

The Effect of Culture and Language on Initial Trust: A Social Semiotic View

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Declaration

I confirm that this is my own work and the use of all material from other sources has been properly and fully acknowledged.

.....

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Abstract

Initial trust happens naturally at the initial stage before or just after two strangers meet. It is highly associated with trustors' disposition to trust and relevant information discovered at the initial stage. Culture is significant in shaping human disposition to trust and affecting the way human interpret information, thus significant in initial trust. At present, studies of initial trust mainly focus on the factors that affect initial trust in e-business context. A few studies investigate the level of initial trust in different cultures but do not explore the cultural factors and reasons that result in the cultural differences in initial trust. This research intends to further study the cultural effect on initial trust and explore the reasons that result in the effect.

British culture and Chinese culture are different. It assumes that people living in the UK and China have different level of initial trust, but there are few such investigations. This research first investigates whether people living in UK and China have different initial trust, then identifies what cultural factors impact people's initial trust and explores why the factors affect initial trust. Culture is related to everything shared in a community or group and is constructed on the basis of meaning in social process. Social semiotics study meaning in social dimensions and view culture as a social construct. It is the theoretical background of this research to study the cultural effect on initial trust.

This research adopts pragmatist paradigm and mixed-method research. Abductive reasoning was used to interpret the findings from the studies. A series of questionnaires were designed and conducted to collect data. First, a questionnaire with both closed and open-ended questions was designed to investigate whether people living in the UK and China had different initial trust in a business context. The responses were collected from university students who were studying in the UK and China. The results identified that the respondents' initial trust was different between the two countries. An important finding was that a group of Chinese students who came to the UK recently showed similar initial trust level with the British students studying in the UK but had different initial trust level from the Chinese students studying in China. The reason for the difference was attributed to the different languages (Chinese and English) the respondents used in the investigation. This implied that language affects people's initial trust and the cultural effect on initial trust might be associated with language used in the culture. To confirm the implications, people's initial trust in Chinese and English was

investigated by using the same questionnaire as that in study 1. We focused on Chinese university students studying in China. One group answered the questions in Chinese while the other one answered the questions in English. The group who answered questions in English had different level of initial trust from the group in Chinese and showed similar level of initial trust as that of British people in UK. The results confirmed that language had an effect on people's initial trust and suggested that the cultural effect on initial trust in British culture and Chinese culture was highly associated with the language used in the culture. From a social semiotic perspective, the potential reasons for the effect of language on initial trust were attributed to the different semantic systems of Chinese and English. The lexicogrammatical meaning and affectual meaning of words in Chinese and English were studied. The results suggested the lexicogrammatical and affectual meaning of words in the two languages had limited effect on the different initial trust in Chinese and English. Based on the internal stratification and strata realisation between lexicogrammar and semantics, the mechanism of language that impacts initial trust was attributed to the natural logic of language that underpins the meaning at the syntactic-semantic interface between wording and meaning.

The research finds that culture and language have an effect on initial trust, the cultural effect on initial trust is highly associated with language used in the culture and the natural logic of language plays a significant role in affecting initial trust in different languages. It implies that language is significant in shaping human thinking, affecting the way human interpret information and influencing people's decisions in a foreign language. This research extends the study of culture and trust, provides new approach to initial trust, contributes to the study of human information interaction by providing new perspectives to understand the meaning base of information interface and makes contribution to trust management in business context. It also makes new contribution to the study of human judgement in a foreign language and extends the study of Sapir-Whorf hypothesis. This research focuses on British culture and Chinese culture and investigates initial trust in English and Chinese, limited in generalizing the outcomes into other contexts. In this research, it was difficult to find enough British people who were bilinguals of Chinese and English to investigate initial trust in Chinese and English, thus limited in verifying the outcomes in multi-ways.

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Related publications

Li E., and Tang Y. (2018) The Role of Language in Human Information Interaction: A Social Semiotic View. In: Liu K., Nakata K., Li W., Baranauskas C. (eds) Digitalisation, Innovation, and Transformation. ICISO 2018. IFIP Advances in Information and Communication Technology, vol 527. Springer, Cham.

Chapter 1 : Introduction

1.1 Research background

Trust is viewed as a social mechanism that helps to reduce social complexity (Luhmann, 1979; Misztal, 1992). It plays an important role in all social relationships (Siau and Wang, 2018; Caldwell and Clapham, 2003) and is beneficial for organisations to improve business competition. Especially in the digital era, people are risking exposure of privacy, such as Facebook's Cambridge Analytica data scandal, trust is getting more important in business development (Fried *et al.*, 2019).

The building of trust is gradual, dynamic and complex, involving various elements and factors such as trustors' characteristics, trustee's characteristics and the environmental factors (Zand, 1972; Doney *et al.*, 1998; McKnight, *et al.*, 1998; Kim and Tadisina, 2003). Trust is observable based on individual behaviour and action, and is affected by contextual characteristics such as social and cultural background, situational normality, organisational structures, transaction norms and interaction routines (Lionel *et al.*, 2009). The development of trust is time consuming with continuous interactions between trustors and trustees. Generally, it consists of two stages—initial trust and ongoing/robust trust (Kim and Tadisina, 2003). The presumed level of trust is known as initial trust which refers to the initial relationship between trustors and trustees. It happens before first meeting or at the very initial stage of the first interactions (McKnight, *et al.*, 1998; Kim and Tadisina, 2003). It is as significant as robust trust in human relationships such as interpersonal relationships, organisational relationships and e-commercial business (Rilling and Sanfey, 2011; Hahn, *et al.*, 2015). Zand (1972) indicates that initial trust leads to trusting actions. Studying initial trust helps to better understand the development of trust and develop better trust management in business context.

In management and organisational studies, scholars are increasingly interested in the study of trust to increase business success (Jeffries, 2002). The rising concern of trust is attributed to the “emergence of a widespread consciousness that existing bases for social co-operation, solidarity and consensus have been eroded and that there is a need to search for new alternatives” (Misztal, 1996, p 3; Mollering *et al.*, 2004, p 556) and the fact that trust is helpful for

organisations to optimize outcomes by promoting collaborative efforts (Møllering *et al.*, 2004). Trust enables business management to reduce the social uncertainty and vulnerability and is viewed as an element of social capital which helps to improve organisational competitiveness and performance (Wyrwa, 2014). In business context, trust is increasingly important with international business growing in the current era in which social and cultural context is increasingly complex (Gefen and Straub, 2003). Trust management is significant for organisations to develop new customers and prevent customers from dissatisfaction (Friedrich *et al.*, 2019). It is necessary to further study trust including initial trust for organisations to develop better trust management.

1.2 Research motivation

The building of initial trust is complex and is affected by various elements and factors. Generally, initial trust is essentially affected by individual and institutional attributes (Kim *et al.*, 2009). Individual attributes include personality-based and cognition-based factors such as trust propensity and usefulness perception (McKnight, *et al.*, 1998; Patrick *et al.*, 2005; Kim *et al.*, 2009; Gao and Wu, 2010; Washington, 2013). Institutional attributes refer to firm characteristics (e.g. structural assurances) and institutional offering (e.g. firm reputation) which are important antecedents of initial trust (Kim *et al.*, 2009). Among the factors, an individual's trust propensity is significant in determining initial trust in his/her business counterpart (Kim *et al.*, 2009). Trust propensity is a representative variable of personality and is developed during social relations (Kim *et al.*, 2009). Culture as a social construct (Halliday, 1984) is significant in influencing the development of human personality (Triandis and Suh, 2002). Therefore, people from different cultures may have different trust propensity, thus different in initial trust in the same situation. However, studies about the association between initial trust and culture are not adequate. Only a few studies investigate users' initial trust behaviours regarding of website design and intention to do business transactions in different national cultures in the context of online business (Hitosugi, 2009).

Initial trust refers to the initial relationships that occur naturally between trustors and trustees (McKnight, *et al.*, 1998; Kim and Tadisina, 2003). Apart from trustor's trust propensity, the building of initial trust is associated with relevant information that is discovered before first interaction or just at the beginning of the first interaction (McKnight, *et al.*, 1998). Information

is generated and interpreted on the basis of meaning because information is viewed as sign and the production and interpretation is a sense-making process by human actors in a social, cultural and situational context (Dervin, 1992; Kari, 1998; Huang, 2007). The relationship between culture and information is complex. On one hand, culture is significant in information interpretation (Karvonen, 2000). On the other hand, culture is formed in social processes on the basis of information. It “is created, acquired, and/or learned, developed, and passed on by a group of people, consciously or unconsciously, to subsequent generations.” (Rijamampianina, 1996, p124). Culture is a social construct on the basis of meaning (Halliday and Matthiessen, 1999). To study cultural effect on initial trust and explore the reasons that result in the effect, it is necessary to understand the meaning base of culture. Social semiotics is a school of semiotics which studies meaning in social dimensions and views meaning making as a social semiotic process (Halliday 1978; Thibault, 1991; Hassan 2015; Hodge, 2017) to understand “how representations are produced by and contribute to cultural settings” (Jewitt and Henriksen, 2016). It is viewed as an approach to study meaning and culture (Hodge, 2015). This research proposes to study the cultural effect on initial trust from a social semiotic perspective. Previous studies investigate trust and initial trust in different cultures mainly basing on Hofstede’s (1980) cultural dimensions and do not further study the factors and reasons that result in the effect. The social semiotic view of cultural effect on initial trust provides a new perspective to study initial trust and helps to explore the potential factors that cause the cultural effect on initial trust.

1.3 Problem statements and questions

As described above, culture is significant in initial trust (Michaelis *et al.*, 2008; Ogonowski, *et al.*, 2014). People from different cultures tend to have different initial trust. Culture is related to beliefs, attitudes, norms and values (Triandis, 1994; Chung *et al.*, 2009). Among the different cultures, British culture is assumed to be collectivist and Chinese culture is assumed to be individualist according to Hofstede’s cultural dimensions (Sun *et al.*, 2004). People’s value priorities are viewed to be different across cultures (Schwartz, 1997; Abed and Pakdaman, 2013). Therefore, it is assumed that people living in UK and China with different cultural backgrounds have different level of initial trust in the same situation. Studies of initial trust between the two cultures are few and investigation of initial trust between the two cultures are required. Culture is constructed in social process (Crane, 1992) and is related to everything

shared by “speakers of a particular language who live during the same historical period in a specific geographic region (Chung *et al.*, 2009)”. If initial trust is different in British culture and Chinese culture, what are the factors that lead to the differences?

Gender, age, ethnics, work experience, education are all important in people’s development of trust. There are studies suggesting that women are more likely to trust a person or organisations than men (Haselhuhn *et al.*, 2015). Age has an effect on moderating trust in e-commerce (Yoon and Occena, 2015). Ethnic groups also play a role in affecting trust (Hitosugi, 2009; Jiang *et al.*, 2011). Work experience (Bidarian and Jafari, 2012) also plays a role in trust development. Education has an effect on trust, even in higher education institution (Smith and Shoho, 2007). As the initial stage of trust, initial trust would be affected by these factors. To investigate initial trust in Chinese culture and British culture, these variables need to be controlled and observed, which helps to identify the cultural effect on initial trust and explore the cultural factor that leading to cultural differences in initial trust.

Research questions were developed as following:

- 1) Do people living in UK and China have different initial trust?
- 2) What are the cultural factors that impact people’s initial trust?
- 3) Why do the cultural factors affect initial trust?

1.4 Research aim and objectives

1.4.1 Research aim

This research aims to further study the cultural effect on initial trust and explore the reasons leading to the effect. This research investigates whether people living in UK and China have different initial trust. Through the investigation and analysis, the cultural effect on initial trust was addressed, the factor resulting in the effect was identified and the reasons were explored.

1.4.2 Research objectives

Based on the research questions, objectives of the research were set as followings:

- 1) To clarify the definition, concepts and concerns of initial trust, find research opportunities in the study of initial trust and define the scope of this research.
- 2) To identify key terms and main concerns of social semiotics and establish theoretical background of this research.
- 3) To build up a research methodology to identify cultural effect on initial trust and explore the factors and reasons resulting in the cultural effect on initial trust.
- 4) To identify the level of initial trust in Chinese culture and British culture and develop implications to explore the factor that results in the different level of initial trust in the two cultures.
- 5) To confirm the implications developed from the study of initial trust in Chinese culture and British culture and develop propositions/implications for further studies to explore the reason that the factor resulting in the difference.
- 6) To study the propositions/implications developed from previous study and discuss the results.
- 7) To conclude key findings, generally discuss the outcomes of the research basing on the research questions, assess the quality of the outcomes, implications, and limitations, and evaluate the research objectives and aims.

1.5 Contribution

1.5.1 Practical contribution:

This research addresses the effect of culture and language on initial trust, helpful for organisations to develop better trust management for international business. To reduce the effect of culture on trust which definitely exists in international business, managers can develop appropriate language strategy for international communication, which helps to reduce the cultural effect on business intentions and improve customer trust. Apart from the language strategy, managers can pay more attention to the actual uncertainty management which is manageable and measurable and helps to reduce the perceived uncertainty that is resulted from the differences in culture and language.

In cross-cultural business communication and negotiation, misunderstanding and different expectations often happen. This research identifies the level of initial trust in Chinese culture and English culture. It is helpful for businessmen to predict initial trust in the two cultures and develop appropriate strategies to improve the other parties' trust and promote business success.

This research indicates the role of foreign language in human judgement. It provides new hints for organisations to develop language strategy for selling new products in a different culture. On one hand, using the local language is helpful to understand the local culture. On the other hand, using a foreign language for advertisement might affect the local customers' business decisions.

1.5.2 Theoretical contribution:

This research provides a new perspective to study initial trust by introducing social semiotics to study the cultural effect on initial trust. At present, the models of initial trust mainly consider the effects of cognitive-based factors, personality-based factors or context-based factors on initial trust. This research extends the cultural study of initial trust by exploring the factors and reasons resulting in the cultural effect on initial trust and for the first time proposes that the cultural effect on initial trust is highly associated with language used in a culture. The social semiotic perspective provides a holistic view of the association between culture and initial trust. This research also expands the research scope of social semiotics by introducing social semiotics into the study of initial trust.

This research contributes to the study of human information interaction which focus on the direct interaction between human and information (Li and Tang, 2018). Previous studies explore the way how human directly interact with information mainly from psychological, social or ecological perspectives, addressing cognitive elements or social environment. This research helps to deep understand the way human interpret meaning and get information in different cultures (Li and Tang, 2018). It addresses the meaning base of human information interaction (HII) and extends the semiotic study of HII which is proposed by Dzandu and Tang (2015). This research addresses the effect of language on human thinking, which helps to further understand the role of language in human information interface where meaning is created, and information is generated and interpreted.

This research contributes to the study of the association between human judgement and foreign language. It extends the scope of the investigations of human judgement in foreign language and provides evidence for the first time that people using foreign language have similar initial trust level with the people using the language as native language. This extends the study of Sapir-Whorf hypothesis. It further provides evidence that language affects human thinking and proposes that language logic plays a significant role in the effect.

1.6 Thesis structures

The structure of the research is outlined in the following, consisting of 7 chapters including this chapter.

Chapter 1 introduction

This chapter mainly introduces the background that trust is important in business context, trust management is necessary for organisations to improve business competition and initial trust as the first stage of trust is significant in the development of trust. Setting in the background, motivation to study the cultural effect on initial trust from social semiotics is describes. Then, research problems and research questions are developed. Based on the research questions, research aim and objectives are outlined. The research contributions and structure are described as well.

Chapter 2 literature review

In this chapter, relevant studies are critically reviewed to find research opportunities and build theoretical background for this research. Studies of trust and initial trust are reviewed to clarify the definitions, concepts and main concerns regarding of initial trust and define the research scope of this research. Studies of social semiotics are reviewed to define key concerns of social semiotics and build theoretical background for this research.

Chapter 3 Research methodology

This chapter presents the general research methodology of this research, including the research paradigms, approaches, methods and techniques that were adopted to collect and analyse data in this research based on the research questions.

Chapter 4 Cultural effect on initial trust

This chapter presents the results of the study that was carried out to investigate people's initial trust in UK and China. It identifies the level of initial trust in Chinese culture and English culture and analyses the factors that might result in the cultural differences in initial trust. The quality of the study is assessed. Cultural effect on initial trust are addressed. Findings and implications are discussed.

Chapter 5 People's initial trust in Chinese and English

In this chapter, results of the study which was carried out to investigate people's initial trust in Chinese and English are presented. The quality of the study is discussed. Results and findings are discussed. Propositions for further studies are developed.

Chapter 6 Potential mechanisms that language impacts initial trust

In this chapter, results of studies that investigate the potential mechanisms that language impacts initial trust are presented. Findings and inferences are discussed. The quality of each study is discussed too.

Chapter 7 Conclusions and general discussion

This chapter generally discusses the outcomes of the research basing on research questions and assesses the quality of the outcomes. Key findings, implications, contributions and limitations are concluded. Research objectives and aims are assessed.

1.7 Chapter summary

In this chapter, the importance of trust in business context and the complexity of trust development are described. It states the significance of initial trust in the development of trust is stated and describes the necessity to study initial trust. Against the background, cultural study of initial trust requires further explorations to study the factors and reasons that result in the cultural effect on initial trust. Driven by the gap and the meaning base of culture, this research proposes to study cultural effect on initial trust from social semiotic perspective. Research questions are developed to investigate whether people living in UK and China have different level of initial trust, aiming to further identify the cultural effect on initial trust and explore the

factors and reasons resulting in the effect. Research objectives are established, including identifying key concepts and concerns relating to initial trust, defining research scopes, developing research methodology, identifying the cultural effect on initial trust and exploring the reasons. Theoretical and practical contributions are discussed, addressing contributions to trust management in international communication, information systems management, and approaches to trust and human information interaction. The structures of the research are outlined based on the research questions and objectives.

Chapter 2 Literature Review

2.1 Introduction

This chapter describes the definition of trust and initial trust, understand the significance of initial trust in the development of trust and business relationships, and studies the factors that lead to initial trust. The approaches to trust and initial trust are reviewed to understand the different focuses on initial trust from different perspectives. The role of culture in initial trust is addressed, the gap existing in the studies of culture and initial trust is described and the necessity to study the cultural effect on initial trust from social semiotics is proposed. Then, key concepts and terms in social semiotics are defined to establish the theoretical background of this research.

2.2 Initial trust and trust

Initial trust refers to the first stage of trust (McKnight, *et al.*, 1998; Kim and Tadisina, 2003). The concepts and definitions of initial trust are associated with the development of trust. This section reviews studies of trust and initial trust to define concepts of initial trust, clarify the factors leading to initial trust and understand the main approaches to initial trust at present.

2.2.1 Trust

2.2.1.1 Definitions and Concepts

Trust plays a significant role in all social relations, such as human-social interactions, seller-buyer relationships and relationships in virtual team (Siau and Wang, 2018). In different contexts, trust involves different kinds of trust relationships between trustors and trustees. In workplace, it involves lateral trust which refers to trusting relationships between co-workers and vertical trust that concerns relationship between employee and managers (McCauley and Kuhnert, 1992; Costigan *et al.*, 1998). In e-commercial context, trust happens between online company and customers. According to the stages of development, trust consists of initial trust and ongoing trust/robust trust (Kim and Tadisina, 2003)

Generally, researchers define trust by studying trust in consumer behaviour (Ballester and Alemán, 2001), negotiations (Lewicki and Stevenson, 1997), economics, and some other contexts such as health care context (Entwistle and Quick, 2006), management relationships (Atkinson and Butcher, 2003) and e-service (French *et al.*, 2006). A common definition is proposed by Mayer *et al.* (1995, p712) who describe that trust refers to “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party”. The definition implies that vulnerability lies in the willingness to take risk. Many researchers have further developed the definition of trust since Mayer’s study. McKnight *et al.* (1998) describe that trust means that one party believes in and is willing to depend on another party. There are descriptions that trust is the belief according to another party’s benevolence, competence, honesty or predictability in a given situation and the willingness to depend on another (Salem *et al.*, 2015; Oleson *et al.*, 2011; Siau and Wang, 2018). Gao and Wu (2010, p 2) describe the definition of trust in e-commercial context as “a customer’s willingness to take a risk in the relationship with e-commerce” and “a consumer’s willingness to rely on or further engage in the exchange relationship for future shopping needs”. Trust plays a significant role in determining person’s behaviour and is highly associated with acceptance (Siau and Wang, 2018). The development of trust is dynamic and involves a variety of characteristics, such as trustor and trustee’s background, environmental context, technological characteristics and institutional cues. (McKnight *et al.*, 1998; Kim and Tadisina, 2003; Siau and Wang, 2018).

Trust is a force that helps trustor overcome uncertainty in a relationship (Botsman, 2017). Friedrich *et al.* (2019) describes that uncertainty is significant for organisations to develop effective trust management. It includes actual uncertainty and perceived uncertainty as presented in Figure 2-1(Friedrich *et al.*, 2019). The actual uncertainty is objective and related to the internal conditions of an organisation. It can be managed by organisations. The perceived uncertainty is subjective and depends on trustors’ perception. Trustors with different backgrounds might have different perception of the actual uncertainty, which might affect the development of trust. This suggests that trustors’ characteristics (e.g., disposition to trust or trust propensity) are crucial in trust building (McKinght, 1998; Siau and Wang, 2018).

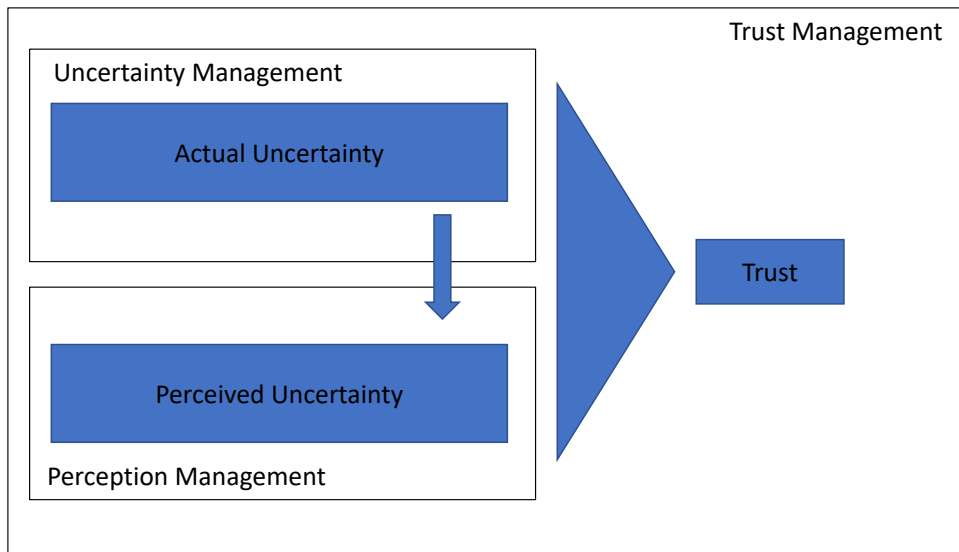


Figure 2-1: Relation of uncertainty and perception management to trust (adapted from Friedrich *et al.*, 2019).

2.2.1.2 Factors leading to trust

The building and development of trust is a dynamic process during the interactions between both parties of trustors and trustees (Gefen and Straub 2003; McKnight *et al.*, 1998; Kim and Tadisina, 2003). According to the stages of trust development, trust consists of initial trust and continuous trust (Kim and Tadisina, 2003). Some researchers assume that trust begins with zero level of initial trust and further higher level of trust is developed with further interactions between the parties. Some other researchers describe that people develop trust beginning with certain level of initial trust and propose the level of initial trust might be high and the level of continuous trust might be lower with further interactions happening between the parties (Bhati and Zoysa, 2013). It involves a variety of characteristics regarding of trustor, trustee, environment and technology (Siau and wang, 2018). Researchers study and investigate these factors in various context because the development of trust is context/situation driven (Bhati and Zoysa, 2013). Trust in business context is a main concern in that trust is viewed as a crucial factor in business activities (Kim and Tadisina, 2003). Siau and Wang (2018) summarize the main factors leading to trust (antecedents) basing on studies of trust in organisations (Mayer *et al.*, 1995), virtual teams (Jarvenpaa *et al.*, 1998), mobile commerce (Siau and Shen, 2003), e-commerce (Gefen *et al.*, 2003; McKnight *et al.*, 2000) and information systems (Li *et al.*, 2008),

and develop factors leading to trust in technology by studying trust in artificial intelligence, machine learning and robotics. Bhati and Zoysa (2013) describe the factors leading to trust in their study of trust in banking relationships. Gao and Wu (2010) address the factors leading to trust in e-commerce by providing evidence from a field study in China. Table 2-1 summarizes these factors leading to trust in these studies. The factors involve trustors' characteristics (e.g. propensity to trust), trustee's characteristics (e.g. ability, integrity, benevolence, honesty, security, etc) and technological characteristics (e.g. representation, usability, reliability, security, interpretability, etc) in e-commerce.

