**THE EFFECT OF INTER-PERSONAL
TRUSTS ON TRANSACTION COSTS OF
OWNER-MANAGED SMALL
ENTERPRISES IN SRI LANKA**

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Abstract

The study explores how inter-personal trusts between the Owners of Small Enterprises (OSEs) and their exchange partners affect the mitigation of Transaction Costs (TC) of Small Enterprises (SEs) in Sri Lanka. Data were collected from 373 SEs located in nine Districts representing all Provinces in Sri Lanka, by conducting face to face personal interviews with the respondents. The data were analyzed using Partial Least Squares-Structural Equation Modelling. Results revealed that inter-personal trust between the OSEs and exchange partners has negatively affected firm TC, providing sufficient evidence to conclude that inter-personal trust has a significant impact on mitigating TC of SEs and providing important insights for policy makers to focus their strategies on new directions other than conventional approaches to support SEs.

Key Words: *Inter-personal Trusts, Opportunism, Rational Ability, Small Enterprises, Transaction Costs, Uncertainty.*

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INTRODUCTION

SEs have been recognised as a dynamic sector in the economic development of a country because they positively contribute to employment generation, accelerate economic growth, and reduce poverty, income inequality, inflation and balance of payment (Buganza, Colombo and Landoni, 2014; Fatoki, 2011; Malik and Nilakant, 2011;). Although, SEs have some behavioural advantages, they frequently record poor performance especially in Less Developed Countries (LDCs) (Agwu and Emeti, 2014; Ahmad and Seet, 2009; Fatoki, 2011). Meanwhile, some scholars (Carmel and Nicholson, 2005; Jagwem, 2011; Nooteboom, 1993; Spraakman, 1997; Stiglitz, 1993) indicate that SEs have higher mortality rate due to the limitations mostly reflected in Transaction Costs (TC). SEs have higher TC compared to large firms because they suffer hazards from the opportunism of exchange partners due to asymmetrical information and resources (Carmel and Nicholson, 2005; Nooteboom, 1993). They do not have the capacity to collect and evaluate information due to various barriers including geographical barriers in remote areas with poor infrastructure, lack of knowledge to access and assess information, lack of time and capacity to gather and handle information, lack of resources to access and evaluate information, and lack of knowledge and experience to avoid the opportunism of exchange partners (Carmel and Nicholson, 2005; Nooteboom, 1993; Spraakman, 1997).

Some studies (Bhagavatula, 2009; Lu et al., 2007; Priyanath and Premaratne, 2017) underline that SEs use their informal and personal connections in order to get required information and resources. These connections do not have formal and written agreement but are based on inter-personal relationships with family members, relatives, friends, business partners, supportive institutions and members of society (Bhagavatula, 2009; Lu et al., 2007; Priyanath and Premaratne, 2015). Literature describes that the inter-personal relationship leads to relational social capital (i.e. inter-personal trusts) (Granovetter, 1985; Bhagavatula, 2009; Lu et al., 2007; Nahapiet and Ghoshal, 1998). The key benefit of relational social capital is that it facilitates access to information and increases information quality and relevance (Adler and Kwon, 2002; Burt, 1992; Granovetter, 1983). In literature, some scholars (Artz and Brush, 2000; Dyer and Chu, 2003; Fierro and Redondo, 2008; Gulati and Singh, 1998; Morgan and Hunt, 1994; Poppo and Zenger, 2002) discuss that inter-personal trust among businesses is associated with the mitigation of TC and provides an effective safeguard against the opportunism.

However, the dearth of empirical works particularly on owner managed SEs in a less developed countries pertaining to examine how inter-personal trusts affect the TC represents a significant gap in the literature. The current study attempts to bridge this gap studying the effect of inter-personal trusts on mitigating TC of owner managed SEs in Sri Lanka.

The study develops a combined framework synthesizing Transaction Costs Economics (TCE) and inter-personal trusts to analyse the effect of inter-personal trusts on TC. In this way, supporting and extending theories which have been advanced by scholars in Western countries into a different economic and social context is the broad contribution of this study. The empirical findings of this study will definitely contribute to developing alternative policies to achieve faster growth of SEs, reducing their failure rate on the one hand and facilitating the achievement of business success on the other.

LITERATURE REVIEW

Theoretical Background

The study reviewed both TCE and inter-personal trusts prior to developing the conceptual framework and hypotheses of the study.

Transaction Costs Economics: A business firm needs to incur costs in searching for new buyers and suppliers, negotiating with exchange partners, long-term contracting and monitoring transaction agreements due to the asymmetrical information generated by imperfect market mechanism (Dyer, 1997; Hobbs, 1996; Williamson, 1985). Those costs are termed as TC (Dyer, 1997; Williamson, 1979, 1985; Zhang, 2009). Classical economic theory assumes that transactions can be made without any costs where there is perfect knowledge about the market (Hobbs, 1996; Priyanto, Mazkie and Khusaini, 2014). They build this argument assuming that all exchange parties have same level of information (Priyanto et al., 2014). In reality, information is unequal among transaction parties due to imperfect market. Asymmetrical information blocks business firm to make rational decisions (bounded rationality) and encourages exchange partners to behave opportunistically against the focal firm (Williamson, 1981). Therefore, transactions tend to become costly (Williamson 1979, 1981).

TC differ in the degree to which transaction specific assets (assets specificity) are involved, the amount of uncertainty about the future (environmental uncertainty), the amount of uncertainty about other parties' actions (behaviour uncertainty), and the transaction frequency (repetition of similar transactions) (Everaert, Sarens and Rommel, 2010). Business firms attempt to govern the said reasons and attributes employing two alternative strategies i.e. 'market' or 'hierarchy' (Zhang, 2009).

