An Investigation of National Culture's Influence on

Trust Issues in Supply Chain Management

Zheng LIU, University of Cambridge, zl230@cam.ac.uk

Research background

Culture is a system of values and norms shared among a group of people. The linkage between culture and manufacturing system has drawn increasingly more attention. This is because manufacturing systems have grown from individual factory based management to international network, global supply network and value chain. Thus understanding and coordination of different national culture become a must. A survey carried out by the author suggests that trust issue is the most culture sensitive element in supply chain management, yet not sufficient literature is observed. The key question of this research is: what is the interaction between national culture and trust issues in supply chain management. Specifically it aims to provide trust model under different culture context, make theoretical linkage between culture dimensions and trust, and to explore tools for building trust cross-culture.

Literature review

Literature can be reviewed from two aspects: national culture and trust. National differences can have the single greatest impact upon cultural orientation and represent the highest level of cultural aggregation. Influence theories provide dimensions to measure culture difference: Hall's classic patterns, Hofstede's cultural dimensions, Trompennars's cultural dilemmas and Schwartz value inventory. To combine literature, culture dimensions can be classified into 'time orientation', 'internal integration', and 'external adaptation' (Table 1).

Table 1: Dimensions of national culture

Types of culture	Key dimensions
Time	Long vs. short term orientation
	Monochronic vs. polychronic
Internal integration	Power distance
	Individualism vs. collectivism
	Masculinity vs. feminity
External adaptation	Uncertainty avoidance
	Specification vs. diffusion

Trust is important in the network and partnership development process. Current literature has focused on the types of trust. Key works are from Rempel, McAlister, Sako, Mayer, Platts and Tomasevic's studies. From the trust theories, four types of trust can be generated.1) Competence trust –based on the understanding that a professional person or organization can do what they say they can. 2) Reliability trust – dependent on a contract with a party of experience. 3) Goodwill trust – a professional person not only automatically puts effort into resolving the problems which inevitably arise in practice; he actively seeks

opportunities to enhance what is being done. 4) Loyalty trust – a long-term relationship which means that the partner is not just reliable but performs well in extraordinary situations.

Research design

The study is carried out through cases and questionnaires. In the first stage, companies within the same national culture are selected and interview will be taken. Up to two or three countries are selected, which have obvious culture distance. The common feature of trust issues within the same national will be grouped, and the most important culture dimensions can be discovered. The second stage of case study is from cross-culture perspective, which aims to identify culture's influence on trust issues when international supply chain is formed. To collect data of trust issues, a process of trust can be divided into three phases: trust formation, development and continuation.
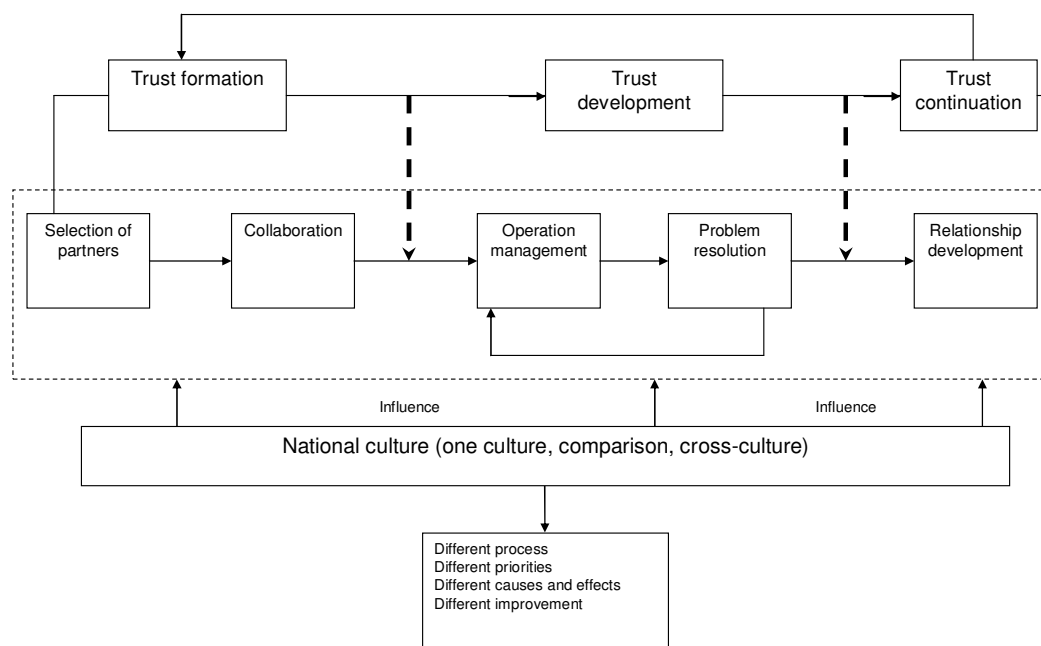