Table 2-1: Factors leading to trust

Factors leading to trust	Trust context
Ability/competence Benevolence Integrity	Interpersonal trust in organisation (Mayer et al., 1995)
Trustee attributes, e.g., perceived ability, benevolence, integrity. Trustor attributes, e.g. propensity to trust	Trust in virtual teams (Jarvenpaa et al., 1998)
Characteristics: Trustor and trustee Uncertainty and risk Honesty, benevolence, and lack of betrayal Stages: Initial trust formation Continuous trust development	Trust in mobile commerce (Siau and Shen, 2003) and banking relationship (Bhati and Zoysa, 2013)
Disposition to trust: tendency to depend on others Institution-based trust, e.g., sense of security Knowledge-based trust, e.g., familiarity Calculative-based trust, e.g., calculation of costs and benefits Informativeness Entertainment Irritation	Trust in e-commerce (Gefen <i>et al.</i> , 2003; McKnight <i>et al.</i> , 2000; Gao and Wu, 2010)

Personality base: faith in humanity, trust stance Cognitive base, e.g., categorization process Calculative base, e.g., calculation of costs and benefits Institutional base, e.g., sense of security	Trust in information systems (Li <i>et al.</i> , 2008)
Human characteristics-personality, the trustor's disposition to trust, the trustee's ability to deal with risks. Environment characteristics- task, cultural background, institutional factors. Technology characteristics-the performance such as representation, usability, reliability, security, interpretability, etc.	Trust in technology (Siau and Wang 2018)

2.2.1.3 Approaches to trust

As described above, the building of trust is a dynamic process and various elements and factors are involved. Researchers explore trust and the factors affecting it from various perspectives, such as calculative-based approach, knowledge-based approach, cognitive approach, emotion-based approach, behaviour-based approach, cultural approach and semiotic approach.

Calculative-based approach describes that trust judgement is based on “rationally derived costs and benefits” and benefits or incentives predict the level of trusting behaviour (Shapiro *et al.*, 1992; Lewicki and Bunder, 1995; McKnight *et al.*, 1998). Knowledge-based approach views that the development of trust proceeds with the accumulation of trust-relevant knowledge through interaction with the other party (Holmes, 1991; Lewicki and Bunker, 1995). The knowledge-based approach to trust implies that high level of trust is closely related to time and interaction history between the parties. However, results of some studies are contradictory with the implication (Kramer, 1994; Li *et al.*, 2008). Some researchers study trust from personality-based perspective and propose that trust is highly close with one's faith of humanity and trusting stance which is formed during human beings' interactions with his or her benevolent people starting from his or her infant time (Erikson, 1968; Li *et al.*, 2008). Institutional-based approach describes that trust is closely related with the perceived security from the guarantees,

safety regulations, reputation or other structures of an institution (McKnight *et al.*, 1998; Gao and Wu, 2010). Emotional-based approach explores the role of emotion in trust because emotion affects decision making processes in complex decisions and suggests that positive and negative emotions have an effect on the level of trust (Forgas, 2009; Myers and Tingley, 2011).

Cognitive approach argue that trust is cultivated in human being’s cognitive process in a situation. The factors leading to trust described above (Table 2-1) indicate that trusting beliefs, attitude and intentions are significant in trust. Cognitive researchers address the role of human perception in affecting trusting beliefs, attitude and intentions which are important dimensions in the trust building (McKnight *et al.*, 1998; Kim and Tadisina, 2003; Salam *et al.*, 2005; Gao and Wu, 2010). Researchers have developed several trust models that address the importance of human perception in trust building, such as McKnight and his colleagues’ (2002) trust model in e-commerce, Gao and Wu’s (2010) cognitive model of trust in e-commerce, Corritore’s (2005) model of trust formation and Egger’s (2001) integrative model that illustrates trust in e-commerce.

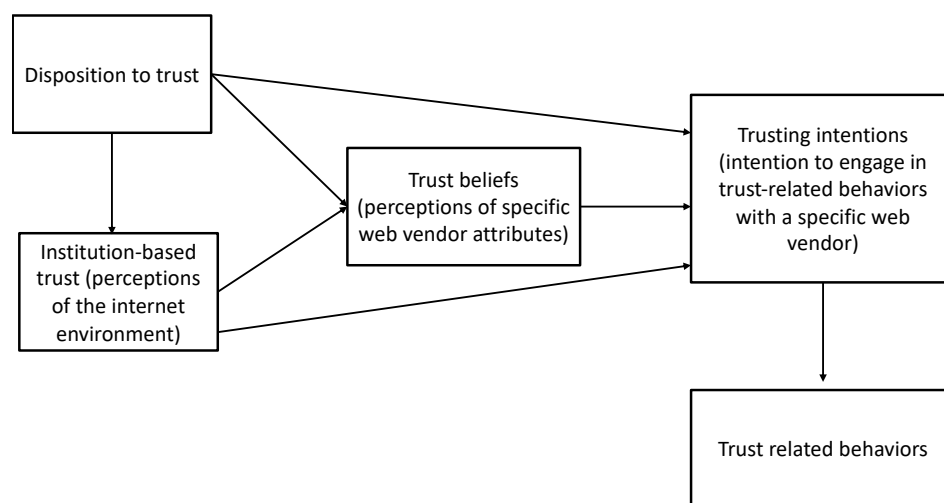


Figure 2-2: A trust model in e-commerce (adapted from McKnight *et al.*, 2002).

McKnight *et al.* (2002) describe that four dimensions affect trust in e-commerce which include disposition to trust such as general trust in e-commerce, institution-based trust such as perceptions of the internet environment, trusting beliefs such as perceptions of specific web vendor attributes and trusting intentions including intention to take trust-related actions with a specific web vendor (Figure 2-2). The model illustrates that customers’ perception of related information is significant in establishing trusting beliefs and taking trusting intentions and

behaviours. Customers' disposition to trust is essential in trust building. It affects trustor's perceptions of the internet environment and online vendor's attributes and plays a role in influencing customers' trusting intentions. In Gao and Wu's trust model, Gao and Wu (2010) argue that customer perceptions of informativeness, entertainment and irritation play a significant role in predicating a customer's trust in e-commerce and intention to use e-commerce, addressing the significance of customer perceptions in trust building (Figure 2-3). The study also addresses the role of customer's trust propensity in trust building in e-commerce but does not associate trust propensity with perceptions of related information in e-commerce.

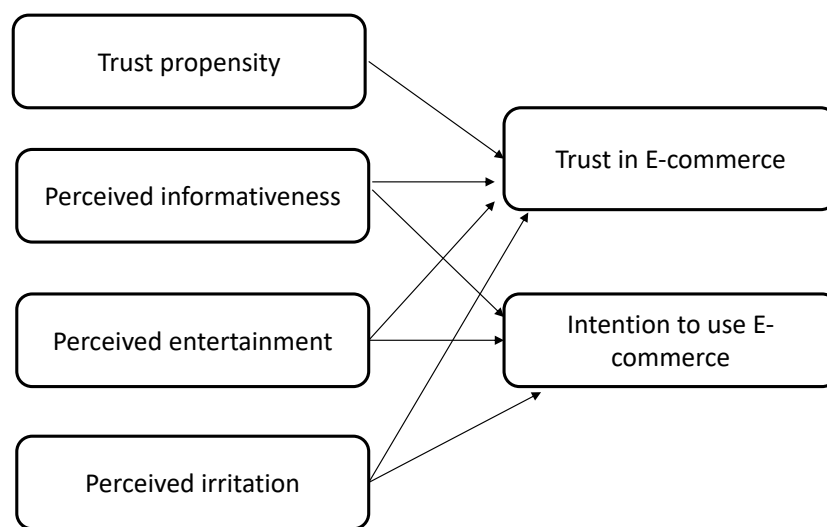


Figure 2-3: A cognitive model of trust in e-commerce (adapted from Gao and Wu, 2010)

Corritore *et al.* (2005) also address the significance of human perceptions of related information (credibility, ease of use and risk) in their trust model (Figure 2-4). They propose that perception of risk has a negative effect on trust. The dimensions of credibility include perceptions of honesty, expertise, predictability and reputation. Perception of credibility is associated with assessment of risk. Ease of use (how easy a system for a user to achieve his or her goal) has an effect on the perceptions of credibility and assessment of risk. External factors have an effect on human perceptions of credibility, ease of use and risk. Corritore and his colleagues (2005) describe that the external factors include contextual factors (e.g. social and cultural environment, situational context), personality of trustors (e.g. disposition to trust or trust propensity) and web site characteristics.

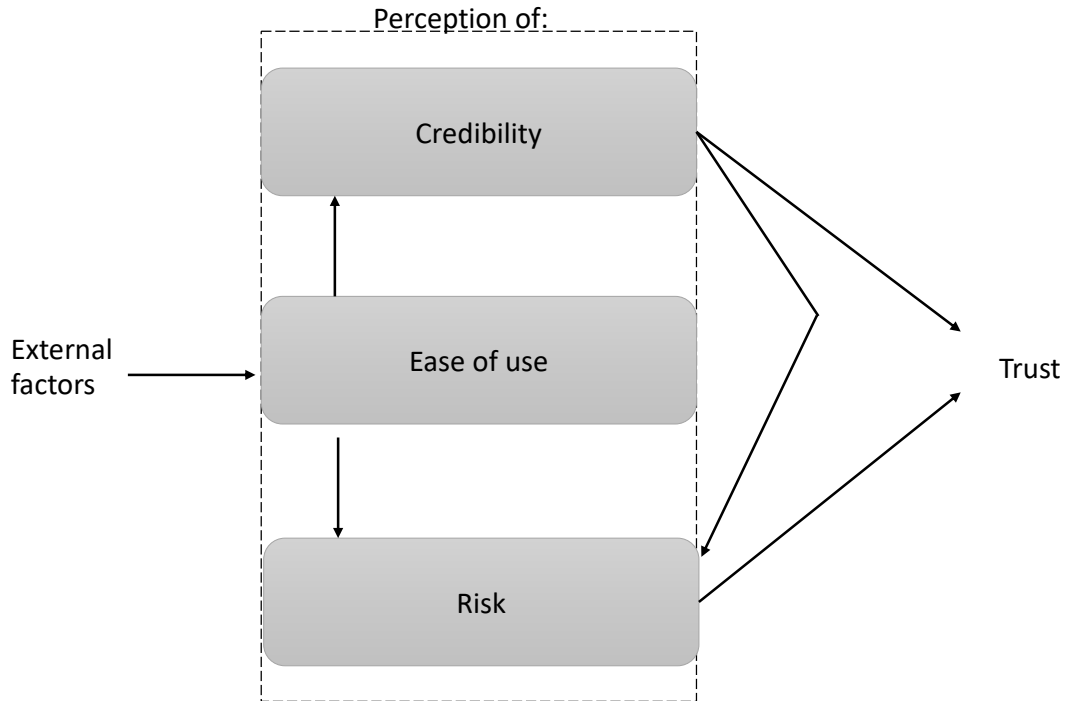


Figure 2-4: A model of trust formation (adapted from Corritore *et al.*, 2005)

Egger (2001) proposes an integrative model illustrating trust in e-commerce. This model consists of pre-interactional filters, interface properties, information content and relational management (Figure 2-5). Pre-interactional filters refer to the existing factors before e-business begins, such as customers' disposition to trust, prior knowledge or experience, information and attitudes obtained from others, the reputation of the industry and company involved and trust in information technologies and the internet in general (Egger, 2001). Interface properties refers to the usability, navigation or reliability of website which are conveyed by visual appearance of website. Information content is place where customers assess competence, risk and other dimensions of trust. Relationship management plays an important role in continuous trust which is built over time by business activities such as fulfilment and aftersales support, from which customers assess the company's responsiveness and helpfulness. This model also addresses the significant role of human perceptions of related information in trust formation and development. The pre-interactional factors have an effect on perceptions of interface properties and information content which are associated with dimensions of trust.

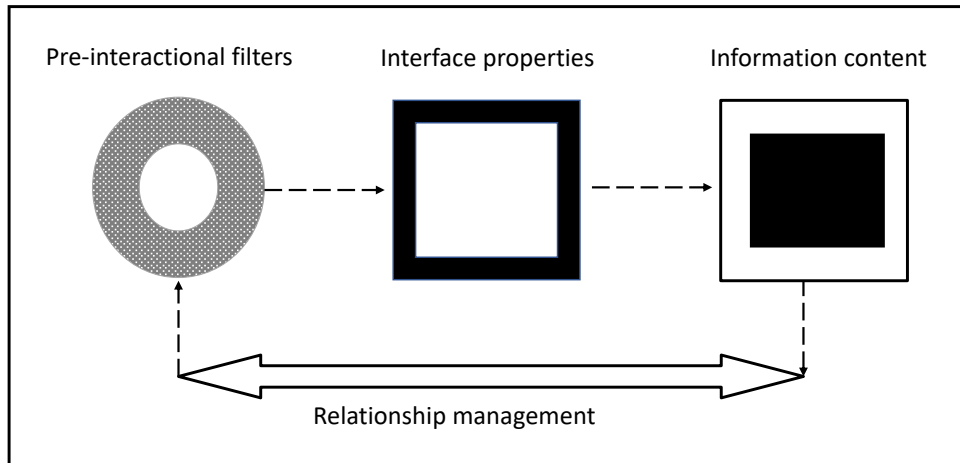


Figure 2-5: An integrative model illustrating trust in e-commerce (adapted from Egger, 2001)

Cultural study of trust addresses the effect of culture on trust. Trust is a social behaviour and is essential for social systems (Pai and Gasson, 2008). Culture is significant in interpreting information (Karvonen, 2000) and is the base for shaping human behaviour (Wheeler *et al.*, 1989). Cultural similarity theory addresses the social categorization and proposes that cultural similarity has a significant effect on “interpersonal interactions, communication and performance evaluation between social groups” (Jiang *et al.*, 2011). People with demographic similarity such as age, gender, culture tend to have higher trust and more positive liking (Byrne, 1971; Michinov and Monteil, 2002). Jiang *et al* (2011) argue that executives have different trust in their oversea partners basing on the partner’s cultural ethnicity. Karvonen *et al* (2000) carry out a cross-cultural study of trust on the formation of trust in an electronic environment and describe that even people from Finland and Sweden who have certain cultural similarity between the countries have different perceptions of trustworthiness related to computer security issues in electronic environment, which suggests that people with significant different cultural background would have more different perceptions of trust.

Semiotic study of trust addresses user’s information interpretation from signs which is based on meaning (French *et al.*, 1999; French *et al.*, 2013). These studies mainly focus on trust in the context of e-business. Semiotics addresses the role of personal and cultural factors in trust formation on the basis of meaning. The meaning-making process (semiosis) “mediate all acts of human communication within organisations via communication patterns, rituals, speech-acts, social constructs of various kinds and at the concrete level influences our perceptions of computer-based signs embedded in an interface” (French *et al.*, 2006). Trust meaning making

is viewed as a specific instance of semiosis (French *et al.*, 2006). The process is complex and infinite trust associations take place, which depends on the subject's arousal state, emotional and aesthetic orientation, cultural background and other factors (French *et al.*, 2006). Semiotic studies of trust are not adequate, mainly investigate trust in e-commercial context and address the function of human factors in information interpretation and perception.

2.2.2 Initial trust

2.2.2.1 Concepts and definitions of initial trust

Initial trust is viewed as a type of trust and refers to the initial relationships between trustor and trustee (Kim and Tadisina, 2003). The initial relationships happen naturally without interaction history or first-hand knowledge but are related to trustor's disposition to trust and institutional cues (McKnight, *et al.*, 1998). Initial trust is affected by various elements and factors. In this section, studies that investigate factors affecting initial trust are reviewed to address key factors leading to initial trust.

Kim and Tadisina (2003) develop a model of trust to illustrate the development of trust including initially established relationship and further maintained/destroyed relationship (Figure 2-6). The model was developed in a scenario of e-business where new customers develop their initial trust in the online firm or company from initial trust to robust trust or destroyed trust under various circumstances and factors. At the first encounter between new customers and online company, the new customers have initial trust in the company. The process is affected by the new customer's propensity to trust and other factors such as online company's normality and the usability of website. Sometimes, the initial trust might develop into robust trust which "is likely to result in a committed relationship" with the company (Kim and Tadisina, 2003; Koufaris and Hampton-Sosa, 2004). Sometimes, the initial trust might be destroyed with certain influences of some factors. Although robust trust is crucial, initial trust plays a significant role in development of robust trust, which is the starting point of robust trust and determines the way how further interaction takes place to develop robust trust (Kim and Tadisina, 2003; Koufaris and Hampton-Sosa, 2004). Researchers are increasingly interested in initial trust especially with the development of e-commerce where face-to-face communication is not necessary.

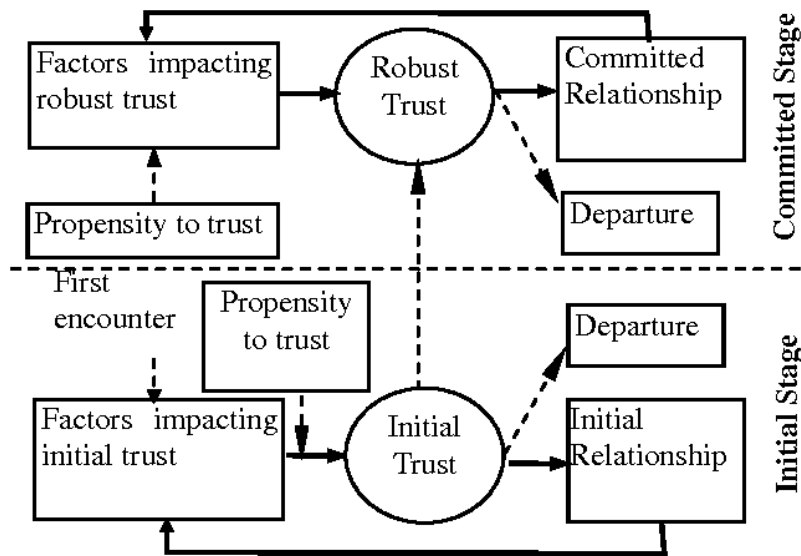


Figure 2-6: A model of trust development (adapted from Kim and Tadisina, 2003)

McKnight *et al* (1998) develop a model of initial trust (Figure 2-7) which illustrates the initial formation of trust and various factors leading to initial trust between parties. It integrates dispositional, situational and interpersonal constructs of trust and explains factors affecting the formation of trust at the initial stage of an organisational relationship, viewing trusting intention and trusting beliefs as two significant dimensions of trust. Trusting intention refers to the willingness to depend on the other party in a context and trusting beliefs means beliefs that the other party is benevolent, competent, honest, and predictable in a context. One's disposition to trust, cognitive processes and one's institution-based trust are important factors affecting trusting beliefs and trusting intentions. Disposition to trust refers to the tendency to be willing to depend on others in a context, consisting of faith in humanity and trusting stance which play important role in affecting trusting beliefs and trusting intentions (McKnight *et al.*, 1998). Institution-based trust means that one believes impersonal structures support one's likelihood for success in a given situation, which includes situational normality and structural assurances (McKnight *et al.*, 1998). Situational normality refers to the characteristics of situation such as professional appearance, proper and secure physical setting, which influences trusting intention by affecting customer's comfort feeling with an organisation (McKnight *et al.*, 1998). Structural assurance means the structural safeguard including regulations, guarantees and legal recourse which are significantly important in the formation of initial trust by affecting trusting beliefs (McKnight *et al.*, 1998). The cognitive process includes categorization process and illusions of control process, which is significant in developing trusting beliefs (McKnight *et*

al., 1998). Generally, people tend to establish initial trust by unit grouping, reputation categorization and stereotyping which are viewed as three important categorization processes. Unit grouping means to “put the other person in the same category as oneself” and people who are in a group tend to “share common goals and values” and “perceive each other in a positive light” (McKnight *et al.*, 1998). Reputation categorization means that “one assigns attributes to another person based on second-hand information about the person” and reputation plays a role in reflecting trusting beliefs such as competence, honesty, benevolence and predictability (McKnight *et al.*, 1998). Stereotyping means to “place another person into a general category of persons” on a broad level such as gender or some other specific levels such as occupational groups and form positive or negative stereotyping (McKnight *et al.*, 1998).

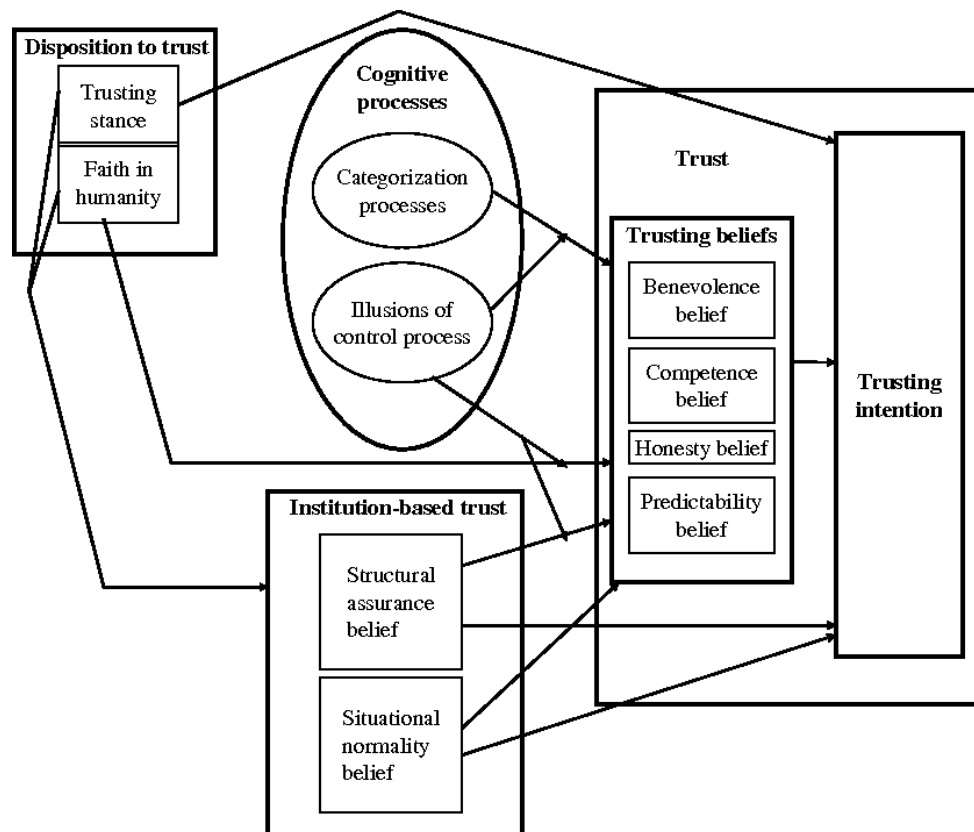


Figure 2-7: A model of the initial formation of trust in organisation (McKnight *et al.*, 1998).

Illusions of control process refers to human being’s unrealistically inflated perception of personal control which is taken in uncertain context to assure that things are under personal control (Langer, 1975; Taylor and Brown, 1988; McKnight *et al.*, 1998). The illusions of control affect the formation of trust by providing fault confidence and influencing trusting beliefs. The cognitive mechanism plays a significant role in building trusting beliefs. In the

cognitive process, apart from the cognitive mechanism such as the role of previous beliefs in people’s interpretation and selection of information they need to make decisions, social mechanism also plays a role in the building of trust by affecting trusting beliefs and institution-based trust which is formed in the social interactions.

Among the factors leading to initial trust, trusting belief plays a significant role in initial trust (Mayer *et al.*, 1995; McKnight *et al.*, 1998; Kim and Tadisina, 2003). Kim and Tadisina (2003) propose a two dimension-model of trusting belief including competence and goodwill, which is developed from previous researchers’ emphasis on competence and goodwill in their studies of trust (Table 2-2).

Table 2-2: Studies emphasizing competence and goodwill

Authors (year)	Competence Trust	Goodwill Trust
Hovland, Janis, & Kelley (1953)	Expertise	Motivation to lie
Deutsch (1960)	Ability	Intention to produce
Kee & Knox (1970)	Competence	Motives
Cook & Wall (1980)	Ability	Trustworthy intentions
Lieberman (1981)	Competence	Integrity
Barber (1983)	Competence	Goodwill
Good (1988)	Ability	Intention; Trustees’ claims about how they will behave
Swan et al. (1988)	Competent	Responsible
Sitkin & Roth (1993)	Ability	Value congruence
Mayer, Davis, & Schoorman (1995)	Ability	Benevolence, Integrity
Nooteboom (1996)	Ability	Intentions
Das & Teng (2001)	Competence trust	Goodwill trust

Although concepts of trust developed by various researchers are diverse in different contexts, three key dimensions are recognized by most of the studies of trust. The three dimensions are uncertainty situation leading to perception of risk or vulnerability, trusting beliefs about the trustee’s ability, honest and goodwill and willingness to rely on the other party (Kim and Tadisina, 2003; Koufaris and Hampton-Sosa, 2004; Benamati *et al.*, 2010; Maroofi *et al.*, 2013). As a type of trust (Kim and Tadisina, 2003), the three key dimensions of trust also apply to initial trust (Koufaris and Hampton-Sosa, 2004).