If a transaction is performed outside the firm through market coordination, the governance structure being utilised is the market where the price mechanism governs transactions. If a firm governs transaction within its boundaries through its own control and coordination, the governance structure being utilised by it is a hierarchy (Williamson, 1979). The selection of TC governance is based on the comparison of TC between 'market' and 'hierarchy' (Priyanto et al., 2014; Zhang, 2009).

Inter-personal Trust: Interpersonal trust is defined in different ways in literature. Morgan and Hunt (1994) define inter-personal trust as existing in a situation where one party has confidence in any exchange partner's reliability. Zaheer et al., (1998) defined trust as; "... expectation that an actor can be relied on to fulfill obligations, will behave in a predictable manner and will act fairly when the possibility for opportunism is present" (p. 147).

Butter and Mosch (2003) distinguish two main types of trust-generating mechanisms; formal and informal. Formal mechanisms build trust based on legal agreements and enforced it through formal procedures. The mechanisms with an informal basis cover the relational and social cultural mechanisms that build trust. Informal trust is closely related to the concepts of social trust, moral trust, personal or blind trust, generalised trust and relational social capital. Inter-personal trust is based on the belief that the network member is creditable (honest, flexible, fair and in no circumstance will purposely do anything to damage the relationship) and benevolence (network members always show the creditability by action). Ganesan (1994) represented trust as a two dimensional construct of cognitive dimension and behavioural dimension.

Conceptual Framework and Hypotheses

TCE explains how a business firm governs its TC in the manner of economising (Williamson, 1979, 1985). Williamson (1975, 1979, 1985) developed TCE more theoretically assuming that exchange partners behave opportunistically and therefore cannot be trusted. Meanwhile, Ostrom (1990) highlighted that interpersonal trust plays an important role in using common pool resources. Both scholars have invented new theories of economic governance in different ways. Williamson's theory is a top-down analysis which presumes that people ultimately cannot be trusted while Ostrom's theory is a bottom-up analysis which assumes people can be trusted.

Scholars discuss the importance of inter-personal trust as a governance mechanism in which facilitates to mitigation of TC. TCE explains that TC exists due to the assumption of opportunism while relational contact theory highlights that inter-personal trust limits opportunism (Heide and John, 1992). Many scholars (for example: Dyer and Chu, 2003; Gulati, 1995; Zaheer McEvily and Perrone, 1998; Yenidogan, 2013) underlined that inter-personal trust provide an effective safeguard against opportunism.

Based on both arguments, the study developed an integrated model synthesising both TCE and inter-personal trust to study how inter-personal trusts affect the TC (see figure 1). Inter-personal trusts represents the independent variable while firm's TC, the reasons for the TC (opportunism and rational ability) and the determinants of TC (Uncertainty and Transaction Frequency) represents the dependent variable.

Figure 1: Conceptual Research Model

Inter-personal trust and TC: Zaheer et al. (1998) have argued that the relationship between inter-personal trust and contact costs is likely to be negative. Conditions of high inter-personal trust facilitates faster and easier agreements between exchange partners and solves unexpected problems in a cooperative manner (Zaheer et al., 1998). When there is a high level of trust between two parties, contract costs become lower because it is not necessary to include all kinds of costly safeguards (Achrol and Gundlach, 1999). Under conditions of high trust, trading partners will spend less time and resources on monitoring to see if the other party is fulfilling the conditions of the agreement. Inter-personal trust mitigates opportunism on the one hand and avoids the violation of the previous agreement on the other hand (Gulati, 1995). More trusted exchange partners do not make mistakes in transactions because trusting relationship averts such behaviour (Dyer, 1997). Therefore, time and money would not be incurred for monitoring transactions (Gulati, 1995; Dyer, 1997), therefore, inter-personal trust has an impact on mitigating TC. Hence, the study assumes that;

H1: Inter-personal trust between the owner of small enterprise and exchange partners negatively relates to the transaction costs of the small enterprise.

Inter-personal trust and Opportunism: Morgan and Hunt (1994) suggest that trust exists when a firm is confident about the reliability and integrity of exchange partners. Achrol and Gundlach (1999) empirically examine the effects of trust in safeguarding against opportunism and found that social safeguards are useful means of alleviating opportunism. Judge and Dooley (2006) highlighted that trust is a complement to control mechanisms which assure mutually beneficial exchanges. Scholars (Achrol and

Gundlach, 1999; Dahlstrom and Nygaard, 1999; Dwyer et al., 1987) highlighted the importance of relational norms which develop through inter-personal trust and can be used as an alternative safeguard mechanism against opportunism. Considering SEs in Sri Lanka, informal social relationships are more powerful since there is no favourable transaction environment (Priyanath and Premaratne, 2014). Business transactions are mostly based on interpersonal trust embedded in informal relationships. In the Sri Lankan context, social values embedded within relationships are stronger than the short term financial benefits which avert opportunistic behaviour. Therefore, the study predicts that;

H2: Inter-personal trust between the owner of small enterprise and exchange partners negatively relates to the opportunism of exchange partners.

Opportunism and the TC: TCE explained that opportunism is generated due to asymmetrical information. An exchange party who has more information may tend to behave opportunistically against a partner who has less information (Williamson, 1981). In order to avoid opportunism, business firms need to incur costs to search prices, negotiate transaction details with exchange partners, and get legal advice for agreements. Therefore, the existence of opportunism increases the TC. This theoretical relationship related to the SEs in Sri Lanka is empirically tested by the study forming the following hypothesis:

H3: Opportunism of exchange partners positively relate to the TC of the small enterprise.

Inter-personal Trust and Rational Ability: Inter-personal trust among members of a network contributes to the free exchange of information between exchange partners, because decision makers do not feel that they have to protect themselves from others' opportunistic behaviour (Inkpen and Tsang, 2005). Mutual trust improves interactions among the members of networks helping them to learn from each other and share their knowledge (Chow and Chan, 2008). Thus, inter-personal trust helps SEs to access and assess information which leads to improve rational ability. Heide and John (1992) explained that information only disclosed to trusted partners is not usually revealed to common exchange partners with whom one time transactions are performed. Thus, inter-personal trust affects the improvement of rationality and therefore the following proposition is developed.