Figure 1: Trust models and decision areas in each phase

The measurement of culture can be observed through: process (detailed procedure of trust development), priority (what is the key consideration and criteria in each phases), effects and causes (what is the reason behind the decisions), and improvement (how to improve the existing procedure and management). Corresponding questions are designed to explore the above five aspects. Case studies are to be carried out as the main research methods.

Expected results

- Different process

In formation stage, such questions as how to select the right partner and chose the appropriate collaboration mode are considered. Information sharing and technology issues are related to trust development. Further relationship development is the result of trust continuation. The process of trust build-up, the driving forces of each phases, the way of creating trust atmosphere and the way of solving problems can be different under different culture context. Below are assumptions of general trust process.
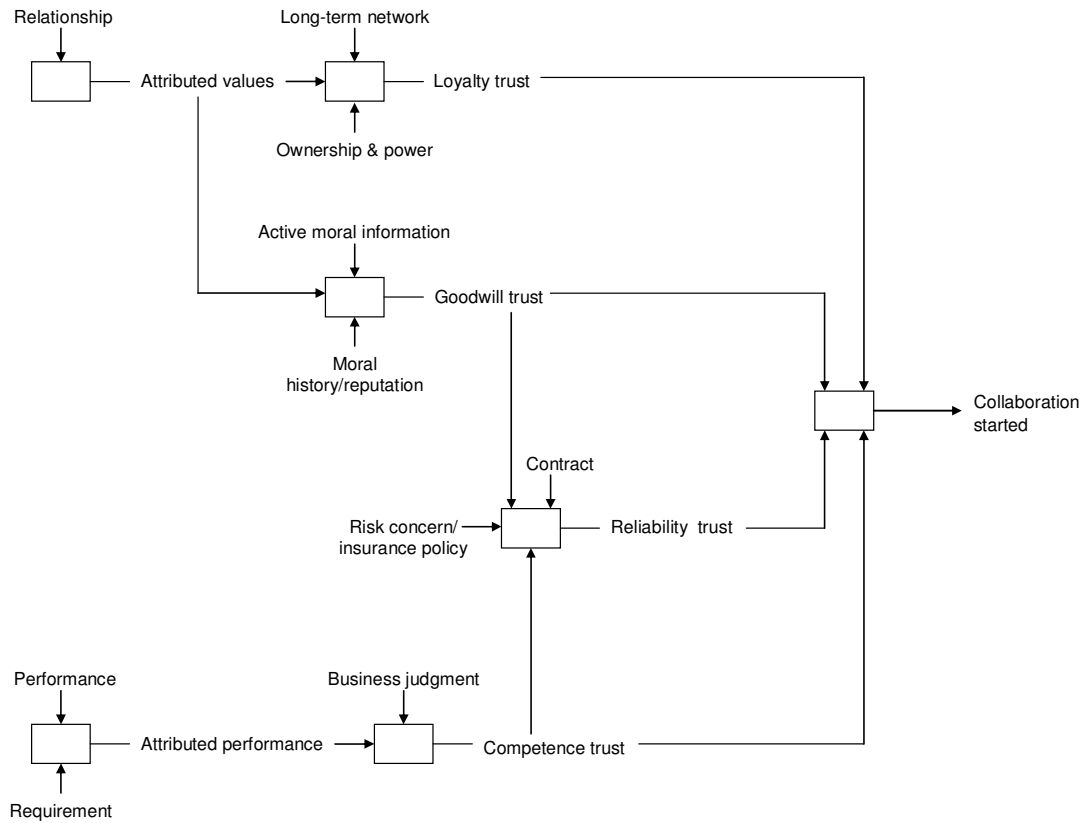
Figure 2

