, we easily see the hallmark of this regulation is opaque in private sector. We cannot confirm the effect of regulation on inter-firm cooperation in private sector due to insignificant statistical evidence, while government direction plays important role in stimulating cooperation in state sector. This can be the effect of equalization process which applies for state owned enterprises. In addition, resources have been dedicated to the strengthening of the state-owned sector, sometimes to the detriment of private enterprises (Giroud, 2007). In the meanwhile, restrictive regulations and unfriendly attitudes from officials seem to be kept towards private companies (Steer & Sen, 2010). The high trust, along with fostering from government, has guaranteed the cooperative outcome and increase cooperative intention as the result.

5. Discussions and limitations

The empirical results from Vietnamese enterprises data above strongly support the integrated model for inter-firm relationships. It indicates that behavior intention is the sole precedent and mediator for any inter-firm behavior. This result brings the other view on organizational behavior theory. Firstly, the behavioral intention is the most important component to explain any behavior not only for personal view but also for company level. Without intention or low level of it, trust and other factors cannot fully lead to behavior especially inter-firm cooperation behaviour. This finding differs from the commitment-trust theory of Morgan and Hunt (1994). Importantly, expectation from inter-firm cooperation plays the most powerful role in cooperative intention among the constructs. Inter-firm cooperation, which looks slightly different from human behavior, seeks for expected outcomes in inter-firm relationship. Secondly, in analyzing organizational behavior, we have to consider both organizational factors and environmental set. Among them, the attitude toward cooperation plays its predicted role in inter-firm relationships, “preferably” managerial attitude toward cooperation associated with an increased likelihood of inter-firm cooperation. The attitude toward cooperation also helps us in understanding the reason why trust has been key mediating variable in commitment-trust theory (Morgan & Hunt, 1994). This finding somewhat casts doubt on the results of other studies in TPB, which have neglected the human effect on behaviours. Thirdly, the results also support the positive effect of government direction on inter-firm relationships. Through management tools such as promulgating an act or publishing policies, government can foster this kind of relationships.

Beyond this confirmation, we also found the truth effect of government direction by running estimation with different sectors. Although direction from government can enhance inter-firm cooperation in general, this seems to effect only for state enterprises. Similarity in characteristics and the impact of regulation contribute to intensify trust as well as intention to cooperate among partner. The government, in caring of it enterprises, can design distorted regulations that favor the firms in which its share is significant⁵. Therefore, according to Vietnamese

⁵ Anh, T.T.Vu (2006). *Competition and Privatization in Vietnam: Substitutes or Complements?* The 2nd Vietnam Development Forum Tokyo Conference on the Development of Vietnam, 15 July 2006 at GRIPS, Tokyo (<http://www.grips.ac.jp/vietnam/VDFTokyo/WS/ConferenceJune2006Program.htm>)

context, the state owned enterprises themselves are more likely to cooperate compared with private sector. This also requires much attention from officials in simulating cooperation among economic agents.

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