H4: Inter-personal trust between the owner of small enterprise and exchange partners positively relates to the rational ability of the owner of small enterprise.

Rational Ability and the TC: TCE highlights that the partner who has less information fails to make rational decision due to lack of knowledge about circumstances (bounded rationality). Due to bounded rationality, transaction between partners could not be efficiently organised (Williamson, 1985). TC is generated due to the fear of the focal

partner to make decisions because of the risk of opportunistic behaviour by the exchange partner (Hobbs, 1996; Williamson, 1985). Business firms are careful in making decisions for which they don't have sufficient information. Firms incur costs to search for adequate information, assess information, and get legal advice before making important transaction decisions. It means that bounded rationality increases the TC showing a positive relationship between them (Hobbs, 1996). In order to test this theoretical relationship in the context of SEs, the study proposes the following hypothesis.

H5: Relational ability of the owner of small enterprise negatively relates to the TC of small enterprise.

Inter-personal Trust and Transaction Uncertainty: Under high trust conditions, business firms are less motivated to rely on elaborate safeguards for specifying, monitoring, and enforcing agreements. High trust relations imply more efficient exchange governance in the form of eased negotiations (Zaheer et al., 1998). Thus, inter-personal trust between the owner of SEs and exchange partners facilitate the mitigation of behavioural uncertainty. When interpersonal trust develops between exchange partners, the norm of flexibility emerges in the day-to-day dealings between agents (Ivens and Blois, 2004). If both want the partnership to continue, they have to be flexible: if not the relationship would come to an end. Moreover, due to uncertainty it is impossible to determine all conditions of the exchange in advance. For partners that have entered into a verbal (informal) or written (formal) agreement, if flexibility is there, they will make modifications/adjustments to the original contract when circumstances change (Heide and John, 1992). Thus, inter-personal trust facilitates SEs in mitigating both environmental and behavioural uncertainty. Therefore, the study proposes that;

H6: Inter-personal trust between the owner of small enterprise and exchange partners negatively relates to the transaction uncertainty of small enterprise.

Transaction Uncertainty and TC: TCE explained that when uncertainty increases, transaction should be better organised to avoid opportunism. Thus, TCE predicts that TC increases with the increase of uncertainty because more safeguard devices are needed to be used to avoid the risk of opportunistic behaviour by an exchange partner (Vosselman and Kooistra, 2006). In order to test this theoretical relationship, the study develops the following hypothesis;

H7: Transaction uncertainty of the small enterprise relates positively to the TC of small enterprise.

Inter-personal Trust and Transaction Frequency: Scholars (Heide and John, 1992; Noordewier, John and Nevin, 1990) argued that relational governance based on inter-personal trust among network members causes the decrease of TC with the increase of

transaction frequency. When two exchange partners begin to trust each other, they become more willing to continue transactions without termination. A trust-based relationship is favourable to the finding of mutually beneficial, integrative solutions for unforeseen contingencies of transaction and agreements quickly when transaction partners trust each other (Doucette, 1996). Therefore, the study predicts that:

H8: Inter-personal trust between the owner of small enterprise and exchange partners positively relates to the transaction frequency of small enterprise.

Transaction Frequency and the TC: Frequent transactions between SEs and exchange partners help to generate relational contract (Boyle, Dwyer, Robicheaux and Simpson, 1992). Relational contact has also been termed 'social embeddedness' and self-enforcing governance (Dyer and Sing, 1998; Noordwier et al., 1990; Uzzi, 1999). Cooperation and mutual benefits are major concerns in relational contact (Lu, 2007). Such relational contact increases the level of satisfaction between current exchange partners prevents the need to find a new partner and reduces TC incurred in looking for a new reliable partner (Doucette, 1996). Thus, transaction frequency decreases FTC. Therefore, the study assumes that;

H9: Transaction frequency between SEs and exchange partners relates negatively to the transaction costs of small enterprise.

METHODOLOGY

A quantitative approach is employed to study the research problem and a survey method was selected to gather data. Only manufacturing SEs, which are classified according to two digit levels of ISIC-Revision, 4 (UNDP) were selected to gather data. Department of Census and Statistics (DCS) in Sri Lanka defines a small enterprise as 'an establishment with 5 - 24 persons engaged' and the same definition was used to select SEs for the survey. According to the DCS, there were 71,126 SEs dispersed in Sri Lanka and the study employed those SEs as the study population. Multi-stage sampling method was adopted to determine the sample. First, the study selected only the enterprises classified under the manufacturing category as the sample frame. According to the DCS, there were 14,185 industries belonging to the category of manufacturing establishments. Second, using the sample frame (14,185 of SEs), 373 SEs were selected employing the sample size determination formula developed by Krejcie and Morgan (1970) with 95 percent confidence level and five percent margin of error. Third, the sample was distributed according to the percentage share of the SEs located in each district and determine the number of firms to represent all districts in Sri Lanka was determined. Then, SEs of each districts were listed out according to ISIC category and the sample was selected using stratified sampling method to represent all the manufacturing industrial divisions (Note

that the DCS has selected the sample on the request of the researchers and handed over it to researchers).

The study used a two-step procedure to develop the questionnaire. The study initially generated a pool of items for each dimensions, reviewing empirical literature and thereafter carefully selected items which were more relevant to measuring each particular dimension of the constructs. Thus, the questionnaire items were designed systematically based on literature published in cited journals. Then, a pilot survey was conducted prior to the main questionnaire survey in order to verify whether the questions were understood; whether instructions were clear; whether the order of the questions was appropriate and whether the questions were uninspiring. This helped to increase the validity and reliability of the study. Data were collected for the questionnaire by conducting face to face interviews. The unit of analysis is each owner of a SE because in many SEs the owner is the 'entrepreneur' who starts and manages the business.