Relationship

Long-term network

Attributed values

Loyalty trust

Ownership & power

Active moral information

Goodwill trust

Moral history/reputation

Collaboration started

Contract

Risk concern/ insurance policy

Reliability trust

Performance

Business judgment

Attributed performance

Competence trust

Requirement

Figure 2: The process of trust formation

Figure 3

Active performance

Competence trust

Improved technique

Improved management

Active moral information

Loyalty trust

Reinforce

Problems

Goodwill trust

Project completion

Continuously problem solving

Improved rules/ agreement

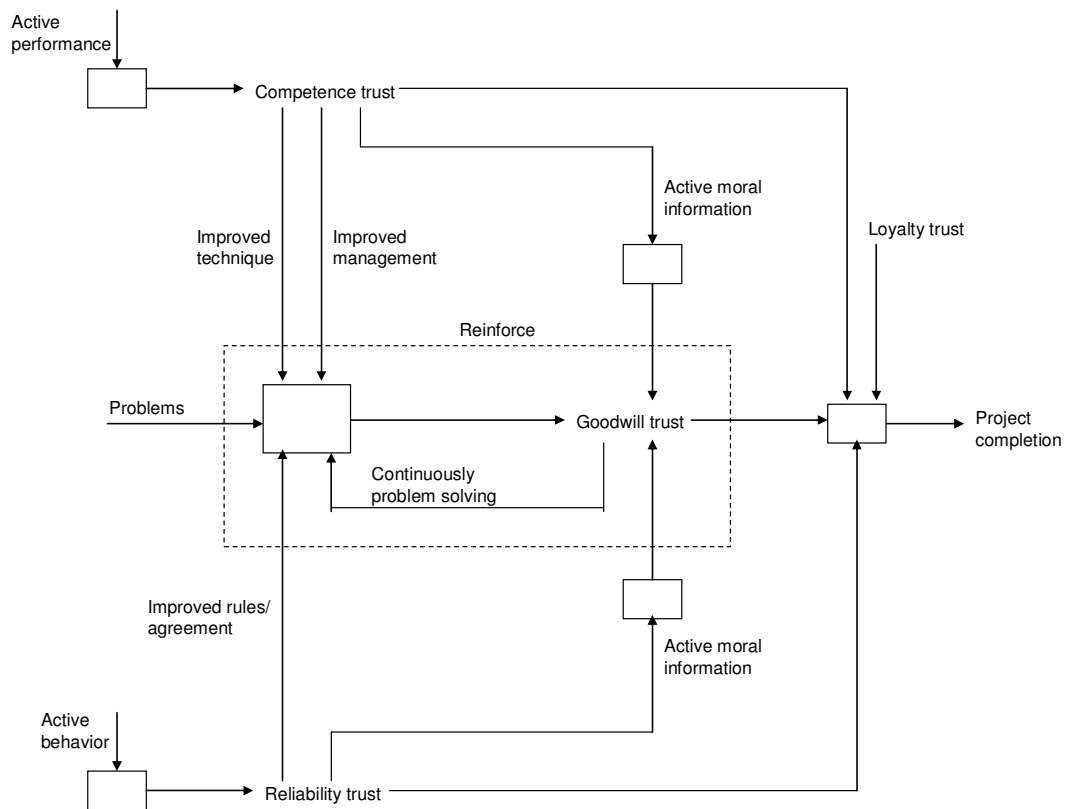Active moral information

Active behavior

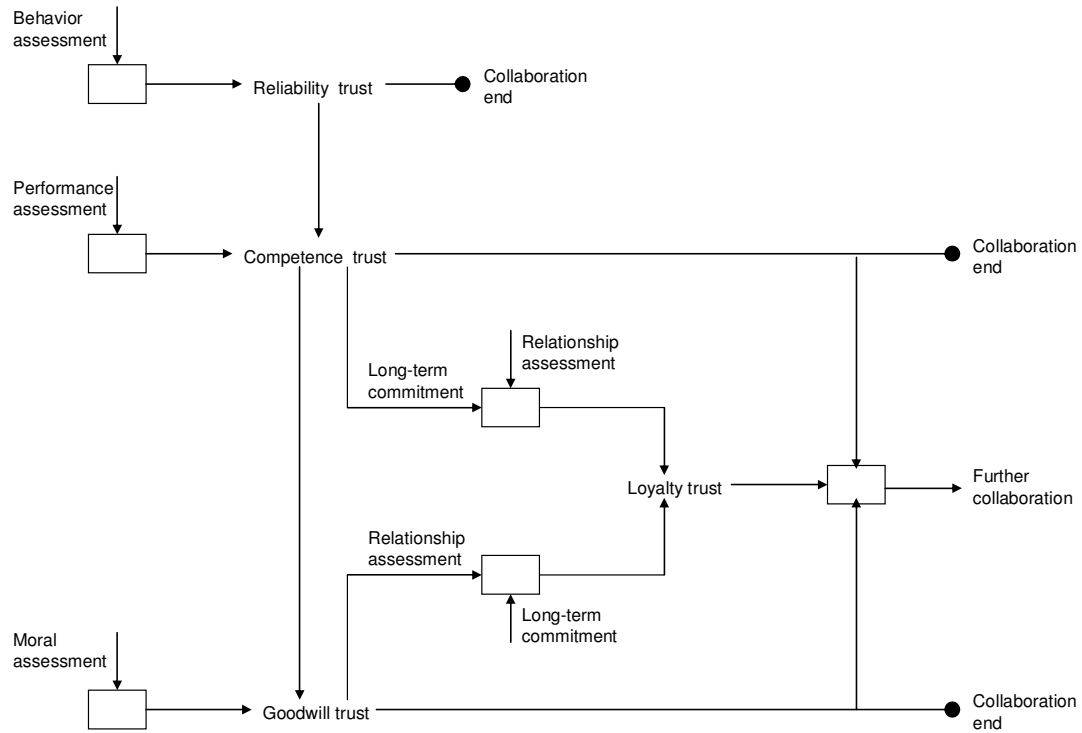Reliability trust

Figure 3: The process of trust development

Figure 4: The process of trust continuation

- Different priorities

In each decision making area, priorities will be given in different cultural understandings. A set of questions (Table 2) a asked as methods to evaluate the status of trust and inter-firm relationships. A radar chart can be generated based on the scores, which clearly shows priories for cross-culture comparison.

Table 2: Evaluation tools of trust aspects

	Trust (relationship) aspects	Score	Comments
	Competence assessment		
01	We emphasis the technical ability and expertise of our partners (product, technique etc)		
02	We especially look at the way of operation management (quality control, planning etc) in our partners		
03	There is a joint discussion to specify the technology and process required by the project		
04	There is a joint discussion about tacit knowledge and learning plan		
05	We think the way of project management, HR management are also important when we select partners		
06	We ask help from professional agency to find the right partner		
07	We audit their factories, and compare carefully about the competence of potential partners		
08	There is a joint discussion about a feasible timeline for the project		
	Contractual reliability		
09	We development agreement with very details concerning possible risks and want to reduce it as much as possible		
11	The remuneration terms in the contract are considered fair		
12	Expectations are clarified and equal (when relevant)		
13	Standard pieces of work are defined and prices specified		
14	A technical agreement (specifying ownership of responsibilities) is in place		
15	The company is aware that arguing with contractors/partners by referring to contractual terms should be the last resort		
	Goodwill assessment		
16	We listen to other's opinion about the trustworthy of the company		
17	We also look at its organizational culture, e.g. creative, hierarchy, teamwork spirit		
18	During communication, we watch carefully whether the company is kind and honest		
19	The company is open to us and show a helping attitude with respect to our opinion		
20	The company shows the intent and confidence for the project to succeed		
21	We make sure that the company has common value and goals as us		
	Loyalty assessment		
22	We think relationship is more important compared to partners competence		
23	We select partners mainly through personal relationship		
24	The personal relationship of the top management between two companies are very important		
25	We consider the long-term collaborative partners		
26	Our partners and us are linked by ownership and power		
27	We are like a community / cluster / family		