2.2.2.2 Approaches to initial trust

With the development of e-commerce where initial trust is viewed as a crucial role in attracting new customers, lots of researchers study initial trust in the context of e-commerce concerning

of the key concepts of trust. Researchers studying initial trust in e-commercial environment propose some more specific antecedents or factors leading to initial trust. In these studies, propensity to trust is commonly viewed as a significant antecedent of online initial trust (Koufaris and Hampton-Sosa, 2004; Kim and Prabhakar, 2004; Kim *et al.*, 2009; Zhou, 2011; Susanto *et al.*, 2012; Chiu *et al.*, 2017). In e-commercial context, technological characteristics also play a significant role in affecting user's initial trust. These characteristics are associated with customers' perceptions, such as perceived security, privacy, perceived website quality, perceived information quality, perceived usefulness, ease to use, enjoyment of technology and familiarity with online environment. (Al-Jaafreh *et al.*, 2014). These factors lead to system usability and the perceived usability plays a role in supporting or preventing trust in system (Acemyan and Kortum, 2012; Salantri *et al.*, 2015). Structural assurance is another important factor affecting online initial trust, involving of company's guarantee, regulation, rules, policies, security, legal resources. (Shapiro 1987; McKnight 1998; Al-Jaafreh *et al.*, 2014). These factors are similar to that of trust. During the initial interaction, these factors affect initial trusting beliefs, thus influence the level of initial trust. Among the factors, perceived ability, perceived integrity and perceived benevolence are viewed as three key dimensions of initial trusting beliefs (Koufaris and Hampton-Sosa, 2004; Song and Zahehi, 2007; Hwang and Lee, 2012; Gao, 2015).

In the current era, most of researchers study initial trust in e-commercial context and study the factors leading to initial trust mainly based on personality (e.g. trusting propensity/stance) (Mcknight, 1998), institutional-based (company's reputation, size, guarantee, safety regulation, professional appearance, proper and secure physical setting.), technology-based perspectives (website quality, perceived information quality, perceived ease of use, entertainment, perceived usefulness, privacy and security) and technological institutional-based factors addressing the effect of these factors on perception of relevant information (Koufaris and Hampton-Sosa, 2004; (Al-Jaafreh *et al.*, 2014)). In the context of e-commerce, customer's initial trust has an association with customer's purchasing intentions online (Gao and Wu, 2015; Li, *et al.*, 2007). The cultural study of initial trust focus on customer's initial trust in e-commercial context, concerning of website characteristics and business intention in different national cultures (Branzei, *et al.*, 2003; Hitosugi, 2009). Branzei *et al.* (2003) investigate initial trust in inter-organisations from Canada and Japan and propose that culture has an effect on initial trust. Hitosugi (2009) studies initial trust in e-business from students at U.S. university. The ethnic origins of these students involve Japanese, Chinese, Caucasian, Filipino and Korean. The study

demonstrates that the cultural background of the students affects the participants' initial trust and is associated with subjective norms. These studies only identify the cultural effect on initial trust basing on Hofstede's (1980) cultural dimensions but do not deep discuss the reasons or factors that result in the effect. The cultural study of initial trust is not as adequate as that in the study of trust.

2.2.2.3 Initial trust and information

McKnight (1998) and his colleagues describe that initial trust between parties is not based on previous interaction history with or first-hand knowledge of the other party but related to trustor's disposition to trust or certain cues that make one party initially trust another (McKnight *et al.*, 1998). This research focuses on the stage of initial trust before two parties' first meeting up to study the cultural effect on initial trust. Apart from the trustor's disposition to trust, the information about trustees that is found before first meeting provides important cues for trustors to shape the level of initial trust. Information is created and interpreted on the basis of meaning (Dervin, 1992; Kari, 1998; Halliday and Matthiessen, 1999; Huang, 2007). Dervin (1992) describes that information is not something like bricks that can be moved from one place to another place and it is created by humans through the sense-making process. In the sense-making process, information is "created at a specific moment in time-space by one or more humans" not "something that exists apart from human behavioural activity" (Dervin, 1992: 63). The sense-making theory centres on the way "how people understand information they receive within their life context, with factors such as the person's expertise, social position, and situation that might affect their understanding" in information seeking process (Fidel 2012). The sense-making process is subjective and human actors actively make sense in the process, which is affected by the thoughts, ideas, attitudes and emotion. Context is in an important place in the sense-making methodology, which is significant in affecting human actor's information interpretation. It is impossible that information is independent from context and human actors.

From semiotic perspective, information is viewed as sign consisting of signifier and signified (Raber and Budd, 2003; Huang, 2017). Halliday and Matthiessen (1999) also claim "information as meaning" and address the meaning base of information.

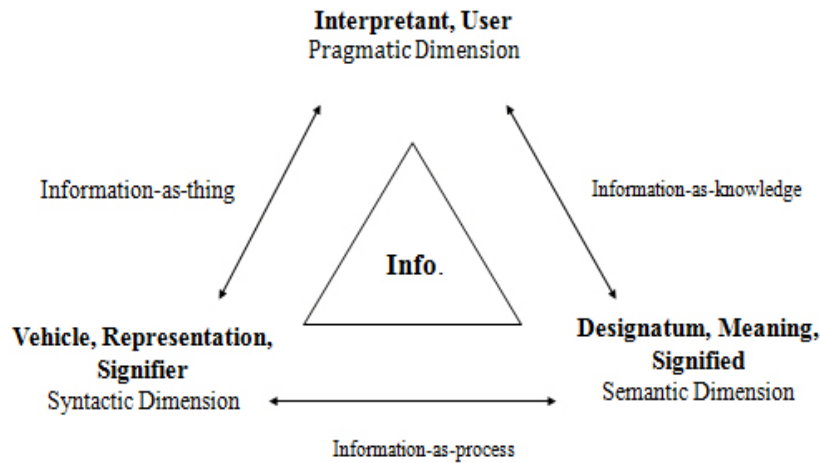


Figure 2-8: Information as sign (adapted from Huang, 2007)

Huang (2007) illustrates the semiotic view of information basing on Peirce-Morris Semiotic triangle (Figure 2-8), presenting the relationship among users/interpretant of information, representations/signifiers of information and meaning/signified of information. It suggests that users of information interpret information basing on the way the user obtain meaning from interacting with information objects. Dzandu and Tang (2015) view human information interaction as a semiotic process which consist of syntactic interaction, semantic interaction and pragmatic interaction with information content, indicating the meaning base of information (Figure 2-9).

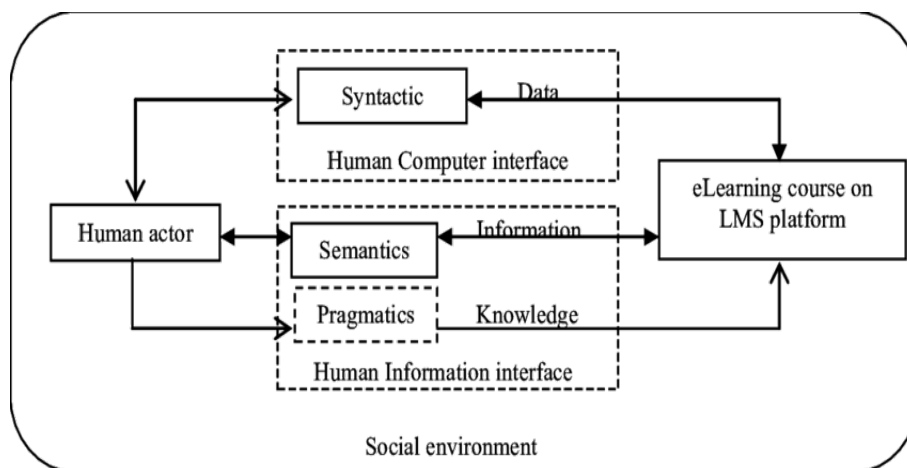


Figure 2-9: A semiotic framework of human information interaction (adapted from Dzandu and Tang, 2015)

Information is carried by various resources. Human actors make meaning and interpret information from these resources which are meaning potential. Luhmann (1986) follows Shannon and Weaver's (1949) view of information and describes that information is produced and interpreted by selections from all possibilities, such as what message is to be communication? How the message is to be communicated and why is it to be communicated? The understanding of information is also processed from selections. It depends on the speaker or listener who interprets meaning and gets information from a set of possibilities (Baecker, 2001). Thus, a human actor's personality plays a significant role in human information interaction (Rusting, 1998). Social and cultural circumstances are important in forming personality (Hofstede and McCrae, 2004). Therefore, social and cultural factors play a significant role in trust and initial trust which are associated with information and personality.

2.2.3 Research gap

The concepts and factors discussed in the studies of initial trust show that various elements and factors potentially affect initial trust, including characteristics of trustor, trustee, relevant technology and environment. At present, studies of initial trust mainly focus on the factors affecting initial trust and transaction intentions in the context of e-commerce, involving of customers' personality, website characteristics and online firms' reputation. Some gaps exist in the current studies of initial trust.

2.2.3.1 The role of culture in initial trust

Culture is significant in human life and has an effect on human behaviour (Singelis and Brown, 1995). Trust propensity is viewed as a representative variable of personality and is formed in a social and cultural environment (Hofstede and McCrae, 2004). It plays an important role in affecting initial trust (McKnight *et al.*, 1998). Culture is significant in forming trust propensity, thus significant in initial trust. Apart from the trust propensity, initial trust is built with relevant information discovered before meeting or just at the beginning of meeting (McKnight *et al.*, 1998). Culture is significant in the way that human interpret information (Karvonen *et al.*, 2000), thus significant in initial trust.

Chinese culture and British culture are viewed to be different cultures—Chinese culture is assumed to be collectivist and British culture is assumed to be individualist (Hofstede, 1980;

Sun et al., 2004). Initial trust which is highly associated with people's trust propensity and information interpretation is assumed to be different in Chinese culture and English culture. However, there are few studies investigating initial trust in the two cultures except several studies investigating people's initial trust in Canada and Japan (Branzei, *et al.*, 2003) or among different ethnic groups such as Japanese, Chinese, Caucasian, Filipino and Korean (Hitosugi, 2009). It requires further study to identify whether initial trust is different in Chinese culture and English culture. Culture is related to everything existing in the group, such as language, religion, rules and regulations, political system, social organisation, history, economy, technology, values, attitudes, customs, traditions, concept of time, music, art and architecture (Khan, 2018). Previous studies about the cultural effect on initial trust mainly focus on investigation of different levels of initial trust in different cultures. There is no deep exploration of the factors and reasons that result in the difference. Any shared element in a culture might play a role in the way personality is shaped and information is interpreted. Most of the studies view country/nation to be an element of culture and focus on the cultural differences in different countries/nations. Some others approach to cultural effect on trust by focusing on ethnical differences (Whitt, 2010; Criado *et al.*, 2015; Tolsma and Van der Meer, 2018). Apart from country/nation and ethnics, language is also a cultural element which is viewed as a social semiotic resource affording social and cultural meaning (Halliday, 1978; Hodge, 2017) and should be considered in the cultural study of initial trust.

2.2.3.2 A Social semiotic approach to cultural effect on initial trust

The current studies of initial trust in different cultures are mainly based on Hofstede's (1980) cultural dimensions which measure national culture basing on five dimensions. They are individualism-collectivism (IDV) which measures "the degree to which cultures encourage individual concerns as opposed to collectivist concerns", uncertainty-avoidance (UAI) which measures "the extent to which the members of a culture feel threatened by uncertain or unknown situations", power distance (PDI) which measures "the extent to which the less powerful members of institutions and organizations within a society expect and accept that power is distributed unequally", masculinity-femininity (MAS) refers to "the extent to which gender roles are clearly distinct" and long-term orientation (LTO) concerns "the value of long-term commitments, respect for the past and tradition, persistence, patience, and social stability of the national culture" (Reisinger and Crotts, 2010). Some studies suggest that people from collectivist cultures tend to be more willing to forgive people and make higher trust when the

other party do trust violation behaviours than people from individualist cultures (Pai and Gasson, 2008).

Apart from Hofstede (1980), another popular approach to culture is Schwartz's (1997) value framework which studies values at both national and individual levels and views that there is different emphasis on value orientations such as embeddedness versus autonomy, hierarchy versus egalitarianism and mastery versus harmony at national-level cultures (Sagiv *et al.*, 2011). In embedded societies, people tend to live a life with a group in a shared way and pursue shared goals such as social order, respect for tradition, security, obedience and wisdom; while in autonomous societies, people tend to pursue their own interests such as broadmindedness, curiosity and creativity, pleasure, exciting life and varied life. In hierarchical societies, people should fulfil their obligations and rules corresponding to their roles in the society and respect their superiors, addressing social power, authority, humility and wealth; while in egalitarian societies, people are morally equal, voluntarily cooperate and care about other people's welfare, respecting equality, social justice, responsibility, help and honesty. Societies valuing mastery encourage the active mastery and endorse people's rights to get ahead of other people such as ambition, success, daring, self-sufficiency and competence while societies valuing harmony believe in harmony with nature such as world at peace, unity with nature, protecting the environment and accepting one's portion, not encouraging people to change the nature (Ng and Lim, 2018). Studies emphasize that value orientations are different in different national cultures and cultural value orientations have an impact on people's perceptions, decisions and behaviour (Sagiv *et al.*, 2011).

The cultural dimension and value frameworks are beneficial for researchers to identify national cultures and predicate whether initial trust is different in different cultures. They are limited in exploring the cultural factors that result in the effect on initial trust and analyse how the factors result in the effect, because they focus on the measurements of dimensions and value orientations in national cultures. The construction of culture is complex and associated with everything shared in a community or group. It is necessary to know about the base of the construction of culture and explore new approach to study the reasons that result in the cultural effect on initial trust.

Culture is "social construction" (Crane, 1992) and is developed in social processes. It is "learned from the people you interact with as you are socialized" in a community or group

(Lustig and Koester, 1999, P 31-2). The construction of culture is based on meaning because “cultural knowledge is, at minimum, shared meanings about the world” (Patterson, 2014, p 8). Social semiotics view meaning to be “an inflection of reality” which is carried by shared resources in a society, underpinning “every social action and reaction” (Hodge, 2017) and studies meaning making in social context (Halliday, 1978; Hodge, 2017; Thibault, 1991). Hodge (2015) views social semiotics as an appropriate approach to study meaning and culture. This research proposes to study initial trust in different cultures from social semiotics. It helps to understand the factors resulting in cultural differences on the basis of meaning from which culture is constructed. The following section reviews key terms and concerns of social semiotics to establish theoretical background for the research. Until now, there are no social semiotic study of the cultural effect on initial trust.

2.3 Theoretical background: social semiotics

The main concern of social semiotics is the construction of social meaning by semiotic resources with certain common rules in a society (Hassan, 2015). It not only addresses the inner account but also emphasizes the social account of meanings:

Social semiotics cannot assume that texts produce exactly the meanings and effects that their authors hope for: it is precisely the struggles and their uncertain outcomes that must be studied at the level of social action, and their effects in the production of meaning. (Hodge and Kress, 1988, p 12; Bezemer and Jewitt, 2009, p 2).

It focuses on the relationship between semiotic resources, meaning and society and provides approaches to study the complex meaning-making process of social practice in social dimensions. Social semiotics origins in Halliday’s (1978) systemic functional linguistics (SFL) and incorporates with many other disciplinary areas: psychology, philosophy and linguistics. It is meaningful and useful for discourse analysis and information systems design and management and aims to elaborate research approaches to the complex meaning-making process for the complex world (Hodge, 2017). The following sections describe key concepts and concerns of social semiotics.

2.3.1 Semiotic resources and meaning

Social semiotics study “the connection between representational resources and what people do with them” (Bezemer and Jewitt, 2009, p 5). Semiotic resource is a fundamental term in social semiotics which has its origins in the description that grammar of a language is a “resource for making meanings” (Halliday, 1978, p192; Van Leeuwen, 2005). Semiotic resource is similar to “sign” which means the union of a signifier (an observable form, e.g. facial expression) and a signified (a meaning, e.g. disapproval) in traditional semiotics (Van Leeuwen, 2005). In social semiotics, semiotic resource is preferred to address the meaning potential of a resource and the significance of its use in a context. They are meaning potential, that is, they are potential to make meanings with their referential, social and cultural affordance that is constituted by “their past uses and a set of affordances based on their possible uses, and these will be actualized in concrete social contexts where their use is subject to some form of semiotic regime” (van Leeuwen, 2005, p 285; Bezemer and Jewitt, 2009, p 5). Van Leeuwen (2005: 3) describes semiotic resources as “the actions and artefacts we use to communicate” such as sounds, tunes, facial expressions, gestures, pens and online techniques, together with the ways these resources are organised in a context (Bezemer and Jewitt, 2009). Therefore, each semiotic resource is meaning potential and has a set of affordances, which will be actualized to make meanings in specific contexts. The potential meaning of semiotic resources is not fixed and might be dynamic in different context. In the process, social context provides rules or principle for the users to use the resources in specific situations. The signified of the resources is not regulated previously. It depends on users to make meaning in use in a context (Van Leeuwen, 2005).

People make meanings by selecting potential meanings of semiotic resources in a given context, as Leeuwen (2005: p 9) describes “As soon as we have established that a given type of physical activity or a given type of material artefact constitutes a semiotic resource, it becomes possible to describe its semiotic potential, its potential for making meaning”. The use of semiotic resources to make meanings is the selection from semiotic systems. The resources are entitled meaning after selected to make discourse in a social context. Therefore, the process of social practice is a meaning making process in which resources are selected and used to make meaning in a context. Figure 2-10 shows the process to use semiotic resources in social practice which is actualized by selection from semiotic systems (Zhang D.L and Zhang S.Q, 2013). Any

social practice is carried out in a context and is affected by context. Society and culture offer general context for all semiotic systems. The social and cultural context is initialized in a situational context which determines the potential purposes of communication and affects the selection of appropriate meaning-making modes from semantic systems to generate discourses for a social practice. The discourse is realized by semiotic resources and the way these resources are combined. These semiotic resources are selected from semiotic systems consisting of typical resources and non-typical resources. The typical resources convey the common meaning in new context while the non-typical resources are selected to transmit special and novel meanings. When a semiotic resource is selected to make meaning in a context, it undergoes certain transformation based on two principles—provenance and experiential meaning potential (Jewitt and Henriksen, 2016). Provenance means that “we constantly ‘import’ signs from other contexts (another era, social group, culture) into the context in which we are now making a new sign, in order to signify ideas and values which are associated with that other context by those who import the sign” (Kress and Van Leeuwen 2001, p10-11; Jewitt and Henriksen, 2016). Experiential meaning potential refers to “the idea that signifiers have a meaning potential deriving from what it is we do when we produce them, and from our ability to turn action into knowledge, to extend our practical experience metaphorically, and to grasp similar extensions made by others (Kress and Van Leeuwen 2001, p10-11; Jewitt and Henriksen, 2016). The transformed resources become new semiotic resources of semiotic systems through accumulation and circulation in social practice.

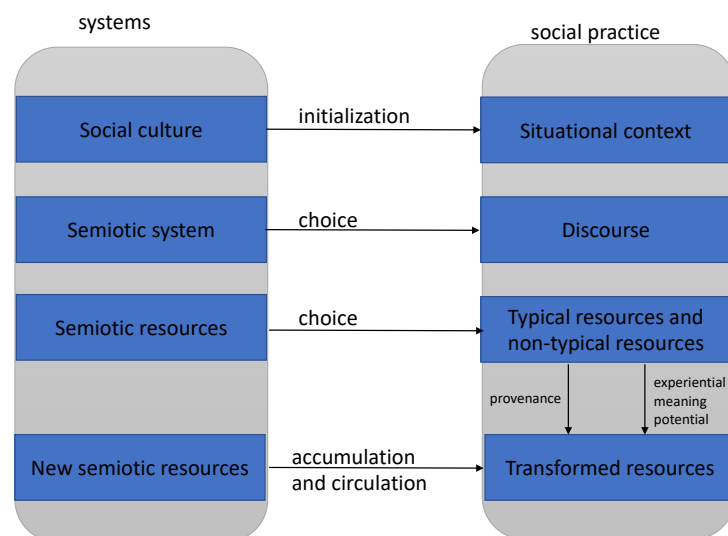


Figure 2-10: Semiotic resources in social practice.

Therefore, in social semiotics, semiotic resources of potential meaning are used to make new meanings in a context. Meaning is presented and interpreted in context (Hodge, 2017). Meaning is related to selection of semiotic resources and the way to combine the resources from semiotic systems, which implies that the use and design of semiotic resources are affected by individual backgrounds, historical environment and social roles (Hodge and Kress, 1988). These resources are independent to each other and are interpreted as new resources in a certain context (Kress and Van Leeuwen, 2006, p 8). The meaning potential of semiotic resources and the choice of these meaning potentials to realize meaning is based on context. Among the contextual factors, society and culture provide universal context for meaning makings. Society is viewed as domain of action. Culture is viewed as “the repository of resources which are used as a tool by the society or a group for making potential meanings” (Hassan, 2015, p 1). Social and cultural circumstances play a significant role in the way that human beings construct meaning with semiotic resources, in which the coding of semiotic resources is shaped and formed.

2.3.2 System

System is an important part in social semiotics (Hodge 2017). Saussure (1974) makes vital contribution to system by defining the term value. Signs have signification, but the more important aspect is that they have value. Value is used to refer to the places/parts in systems in Saussure’s description that “Language is a system of interdependent terms in which the value of each term results solely from the simultaneous presence of the others” and “Being part of a system, it is endowed not only with a signification but also and especially with a value” (Saussure, 1974, p 114-p 115; Hodge, 2017, p 11). French word *mouton* and English word *mutton/sheep* are used as an example. In the example, the French *mouton* and English *sheep* are of the same meaning referring to the woolly animals. However, the two words have different values in that *mouton* also refers to the meat of sheep while *sheep* without the meaning in English and there is another different word *mutton* instead. The two words means different parts of the reality. This reflects that people speaking different languages have different cognition of the reality. The different values of the words “reflect inherited cultural differences between French and English” (Hodge 2017, p 11). Therefore, value exists in system, inflecting signification/meaning and playing a key role in the meaning-making process, different people might get different value of the same resources.

System contains a pair of related relations—syntagmatic relation and associative relation which is called by others as paradigmatic structures. Syntagmatic system refers to elements of a sentence whose places are modified. Hodge describes that “syntagmatic refers to all linked structures on every scale in every semiotic mode, in texts and realities alike” (Hodge, 2017, p 11). Syntagmatic relation means a combination of “*this-and-this-and-this*” things in a sentence such as “the man cried”, which is created by rule system such as grammar (Chandler, 2017). Paradigmatic system refers to “lists in grammar such as verb forms” (Hodge, 2017, p 11). It represents a selection of “*this-or-this-or-this*” things, such as the replacement of the last words in the sentence “the man cried/*died/sang*” (Chandler, 2017). Syntagmatic and paradigmatic relations work together and determine the value of a sign, providing “a structural context” within which meaning is created (Chandler, 2017). The two systems are interdependent and are essential for the meaning-making process (Saussure, 1974). Hodge proposes a general model in which “meaning at every point is determined by the socially motivated interaction of values in syntagmatic and paradigmatic systems ... to connect that semiotic structure with a world of objects” (Hodge, 2017, p12). In modern linguistics, although Chomsky (1957) emphasises syntagmatic structures in his studies but analyses the interaction of the two planes in practice. Halliday (1985) pay more attention to paradigmatic structure and emphasise system for paradigm and also point out valuable points on syntagmatic structures. It is essential to study both syntagmatic and paradigmatic system in all semiotic analysis (Hodge, 2017).

Paradigmatic and syntagmatic relations play a crucial role in meaning making in a certain context. Halliday and Matthiessen (2004) view meaning as choice and point out that the choice is dynamic and depends on who is doing the choice from system. This means that meaning-makers create “meanings through their selection from the semiotic resources that are available to them in a particular social situation and moment in time” (Jewitt and Henriksen, 2016). Human beings are essential and play a decisive role in the process. The paradigmatic meanings are inferred and not fixed, which are crucial to provide reasonable and probabilistic basis for making meanings for purpose in a context. Wittgenstein proposes a metaphor of meaning: “A proposition constructs a world with the help of a logical scaffolding, so that one can actually see from the proposition how everything stands logically if it is true.” (Wittgenstein, 1971, 4.023; Hodge, 2017, p 118). The “logical scaffolding” is viewed as integral relations like “paradigmatic structures organizing syntagmatic structures” (Hodge, 2017, p 118). Social semiotics address the interdependency of paradigmatic and syntagmatic relations in exploring meaning production and interpretation in a context. It helps to develop a holistic view of human

behaviour in interpreting information content which is a complex meaning-making process involving selection of resources with values within a certain context.

2.3.3 Language, meaning and society

Language, meaning and society are three key terms in social semiotics (Hodge, 2017). The social semiotic view of language means that language is interpreted within a sociocultural context (Halliday, 1978). Language, meaning and society form the complex human world, with meaning as the centre role. Hodge (2017: p 8) describes that “all meanings have social effects, to some extent, though some do so more prominently” and “all meanings refer to or invoke reality, material or social, some more directly than others”. Language is a prominent resource to carry meaning in human life, representing social and referential meanings. Hodge (2017: p 10) proposes that “meaning is carried by language as a socially shared resource, underpinning every social action and reaction”. Language is a system of meanings that are formed and shaped in social structures and plays an important role in producing and interpreting information (Halliday and Matthiessen, 1999).