Partial Least Square - Structural Equation Modelling (PLS-SEM) was used to test the hypothetical relationships. The measurement model was evaluated employing reliability and validity tests and the efficiency of the structural model was evaluated by multicollinearity issues, R², effect size (f²) and predictive relevance (Q²). The smart PLS (version2) software was used to analyze data.

Measures

All constructs were measured using structural questions (all the items measured have been given in the Appendix 1). Each items was measured at an ordinal level with 7-point Likert scales (1 – Strongly disagree; 2 – Disagree; 3 – Somewhat disagree; 4 – Neither agree nor disagree; 5 – Somewhat agree; 6 – Agree; 7 – Strongly agree). Each respondent was asked to state his/her agreement to the statements using these rankings.

Transaction cost: The study measured TC at unit level (in SEs), adopting Williamson's (1985) classification i.e. searching costs, negotiation costs, monitoring costs and enforcement costs. Six items (adopted by Dyer and Chu, 2003; Nguyen and Crase, 2011) were used to measure searching cost. Five items adopted by Dyer and Chu (2003); Nguyen and Crase (2011) were employed to measure negotiation cost. Four items (adopted by Dyer and Chu, 2003; Nguyen and Crase, 2011) were used to measure monitoring cost. Four items (adopted by Dyer and Chu, 2003; Nguyen and Crase, 2011) were used to measure enforcement cost (see appendix 1).

Opportunism: Opportunism of exchange partners against SEs is defined as exchange partners' seeking self-interests with guile. Opportunism was measured using eight items: exaggeration of needs, sincerity in dealings, truthfulness in dealings, good faith bargaining, dishonesty in dealings, unfairness in dealing, cheating in dealing and breach

of agreement engaged in by the exchange partner. These items were adopted based on Dahlstrom and Nygaard (1999); Rokkan, Heide, and Wathne (2003) (see appendix 1).

Rational Ability: Bounded rationality has not been empirically measured by scholars. This study attempts to measure the rational ability of the owner of SEs using three dimensions; a) ability to access information (lower the information asymmetry), b) ability to assess information because the study observed that not only information asymmetry but also inability to evaluating information averts decision making ability of human beings and the ability to make good decisions. The study used eight items to measure ability to access information, four items to measure ability to assess information and four items to measure decision making ability (see appendix 1).

Uncertainty: Environmental uncertainty is measured using demand and supply uncertainty. Demand uncertainty was measured using four items employed for empirical studies by scholars John and Weitz (1988); Noordeweir et al. (1990). Supply uncertainty was measured using four items adopted by Chen and Chen (2003). On the other hand, measurement of behavioural uncertainty has been operationalised by the degree of difficulty in assessing the performance of exchange partners (Rindfleisch and Heide, 1997; Shin, 2003). Two items (developed by Chen, 2002; Kamyabi and Devi, 2011): the degree of difficulty in assessing the performance of exchange partners and the risk of opportunistic behaviour by exchange partners can be employed in order to measure behavioural uncertainty of SEs.

Frequency: Transaction frequency of SEs in this study is measured using a simple item i.e. repetition of transactions between SEs and exchange partners as adopted by Everaert et al. (2010), John and Weitz (1988) (see appendix 1).

Inter-personal Trust: Interpersonal trust refers to the belief of an entrepreneur that the network member is credible and shows the credibility by action (benevolence). Accordingly, credibility was evaluated employing the components: honesty, flexibility, fairness and the assurance that the member of network will in no circumstance purposely do anything to damage the relationship), and three items are used to measure benevolence all of which have been adopted from Ganesan (1994); Lu et al. (2012); Zaheer et al. (1998).

RESULTS

The study tested the normality of data using the Skewness and Kurtosis test, Kolmogorov-Smirnov Test, the Shapiro-Wilk Test and the nominal Q-Q plot test. The results revealed that all variables were significant indicating that all variables were normally distributed. With regard to personal characteristics, the majority (90.2 percent) the sample were males while female owners were 9.8 percent of the sample. Mean age of owners was 51 years.

The owners' ages varied from a minimum age of 27 to a maximum of 71. The majority of the owners (80.6 percent) belonged to the age category of between 40 and 59 years, while only 5.4 percent were under 39 year, and 13.3 percent were over 60 years. OSEs had a good formal educational background. Mean education of the owners was 3.6, which implies the average education of the owners varies between O/L and A/L. Less than 40 percent of the owners had obtained below G.C.E. Ordinary Level qualification while 6.5 percent of the owners had a degree. Nearly 60 per cent (53.3 percent: up to A/L + 6.5 percent: Degree or above = 59.8 percent) had academic qualifications beyond G.C.E. Advance Level. In addition to formal education, business experience was important for OSEs. Mean business experience of the owners was 15 years. 27 percent had less than 10 years' experience in business field while 7.9 percent of the owners had more than 30 years' experiences. 43.4 percent had experience between 10 and 19 years while 21.6 percent had business experience between 20 and 29 years.