Current situation
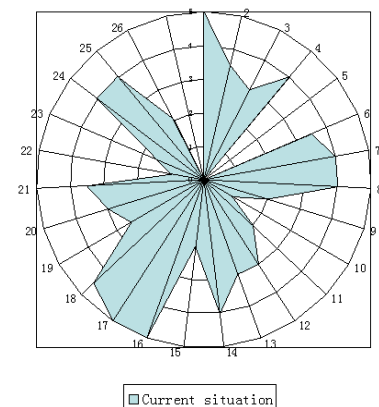
- Different effects and causes

The linkage of culture with trust start with culture dimensions (Table 1), and types of trust. Competence trust is built on the fact that each individual company has specialised capability, which can be traced back to the culture of specialisation and individualism. Reliability trust is fostered by a short-term contract, and it requires for a culture of specialisation (because in culture of specilisation, people obtain and exchange information through clear resources such as report and contract, rather than personal relationship), short-term orientation, and monochronic time orientation (because in monochronic culture, task is fulfilled according to schedules and deadlines). Goodwill trust is based on the kindness, benevolence of partner, which is a feminity culture. Also the openness nature of partner is related to low power distance. Loyalty trust is developed over long time and sometimes maintained by high power. This hypnosis (Figure 5) is generated from different schools of theories, and it needs to be tested in practice.
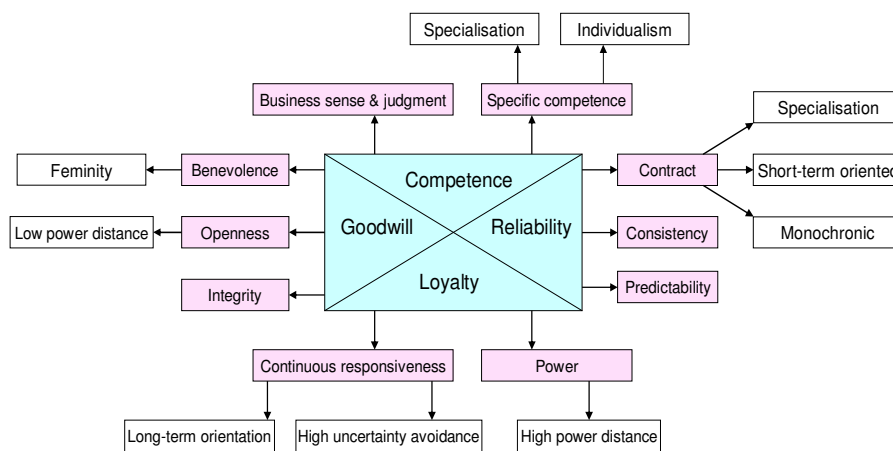

Figure 5: A model of linkage between national culture dimensions and types of trust

- Different improvement

The way of solving problems and improve inter-firm relationship can vary greatly between different countries and culture backgrounds. Details data will be collected through cross-case analysis.

Contributions

Although there are both studies on national culture and trust, little literature can be found to explore the relationship between them, which in fact is very important issue in global supply network. This study will contribute to both theories. For one thing, it generates different groups of culture theories, and further develop them in the context of supply network. For another, model of trust process, and trust under different culture meanings will be created. From practical perspectives, tools will be provided for cross-border collaboration and management.

Future research and implementation

The whole research process is divided into four phases: (1) review – review current literature and develop research framework, (2) exploratory – secondary case studies and questions design, (3) design – case studies and model development, (4) validate – validate the research finding and develop tools. So far literature review, practice review and research design have been done. The next stage is to conduct first-hand case studies and model development.