Social semiotics view language as a social semiotic system (Halliday, 1978). The social semiotic view of language is set in the theory of systemic functional linguistics (SFL) which takes language as a semiotic tool/resource that interacts with the eco-social environment for making and exchanging meaning (Neddar, 2017). SFL focuses on the function of language, that is, the way how language is used to fulfil social purpose in human life (e.g. construing reality and enacting social relations) , because “language is as it is because of the functions it has evolved to serve in people’s lives” (Halliday, 1976, p 4; Hodge, 2017, p 8).

These functions are mediated through meaning which is realized by the stratification of language. The stratification of language consists of a system of three strata (Figure 2-11) including phonology/graphology, lexicogrammar and semantics with context as extralinguistic strata (Halliday and Matthiessen, 1999). Each stratum consists of its system of semiotic resources with meaning potential. The meaning potential refers to the set of multiple options for producer to choose to realize meaning in a particular context. These options lie in the paradigmatic dimension which is the main concern of SFL and is viewed as system— “a system is a paradigmatic set of alternative features, of which one must be chosen if the entry condition

is satisfied” (Halliday, 2003, p 209; Neddar, 2017, p 58). Therefore, language is viewed as a system of semantic resources with meaning potential in a society (Christie, 2002; Neddar, 2017).

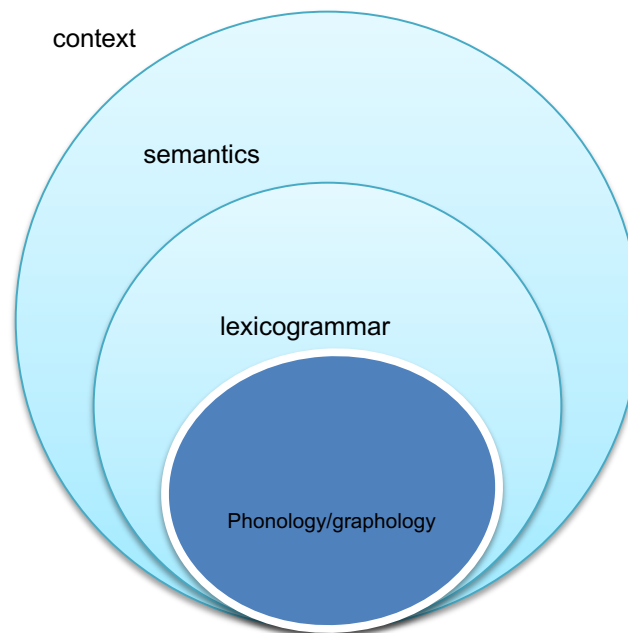


Figure 2-11: The stratification of language (adapted from Halliday and Matthiessen, 1999).

The stratification of language is a universal organisation of language. In the language system, the semantics and lexicogrammar strata are viewed as content level, phonology/graphology constitutes the expression level. The central meaning realization process lies in the interface between the strata of semantics and lexicogrammar where choice of meaning potentials from systems is made to realize meanings under certain principles and particular context. (Halliday and Matthiessen, 1999). The choice from the systems of semiotic resources with meaning potential is formed in a community. This means that the understanding and interpretation of text which is material instance of meaning require understanding of the particular contextual meaning.

Language, meaning and society interact with each other, with meaning as “a crucial role in language-meaning-society systems” (Hodge, 2017, p 29). The semantic system of language is shaped in social structures. The semantic systems of different languages are formed in different social and cultural circumstances. They are not only different in representation forms such as words, sounds and phrases but also in the way they are combined to make meanings in different cultures (Halliday and Matthiessen, 1999; Li and Tang, 2018). This determines the potential meaning-making resources and the choices of the resources to realize meaning in a context. As

a social semiotic system, language does not only store and transmit meaning, but also constructs meaning in a particular context (Halliday and Matthiessen, 1999). This implies that semiotic resources in different languages have different social meanings because of different social/cultural circumstances. Language, as a main communication tool in human life, plays a significant role in construing culture. People speaking different languages might have different emphasis on the meaning of semiotic resources of a language, thus tend to have different view of the reality such as spatial reasoning (Levinson *et al.*, 2002) and time cognition (Boroditsky, 2001).

2.4 Research scope and research framework

Trust development is a dynamic process and relies on long and continuous interactions between parties. Initial trust plays a significant role in guiding the way of future interactions which are useful for trust development (McKnight *et al.*, 2002; Koufaris and Hampton-Sosa, 2004). Initial trust is viewed as initial relationship established with relevant information discovered before first meeting up or just at the beginning of interactions between trustors and trustees, based on McKnight *et al* (1998) and Kim and Tadisina's (2003) definition of initial trust.

This research aims to further study the effect of culture on initial trust and explore the reasons that result in the effect. In this research, initial trust before first meeting up is focused in order to address the role of culture in initial trust and control other factors that might affect initial trust during interactions after meeting up, such as appearance, gestures and manner. Among the different cultures, this research focuses on the different cultures in UK and China which are assumed to be individualist and collectivist respectively according to Hofstede (1980) cultural dimensions. There are few studies investigating the cultural differences in initial trust between the two cultures. Apart from the country of current residence, ethnics, gender, age, education and working experience are also observed in the study to identify whether the effect of culture on initial trust is associated with these factors and address the cultural effect on initial trust. This research first investigates whether people living in UK and China have different initial trust to further identify the cultural effect on initial trust, then explore the factors and reasons that result in the effect. Trust plays a significant role in business context (Rilling and Sanfey, 2011; Hahn *et al.*, 2015). Therefore, this research studies initial trust in business context. The research framework is developed as in figure 2-12.

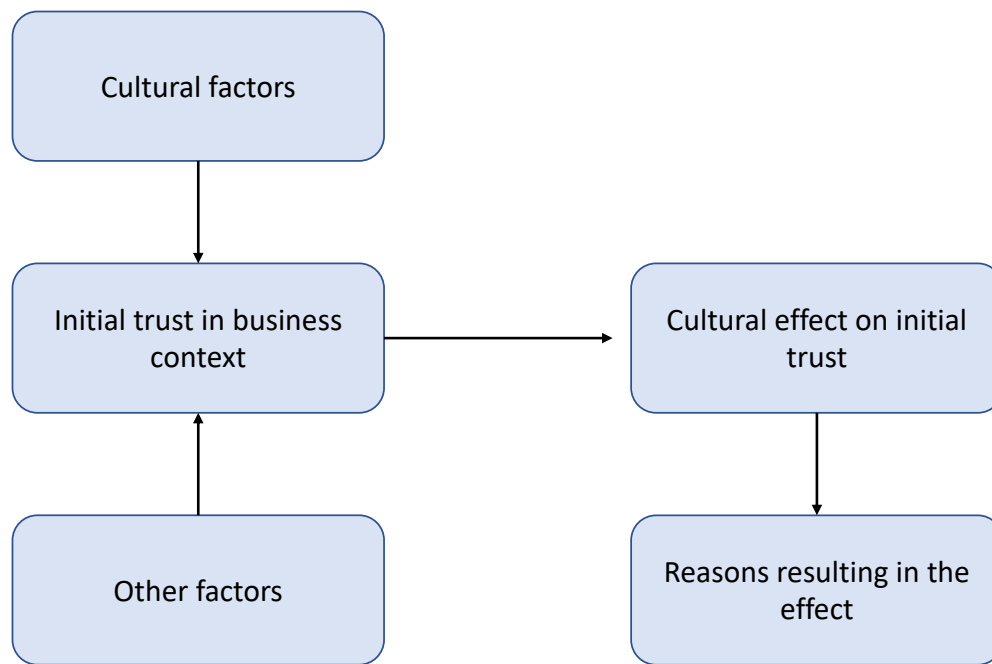


Figure 2-12: Research framework of the cultural effect on initial trust.

2.5 Chapter summary

In this chapter, studies of trust and initial trust in recent years are reviewed. Trust plays a significant role in business relationship and is viewed as a kind of social capital that is helpful for organisations to improve business competitiveness. Initial trust is important in leading the development of trust during business interactions. Key concepts and definitions of initial trust are described and defined in this chapter. Factors leading to initial trust are identified which mainly consist of trustor’s characteristics, trustee’s characteristics, institutional characteristics, technological characteristics and environmental characteristics. The significance of trust propensity and information interpretation in initial trust is addressed which are affected by social and cultural circumstances. Research approaches to trust are reviewed, such as cognitive-based, knowledge-based, cultural-based perspectives and semiotic approach, through which cultural effect on initial trust is addressed that it requires further explorations. Information is defined and the meaning base is addressed which is significant in information interpretation. Social semiotics which study meaning in social dimensions is introduced into the study of the cultural effect on initial trust. Research gaps are stated. Social semiotic study of the cultural effect on initial trust requires more explorations, which helps to better understand the role of culture in initial trust and explore the reasons that result in the cultural effect on initial trust. Research scope is defined to study cultural effect on initial trust in business context and explore

the reasons that result in the effect by investigating people's initial trust who live in UK and China. Research framework is developed, illustrating the assumed cultural effect on initial trust in business context and the way to explore the reasons.

Chapter 3 Research methodology

3.1 Introduction

Research methodology is the systematic way or philosophical framework for researchers to conduct a study (Brown, 2006). It provides paradigms with ontology and epistemology underpinning the study and guiding the choices of related methods and techniques to research questions. This chapter describes the concepts and characteristics of research paradigms used in social science and justifies the choice of appropriate research paradigm and methodologies for this study. The research approaches, strategies and methods for data collection and analysis used in this study are described in detail in this chapter.

3.2 Research paradigms

Research paradigm refer to the researcher's philosophical stance or view of exploring the world and is related to sets of beliefs and assumptions which are about the nature of the reality, the way to know the reality and the way to produce knowledge (Makombe, 2017). The choice of a research paradigm influences the development of the research process and guides the choice of associated approaches, methods and specific techniques in the research.

There are various paradigms in science research, such as realism, positivism, interpretivism, pragmatism, postpositivism, critical theory, social constructivism, etc (Pickard and Dixon, 2004; Bryman, 2012). Positivist research believes in tangible reality and views the investigator and the investigated independent from each other. Quantitative methodology and statistical mechanism are dominantly used and involved to analyse the links between variables in positivist research (Xinping, 2002; Makombe, 2017). Postpositivist research takes critical realism as ontological stance to study social reality. On one hand, it holds the positivist view and view social reality objective, independent and observable; on the other hand, the human fallibility makes imperfection in the interpretation of social facts (Pickard, 2007). Quantitative and qualitative approaches are mixed together in the process. Qualitative approach is to allow possibility and uncertainty during the interpretations and perceptions of results.

Table 3-1: Research paradigms

Paradigm	Positivism Postpositivism	Interpretivism Social constructivism Criticism	Pragmatism	Critical theory, participatory
Ontology	Realism Critical realism Objectivity	Relativism Subjective Historical (pragmatism has some objectivity)		Relativism Subjective- objective Constructed and historical reality
Epistemology	Detached	Transactional Participatory	Mixed detached and participatory in predetermined sequence	Transactional Experiential
Research method	Quantitative Quantitative and qualitative (postpositivism)	Qualitative	Qualitative and quantitative	Qualitative, Cooperative inquiry Collaborative/De mocratic dialogue

Interpretivism, social constructivism, criticalism/critical theory and pragmatism hold the ontological stance of relativism viewing realities multiple, constructed and holistic, bound to a social context. Generally, they are subjective and adopt qualitative research method. Interpretivism views reality as “social constructions of human who apprehend the world through interpretive activity” (Ferguson, 1993; Makombe, 2017). Social constructivism holds the belief that social phenomena are socially and culturally constructed, addressing the human interaction within a community (Ernest, 1998; Gredler, 1997; Amineh *et al.*, 2015). Criticalism /critical theory addresses inequality, empowerment, domination, etc (Guba and Lincoln, 1994; Markombe, 2017). Pragmatist research addresses action and change in social phenomenon and accommodates both subjectivity and objectivity, which makes it applicable to mixed methods—both quantitative and qualitative methods. All the research paradigms address the two radical assumptions of the reality: objectivism or subjectivism. The research paradigms

described above were presented in table 3-1 including relevant ontology, epistemology and methods (Makombe, 2017).

For this research, pragmatism was considered as an appropriate paradigm basing on the reviews of paradigms widely used in social science. This research studies cultural effect on initial trust and explores the reasons that result in the effect. This involves various social and cultural factors which are dynamic and complex. Pragmatism directly links to the purpose and questions of a research (Creswell, 2003; Zachariadis *et al.*, 2010). In the reality of a research, it is based on the belief of choosing and designing methodology that is most suitable for the purpose (Darlington and Scott, 2002). Pragmatism is helpful for researchers to choose appropriate methods and interpret findings appropriately with the value system held by the researcher (Creswell, 2003). It addresses the fluidity and changes of social phenomenon and highlights that knowledge is formed in dynamic actions and changes in society. This is consistent with social semiotics which is the theoretical background of this research. From social semiotic perspective, knowledge is constructed in social practice (Halliday and Matthiessen, 1999). Pragmatist research makes it possible to adopt different standpoints to understand cultural effect on initial trust and study potential factors that might affect it together with the researcher's value system.

3.3 Research approach

As discussed above, a research paradigm affects the choice of research approaches. Qualitative research and quantitative research are two identified approaches generally applied in a research. Generally, qualitative research dominates in normative approach to multiple, individual and subjective realities while quantitative research dominates in empirical approach to tangible, independent and objective realities (Makombe, 2017). Apart from the two popularly used research methods, mixed-methods research is another important method in social science and is mainly dominated by such paradigms as pragmatism, critical realism, etc (Venkatesh *et al.*, 2016).

Mixed-methods research means that qualitative and quantitative research are combined together, involving combination of qualitative and quantitative viewpoints, data collection, analysis, inference techniques, etc., in a research. There is no consensus framework to

accommodate the two approaches in a research. According to the timing and emphasis, Doyle *et al.* (2009) designs the mixed research methods in the following forms:

1. Partially mixed, concurrent, equal status design.
2. Partially mixed, concurrent, dominant status design.
3. Partially mixed, sequential, equal status design.
4. Partially mixed, sequential, dominant design.
5. Fully mixed, concurrent equal status design.
6. Fully mixed, concurrent, dominant status design

Table 3-2: Guidelines for mixed methods

Guidelines	Properties of mixed-methods design
1. Decide on the appropriateness of mixed-methods approach.	Foundations of design decisions: Research questions Purposes of mixed-methods research Epistemological perspectives Paradigmatic assumptions
2. Develop strategies for mixed-methods research design.	Primary design strategies: Design investigation strategies Strands/phases of research Mixing strategies Time orientation Priority of methodological approach.
3. Develop strategies for collecting and analysing mixed-methods data.	Sampling design strategies Data-collection strategies Data-analysis strategies
4. Draw inferences from mixed-method results.	Inference decisions: Types of reasoning
5. Assess the quality of inferences.	Inference quality
6. Discuss potential threats and remedies.	

The guidelines based on timing and emphasis are not enough to conduct a detailed and complicated mixed-methods research. Venkatesh *et al.* (2016) develops more detailed

guidelines for mixed-methods design basing on properties of mixed-methods research (Table 3-2). First is the appropriateness of using a mixed-methods approach. This is based on consideration of research questions, purposes of mixed-methods research whether it is for complementarity, development, expansion etc, epistemological perspectives (single or multiple paradigm), paradigmatic assumptions (pragmatism, critical realism, or other paradigmatic perspective). Next is to develop strategies. This includes investigation strategy design—exploratory or confirmatory, research strands/phases—single phase or multiple phases, mixing strategies—fully or partially mixed, timing—sequential or concurrent, priority of methodological approach—equivalent or dominant-less dominant design, and data collection and analysis strategies. Then are the inference decisions. In this part, types of reasoning are designed—inductive, deductive or abductive, inference quality assessment is designed, and potential threats and remedies is discussed.

With the guidelines, research strategies, techniques, instrument and potential respondents are considered and designed. The strategies include the timing, priority, strands/phases, etc., in the mixed-methods research. Techniques involves specific ways to collect data to answer the research questions. A large number of research techniques are applied in social science such as laboratory and field experiments, questionnaires, case studies, forecasting, interviews, action research, etc. Each method or technique is in an equivalent status and no one is referred to be superior or inferior to others. The important things in choosing research methods and techniques is based on the condition that whether it better helps you explore and answer the research questions and enables you to meet the research objectives and the availability of time, knowledge and other resources as well. Research instruments and potential respondents are also crucial in a study to ensure the quality of collected data and needs to be taken into account in a research design.

For this research, mixed-methods research was adopted with Venkatesh *et al* guidelines. The appropriateness of choosing mixed-methods research is guided by research questions, research paradigms and the purposes of mixed-methods research as discussed by Venkatesh *et al.* (2016). This research study the following research questions: Do people living in UK and China have different initial trust in business context? What are the cultural factors impact people's initial trust? Why do the factors affect initial trust? These questions are related to each other. It is not adequate to use only qualitative or quantitative approach to investigate the questions. It is appropriate to investigate whether the level of initial trust is different in British culture and

Chinese culture by quantitative method. Qualitative method is appropriate to explore the factor and reasons that might result in different initial trust in different cultures. Pragmatism was chosen to be the paradigm in this research which is appropriate to accommodate mixed-method research. Therefore, mixed-method research is adopted to gain a complete picture of the initial trust in British culture and Chinese culture and explore the potential factors that might affect initial trust.

3.4 Research strategies

Research strategy is viewed as “general plan of how the researcher will go about answering the research questions” (Saunders *et al.*, 2009). It includes specific procedures, methods, techniques and instruments used to collect data and analyse data (Venkatesh *et al.*, 2016). The research strategies of this research were designed based on Venkatesh *et al.* (2016) guideline for mixed-methods research described above. The appropriateness of mixed methods was described in section 3.3. Research strategies were developed for data collection and analysis to investigate the research questions, including participants, instruments and tools. Inference reasoning was considered, quality assessment was designed, and potential threats and remedies was taken into account. The following depicts the strategies in detail.

This research adopted multistrand design involving multiple phases to research the three research questions. 5 phases were involved. In phase 1, a study was designed and conducted to investigate people’s initial trust in business context. Based on the interpretation of the results of the study, implications for further studies were developed. In phase 2, more data were collected to confirm the implications developed from the phase 1. Based on the interpretation and implication of the results in the two phases, propositions were developed. Further studies were designed and conducted basing on the propositions. At last, results were integrated and interpreted. The qualitative and quantitative methods were mixed through the process of the studies with quantitative method as primary status. The approach was illustrated in figure 3-1.

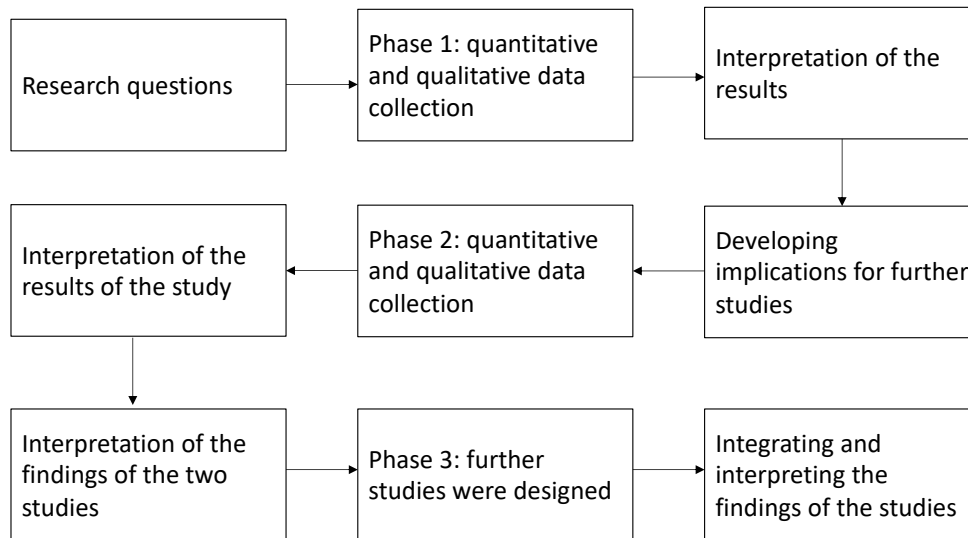


Figure 3-1: Research approach of the mixed methods in this research

3.4.1 Strategies for data collection

Questionnaire was used in this research to gather large samples of data from a sizeable population and analyse data in statistical way. Totally, 6 studies were involved in the 3 phases of this research. In phase 1, study 1 was carried out in which questionnaire with both closed and open-ended questions were designed to investigate initial trust in Chinese culture and British culture. The closed-ended questions helped to collect quantitative data and were used to statistically test the respondents' level of initial trust in UK and China. The open-ended questions collected qualitative data which provided clues to explore the reason why respondents made their initial trust. In phase 2, the same questionnaire was used to study the implications developed from study1. The closed-ended questions provided quantitative data and statistically test the implications from study 1. The open-ended questions helped to explore the reason for the results of the quantitative analysis in the study. In the third phase, 4 studies were carried out—study 3, 4, 5 and 6. In these studies, only closed questions were designed to collect data to statistically test the implications from study 1 and study 2.

University students were targeted. It was a way to control the variables such as age, education, and work experience which have an effect on trust (Sutter and Kocher, 2007, Frederiksen *et al.*, 2016 and Bidarian and Jafari, 2012) and focus on the cultural effect on initial trust and the reasons.

Ethical considerations followed the special guidance of University of Reading. When designing and collecting data in the studies, this research considered eliminating any potential negative effect on any individual participant or groups and ensured not to collect sensitive information from the participants (Babbie and Mouton, 2001). Participants answered the questions voluntarily and they had the right to withdraw the study at any point and at any time. Information about the research, anonymity and confidentiality were stated to the participants at the beginning of each investigation to encourage participants to provide true responses.

The following describes the specific methods of data collection in each study, including materials, procedures, participants and samples.

3.4.1.1 Data collection in phase 1

In phase 1, study 1 was designed to investigate people's initial trust in Chinese culture and British culture and identify factors that might affect people's initial trust. Data were collected from university students studying in UK and China with the aim to investigate whether people living in UK and China had different initial trust levels.

3.4.1.1.1 Material

In this study, questionnaires with open and closed-ended questions were utilized to collect data (Appendix 3-1). The questions were set in a business context in which the parties had not met each other before: "Assuming your company is involved in a new major business deal with another company and you are going to meet the representative(s) of that company. Given that you have done enough background studies on the company and the person you are going to meet". The scenarios given were only used to provide a business context in which initial trust would happen, acting as stimuli to collect responses from participants (Alhammad and Gulliver, 2013). In the scenario, initial trust was focused on the stage before first meeting in order to study the cultural effect on initial trust and reduce the effect of other factors during physical interaction that might affect initial trust such as face impression, gestures, behaviour, etc.

In the questionnaire, there were four questions. The first two questions were about initial trust in the representative and initial trust in the new organization. The questions were generated from studies of individual's initial trust in organisations (Friedrich *et al.*, 2019) in which initial trust consists of initial trust in individuals and organisations and employees represent an organisation. Initial trust is associated with initial business intention (Michaelis *et al.*, 2008; Ogonowski *et al.*, 2014). The level of initial trust plays a significant role in influencing customer's intentions to do business with unfamiliar companies especially in e-commerce. Trust helps customers to get rid of risk and uncertainty when first interacting with a new company and encourage customers to take relevant business actions (McKnight *et al.*, 2002). Trustee's personality is significant elements leading to initial trust (Siau and wang, 2018). Therefore, the third question about intention to cooperate with the new company if doubting the representative's personality was generated to study initial trust in organisation regarding of personality. Environmental context is important in initial trust (Siau and wang, 2018). Growse (2018) describes that face-to-face communication is significant in trust development. In the current era of digital communication, will initial trust or initial business intention be affected in the condition without face-to-face communication? Therefore, the last question about intention to cooperate with the new organisation without face-to-face meeting was designed. The four questions were independent from each other. The first question aimed to test initial trust in person. The second one was to test initial trust in organisation. The third one was to test initial business intention regarding of doubting personality. The last one was to study initial business intention without face-to-face communication. The questions in the study aimed to study whether people had different level of initial trust and initial business intention in Chinese culture and British culture.

Personal information was observed, including country of current residence, ethnics, gender, age, education, years of service and negotiation experience to study the potential factors affecting initial trust. The country of current residence (UK and China in this research) was observed to investigate the potential cultural effect on initial trust because country is highly related to national culture. Ethnic background was added because ethnics plays a significant role in trust. The ethnic background focuses on Chinese people in China, Chinese people in UK, British people in UK and other ethnic groups in UK in order to compare the effect of ethnic background on initial trust and study its relationship with the cultural effect on initial trust. Gender (male and female) is viewed as an important factor in the development of trust (Haselhuhn *et al.*, 2015). It might have an effect on initial trust. Therefore, gender was added

as a variable for initial trust. Age (Sutter and Kocher, 2007), education (Frederiksen *et al.*, 2016) and work experience (Bidarian and Jafari, 2012) also play a role in trust development. Therefore, age, education and work experience were observed. Because the scenario was related to business negotiation, whether a response has negotiation experience was added as a variable. Regarding of age, the age ranges were grouped as <20, 20-29, 30-39, 40-49, 50-59 and above 60 years old. Work experience in this research was focused on the years of service (none, <1yr, 1-5yrs, 6-10yrs, >10yrs). The background of education in this study focused on undergraduate and postgraduate because the study was carried out among university students.