Based on PLS-SEM measurement model, first, the study evaluated 12 first order endogenous latent variables. Appendix 1 shows that standardised factor loadings were above the minimum threshold criterion of 0.7 and factor loadings were statistically significant at 0.05 significance level: confirming the indicator reliability of first order constructs of the dependent variable. Appendix 1 further exhibits that Cronbach's α and composite reliability confirm the convergent validity of the first order constructs of dependent variable. Regarding the discriminant validity, the appendix 2 demonstrates that none of the inter-construct correlation values was above the square-root of the AVE and satisfied the criterion of the discriminant validity of first order constructs. The second-order constructs were developed using latent variable scores of the first-order constructs of dependent variable. Indicator reliability of the three endogenous latent variables [i.e. opportunism (OPPO), rational ability (RA) and transaction uncertainty (UNCERT)] at the second order level in the hierarchical model were evaluated. All path coefficients (standardised factor loadings) were well above the threshold value 0.7 (see appendix 3). The bootstrapping procedure was conducted to estimate the significance of each path coefficient by examining t-statistics. All t-statistics were significant at 0.05 significance level (see appendix 3). Appendix 3 further displays that the Cronbach's α was higher than the required value of 0.7 and composite reliability was higher than the recommended 0.7 value. With a higher level of the Cronbach's α and composite reliability, second order constructs were developed in a reliable manner. The results confirm the convergent validity of the second order construct. Discriminate validity of the second order constructs are presented in appendix 4 which shows that none of the inter-construct correlation values was above the square-root of the AVE and satisfied the criterion of the discriminant validity of the second order constructs.

The study assessed the validity and reliability of nine constructs of the independent variable at first order level. For all first order constructs presented in the table given in appendix 5, standardised factor loadings were greater than 0.7 and factors loadings were significant at 0.05 significance level: showing the indicator reliability revealing that all constructs had a greater extent of indicator reliability. The table given in the appendix 5 further indicates that the Cronbach's α was higher than the required value of 0.7 and the composite reliability was higher than the recommended 0.7 value for all constructs. Furthermore, the results confirm the convergent validity of the first order constructs. The table demonstrates that the AVE for each construct was higher than the required value 0.5 indicating that the convergent validity of first order constructs. In addition, the results further indicate that the square root of AVE was greater than all the correlations of constructs as demonstrated in the table given in appendix 6. The results have confirmed that the discriminant validity of all first order constructs were adequate to interpret the relationships among constructs. Based on the latent variable scores of first order constructs, two constructs at second order level were formed.

Then the study assessed the structural model using the steps suggested by Hair et al. (2014). First, the study calculated VIF and tolerance level with the support of linear regression option in SPSS in order to check multi-collinearity Issues. On considering the collinearity between independent and dependent variables in the structural model, no multi-collinearity issues among variables were detected. VIF values for all paths show minimal collinearity, ranging from 1.419 to 4.406. These values are significantly less than the recommended threshold value of 5.00. Tolerance levels range from 0.285 to 0.705 exceeding 0.20. These results provide strong evidence for the absence of multi-collinearity issues between independent constructs and dependent constructs in the structural model. Second, the study assessed the significance of the path coefficients using β value and t-statistics. In view of both paths coefficients and t-statistics, all hypothetical relationships were significant. Third, considering the R^2 , TC have 81 percent of explanatory power. According to the criterion of Chin (1998), the model can be considered to substantially fit. Finally, considering Q^2 , predictive relevance of TC is 0.597 which displays a substantial higher explanatory power.

DISCUSSION

As expected, table 1 shows that inter-personal trust has a significant negative direct impact on TC of SEs ($\beta = -0.253$ or 25 percent and t-value = 7.50). Thus, hypothetical relationships of H1 are supported by the empirical results. In literature, Zaheer et al. (1998) found that the inter-personal trust negatively associated with negotiation costs. Dyer and Chu (2003) empirically justified that trust correlates inversely with monitoring and the enforcement costs. Dyer and Sing (1998) explained that under the conditions of high trust among exchange partners, less time will be spent on ex-ante contracting

because parties are confident that the payoffs will be fairly divided. Chiles and McMackin (1996) explained that a high level of trust between parties decreases contract costs and control costs. Thus, many scholars' demonstrates similar findings.

The regression results shown in table 1, indicate that the interpersonal trust between the owner of SE and exchange partners has a significant negative path coefficient ($\beta = -0.736$ or 73.6 percent and $t\text{-value} = 39.19$). The results have answered the hypothesis H2 and provided evidence that interpersonal trust has a powerful impact in controlling opportunism. Yenidogan (2013) highlighted the positive effects of trust on ex-post opportunism. Morgan and Hunt (1994) found that opportunism has a negative relationship with trust. Mysen et al. (2011) explained that supplier opportunism is negatively associated with trust. The current study further clarifies that the interpersonal trust has an impact on mitigating opportunism of exchange partners particularly in owner manager SEs.

Table 1: Path Coefficients and Significance between Variables

Hypothesis	Relationship	β	T Statistics	Result
H1	Trust -> TC	-0.253***	7.50	Supported
H2	Trust -> Opportunism	-0.736***	39.19	Supported
H3	Opportunism -> TC	0.232***	6.47	Supported
H4	Trust -> RA	0.754***	40.87	Supported
H5	RA -> TC	-0.117***	2.74	Supported
H6	Trust -> Uncertainty	-0.677***	29.65	Supported
H7	Uncertainty -> TC	0.265***	6.62	Supported
H8	Trust -> TFQ	0.590***	21.76	Supported
H9	TFQ -> TC	-0.156***	3.96	Supported

N=373, *** $p > 0.01$. $R^2 = 0.809$ $Q^2 = 0.591$

Source: Survey data (2016)

In order to test the theoretical relationship between opportunism and FTC in the context of SEs, the study proposed the hypothesis (H3). The results have answered the hypothesis H3 showing path coefficient ($\beta = 0.232$ or 23.2 percent) and the path coefficient is significant ($t\text{-value} = 6.47$). Table 1 further explains that the relationship between interpersonal trust and the rational ability of the owner of SEs have a positive relationship supporting the hypothesis H4, on the basis of the significant positive path coefficient ($\beta = 0.754$ or 75.4 percent and $t\text{-value} = 40.87$). Similar results have been given by many

scholars in different studies. Inter-personal trust has an effect on knowledge in exchanging accurate, secret and important information (Stam, Arzlanian and Elfring, 2013). Inkpen and Tsang (2005) found that the inter-personal trust has a positive impact on sharing information among network members. Dyer (1997) empirically observed that the information exchange between exchange partners reduced information asymmetry.