A 5-point-Likert scale was applied for participants to evaluate their level of initial trust (1-5: very low trust—very high trust) or intention/likelihood to undertake certain activity in the business scenarios (1-5: not very likely—very highly likely). For the first two questions about initial trust in person and initial trust in organisation, open-ended questions were added for participants to give brief explanation for their answers to the question. A dichotomous variable was set to measure gender (1=male, 2=female) and negotiation experience (1=Yes, 2=no). Ordinal variables were used to measure age and were coded from 1 to 6 (1=< 20yrs; 2=20-29; 3=30-39 ; 4=40-49; 5=50-59; 6=60+) and ordinal variables regarding of years of service were coded from 1-5 (1=none, 2=<1yr, 3=1-5yrs, 4=6-10yrs, 5=>10yrs). Nominal variables were used to measure educational qualification and coded as undergraduate and postgraduate (1=undergraduate, 2=postgraduate), current residence country was coded: 1=UK, 2=China, 3=others, ethnics were coded: 1=British 2=Chinese and 3=others.

3.4.1.1.2 Participants and procedures

Participants were targeted at university students studying in UK and China. It is a way to control social variables and focus on the cultural effect on initial trust. G* power analysis for Mann-Whitney test (two groups) suggested the required sample size was 208 (104 in each group) based on related parameters (effect size $d = 0.4$, $\alpha = 0.005$, power=0.80). The survey which was carried out in UK used English questionnaire and the survey in China adopted Chinese questionnaire. In China, face-to-face data collection was conducted during lectures with the permission and assistance of a lecturer. The lecturer stayed out of the investigation. In UK, online link was generated and sent to targeted university students by email. It took around

5 minutes to complete the survey. Previews were conducted and discussed before the study. The data collected in previews were excluded in the main study.

The internal consistency reliability was tested by Cronbach alpha and the average inter-item correlations. The Cronbach alpha was 0.41 in first study and improved to 0.51 in the second study. The average inter-item correlation was 0.15 first and improved to 0.21 in the later study. The least acceptable Cronbach alpha value is 0.6 (Norman and Streiner, 1994). The Cronbach alpha value in this study was not high. The reason might be that only 4 items were observed. Cronbach alpha value was highly related to the number of items (Field, 2013). With a small number of observed items, the mean inter-item correlation is viewed as a more appropriate method to test the internal consistency and the acceptable range is from 0.10 to 0.50 (Nunnally, 1978; Pallant, 2011; Stanley *et al.*, 2014). The mean inter-item correlation of this study (0.15 and 0.21) lied in the acceptable range. Therefore, the reliability of the study was acceptable.

The construct validity was assessed by exploratory factor analysis. The KMO and Bartlett's Test showed the KMO value (KMO=0.503, $P < 0.001$) was greater than the recommended accepting value (greater than 0.5), which suggested that the data was suitable for factor analysis (Kaiser, 1974; Field, 2013). The factor loadings were from 0.766 to 0.862, greater than Steven's (2002) recommended value (greater than 0.4). Therefore, the study was of good construct validity.

In the study, respondents were students from six universities in UK and China. In UK, data were collected from Universities of Reading (Reading) and University of Keele (Keele), and in China data were from Beijing Institute of Technology (BIT), China Agriculture University (CUA), Utah State University (UTA, BIT programme). 327 data were collected (UK=127, China=200) from the six universities as shown in table 3-3.

Table 3-3: Statistics of universities in UK and China

University	Frequency	Percent	Valid Percent
Reading	72	22.0	22.0
Keele	55	16.8	16.8
UTA	60	18.4	18.4
BIT	27	8.3	8.3
CUA	113	34.6	34.6
Total	327	100.0	100.0

Demographic statistics of study 1 were presented in Table 3-4. The total sample size was 309 in which 113 samples were collected from UK and 196 were collected from China. In UK, 72.6% participants aged from 20-29 while in China 39.7% participants aged from 20-29 years old. In UK, 30.1% participants were British people, 26.5% participants were Chinese people studying in UK and 43.3% participants were people of other ethnic groups. In China, all the participants were Chinese people. In UK, most of the participants had 1-5 years of working experience (80.6%). In China most of the participants' years of service (62.8%) was more than 5 years, of which 6-10 years was 37.1% and more than 10 years was 25.7%). Generally, most of the participants had no negotiation experience (71.6%).

Table 3-4: Demographic statistics of study 1

		Country of current residence		Total
Variable (N –no. of respondents)	Responses	UK (N=113)	China (N=196)	N=309
Gender (N=309)	Male	46 (40.7%)	94 (48.0%)	140 (45.3%)
	Female	67 (59.3%)	102 (52.0%)	169 (54.7%)
Age (N=307)	<20	17 (15.0%)	53 (27.3%)	70 (22.8%)
	20-29	82 (72.6%)	77 (39.7%)	159 (51.8%)
	30-39	8 (7.1%)	57 (29.4%)	65(21.2%)
	40-49	5 (4.4%)	7 (3.6%)	12 (3.9%)
	50-59	1 (0.9%)	-	1 (0.3%)
Ethnic origin (N=309)	UK - British	34 (30.1%)	-	34 (11%)
	China-Chinese	-	196 (100%)	196 (63.4%)
	UK-Other	49 (43.4%)	-	49 (15.9%)
	UK-Chinese	30 (26.5%)	-	30 (9.7%)
Educational level (N=342)	Undergrad	77 (78.6%)	110 (57.6%)	187 (64.7%)
	Postgrad	21 (21.4%)	81 (42.4%)	102 (35.3%)
Work experience/Years of service (N=259)	None	4 (3.7%)	11 (10.5%)	15 (7.0%)
	< 1year	5 (4.6%)	-	5 (2.3%)
	1-5yrs	87 (80.6%)	28 (26.7%)	115 (54.0%)
	6-10yrs	4 (3.7%)	39 (37.1%)	43 (20.2%)
	>10yrs	8 (7.4%)	27 (25.7%)	35 (16.4%)
Negotiation experience (N=296)	Yes	22 (21.8%)	62 (31.8%)	84 (28.4%)
	No	79 (78.2%)	133 (68.2%)	212 (71.6%)

3.4.1.2 Data collection in phase 2

Based on the implication developed from the results of study 1, a further study was designed and carried out to confirm the implication. The questionnaire used in this phase was the same as that in phase 1. The participants were targeted at university student studying in Universities in Shandong China. Most of university students in China are proficient in English and do not have difficulty in understanding the questions and answering the questions in English. The required sample size was 208, which was determined by G* power analysis for Mann-Whitney test (two groups) as that in study 1. The study was created on Qualtrics and the anonymous links were sent to the targeted participants by email. Some participants did the Chinese questionnaire while the other participants did the English questionnaire. Participants evaluated their initial trust voluntarily basing on their own understanding and had the right to quit the survey at any time and at any point. English proficiency was evaluated by the participants themselves. 521 responses were collected. According to participants' English proficiency who did the English questionnaire (Table 3-5), participants' responses whose English proficiency was poor or terrible were removed. Missing data of the observed initial trust, participants' responses to English questions who gave explanations in Chinese, participants' responses whose native language was not Chinese, and the ethnic origin was not Chinese were removed. Finally, valid data were 447 (English=212, Chinese=235).

Table 3-5: English proficiency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	excellent	13	2.7	5.4	5.4
	Good	34	7.1	14.0	19.4
	Average	150	31.3	62.0	81.4
	Poor	41	8.6	16.9	98.3
	Terrible	4	.8	1.7	100.0
	Total	242	50.5	100.0	

The demographic statistics of the collected data were presented in table 3-6, including the distribution of gender, age, ethnic origins, education, work experience, negotiation experience

in the language group of English and Chinese. All the participants' native language was Chinese. All the participants' ethnic origins were Chinese. 84.7% of the participants were under 30 years old (N=377). 77.6% of the participants were undergraduates (N=347). Some of the participants had business negotiation experience (N=124, 27.9%) while the other participants did not have business negotiation experience (N=320, 72.1%). 60% of the participant did not have any work experience (N=213).

Table 3-6: Demographic statistics of study 2

		Country of current residence		Total
Variable (N –no. of respondents)	Responses	English (N=212)	Chinese (N=235)	N=447
Gender (N=445)	Male	40 (19.0%)	106 (45.1%)	146 (32.8%)
	Female	170 (81.0%)	129 (54.9%)	299 (67.2%)
Age (N=445)	<20	122 (57.5%)	72 (30.9%)	194 (43.6%)
	20-29	86 (40.6%)	97 (41.6%)	183 (41.1%)
	30-39	4 (1.9%)	57 (24.5%)	61(13.6%)
	40-49	-	7 (3.0%)	12 (1.6%)
	50-59	-	-	-
Ethnic origin (N=447)	Chinese	212 (100%)	235(100%)	447 (100%)
	Other	-	-	-
Educational level (N=447)	Undergrad	194 (91.5%)	153 (65.1%)	347 (77.6%)
	Postgrad	18 (8.5%)	82 (34.9%)	100 (22.4%)
Work experience/Years of service (N=355)	None	165 (78.2%)	48 (33.3%)	213 (60.0%)
	< 1year	27 (12.8%)	-	5 (2.3%)
	1-5yrs	10 (4.7%)	30 (20.8%)	40 (11.3%)
	6-10yrs	7 (3.3%)	39 (27.1%)	46 (13.0%)
	>10yrs	2 (0.9%)	27 (18.8%)	29 (8.2%)

Negotiation experience (N=444)	Yes	60 (28.6%)	64 (27.4%)	124 (27.9%)
	No	150 (71.4%)	170 (72.6%)	320 (72.1%)
Mother language (N=447)	Chinese	212 (100%)	235 (100%)	447 (100%)

3.4.1.3 Data collection in phase 3

In this phase, 4 studies (study 3, study 4, study 5 and study 6) were designed and conducted to explore the reasons for the findings developed from phase 1 and phase 2. In these studies, personal background such as work experience, education and negotiation experience were not observed. These studies focus on variables between the language group—Chinese and English. gender and age were still included in the questionnaires.

3.4.1.3.1 Study 3

Questionnaire survey with close-ended questions was utilized. Words indicating competence, goodwill and security related to business trust were designed. Basing on the literature review of initial trust in business scenarios, reliability, honesty, competence and feel safe are frequently referred in business trust. The scenarios of study 1 and study 2 were also related to goodwill, competence and security. Personal information such as gender, age, country of current residence and mother language was included in the questionnaire. Gender and country of current residence were measured as in study 2. Age were measured by ordinal variables (1=<18, 2=18-25, 3=26-35, 4=36-45, 5=>46). The accuracy of the translation of the words were measured by 1-3 representing from not very accurate to very accurate in the study (Appendix 3-2).

The questionnaire was created on Qualtrics where anonymous links were generated. Participants were university students studying in Shandong China who spoke Chinese as native language and spoke English as foreign language, with the aid of a lecture who worked in Shandong Normal universities. The participants received the links randomly and were asked

to evaluate the accuracy of the translation of these words basing on their own understanding. 211 responses were collected in which the valid data was 160.

Cronbach alpha was 0.740, greater than the suggested value of 0.6. The mean inter-item correlation was 0.416, lying between the acceptable range from 0.10 to 0.50 (Nunnally, 1978; Pallant, 2011; Stanley *et al.*, 2014). Therefore, the study was of good reliability. The construct validity was good with factor loadings between 0.727 and 0.762 (KMO=0.747, $P < 0.001$). The demographic statistics were presented in table 3-7. Most of the participants aged between 18-25 years old (95.6%). All participants' native language was Chinese and lived in China.

Table 3-7: Demographic statistics of study 3

Variable	Responses	Percent
Gender	Male (73)	45.6%
	Female (87)	54.4%
Age	<18 (6)	3.8%
	18-25 (153)	95.6%
	26-35 (1)	0.6%
	36-45 (0)	0
Mother language	Chinese (160)	100%
	English (0)	0
	Other (0)	0
Current country of residence	China (160)	100%
	UK (0)	0
	Other (0)	0

3.4.1.3.2 Study 4

Questionnaires with close-ended questions were designed. The question was about words that were related to business trust. The words were the same words studied in the study of translation accuracy, which were related to the meaning of business trust. Personal information such as gender, age, country of current residence and mother language was included in the survey to control cultural variables. The question (Appendix 3-3) was designed as “To what extent are the following items related to business trust” with dichotomous measurements (1=not related and 2=related).

Participants were still university students studying in Shandong China. The required sample size (N=208) was determined by G*power for Mann-Whitney test (two groups) as in study 1. The questionnaires were created on Qualtrics in Chinese and English equivalent. The English and Chinese questionnaire links were randomly sent to the targeted participants. Participants who did Chinese questionnaire did not receive English questionnaire. Participants gave their answers voluntarily basing on their own understanding. Previews were carried out before the main study. 636 out of 830 collected data were valid.

Cronbach alpha was 0.553 and the mean inter-item correlation was 0.236, which suggested the study was of good reliability. The KMO value was 0.676 ($P < 0.001$) and the factor loadings was from 0.628 to 0.671. The construct validity of the study was good. Table 3-8 presents the demographic statistics of the study. Most of the participants aged from 18-25 years old. All participants lived in China and the native language was Chinese.

Table 3-8: Demographic statistics of study 4

		Language used in the survey		Total
Variable (N –no. of respondents)	Responses	Chinese (312)	English (324)	
Gender (N=636)	Male	89 (28.5%)	91 (28.1%)	180 (28.3%)
	Female	223 (71.5%)	233 (71.9%)	456 (71.7%)
Age (N=613)	<18	-	10 (3.1%)	10 (1.6%)
	18-25	291 (100%)	309 (95.4%)	600 (97.6%)
	36-45	-	2 (0.6%)	2 (0.3%)
	>46	-	1 (0.3%)	1 (0.2%)
Mother language (N=636)	Chinese	312(100%)	324(100%)	636 (100%)
	English	-	-	-
	Other	-	-	-
Current country of residence (N=635)	China	311 (100%)	324 (100%)	635 (100%)
	UK	-	-	-
	Other	-	-	-

3.4.1.3.3 Study 5

This study investigated the grammatical meaning in Chinese and English. In this study, the meaning of possibility was focused. The meaning of possibility is viewed as a kind of evaluation meaning of language that conveys attitude and plays a role in human judgement (Martin 2004). In the studies of initial trust judgement in business scenarios, the meaning of possibility was also involved, such as *would*.

Questionnaire with close-ended questions was designed. In the questionnaire (Appendix 3-4), meaning of possibility was investigated by judging the meaning conveyed by modal words

such as *should, must, could, might, would, must certainly, might possibly, would probably, and will*. 10 sentences with meaning of possibility were designed in the questionnaire, which were developed from Martin's study of evaluation of language (Martin 2005). A 5-point Likert scale (1-5: low to high) was used to evaluate the possibility that each sentence conveys. Gender, age, mother language was included in the study.

The survey was carried out by use of SurveyMonkey. The targeted participants were university students studying in China as described in the previous studies. The required sample size (N=208) was determined by G*power for Mann-Whitney test (two groups) as in study 1. Previews were conducted before the main study. Some of the students did the Chinese questionnaire while the other students did the English equivalence randomly. Participants answered the questions voluntarily. 98 valid data were collected. The internal consistency reliability of the study was good (Cronbach alpha was 0.773 and the mean inter-item correlation was 0.26). The construct validity was good (KMO=0.759, $P < 0.001$ and all the factor loadings were above 0.4). Table 3-9 presents the demographic statistics of the study. It showed all the participants' mother language was Chinese. Most of the participants aged from 18 to 24 (99%).

Table 3-9: Demographic statistics of study 5

		Language used in the survey		Total
Variable (N –no. of respondents)	Responses	Chinese (59)	English (39)	98 (100%)
Gender (N=98)	Male	24 (40.7%)	5 (12.8%)	29 (29.6%)
	Female	35 (59.3%)	34 (87.2%)	69 (70.4%)
Age (N=98)	<18	-	-	-
	18-24	58 (98.3%)	39 (100%)	97 (99.0%)
	25-34	1 (1.7%)	-	1 (1.0%)
	>46	-	-	-
Mother language (N=98)	Chinese	59 (100%)	39 (100%)	98 (100%)
	English	-	-	-
	Other	-	-	-

3.4.1.3.4 Study 6

Questionnaires with closed answers were used in the study. 25 items were investigated in the questionnaire (Appendix 3-5). Some of the words were from Hodge’s (2017) experiment about affectual meaning which were used to test the relationship between emotional responses and social meaning in English, including, *children, failure, museum, perfect, surprise, and warmth*. Other words were often metaphorically used in business context, such as *ecosystems, chess, poker, marathon, sculpting, performance, dancing, marriage, journey, team and family*. A 5-point-Likert scale (1-5: extremely negative—extremely positive) to evaluate participants’ positive/negative feelings to these words. Personal information such as gender (1=male, 2=female), age (1=< 20; 2=20-29; 3=30-39; 4=40-49; 5=50-59; 6=60+) and mother language were included.

The participants were still university students in China who spoke Chinese as native language and used English as a foreign language. The required sample size (N=208) was determined by G*power for Mann-Whitney test (two groups) as in study 1. Previews were conducted before conducting the study. Questionnaire links were generated on Qualtrics and were randomly sent to the targeted participants. 808 valid data were collected.

The study was of high reliability (Cronbach alpha=0.862). KMO value was 0.896 (P<0.001). All factor loadings were above 0.3. The construct validity was good. Table 3-10 presents the demographic statistics of the study. All participants' mother language was Chinese. 76.5% of all the participants were female, with 74.4% in the language group of English and 78.1% in the language group of Chinese. Most of the participants aged under 29 years old (99.3%).

Table 3-10: Demographic statistics of study 6

		Language used in the survey		Total
Variable (N=no. of respondents)	Responses	Chinese (418)	English (390)	
Gender (N=808)	Male	107 (25.6%)	83 (21.3%)	190 (23.5%)
	Female	311 (74.4%)	307 (78.1%)	618 (76.5%)
Age (N=808)	29 and under	418 (100%)	384 (98.5%)	802 (99.3%)
	30 and above	-	6(1.5%)	6 (0.7%)
Mother language (N=807)	Chinese	418(100%)	389(100%)	807 (100%)
	English	-	-	-
	Other	-	-	-

3.4.2 Data analysis strategies and methods

Strategies for data analysis consist of strategies and methods for quantitative data and qualitative data. Validity of each study was evaluated. Responses collected from the closed-ended questions in the studies were quantitatively analysed with the aid of SPSS. Before data analysis, basic data cleanings were processed. Unrelated, inaccurate and missing responses to the observed items were deleted. Non-parameter analysis was adopted to analyse the observed

items with ordinal variables. First, descriptive analysis was run to analyse the distribution of the observed items for a whole. Means were reported with confidential intervals which were got by bootstrapping. The tendency suggested by the means was described. Then, Mann-Whitney U test and Kruskal-Wallis H test were run basing on the assumptions of each method and the purposes of the studies. All pairwise comparison and stepwise step-down comparison was adopted to do the post hoc multiple comparisons when significant difference existed within the groups. Effect size was calculated for each group. Cohen's d was reported for Mann-Whitney test between two groups and eta squared (η^2) was calculated for the results of Kruskal-Wallis test (Lenhard W & Lenhard A, 2016).

Responses collected from the open questions were interpreted by text analysis with the guidance of social semiotics. Participants' responses to the open-ended questions were mainly composed of words. The collected qualitative data was analysed by text analysis from social semiotic perspective and with the aid of excel in this research to explore evidence for the results of the quantitative analysis and explore potential factors that might affect initial trust. The process of qualitative data analysis was guided by five stages—narrative, coding, interpretation, confirmation and presentation. Narrative refers to the reading, writing or transcription of the textual data to get familiar with it to develop basic observations and derive meaning. Coding is the process in which researchers identify and label broad ideas, concepts or phrases to categorize the data, identify relationships in the categories and develop a framework to identify patterns and connections. Interpretation is the way that researchers make meaning and understand the conceptual framework that is developed through the narrative and coding process. Confirmation is the stage in which researchers develop confidence that the interpretations are from data and not from researchers' construction. Presentation refers to the stage in which researchers adopts some techniques to present the findings for further analysis and explanation (Kawulich 2004).

Table 3-11: The analysis strategies and methods for each study

Studies	Purpose	Sample size	Data analysis strategies	Data analysis methods
Study 1	Cultural effect on initial trust	309	Descriptive analysis of the observed items. Comparison by the groups of country, ethnics, gender, age, education, working experience, negotiation experience.	means with confidence intervals were reported. Mann-Whitney U test with Cohen's d calculated. Kruskal-Wallis with eta squared η^2 calculated.
Study 2	The effect of language on initial trust	447	The effect of gender, age, education, working experience, negotiation experience was analysed. Comparison by the group of language.	Means with confidence intervals were reported. Mann-Whitney U test with Cohen's d calculated.
Study 3	The corresponding accuracy of words in Chinese and English	160	Descriptive analysis of the observed items.	Descriptive analysis with means and confidence intervals reported.
Study 4	Lexical meaning in Chinese and English	636	Descriptive analysis. Comparison by the group of language.	Means with confidence intervals were reported. Mann-Whitney U test with Cohen's d calculated.
Study 5	Grammatical meaning in Chinese and English	98	Descriptive analysis. Comparison by the group of language.	Means with confidence intervals were reported. Mann-Whitney U test with Cohen's d calculated.

Study 6	The affectual meaning of words in Chinese and English	808	Descriptive analysis. Comparison by the group of language.	Means with confidence intervals were reported. Mann-Whitney U test with Cohen's d calculated.
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Table 3-11 summarizes the analysis strategies and methods for each study. For study 1, the observed data by the group of country and ethnics were addressed to study the cultural effect on initial trust. Next, the observed items were analysed by the groups of gender, age, years of service, education and negotiation experience to study whether initial trust was affected by these factors and focus on the cultural effect on initial trust. Analysis methods in this study involved descriptive analysis, Mann-Whitney U test and Kruskal-Wallis H analysis. Mann-Whitney test was run to analyse initial trust by the group of country, gender, education and negotiation experience that involve dichotomous variables. Kruskal-Wallis analysis was used to analyse initial trust by the group of age, ethnics and work experience involving of three or more variables. Effect size was calculated.

For study 2, Mann-Whitney test was run to analyse the observed initial trust levels between the group of language, gender, education and negotiation experience. Kruskal-Wallis analysis was run to test initial trust within the group of age and work experience. Participants' responses to explain their initial trust in representative and organisation were analysed by text analysis as the analysis of the responses in study 1.

In study 3, 160 valid data were collected after removing missing data of the observed items and unrelated data that indicated country of current currency was not China and mother language was not Chinese. Data analysis by the group of age was ignored because most of the respondents aged from 18 to 25 years old, only 6 respondents aged under 18 years old and only 1 was above 25 years old (Table 3-5). Observed items between the gender group was not analysed in the study, because the purpose of the study was to study the extent that the words were corresponding in Chinese and English. Descriptive statistics was presented. The means, counts and frequency were reported to describe the distribution of the responses.

In study 4 of lexical meaning of trust in business context, 636 valid data were analysed (Chinese=312, English=324) after removing missing data of the observed items. Data analysis by the group of age and gender was ignored. Lexical meaning of trust in Chinese and English was addressed. Means of the items were reported and the tendency was described. Mann-Whitney test was run to compare whether the meaning of business trust was different between the language groups of Chinese and English. Effect size was calculated.

In study 5 of grammatical meaning in Chinese and English, data analysis by the group of age and gender was ignored and grammatical meaning in Chinese and English was addressed. Means of the items were reported and the tendency was described. Mann-Whitney test was run to compare whether the meaning of business trust was different between the language groups of Chinese and English. Effect size was calculated.

In study 6 of affectual meaning in Chinese and English, data analysis by the group of age and gender was ignored and grammatical meaning in Chinese and English was addressed. Means of the items were reported and the tendency was described. Mann-Whitney test was run to compare whether the meaning of business trust was different between the language groups of Chinese and English. Effect size was calculated.

3.4.3 Methods for inferences

3.4.3.1 Reasoning methods

Abductive reasoning was adopted to draw inferences from the results of the multi-strand studies. Abductive reasoning is viewed as “inference to the best explanation” (Douven, 2017) and is the way of “logical connection between data and theory” to interpret “surprising event” (Feilzer, 2010). In the process, researchers refer to data and theory from time to time and build relations between data and theory. In this research, firstly, literature and theoretical background was reviewed. Based on the theoretical knowledge, surveys were designed and carried out to investigate initial trust in Chinese culture and British culture and the cultural effect on initial trust was addressed. Then, collected data were analysed and interpreted with the theoretical knowledge. New proposition or implications were developed. Further surveys were conducted to test the proposition. Then inferences were developed through the interpretation of the results

with the theoretical knowledge, and new propositions were proposed. Then new surveys were carried out to test the propositions. New knowledge was inferred through the process with theoretical knowledge. Figure 3-2 illustrates the process of abductive reasoning (adapted from Wieland 2016).