In order to test this theoretical relationship in the context of SEs, the study proposes the hypothesis, H5. Table 1 shows that the hypothesis H5, which implies a negative influence of rational ability on TC, is supported by the regression coefficient ($\beta = -0.117$ or 11.7 percent) and the path coefficient is significant (t-value = 2.74). The relationship between interpersonal trust and the transaction uncertainty indicates the significant negative path coefficient ($\beta = -0.677$ or 67.7 percent and t-value = 29.65) supporting the hypothesis H6. Zaheer et al. (1998) found that high trust reduces uncertainty. When solidarity exists partners tend to support each other such as by providing business advice which decreases uncertainty. Thus, many scholars reveal that there is a negative relationship between interpersonal trust and uncertainty. The results of the current study also confirm that interpersonal trust have a negative impact on transaction uncertainty of SEs in Sri Lanka.

The theoretical relationship between transaction uncertainty and TC was tested using hypothesis H7 and the results confirm that transaction uncertainty and the TC of SEs have a positive relationship supporting this hypothesis. (The path coefficient ($\beta = 0.265$ or 26.5 percent) and t-statistics (t-value = 6.62) shows a significant positive relationship between transaction uncertainty and TC). Inter-personal trust has a positive impact on transaction frequency. The results show that the relationship between the interpersonal trust and transaction frequency indicates a significant positive path coefficient ($\beta = 0.590$ or 59 percent and t-value = 21.76) supporting hypothesis H8. The results further indicate that transaction frequency is negatively associated to TC ($\beta = -0.156$ and t-value = 3.96). The results support hypothesis, H9.

The study provides valuable insight in favour of the relational contact which suggests that when exchange parties have mutual interests they would develop a relationship with each other and conduct transactions frequently (Dwyer et al., 1987; Heide and John, 1992; Rokkan and Haugland, 2002). When a relationship continues for a long period of time, it generates a relational mindset between exchange partners who then refrain from opportunistic behaviour as they anticipate continuity of the exchange relationship and begin to assign greater value to long-term payoffs (Rokkan et al., 2003).

In addition to that, relational capital leads exchange partners to exchange information, resources, support, and cooperation (Lu et al., 2012).

CONCLUSION

This paper studied how interpersonal trust affects transaction costs of SEs in Sri Lanka? The results provide sufficient justifications to answer this research question and reveal that inter-personal trust between OSE and exchange partners has strongly contributed to mitigate TC of SEs in Sri Lanka. Interpersonal trust between OSE and exchange partners has a significant negative effect on TC of SEs. The results further confirmed that inter-personal trust has a powerful effect on mitigating opportunism of exchange partners, improvement of the rational ability of OSEs, decrease of transaction uncertainty, has a significant negative effect on transaction uncertainty and encourages transition frequency.

The study has made several contributions by synthesising interpersonal trust and all variables of TC into a new framework and testing it empirically. This study makes important contributions to literature by providing empirical evidence related to TC and interpersonal trust between OSE and exchange partners in Sri Lanka. In this way, the study extends the understanding about the relative worth of theories into a different economic and social context. The study extends the application of the most powerful relational capital (i.e. interpersonal trust with the TCE) to realise an alternative solution to foster the growth of SEs. The empirical results provide sufficient evidence to recognise the strength of social mechanism to govern economic activities rather than the market mechanism, confirming the complementary effect of interpersonal trust in governing economic activities. Thus, the study supports the insights of relational governance revealing that business firms can gain the benefits of the economies of scale by strengthening inter-personal trust among exchange partners because TC of SEs decrease with an increase in inter-personal trust.

The study found that SEs access to, and the ability to assess the necessary information and resources improves if interpersonal trust exists among exchange partners, which lead to mitigating opportunism, transaction uncertainty, and finally TC. In this regard, the study recommends policymakers to develop approaches to provide necessary support to access information and resources through their social relationships which help to improve performance mitigating TC. The study observes that most SEs have developed close relationships with a few reliable buyers and suppliers for regular transactions expecting to minimise transaction uncertainty, opportunism and finally TC. They do not have enough capacity to establish direct relationships with large scale and foreign exchange partners (producers/suppliers/buyers).

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Appendix 1: Analysis of the First Order Constructs of Dependent variable

Construct		Loading	t-statistics	CR	AVE	α^*
1.	Searching Costs (SECHTC)			0.939	0.839	0.903
	Brokers'/commission fees to search new buyers and suppliers.	0.829	39.93			
	Labour cost to handle advertising activities	0.964	176.25			
	Travelling cost to handle advertising activities	0.949	133.13			
2.	Negotiation Costs (NEGOTC)			0.915	0.785	0.861
	Labour cost to handle legal matters and negotiate with exchange partners to decide details relating to transaction.	0.933	86.05			
	Travelling cost to handle legal matters and negotiate with exchange partners to decide details relating to transaction.	0.948	145.58			
	Communication cost to handle legal matters and negotiate with exchange partners to decide details relating to transaction.	0.767	28.24			
3.	Monitoring Costs (MONITC)			0.892	0.678	0.843
	Cost for monitoring the transaction activities whether they are undertaken according to the agreements.	0.709	18.11			
	Labour cost for monitoring the transaction activities whether they are undertaken according to the agreements.	0.914	77.41			
	Travelling cost for monitoring the transaction activities whether they are undertaken according to the agreements.	0.911	84.69			
	Communication cost for monitoring the transaction activities whether they are undertaken according to the agreements.	0.744	25.25			
4.	Enforcement Costs (ENFOTC)			0.908	0.713	0.865
	Cost to resolve transaction disputes, to pay commissions for sales ref/intermediates after the transaction made and to pay license fees and sales taxes.	0.723	21.73			
	Labour cost to resolve transaction disputes, to pay commissions for sales ref/intermediates after the transaction made and to pay license fees and sales taxes.	0.909	66.86			
	Travelling cost to resolve transaction disputes, to pay commissions for sales ref/intermediates after the transaction made and to pay license fees and sales taxes.	0.915	104.42			