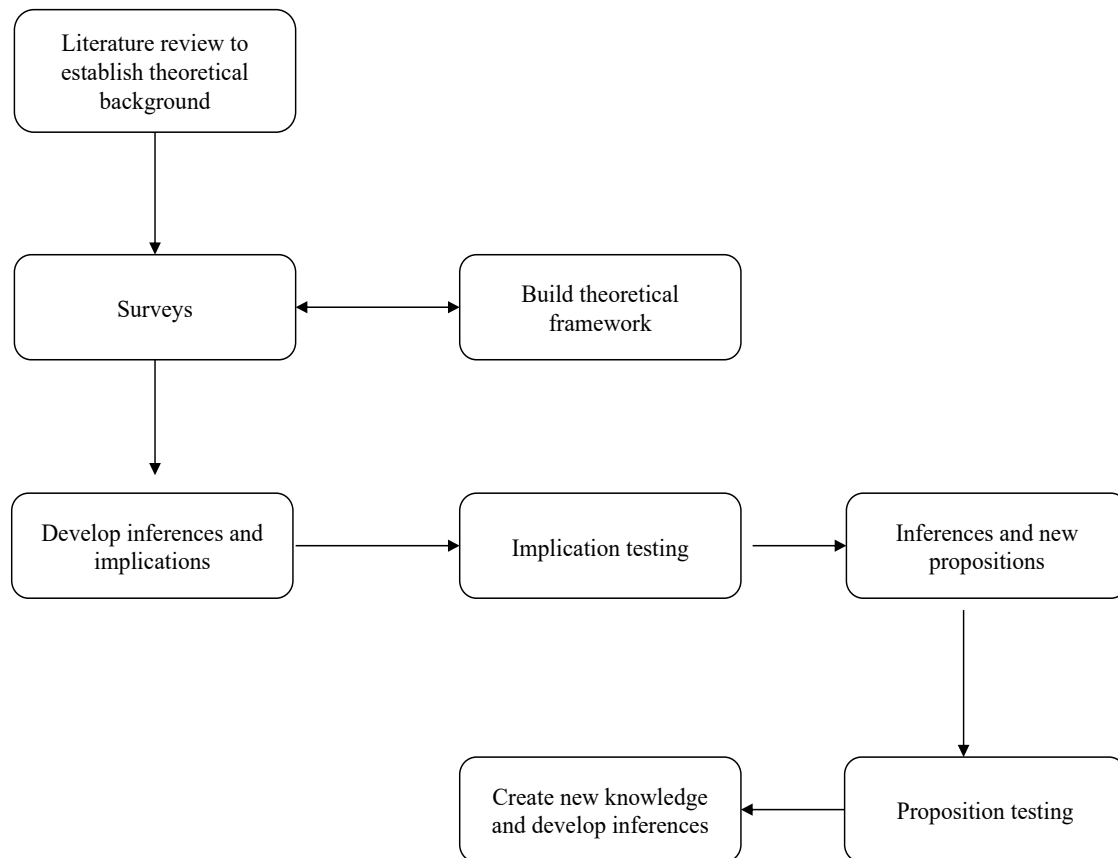


Figure 3-2: Abductive research process

3.4.3.2 Assessment of the inference quality

It requires to maximize the quality of inferences and ensure the “correspondence between the way respondents actually perceive and the way researcher portray their overviews” (Mertens, 2005, p254; Venkatesh et al 2016, p448).

The quality of the results from each study was assessed. Reliability and validity of each study were assessed. The contents of the questionnaires, procedures of data collection and data analysis were discussed. Apart from the quality assessment of each study, the assessment of design quality, explanatory quality, and other legitimation criteria for mixed methods were

assessed. In this research, the design quality and explanatory quality such as design suitability and adequacy, analytical adequacy, integrative efficacy, inference transferability and integrative correspondence were assessed. The legitimation criteria developed by Onwuegbuzie and Johnson (2006) was used as guideline to assess the legitimation of inferences, which includes nine types: 1) sample integration, 2) inside-outside, 3) weakness minimization, 4) sequential, 5) conversion, 6) paradigmatic mixing, 7) commensurability, 8) multiple validities and 9) political legitimation. In this research, sample integration, inside-outside, weakness minimization, multiple validity and political legitimation were addressed.

The potential threats and remedies in the process of data collection and data analysis were discussed to minimize the threats and improve the credibility and validity of qualitative and quantitative studies. The potential threats and remedies through the stages at data collection and data analysis were considered (Venkatesh *et al.*, 2016).

3.5 Chapter summary

This chapter describes the research methodology of this research, including the philosophical stance, research strategies and methods for data collection and data analysis, inference quality assessment, treats and remedy discussions. Figure 3-3 briefly illustrates the specific paradigm, approach, method and techniques adopted in the research. As illustrated in the figure, this research adopted pragmatism as an appropriate paradigm to address the action, change and potential reason in the study of the cultural effect on initial trust. With reviews of research methods in social science, mixed-method research was used in this research to study initial trust in Chinese culture and English culture and explore the reasons if initial trust is different between the two countries. Multi-phases were involved, consisting of three phases and six studies in total. Qualitative and quantitative approaches were combined in the research, with quantitative research as primary one. Questionnaire with close-ended questions and open-ended questions or only close-ended questions were designed to collect data in each phase. Descriptive analysis and inference analysis such as Mann-Whitney test and Kruskal-Wallis test were used as main data analysis methods. Abductive reasoning was utilized to draw inferences from the mixed-method studies in this research. Quality assessment was processed according to the legitimation criteria developed by Onwuegbuzie and Johnson, in which sample integration, inside-outside, weakness minimization, multiple validity and political legitimation

were addressed. This chapter also presents the necessity to discuss the potential threats and remedies to ensure the quality of the inferences.

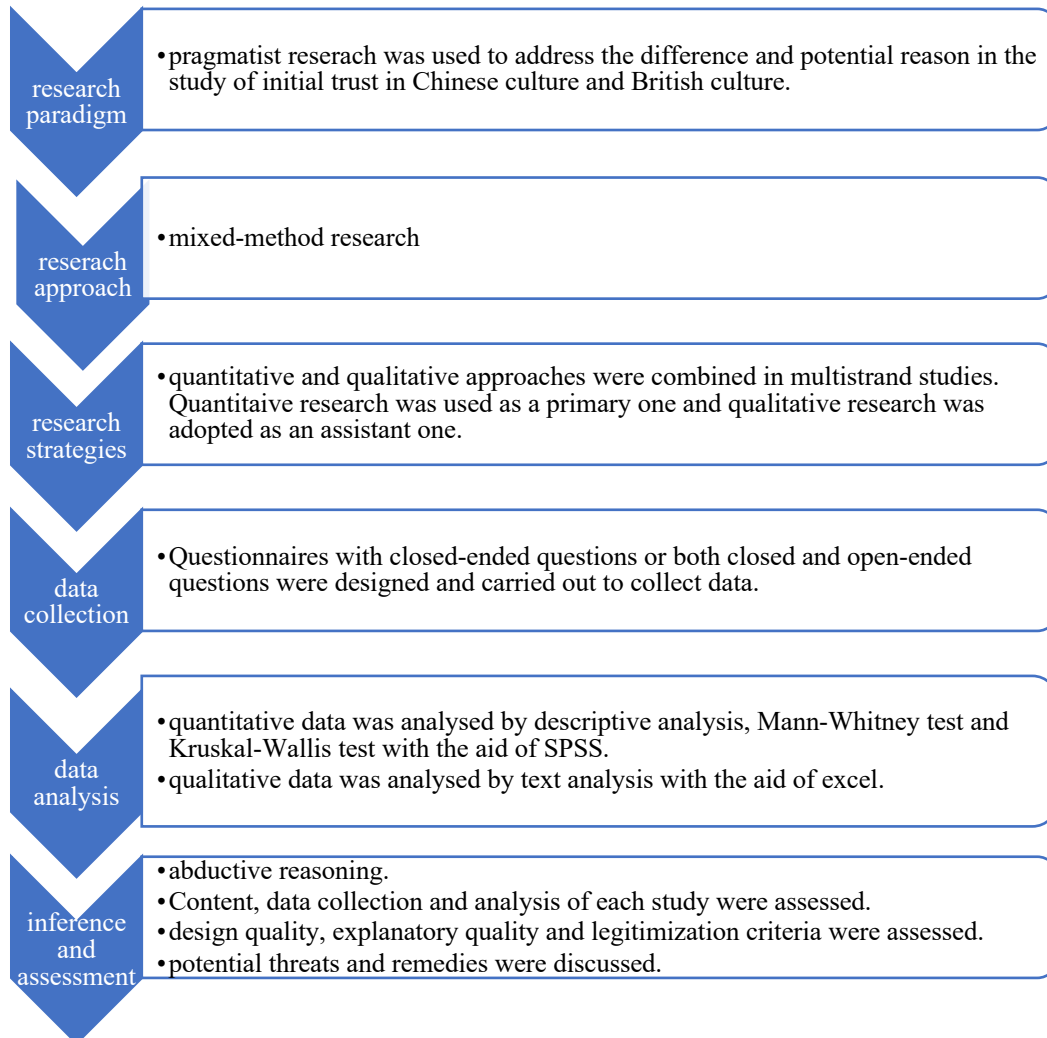


Figure 3-3: Methodology of this research

Chapter 4 Cultural effect on initial trust

4.1 Introduction

This chapter presents the results of the study and discusses the findings from the study of people's initial trust in Chinese culture and British culture. Data were collected from university students' responses who were living in UK and China. Collected data consists of quantitative data and qualitative data which came from the responses to the closed-ended questions and open-ended questions of the survey. Analysis of initial trust by the group of country was addressed to identify the cultural effect on initial trust. Analysis of initial trust by the groups of other observed factors was analysed to identify factors that might affect initial trust and explore the reasons leading to the potential cultural effect on initial trust. The quantitative data were analysed with the aid of SPSS. The qualitative data were analysed by text analysis to explore supporting evidence and reasons for the results of quantitative data analysis. The quality of the study was discussed too.

4.2 Results

This section presents the results of data analysis by the group of personal backgrounds including gender, age, education, work experience, negotiation experience, country of current residence and ethnics. Initial trust by the group of country was addressed to analyse the cultural effect on initial trust in business context.

4.2.1 Initial trust by county of residence

The means of initial trust between the countries of UK and China (Figure 4-1) indicated that there tended to be certain differences in initial trust between the groups. Respondents in UK (M=2.90) tended to have higher initial trust in person than respondents in China (M=2.56). Regarding of initial trust in organisation, people in UK (M=3.04) tended to have higher initial trust than people in China (M=2.90). People in UK (M=2.35) tended to be less likely to do business if doubting the representative's personality than people in China (M=2.62). People in UK (M=2.23) were more likely to do business with an organisation without face-to-face communication than people in China (M=2.05).

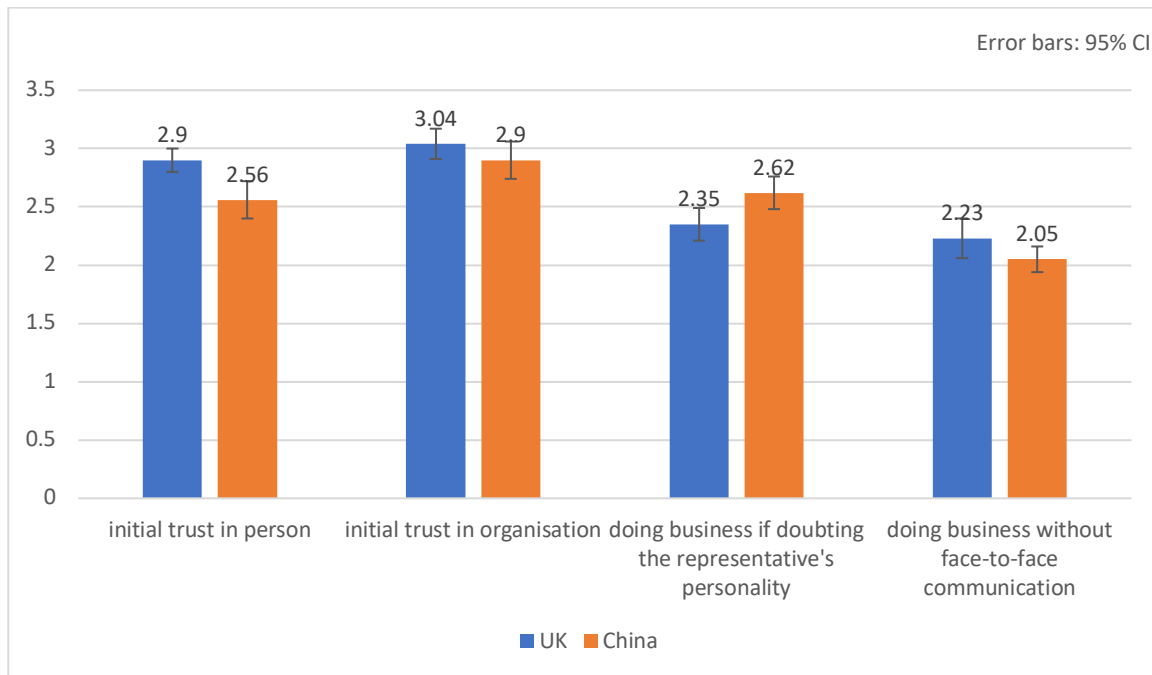


Figure 4-1: Means of initial trust between UK and China

Mann-Whitney test was run to test whether the respondents living in UK (N=113) and China (N=196) had significantly different initial trust in business context in the study. The results were showed in Figure 4-2 and Table 4-1. For data of initial trust in person before first meeting, the mean rank in the group of the UK (mean rank=172.81) was higher than that in China (mean rank=144.73), which was shown in figure 4-2. The results of U-test showed the difference was significant, $U=9061.500$, $P=0.006$ (Table 4-1), with small effect size ($d=0.309$). This suggested that people in UK had higher level of initial trust in person than people's initial trust in person in China, but the effect was small.

Regarding of initial trust in an organisation before first meeting, the mean ranks in the two groups were very close, mean rank in UK was 154.65, mean rank in China was 155.20, see Figure 4-2. The Mann-Whitney test showed the difference was not significant, $U=11034.000$, $P=0.956$ (Table 4-1), with trivial effect size ($d=0.006$). This indicated that people from the two countries did not have different level of initial trust in organisation before first meeting.

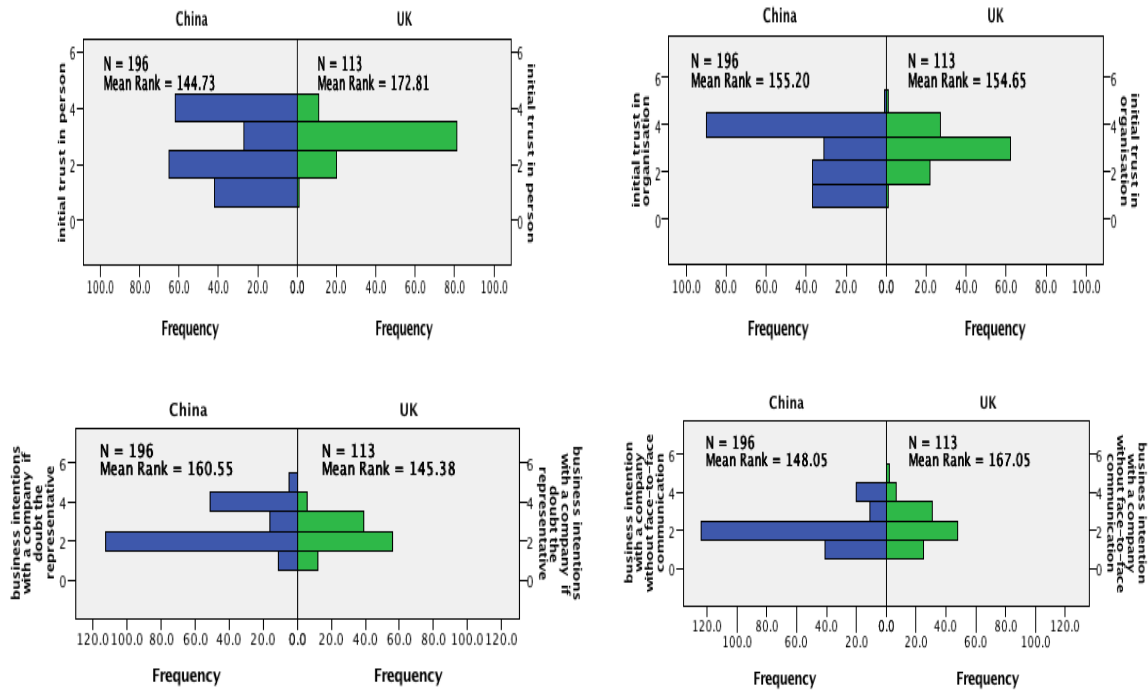


Figure 4-2: Mean ranks and the distribution of ranks in the group of UK and China

For data of doing business with a new company if doubting a representative's personality, the mean ranks in the two groups were close, mean rank in UK was 145.38, mean rank in China was 160.55, see Figure 4-2. The Mann-Whitney test showed the difference was not significant, $U=9987.000$, $P=0.113$ (Table 4-1), with trivial to small effect size ($d=0.164$). The results suggested that people from the two countries were not significantly different in doing business with a new company if doubting the representative's personality.

For data of doing business with a new company without face-to-face communication, the mean ranks in the two groups indicated that people in UK (Mean rank=167.05) tended to be more likely to do business in the situation compared to the group of China (Mean rank =148.05), see Figure 4-2. The Mann-Whitney test showed the difference was significant, $U=9712.000$, $P=0.046$ (Table 4-1), with small effect size ($d=0.206$). The results indicated that people from the two countries had different intention to do business with a new company without face-to-face communication, but the effect was small.

Table 4-1: The output of Mann-Whitney of initial trust by ethnics

	initial trust in person	initial trust in organisation	business intentions with a company if doubt the representative	business intention with a company without face-to-face communication
Mann-Whitney U	9061.500	11034.000	9987.000	9712.000
Wilcoxon W	28367.500	17475.000	16428.000	29018.000
Z	-2.773	-.055	-1.583	-1.995
Asymp. Sig. (2-tailed)	.006	.956	.113	.046
a. Grouping Variable: Country of data				

4.2.2 Initial trust by the ethnic groups.

In this study, four groups were involved—British people in UK (UK-British, N=34), Chinese people in UK (UK-Chinese, N=30), other ethnics in UK (UK-others, N=49) and Chinese people in China (China-Chinese, N=196).

The means in the groups were described in Figure 4-3. In regarding of initial trust in person, means in the group of UK-Chinese (M=3.03) was similar to the means in the group of UK-British (M=3.00), higher than means in China-Chinese (M=2.56) and Others-UK (2.76). In regarding of initial trust in organisation, means in the group of UK-Chinese (M=3.33) was slightly higher than the other three groups in which the means were similar, UK-British (M=3.06), China-Chinese (M=2.56) and Others-UK (M=2.76). For the data of doing business if doubting the representative's personality, means in the group of China-Chinese and UK-Chinese were similar, M=2.62 and M= 2.7 respectively, higher than the similar means in the group of UK-British and UK-others, M=2.26 and M=2.18 respectively. For the data of doing business without face-to-face communication, Means in the group of UK-British (M=2.09), China-Chinese (M=2.05) and UK-others (M=1.98), lower than the means in UK-Chinese (M=2.8). The means in the groups showed there tended to be difference in initial trust in the ethnic groups.

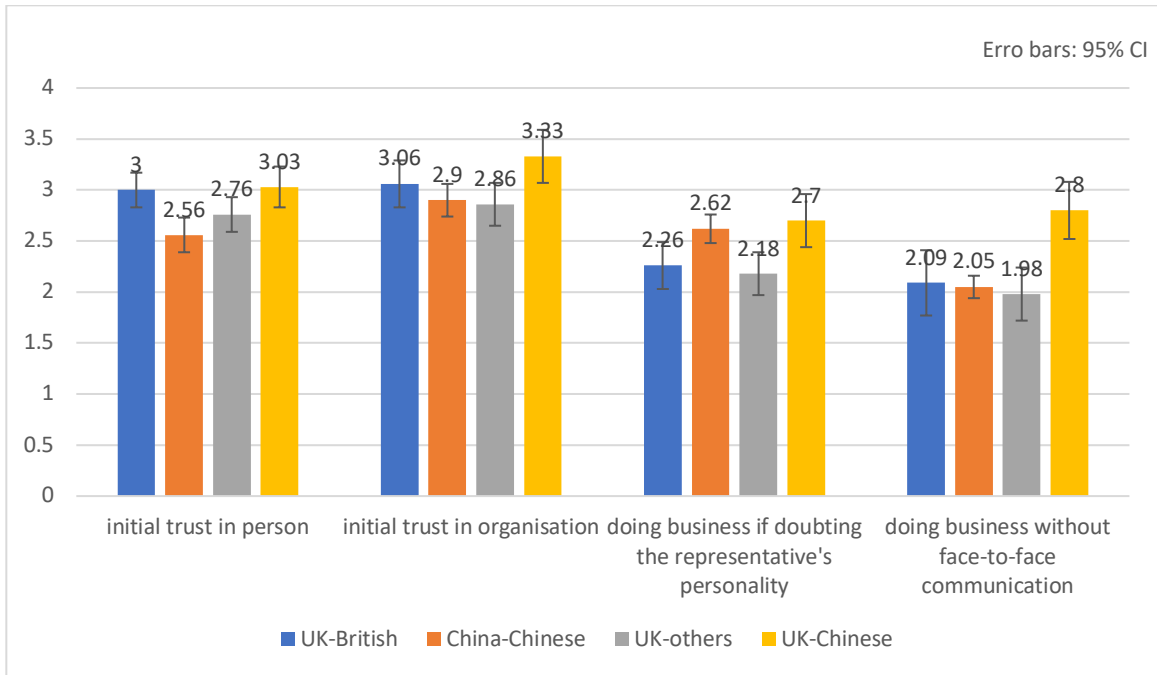


Figure 4-3: Means of initial trust in the ethnic group

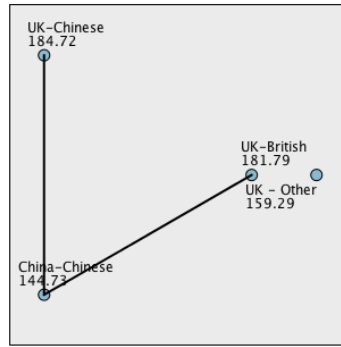
Kruskal-Wallis test was run to test whether there was significant difference within the group of ethnics (Table 4-2). The results showed there was significant difference within the four ethnic groups for the data of initial trust in person, $H(3)=9.861$, $P=0.020$ with small effect ($\eta^2=0.022$); doing business if doubting a representative's personality, $H(3)=11.943$, $P=0.008$ with small effect ($\eta^2=0.029$) and doing business without face-to-face communication, $H(3)=27.248$, $P<0.001$ with medium effect ($\eta^2=0.08$). However, there was no significant difference in initial trust in organisation within the ethnic groups, $H(3)=4.514$, $P=0.211$ with trivial effect ($\eta^2=0.005$). To find out where the significance exists, follow-up analysis was run for initial trust in person before first meeting, doing business if doubting the representative's personality and doing business without face-to-face communication which were significantly affected by the ethnic groups in the study.

Table 4-2: Mann-Whitney test of initial trust in ethnic groups

	initial trust in person	initial trust in organisation	business intentions with a company if doubt the representative	business intention with a company without face-to-face communication
Kruskal-Wallis H	9.861	4.514	11.943	27.248
df	3	3	3	3
Asymp. Sig.	.020	.211	.008	.000
a. Kruskal Wallis Test				
b. Grouping Variable: Ethnic origin1				

4.2.2.1 Initial trust in person before first meeting

Figure 4-4 showed the output of the follow up analysis of initial trust in person within the ethnic groups by pairwise comparison, consisting of mean ranks in each group and comparisons between possible groups. The mean ranks in the group of UK-Chinese (Mean rank=184.72) and UK-British (M=181.79) were very close, much higher than the mean rank in the group of China-Chinese (Mean rank=144.73). The mean rank in the group of UK-other (Mean rank=159.29) was lower than mean ranks in the groups of UK-Chinese and UK-British, higher than mean rank in the group of China-Chinese. The mean ranks in each group indicated that people living in UK had higher level of initial trust in person than people living in China, and Chinese people living in UK and British people living in UK had similar initial trust level before first meeting a person. However, the pairwise comparisons with adjusted p-values showed that there were no significant differences in the level of initial trust in person between all the groups: China-Chinese and UK-Chinese (P=0.104, d=0.320), UK-others and UK-Chinese (P=1.000, d=0.291), China-Chinese and UK-others (P=1.000, d=0.136), UK-British and UK-Chinese (P=1.000, d=0.034), UK-others and UK-British (P=1.000, d=0.260), China-Chinese and UK-British (P=0.120, d=0.311).



Each node shows the sample average rank of Ethnic origin1.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
China-Chinese-UK-Chinese	-39.985	16.806	-2.379	.017	.104
UK - Other-UK-Chinese	-25.431	19.873	-1.280	.201	1.000
China-Chinese-UK - Other	-14.554	13.692	-1.063	.288	1.000
UK-British-UK-Chinese	-2.923	21.473	-.136	.892	1.000
UK - Other-UK-British	22.508	19.134	1.176	.239	1.000
China-Chinese-UK-British	37.062	15.926	2.327	.020	.120

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same. Asymptotic significances (2-sided tests) are displayed. The significance level is .05. Significance values have been adjusted by the Bonferroni correction for multiple comparisons.

Figure 4-4: Pairwise comparison of initial trust in person in ethnics

Although the pairwise comparison between the groups was not significant, the effect size between China-Chinese and UK-British ($d=0.311$) and between China-Chinese and UK-Chinese ($d=0.320$) suggested that the different level of initial trust in person between the groups were meaningful (Figure 4-5). The means in the groups (Figure 4-3) also indicated there was difference between China-Chinese and UK-British and between China-Chinese and UK-Chinese.

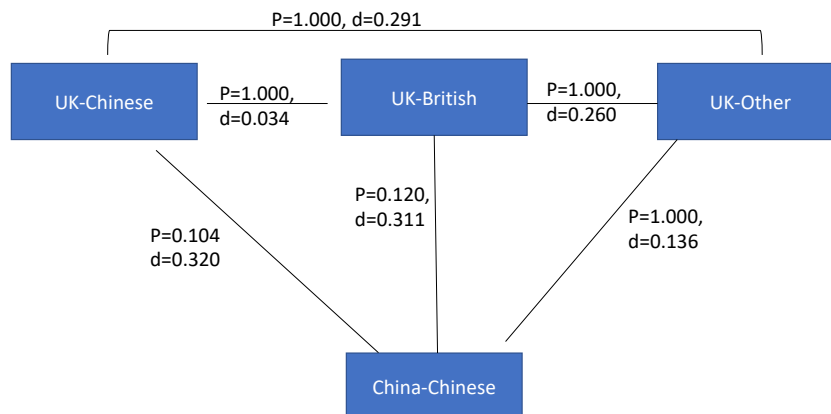


Figure 4-5 Effect size of initial trust in person in ethnic groups

To further identify the difference between the groups, the homogeneous subsets comparison was run based on initial trust in person within the groups (Figure 4-6). It showed the group of China-Chinese was in different column compared to the group of UK-British and UK-Chinese, indicating that Chinese people living in China had significant difference in initial trust in person compared to people living in UK including Chinese people living in UK. It also indicated that Chinese people living in UK were not significantly different in initial trust in person from UK-other and UK-British (P=0.052).

		Subset	
		1	2
Sample ¹	China-Chinese	144.732	
	UK - Other	159.286	159.286
	UK-British		181.794
	UK-Chinese		184.717
Test Statistic		1.592	5.897
Sig. (2-sided test)		.207	.052
Adjusted Sig. (2-sided test)		.371	.052

Homogeneous subsets are based on asymptotic significances. The significance level is .05.

¹ Each cell shows the sample average rank of initial trust in person.

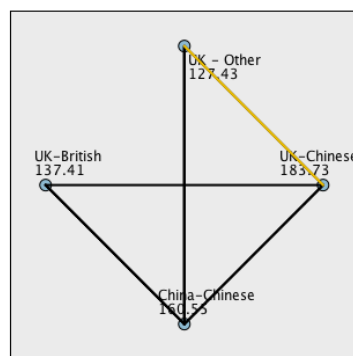
Figure 4-6: Homogeneous subsets based on initial trust in person

Therefore, the results of initial trust in person in the group of ethnics showed that the level of initial trust in person was highly associated with the respondents' ethnic groups. The difference mainly lies between Chinese people living in China and people living in UK including British people in UK, Chinese people in UK and other ethnics in UK. The results also indicated that the level of initial trust in person of Chinese people in UK had similar level of initial trust in person to that of British people in UK.

4.2.2.2 Doing business with a new company if doubting the representative's personality

The pairwise comparison between the groups was shown in Figure 4-7. For the data between UK-other and UK-Chinese, Chinese people in UK and other ethnics in UK except British people had significantly different intention to do business if doubting the representative's personality (P=0.016), indicating Chinese people living in UK (Mean rank=183.73) were more

likely to do business if doubting a representative's personality than people of ethnic groups living in UK (Mean rank=127.43). Between UK-British and UK-Chinese, the mean ranks indicated that Chinese people in UK (Mean ranks=183.73) were more likely to do business with a new organisation if doubting the representative's personality than British people in UK (Mean ranks=137.41), but the difference was not significant (P=0.136). Between UK-Chinese and China-Chinese, Chinese people living in UK (Mean rank=183.73) tended to have higher intention to do business if doubting the representative's personality than Chinese people living in China (Mean rank=160.55), but the difference was not significant (P=0.869). For the groups between UK-British (Mean rank=137.41) and China-Chinese (Mean rank=160.55), the difference in people's intention to do business if doubting the representative's personality was not significant (P=0.748). For the data between UK-other (Mean rank=127.43) and UK-British (Mean rank=137.41), there was no significant difference (P=1.000). Between the groups of UK-other (Mean rank=127.43) and China-Chinese (Mean rank=160.55), Chinese people living in China were more likely to intention to do business if doubting the representative's personality, but the difference was not significant (P=0.063).



Each node shows the sample average rank of Ethnic origin1.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
UK - Other-UK-Chinese	-56.305	18.802	-2.995	.003	.016
UK-British-UK-Chinese	-46.322	20.316	-2.280	.023	.136
China-Chinese-UK-Chinese	-23.187	15.901	-1.458	.145	.869
UK-British-China-Chinese	-23.134	15.068	-1.535	.125	.748
UK - Other-UK-British	9.983	18.103	.551	.581	1.000
UK - Other-China-Chinese	33.117	12.954	2.556	.011	.063

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same. Asymptotic significances (2-sided tests) are displayed. The significance level is .05. Significance values have been adjusted by the Bonferroni correction for multiple comparisons.

Figure 4-7: The pairwise comparison of the item in the ethnic group

Although there was no significance between some groups, the effect size indicated the difference was meaningful (Figure 4-8). The effect size between UK-Chinese and UK-British ($d=0.595$) and between UK-Chinese and UK-other ($d=0.716$) was medium to large, indicating meaningful difference between the groups. The effect size between China-Chinese and UK-British ($d=0.204$) and between China-Chinese and UK-other ($d=0.331$) was small, also indicating that the difference between the groups was meaningful to an extent. The effect size between UK-Chinese and China-Chinese ($d=0.195$) and between UK-British and UK-other ($d=0.121$) was very small, indicating the difference between the groups was trivial.

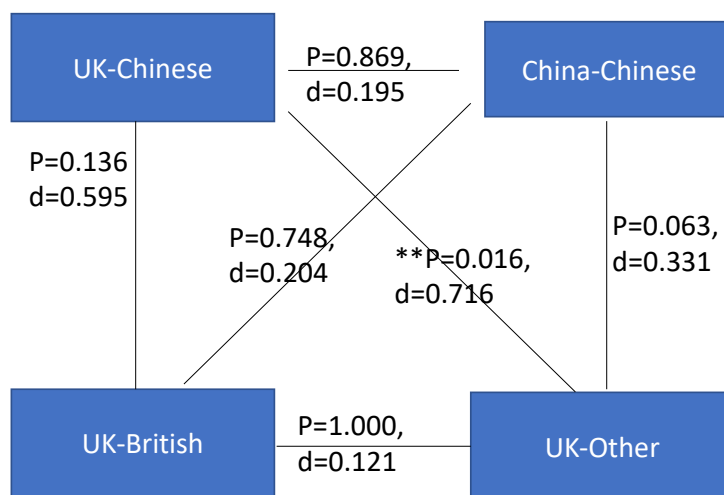
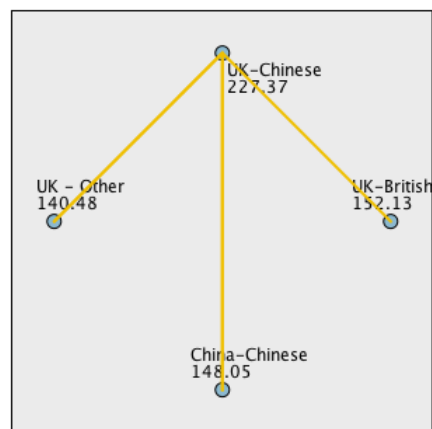


Figure 4-8: The effect of ethnics on business intention if doubting the representative's personality

The results indicated that people's intention to do business if doubting the representative's personality was affected by ethnics. The difference mainly lied between Chinese people and other ethnic groups, indicating Chinese people had different intention to do business with a new company if doubting the representative's personality from other ethnics

4.2.2.3 Doing business with a new company without face-to-face communication

The output of the pairwise comparison based on peoples' intention to do business with a new company without face-to-face communication was presented in Figure 4-9. The effect size between the groups were presented in Figure 4-10.



Each node shows the sample average rank of Ethnic origin1.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
UK - Other-UK-Chinese	-86.887	18.694	-4.648	.000	.000
China-Chinese-UK-Chinese	-79.316	15.809	-5.017	.000	.000
UK-British-UK-Chinese	-75.234	20.199	-3.725	.000	.001
China-Chinese-UK-British	4.081	14.981	.272	.785	1.000
UK - Other-China-Chinese	7.571	12.880	.588	.557	1.000
UK - Other-UK-British	11.653	17.999	.647	.517	1.000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same. Asymptotic significances (2-sided tests) are displayed. The significance level is .05. Significance values have been adjusted by the Bonferroni correction for multiple tests.

Figure 4-9: Pairwise comparison based on peoples' intention to do business with a new company without face-to-face communication

Between UK-other (Mean rank=140.48) and UK-Chinese (Mean rank=227.37), it showed Chinese people living in UK were more likely to do business with a new company without face-to-face communication than other ethnics in UK, and the difference was significant with large effect ($P < 0.001$, $d = 1.227$). Between the groups of China-Chinese (Mean rank=148.05) and UK-Chinese (Mean rank=227.37), there was significant difference in the intention to do business without face-to-face communication ($P < 0.001$), indicating Chinese people in UK had higher intention to do business in the situation with medium effect ($d = 0.708$). Between the groups of UK-British (Mean rank=152.13) and UK-Chinese (Mean rank=227.37), Chinese people in UK were more likely to do business in the situation than British people in UK, with

significant difference and medium effect ($P=0.001$, $d=1.052$). The difference between the other groups was not significant and effect size was trivial: China-Chinese (Mean rank=148.05) and UK-British (152.13), $P=1.000$, $d=0.039$; UK-other (Mean rank=140.48) and China-Chinese (Mean rank=148.05), $P=1.000$, $d=0.075$; UK-other (Mean rank=140.48) and UK-British (152.13), $P=1.000$, $d=0.142$.

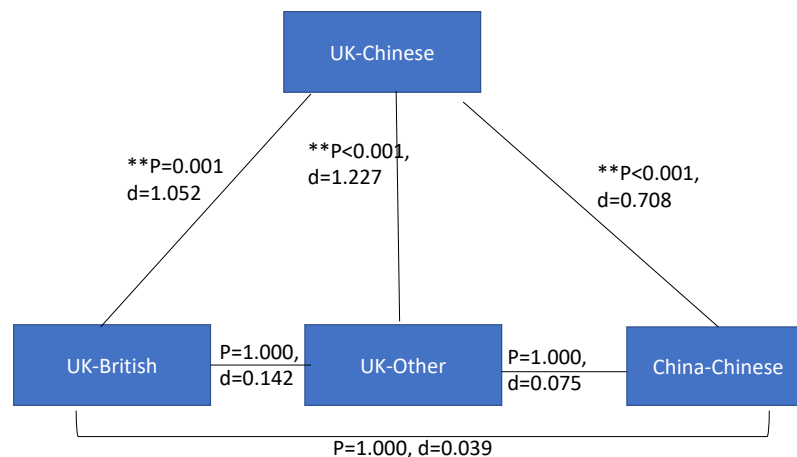


Figure 4-10: The effect of ethnics on peoples' intention to do business with a new company without face-to-face communication

The results showed that Chinese people living in UK were more likely to do business with a new company without face-to-face communication, significantly different from the other groups: British people living in UK, other people living in UK and Chinese people living in China.

4.2.3 Initial trust and gender

The means in the groups of male ($N=140$) and female ($N=169$) were reported (Figure 4-11). For data of initial trust in person, means in the group of male (Mean=2.66) was very near to the means in the group of female (Mean=2.70). For the data of initial trust in organisation, means in the groups of male (Mean=2.93) and female (Mean=2.98) were very similar too. For the data of business intention regarding of personality, the means in the groups of male (Mean=2.52) and female (Mean=2.52) were the same. For data of business intention without face-to-face communication, the means in the male group (Mean=2.06) and female group (2.17) were very close too.

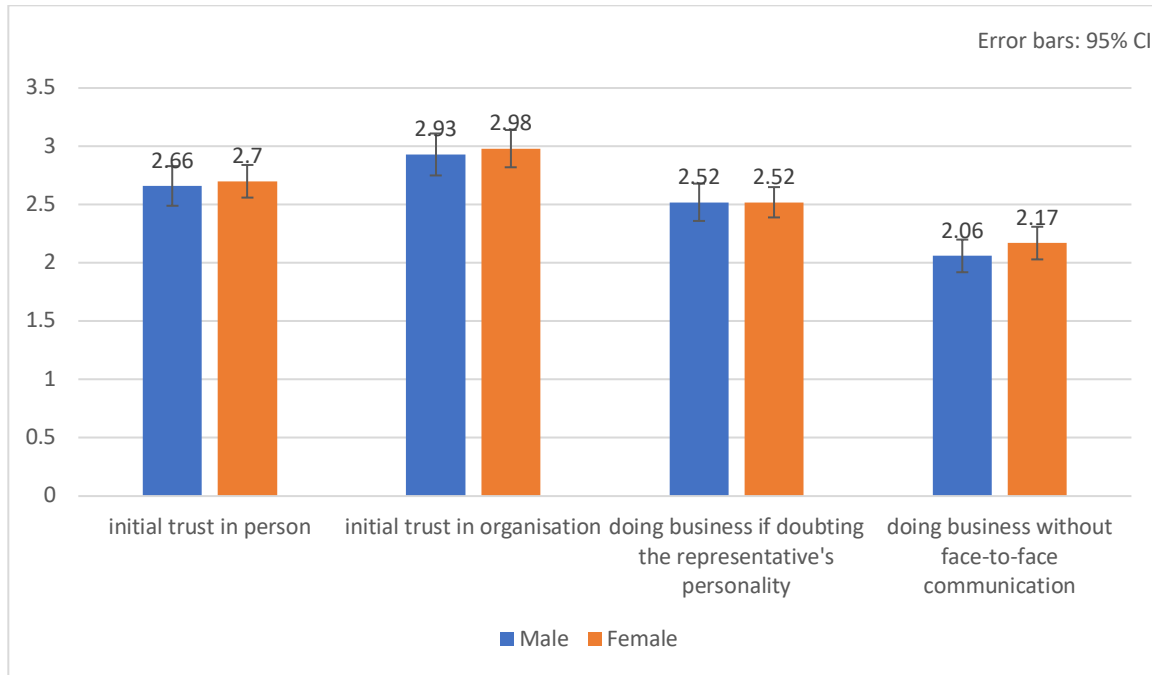


Figure 4-11: Means of initial trust in the group of gender

The mean ranks of the observed items in the group of gender were very close (Figure 4-12). The significant test (Table 4-3) also showed there was no significant difference in initial trust in person between the groups of male and female, $U=11631.500$, $P=0.791$ with trivial effect ($d=0.029$). For the data of initial trust in organisation, there was no significant difference between the groups, $U=11616.000$, $P=0.774$ with trivial effect ($d=0.031$). For the data of business intention regarding of personality, there was no significant difference between the gender groups, $U=11696.000$, $P=0.850$ with trivial effect ($d=0.02$). For the data of business intention without face-to-face communication, there was no significant difference between the gender groups, $U=11311.500$, $P=0.462$ with trivial effect ($d=0.076$).

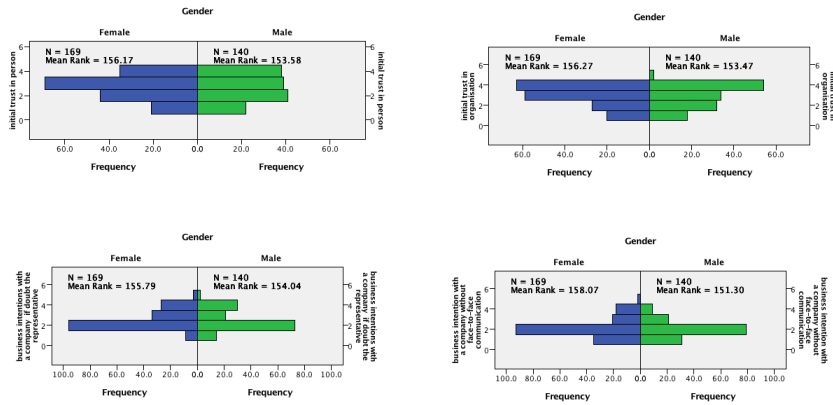


Figure 4-12: Mean ranks of initial trust in the group of gender

Table 4-3: The results of Mann-Whitney test of initial trust by the group of gender

	initial trust in person	initial trust in organisation	business intentions with a company if doubt the representative	business intentions with a company without face-to-face communication
Mann-Whitney U	11631.500	11616.000	11696.000	11311.500
Wilcoxon W	21501.500	21486.000	21566.000	21181.500
Z	-.265	-.287	-.189	-.735
Asymp. Sig. (2-tailed)	.791	.774	.850	.462

a. Grouping Variable: Gender

The results indicated that gender did not affect the respondents' initial trust and intention to do business in certain situations in this study.

4.2.4 Initial trust and age

Four groups of age were involved including under 20yrs (=70), 20-29yrs (N=159), 30-39yrs (N=65) and 40-49yrs (N=12). Means with 95% confidence intervals in the groups were illustrated in Figure 4-13. For data of initial trust in person, the mean level of initial trust was lowest in the group of 30-39 years old (M=2.19) compared with the means in the other groups which were similar: under 20 years old (M=2.86), 20-29 years old (M=2.69) and 40-49 years old (M=2.75). For data of initial trust in organisation, the mean level of initial trust was highest

in the group of 40-49 years old (M=3.42) while the means in the other groups were very similar: under 20 years old (M=2.89), 20-29 years old (M=2.97) and 30-39 years old (M=2.95). Regarding of business intention if doubting a representative's personality, the means in the four groups were similar: under 20 years old (M=2.7), 20-29 years old (M=2.42), 30-39 years old (M=2.58) and 40-49 years old (M=2.33). For data of business intention without face-to-face communication, the means in the four groups were very close too: under 20 years old (M=2.04), 20-29 years old (M=2.19), 30-39 years old (M=1.97) and 40-49 years old (M=2.17).

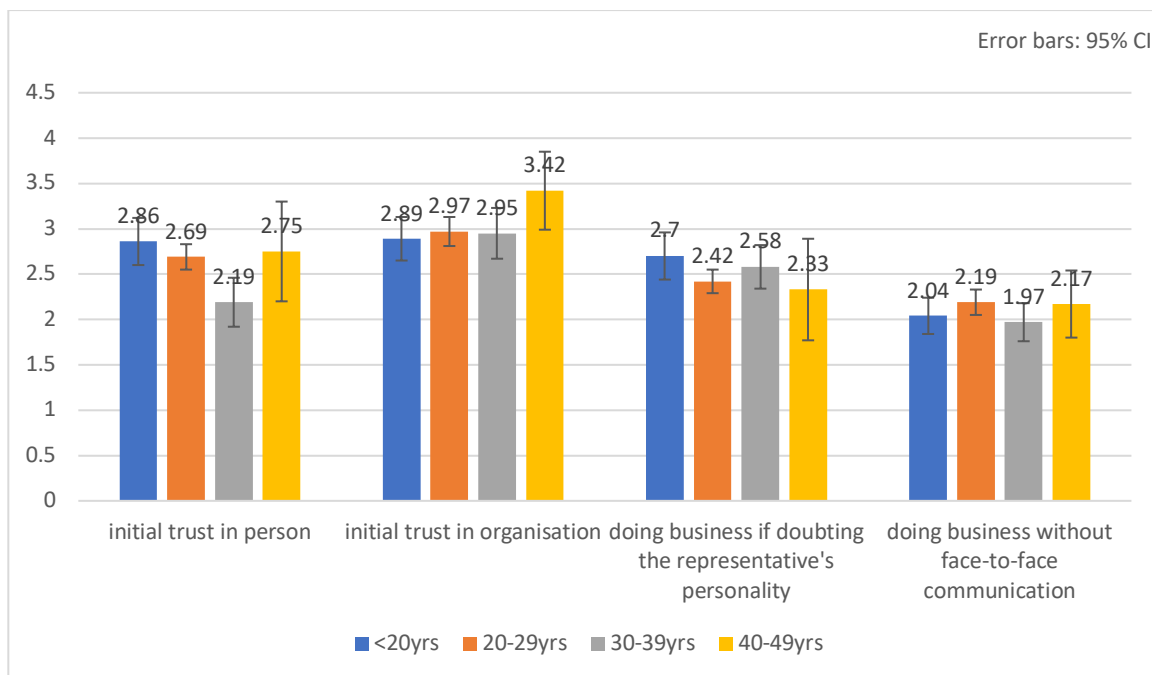


Figure 4-13: Means of initial trust in the group of age

The output of Kruskal Wallis test (Table 4-4) showed there was no significant difference in the observed items within the group of age: initial trust in person, $H(3) = 5.724$, $P = 0.126$, $\eta^2 = 0.009$; initial trust in organisation, $H(3) = 2.708$, $P = 0.439$, $\eta^2 = 0.001$; intention to do business with a new company if doubting the representative's personality, $H(3) = 3.266$, $P = 0.352$, $\eta^2 = 0.001$ and intention to do business with a new company without face-to-face communication., $H(3) = 4.657$, $P = 0.199$, $\eta^2 = 0.005$. The results indicated that respondents' initial trust and business intention in certain situation were not significantly affected by age in this study.

Table 4-4: The output of Kruskal Wallis test of initial trust by the group of age

	initial trust in person	initial trust in organisation	business intentions with a company if doubt the representative	business intention with a company without face-to-face communication
Kruskal-Wallis H	5.724	2.708	3.266	4.657
df	3	3	3	3
Asymp. Sig.	.126	.439	.352	.199
a. Kruskal Wallis Test				
b. Grouping Variable: Age				

4.2.5 Initial trust and education

In the group of education, two groups were involved (undergraduate=187, postgraduate=102). The means in the groups (Figure 4-14) showed the mean level of initial trust in person was close in the groups of undergraduate (M=2.72) and postgraduate (M=2.62), the mean level of initial trust in organisation was similar in the groups of undergraduate (M=2.94) and postgraduate (M=3.05), the mean level of intention to do business if doubting a representative's personality was very similar in the groups of undergraduate (M=2.56) and postgraduate (M=2.46), and the means of intention to do business without face-to-face communication was similar too in the groups of undergraduate (M=2.16) and postgraduate (M=2.07). The means implied that respondents in the group of undergraduate tended to have higher initial trust in person and have higher intention to do business in certain situation, and tended to have lower level of initial trust in organisation than that in the group of postgraduate, but the difference between the groups was not large.

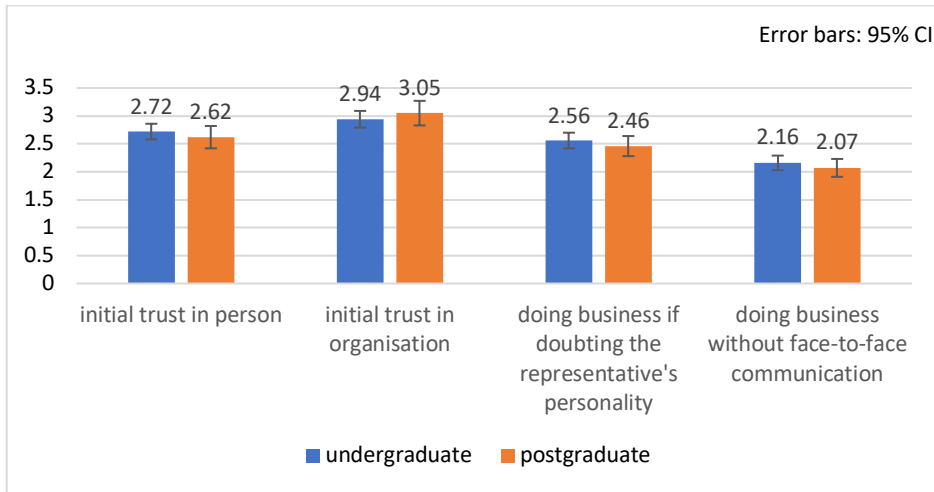


Figure 4-14: Means of initial trust in the group of education

Mann-Whitney test was run to study whether there was significant difference between the groups. The mean ranks (Figure 4-15) in the groups of postgraduate and undergraduate were very close for the data of initial trust in person (139.21 compared to 148.16), initial trust in organisation (152.75 compared to 140.77), do business if doubting a representative's personality (139.00 compared to 148.27) and do business without face-to-face communication (140.49 compared to 147.46).