	Communication cost to resolve transaction disputes, to pay commissions for sales ref/intermediates after the transaction made and to pay license fees and sales taxes.	0.816	37.80			
5.	Buyers' Opportunism (OPPOB)			0.970	0.784	0.965
	Buyers do not provide a truthful clear picture from the deal when negotiating.	0.822	41.52			
	Complete honesty will not be expected from our buyers when negotiating.	0.908	80.49			
	Generally most of the buyers exaggerate needs to get what they wants	0.823	40.66			
	Buyers always change the pre-agreed facts in order to get their own benefits	0.898	69.98			
	A complete good faith deals will not be expected from our buyers	0.917	94.61			
	We need to check carefully each and every steps of the transaction that are made with buyers to avoid the their cheating	0.811	39.82			
	Generally most of the buyers are dishonest in transaction activates	0.918	93.44			
	Generally most of the buyers are not sincere in transaction activities.	0.926	109.32			
	Generally most of the buyers do not fair in transaction activities	0.932	103.83			
6.	Suppliers' Opportunism (OPPOS)			0.965	0.753	0.958
	Suppliers do not provide a truthful clear picture from the deal when negotiating.	0.841	43.38			
	Complete honesty will not be expected from our suppliers when negotiating.	0.863	48.86			
	Generally most of the suppliers exaggerate needs to get what they wants	0.819	34.57			
	Suppliers always change the pre-agreed facts in order to get their own benefits	0.874	50.86			
	A complete good faith deals will not be expected from our suppliers	0.888	64.16			
	We need to check carefully each and every steps of the transaction that are made with suppliers to avoid the their cheating	0.783	34.97			
	Generally most of the suppliers are dishonest in transaction activates	0.914	93.88			
	Generally most of the suppliers are not sincere in transaction activities.	0.933	108.61			
	Generally most of the suppliers do not fair in transaction activities	0.889	46.69			

7.	Ability to access information (ASSESS)			0.969	0.797	0.963
	Ability to find accurate information about market prices for our product.	0.859	41.38			
	Ability to find sufficient information about new markets and buyers	0.928	80.40			
	Ability to find sufficient information about reliable buyers	0.944	133.79			
	Ability to find sufficient information about threats coming from competitors	0.929	99.94			
	Ability to find accurate information about input prices.	0.867	80.40			
	Ability to find sufficient information about new input suppliers	0.873	72.49			
	Ability to find sufficient information about reliable suppliers	0.926	88.87			
	Ability to find sufficient information about product techniques	0.810	46.12			
8.	Ability to assess information (ACCESS)			0.917	0.735	0.879
	I have a high ability to evaluate information about the behavior of market prices of our products before making important sale decision	0.808	40.61			
	Ability to evaluate the input prices and quality related to our products before purchase decision	0.851	55.65			
	Ability to evaluate the potential threat coming from competitors	0.910	110.14			
	Ability to evaluate the change of business environment, political situations and external socks	0.858	69.36			
9.	Ability to Make Decision (DMA)			0.928	0.721	0.903
	Ability to make a satisfactory sale decision evaluating information	0.838	50.07			
	Ability to face the threats coming from competitors	0.791	83.35			
	Ability to face the changes coming from external business environment.	0.887	79.01			
	Ability to make good transaction decisions avoiding various issues	0.851	59.56			

1 0.	Environmental Uncertainty (ENUN)			0.986	0.761	0.984
	Future market shares for the product can easily be forecasted	0.961	48.66			
	Future sales volume for the product can easily be forecasted	0.969	71.21			
	Future prices for the product can easily be forecasted	0.960	66.39			
	Customers' demand for the product in future is stable	0.971	59.23			
	Future market for input supply can easily be forecasted	0.913	38.65			
	Future input supply can easily be forecasted	0.935	57.52			
	Future input prices can easily be forecasted	0.916	57.60			
	Input supply for the product in future is stable	0.959	38.72			
1 1.	Behavioural Uncertainty (BEUN)			0.984	0.879	0.978
	It is very easy to understand the performance of buyers	0.971	131.06			
	Risk of opportunistic behavior of buyers is very low	0.970	128.30			
	It is very easy to understand the performance of buyers	0.968	90.29			
	Risk of opportunistic behavior of buyers is very low	0.969	101.60			
1 2.	Transaction Frequency (TFQ)			0.768	0.768	0.698
	Sale substantial higher amount of products for regular buyers (wholesalers, distributors, retailers, producers).	0.951	66.29			
	Purchase substantial higher amount of inputs from regular suppliers (wholesalers, distributors, retailers, producers).	0.950	57.82			

* Cronbach's α . (n=373)

Appendix 2: Discriminant Validity of the First Order Constructs

Appendix 2: Discriminant Validity of the First Order Constructs

	AVE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. OPPOB	0.784	0.885													
2. OPPOS	0.753	.772**	0.867												
3. ACCESS	0.797	-.585**	-.598**	0.893											
4. ASSESS	0.736	-.577**	-.533**	.775**	0.858										
5. DMA	0.721	-.582**	-.512**	.739**	.810**	0.849									
6. ENFOTC	0.713	.577**	.515**	-.370**	-.337**	-.308**	0.844								
7. MONITC	0.679	.646**	.576**	-.471**	-.465**	-.427**	.772**	0.823							
8. NEGOTC	0.785	.714**	.582**	-.509**	-.491**	-.462**	.612**	.749**	0.885						
9. SECHTC	0.839	.792**	.646**	-.563**	-.541**	-.551**	.481**	.581**	.755**	0.916					
10. BEUN	0.879	.748**	.734**	-.638**	-.602**	-.616**	.540**	.621**	.676**	.735**	0.937				
11. ENUN	0.761	.613**	.632**	-.582**	-.588**	-.600**	.431**	.533**	.549**	.641**	.798**	0.872			
12. TFQ	0.768	-.374**	-.350**	.194**	.184**	.205**	-.344**	-.418**	-.413**	-.389**	-.349**	-.288**	0.876		
13. NDENSE	0.735	-.615**	-.555**	.415**	.417**	.394**	-.486**	-.521**	-.554**	-.577**	-.589**	-.495**	.444**	0.833	
14. NSIZE	0.849	-.438**	-.386**	.356**	.231**	.213**	-.430**	-.460**	-.450**	-.441**	-.475**	-.361**	.235**	.378**	0.921

**, Correlation is significant at the 0.01 level (2-tailed). *, Correlation is significant at the 0.05 level (2-tailed) (n=373).

Appendix 3: Analysis of the Second Order Constructs of Dependent Variable

(n=373).

Construct		Loading	t-statistics	CR	AVE	Cronbach's α
1.	Opportunism (OPPO)			0.939	0.885	0.871
	OPPO-Buyers	0.949	147.92			
	OPPOS- Suppliers	0.932	108.88			
2.	Rational Ability (RA)			0.944	0.850	0.912
	Ability to access	0.911	7.89			
	Ability to assess	0.934	7.92			
	Decision Making Ability	0.919	7.91			
3.	Transaction Uncertainty (UNCERT)			0.946	0.898	0.887
	Environmental Uncertainty	0.940	142.50			
	Behavioural Uncertainty	0.955	182.35			

Appendix 4: Discriminant Validity of the Second Order Constructs of Dependent Variable

(n=373).

	AVE	1	2	5
1 OPPO	0.885	0.941		
2 RA	0.850	-.651**	0.922	
5 UNCERT	0.898	.767**	-.692**	0.948

** Correlation is significant at the 0.01 level (2-tailed).

Appendix 5: Analysis of the First Order Constructs of Independent Variable

Construct		Loading	t-statistics	CR	AVE	α^*
1	Trust (Creditable) - CTRUST-H			0.955	0.679	0.947
	I feel that buyers are honest	0.884	67.45			
	I feel that suppliers are honest	0.881	76.05			
2	Trust (Creditable) - CTRUSTT-			0.948	0.649	0.939
	I feel that buyers are trustworthy	0.896	107.53			
	I feel that suppliers are trustworthy	0.868	69.04			
3	Trust (Creditable) - CTRUST-P			0.965	0.774	0.956
	Buyers do not break promises	0.944	165.61			
	Suppliers do not break promises	0.942	173.42			
4	Trust (Creditable) - CTRUST-FL			0.969	0.746	0.966
	Buyer are flexibility	0.929	122.99			
	Suppliers are flexibility	0.927	117.48			
5	Trust (Creditable) - CTRUST-F			0.966	0.743	0.961
	Buyers treat fairly for me	0.937	153.37			
	Suppliers treat fairly for me	0.930	117.89			
6	Trust (Creditable) - CTRUST-HU			0.972	0.792	0.967
	I am sure that buyers would not knowingly do anything to hurt me	0.930	130.70			
	I am sure that suppliers would not knowingly do anything to hurt me	0.925	110.66			
7	Trust (Benevolence) - BTRUST-C			0.969	0.727	0.965
	I feel that buyers cares about me giving higher attention for my request	0.913	91.72			
	I feel that suppliers cares about me giving higher attention for my request	0.917	103.14			

8	Trust (Benevolence) -BTRUST-R			0.963	0.708	0.958
	I feel that buyers cares about me giving higher attention for my request.	0.912	102.37			
	I feel that supplier cares about me giving higher attention for my request.	0.915	99.11			
9	Trust (Benevolence) - BTRUST-A			0.951	0.774	0.943
	I feel that buyer will sacrifice time, energy and resources to fulfil my request	0.828	55.11			
	I feel that supplier will sacrifice time, energy and resources to fulfil my request	0.825	53.97			

(n=373). * Cronbach's α .

Appendix 6: Discriminant Validity of the First-order Constructs of Independent Variable (n=373).

	AVE	3	4	5	6	7	8	9	10	11
1. CTRUST-F	.743	.862								
2. CTRUST-FL	.746	.729*	.864							
3. CTRUST-H	.679	.699*	.666*	.824						
4. CTRUST-HU	.792	.763*	.768*	.684*	.889					
5. CTRUST-P	.774	.606*	.613*	.569*	.543*	.879				
6. CTRUSTT-	.649	.690*	.649*	.791*	.652*	.593*	.805			
7. BTRUST-A	.774	.717*	.706*	.705*	.685*	.613*	.710*	.814		
8. BTRUST-C	.727	.702*	.733*	.606*	.723*	.612*	.655*	.739*	.853	
9. BTRUST-R	.708	.724*	.714*	.681*	.710*	.573*	.732*	.804*	.748*	.842

Appendix 7: Analysis of the Second Order Construct of Independent variable

Construct		Loading	t-statistics	CR	AVE	α
2.	Inter-personal Trust			0.940	0.735	0.923
	CTRUST-F	0.882	51.00			
	CTRUST-FL	0.869	59.86			
	CTRUST-H	0.865	55.03			
	CTRUST-HU	0.868	52.10			
	CTRUST-P	0.758	28.76			
	CTRUST-T	0.859	49.67			
3.	Inter-personal Trust			0.941	0.842	0.906
	BTRUST-C	0.925	90.64			
	BTRUST-R	0.901	68.41			
	BTRUST-A	0.928	100.28			

(n=373).