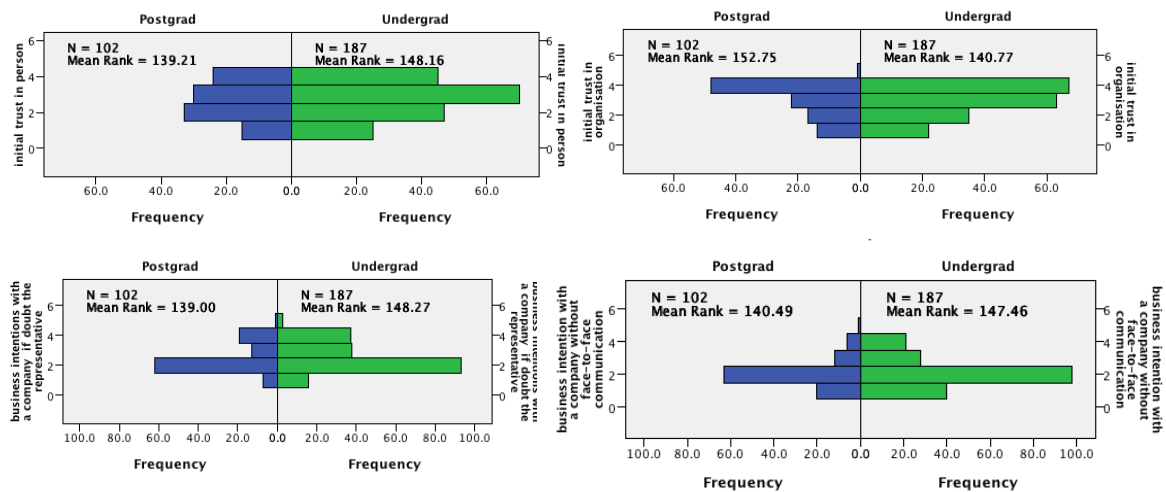


Figure 4-15: Mean ranks of initial trust by the group of education

The test statistics (Table 4-5) showed there was no significant difference between the education groups. For data of initial trust in person, the difference was not significant, $U=8946.000$, $P=0.364$, $d=0.103$; for data of initial trust in organisation, the difference was not significant, $U=8746.500$, $P=0.221$, $d=0.137$; for data of intention to do business if doubting a representative's personality, the difference was not significant, $U=8925.000$, $P=0.323$, $d=0.106$; and for data of intention to do business without face-to-face communication, the difference was not significant, $U=9077.000$, $P=0.453$, $d=0.08$. The effect size also indicated that the difference between the education groups was trivial.

Table 4-5: The output of Mann-Whitney test of initial trust by the group of education

	initial trust in person	initial trust in organisation	business intentions with a company if doubt the representative	business intention with a company without face-to-face communication
Mann-Whitney U	8946.000	8746.500	8925.000	9077.000
Wilcoxon W	14199.000	26324.500	14178.000	14330.000
Z	-.907	-1.225	-.988	-.751
Asymp. Sig. (2-tailed)	.364	.221	.323	.453
a. Grouping Variable: Education				

Therefore, the respondents' education background did not significantly affect the initial trust in person, initial trust in organisation, intention to do business in certain situations in the study.

4.2.6 Initial trust and work experience

In the group of work experience, there was five groups involved in the study: no work experience ($N=15$), less than one year of work experience ($N=5$), 1 to 5 years of work experience ($N=115$), 6 to 10 years of work experience ($N=43$) and more than 10 years of work experience ($N=35$). The means in the groups were showed in Figure 4-16. For data of initial trust in person, respondents with 6-10 years of work experience ($M=2.44$) tended to have lowest level of initial trust than respondents with no work experience ($M=3$), with 1 year of work experience ($M=2.8$), and 1-5 years of work experience ($M=2.8$), close to the respondents'

mean level of initial trust who had more than 10 years of work experience (M=2.57). For data of initial trust in organisation, the means in the groups were close with the group of 6-10 years' work experience (M=2.67) as the lowest compared to the group of no work experience (M=3.27), 1 year's work experience (M=3.00), 1-5 years' work experience (M=3.06) and more than 10 years' work experience (M=3.2). For data of intention to do business if doubting the representative's personality, the means in the groups were slightly different in which the means in the group of 1 year's work experience was lowest compared to the means in the group of no work experience (M=2.67), 1-5 years' work experience (M=2.4), 6-10 years' work experience (M=2.67) and more than 10 years' work experience (M=2.49). For data of intention to do business without face-to-face communication, the means in the group were similar with the means in the group of 1 year's work experience (M=1.8) as the lowest compared to the means in the group of no work experience (M=2.07), 1-5 years' work experience (M=2.17), 6-10 years' work experience (M=2.19) and more than 10 years' work experience (M=2.03). The results indicated that the means in the groups were slightly different.

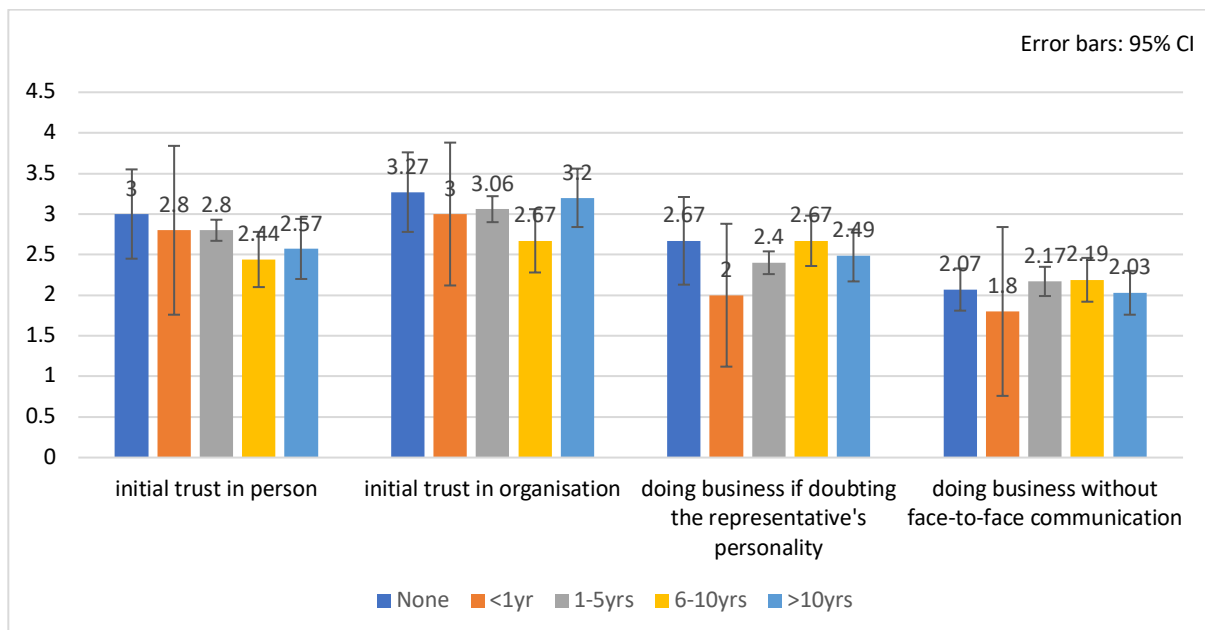


Figure 4-16: Means of initial trust in the group of work experience

The results of Kruskal Wallis test (Table 4-6) showed there was no significant difference in the observed items within the groups of work experience. For data of initial trust in person, the difference was not significant, $H(4) = 6.911$, $P=0.141$, $\eta^2=0.014$; for data of initial trust in organisation, there was no significant difference within the groups, $H(4) = 5.450$, $P=0.244$, $\eta^2=0.007$; For data of intention to do business if doubting the representative's personality, there

was no significant difference within the groups, $H(4) = 3.180$, $P = 0.528$, $\eta^2 = 0.004$; and for data of intention to do business without face-to-face communication, there was no significant difference within the groups either, $H(4) = 1.188$, $P = 0.880$, $\eta^2 = 0.014$. The effect size provided evidence that the difference within the groups were trivial.

Table 4-6: The output of Kruskal-Wallis test of initial trust by the group of work experience

	initial trust in person	initial trust in organisation	business intentions with a company if doubt the representative	business intention with a company without face-to-face communication
Kruskal-Wallis H	6.911	5.450	3.180	1.188
df	4	4	4	4
Asymp. Sig.	.141	.244	.528	.880
a. Kruskal Wallis Test				
b. Grouping Variable: Work Experience				

Therefore, work experience did not significantly affect the respondents' initial trust in person, initial trust in organisation, intention to do business with a new company if doubting a representative's personality and intention to do business with a new company without face-to-face communication.

4.2.7 Initial trust by the group of negotiation experience

Two groups were involved—with experience ($N=84$) and without experience ($N=212$) regarding of respondents' negotiation experience. The means in the groups were shown in Figure 4-17. For data of initial trust in person, respondents with experience ($M=2.46$) tended to have lower level of initial trust in person compared to respondents without experience ($M=2.74$). Regarding of initial trust in organisation, respondents with experience ($M=2.94$) and respondents without experience ($M=2.96$) tended to have similar level of initial trust. Regarding of intention to do business if doubting the representative's personality, respondents with experience ($M=2.62$) tended to be more likely to do business in the situation than respondents without experience ($M=2.46$). Regarding of intention to do business without face-

to-face communication, respondents with experience (M=2.07) and respondents without experience (M=2.08) tended to have similar level of intention to do business in the situation.

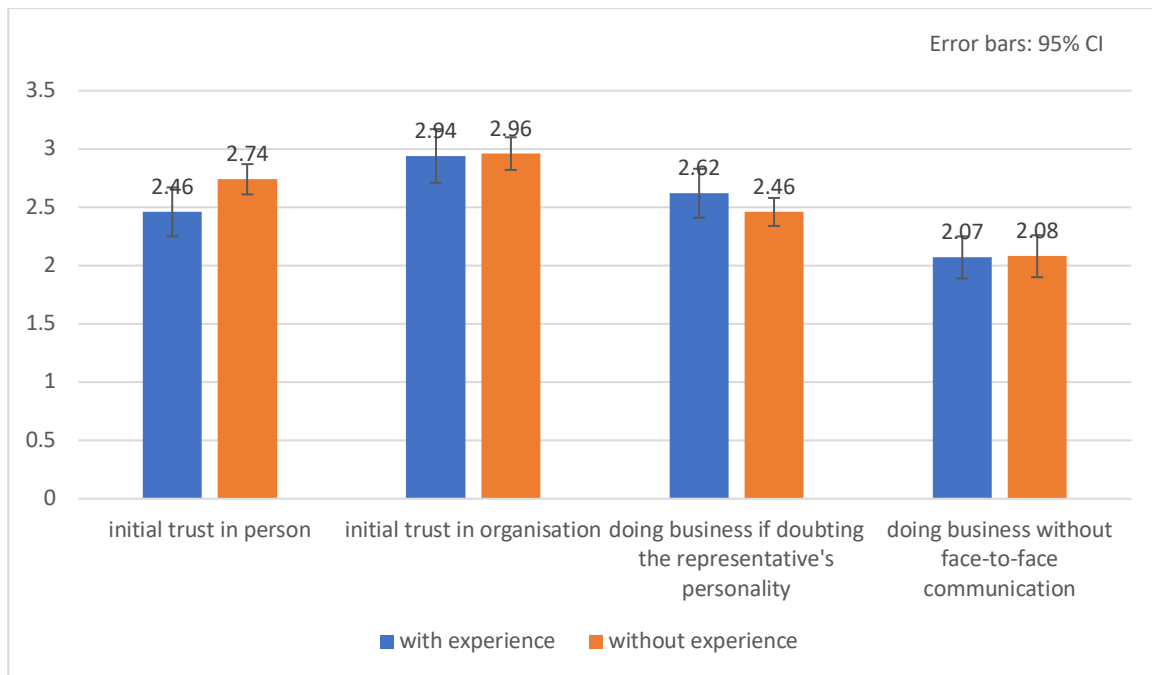


Figure 4-17: Means of initial trust in the group of negotiation experience

The mean ranks and distribution of the ranks were presented in Figure 4-18. For data of initial trust in person, the mean rank in the group of respondents without experience (Mean rank=155.14) was higher than that of respondents with experience (Mean rank=131.74), indicating respondents without negotiation experience were more likely to trust a person before first meeting. Regarding of initial trust in organisation, mean ranks in the two groups were very close (148.72 compared to 147.95), indicating respondents in the two groups had similar level of initial trust in a new organisation. Regarding of intention to do business if doubting the representative's personality, the mean rank in the group with experience (Mean rank=158.16) was higher than that in the group without experience (Mean rank=144.67), indicating respondents with negotiation experience tended to be more likely to do business in the situation. Regarding of intention to do business without face-to-face communication, mean ranks in the two groups were very close (148.81 compared to 147.72), indicating respondents in the two groups had similar intention to do business in the situation.

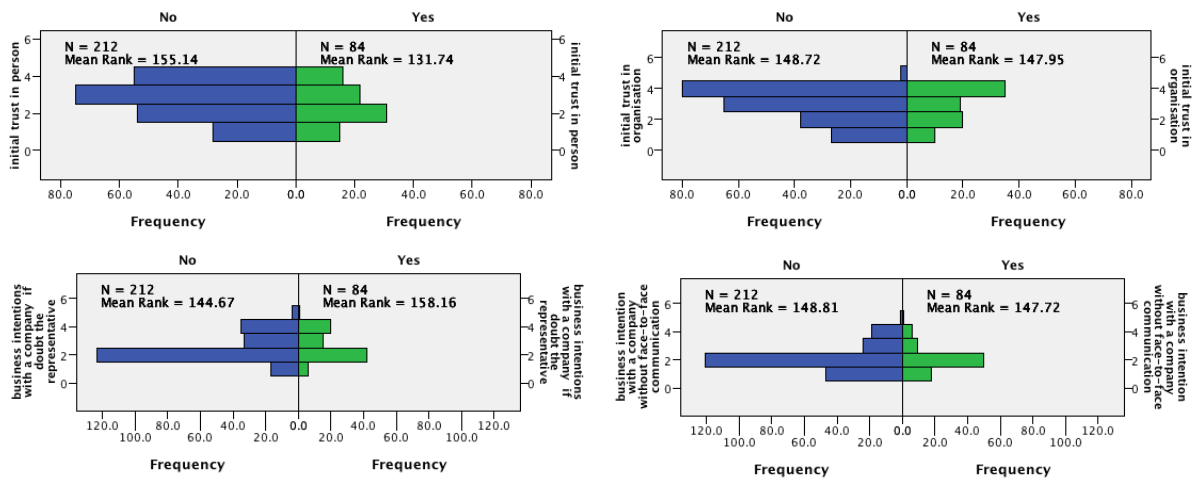


Figure 4-18: Mean ranks of initial trust in the group of negotiation experience

The results of Mann-Whitney test (Table 4-7) showed there was evidence that the difference in initial trust in person between the groups of negotiation experience was significant, $U=7496.000$, $P=0.027$ with small effect ($d=0.248$). Regarding of initial trust in organisation, there was no significant difference between the groups of negotiation experience, $U=8857.500$, $P=0.941$, $d=0.008$. Regarding of intention to do business if doubting the representative's personality, the difference between the groups of negotiation experience was not significant, $U=8092.500$, $P=0.176$, $d=0.142$. For data of intention to do business without face-to-face communication, there was no significant difference between the groups of negotiation experience, $U=8838.500$, $P=0.912$, $d=0.011$.

Table 4-7: The output of Mann-Whitney test of initial trust by the group of negotiation experience

	initial trust in person	initial trust in organisation	business intentions with a company if doubt the representative	business intention with a company without face-to-face communication
Mann-Whitney U	7496.000	8857.500	8092.500	8838.500
Wilcoxon W	11066.000	12427.500	30670.500	12408.500
Z	-2.206	-.073	-1.353	-.111
Asymp. Sig. (2-tailed)	.027	.941	.176	.912

a. Grouping Variable: Ever strike a deal for an org

The results showed that negotiation experience affects respondent's initial trust in person with small effect and respondents without negotiation experience were more likely to trust a person before first meeting than respondents with negotiation experience. Negotiation experience did not affect respondents initial trust in organisation, intention to do business with a new company if doubting the representative's personality and intention to do business with a new company without face-to-face communication.

4.3 Evidence from respondents' explanation

The results of quantitative analysis provide strong evidence that people in UK have higher initial trust than people in China, which suggests culture has an effect on initial trust. To find more evidence for the difference and explore potential reasons for the cultural effect on initial trust, the participants' responses to the open questions in the study regarding of initial trust in person and initial trust in organisation were analysed.

Basic data cleaning was processed. Data without explaining the reasons for the initial trust were deleted. Responses without useful information were deleted too, such as responses like "good", "no idea", "ok" to both questions. The text analysis was processed with the aid of excel. At the initial state of getting familiar with the data, roughly ideas were generated. Generally, people address the content of the text that information was lacking, such as "don't know the person or the organisation" or "haven't met the person or the organisation", "Still don't know the persons 100%", "I haven't met the person yet", etc. Some people address positive or negative values in the responses. The positive values are like "To start a deal with a potential customer I have to place some amount of trust on the person I am meeting", "Organisation is more trustable than person", "basic trust is foundation", "Always go in with a positive outlook", etc. The negative values are related to such expressions as "they want to cheat me", "Some things displayed on the Internet may be wrong", "you can't trust anyone", etc. The responses regarding of inadequate information and values were compared between the groups of UK and China.

4.3.1 Initial trust in person

Generally, most of the respondents in China fairly trust (N=65, 33.2%) the person before meeting while most of respondents in UK have neutral trust (N=81, 71.7%). Although there are more people from China (31.6%) have highly trusting in person than UK (9.7), there are more people from China (21.4%) showing very low trust in person than UK (0.9%), see Table 4-8. This provides evidence that people in UK tend to trust in person in business context.

Table 4-8: Counts of levels of initial trust in person in UK and China

			Country		Total
			UK	China	
Initial trust in person	Very low trust	Count	1	42	43
		% within Before meeting person, trust in person	2.3%	97.7%	100.0%
		% within Country of data	0.9%	21.4%	13.9%
	Fairly trusting	Count	20	65	85
		% within Before meeting person, trust in person	23.5%	76.5%	100.0%
		% within Country of data	17.7%	33.2%	27.5%
	Neutral	Count	81	27	108
		% within Before meeting person, trust in person	75.0%	25.0%	100.0%
		% within Country of data	71.7%	13.8%	35.0%
	Highly trusting	Count	11	62	73
		% within Before meeting person, trust in person	15.1%	84.9%	100.0%
		% within Country of data	9.7%	31.6%	23.6%
Total		Count	113	196	309
		% within Before meeting person, trust in person	36.6%	63.4%	100.0%
		% within Country of data	100.0%	100.0%	100.0%

Respondents in UK addressed neutral opinion such as “meeting is need”, “No opinion or judgement before meeting”, “Everything is not sure before the meeting”, “You don't truly know someone until you meet and speak to them”, etc. However, respondents in China conveyed more negative attitude, such as “cannot trust fully”, “cannot trust any competitors”, etc.

Respondents in both countries gave their answers basing on the content of the text and addressed that information was not adequate. They conveyed different attitude in their responses including positive values and negative values. In UK (N=72), 51 responses addressed that information was lacking, 17 responses addressed positive attitude and 4 responses showed negative values when explaining the reason for their answers to initial trust in person. In China (N=22), 9 responses emphasized that information is not enough. 6 responses addressed positive values and 7 responses showed negative values. Table 4-9 illustrates the comparison of the responses between UK and China with percentage within the group. It showed people in UK address the content meaning of the text and tend to have more positive values. People in China address both the content meaning of text and values. Values are related to cultural dimensions (Hofstede, 1980; Schwartz, 1997). This suggests that people in China tend to be more affected by cultural context than people in UK. This also provides evidence that people in UK tend to show more positive values while people in China show more negative values to initial trust in person in business context.

Table 4-9: The content and values in UK and China (initial trust in person)

Responses to “initial trust in person before” (N=94)		Country of Residence	
		UK	China
Content	Inadequate information	51 (70.8%)	9 (40.9%)
Values	Positive value	17 (23.6%)	6(27.3%)
	Negative value	4 (5.6%)	7 (31.8%)
	Total	21 (29.2%)	13 (59.1%)

4.3.2 Initial trust in organisation

Although there was no significant difference in initial trust in organisation between the groups of country, respondents in UK tend to keep open mind to the question because the background of the company was not clear and further meeting was required, such as “Need to know the

company”, “I may have done research but I have no prior experience with them”, “We did not meet before so I am neutral”, “It depends on the background information on the company”, etc. Respondents in China also addressed that information about the company was not enough and conveyed more negative attitude without specific explanations, such as “does not know the company, cannot trust”, “no foundation to trust”, “(the company) cannot be trusted”, etc. In both countries, respondents showed that organisation was more trustworthy, such as “organisation should be more trustworthy”.

4.4 The quality of the results

This section evaluates the quality of the study including quantitative validation and qualitative validation. The quality in data collection procedure and data analysis were discussed.

The quantitative data were collected from the closed-ended questions in the questionnaires from university students studying in UK and China. The study was developed from critical reviews of previous literatures about initial trust which showed cultural study of initial trust was not enough and few (if any) studies compare initial trust in Chinese culture and British culture. The items in the study were designed basing on studies of initial trust including definition, dimensions and affecting factors. Data were collected from a large random samples of university students with the aid of website-based survey and face-to-face survey. Participants voluntarily took part in the survey, answered the questions basing on their own understanding and had the right to quit the survey at any time.

UK and China are two countries of two different cultures. Data from the two countries were beneficial to focus on the cultural effect on initial trust. The participants from university students helped to control social variables such as age, working experience, education level, etc., and beneficial to focus on the cultural effect on initial trust. The questionnaires which were created in Chinese and English were discussed with bilinguals of Chinese and English. The contents of the questionnaires were highly consistent in Chinese and English.

During the data analysis, missing data regarding of the observed items were deleted. Unrelated and inaccurate responses were removed too. The demographic comparisons were reported. SPSS were selected as tool to analyse data. Appropriate data analysis methods were selected

by ensuring the statistical assumptions of the methods were approximately met. Descriptive statistics were reported. Values (U/H value, p value) in hypothesis test were reported. Confidence interval of the difference was reported, and effect size was calculated. To a large extent, results inferred from the quantitative data analysis were reliable and valid.

Qualitative data were collected from the open-ended questions in the questionnaire. The collected qualitative data were related to the responses to the closed-ended questions in study. This is helpful to ensure the consistency between the responses and ensure the responses from the same group. The analysis of the qualitative data was guided by five stages—narrative, coding, interpretation, confirmation and presentation. Responses indicating the participants did not understand the questions were removed from the analysis to ensure the participants' interpretative valid. Data were coded as close as possible to the participants' explanations. Although the samples of the qualitative data were not as large as that of the quantitative data, as an assisted method the qualitative data helped to explore potential reasons for the participants responses to the closed-ended questions. Therefore, results inferred from the qualitative data were highly valid.

4.5 Findings and discussion

In this study, gender, age, education level and working experience (Years of services) did not have an effect on people's initial trust in person, initial trust in organisation, intention to do business with an organisation if doubting a person and intention to do business without face-to-face communication. Negotiation experience had an effect on people's initial trust in person. People without negotiation experience were more likely to trust the representative in business context, but the effect was very small.

Respondents in UK and China had different initial trust in person. People in UK were more likely to trust a person before first meeting and do business with a new company without face-to-face communication than people living in China. The responses of participants provided further evidence that people in China and people in UK had different emphasis when making initial trust in person. In both countries, respondents made their initial trust mainly basing on the information conveyed by the content of the text that information about the person/organisation was not adequate. People in UK showed more positive attitude toward

person before meeting. People in China showed more negative attitude on initial trust in the person. The country of residency had an effect on the intention to do business with a new company without face-to-face communication, but the effect was very small. The results from the quantitative data analysis and qualitative analysis indicated that culture had an effect on initial trust in person.

The effect of culture on initial trust in person was highly associated with ethnic backgrounds of the respondents in the study (Figure 4-19). The effect of ethnic groups on initial trust in person was resulted from Chinese people living in China and people living in UK including UK-British, UK-Chinese and UK-others. An interesting finding was that Chinese people in UK tended to have different level of initial trust in person compared to Chinese people in China but have similar level of initial trust in person compared to British people in UK. Chinese people in UK in this study were students from China who had just started new terms in UK. They were from the same ethnic origins and cultural backgrounds but had different initial trust in person. The reason might be the different languages used between the two groups when they did the questionnaires. Respondents from UK-Chinese did the survey in English while respondents from China-Chinese answered the questions in Chinese. This implies that language in use (Chinese/English) might have an effect on initial trust in person in business context.

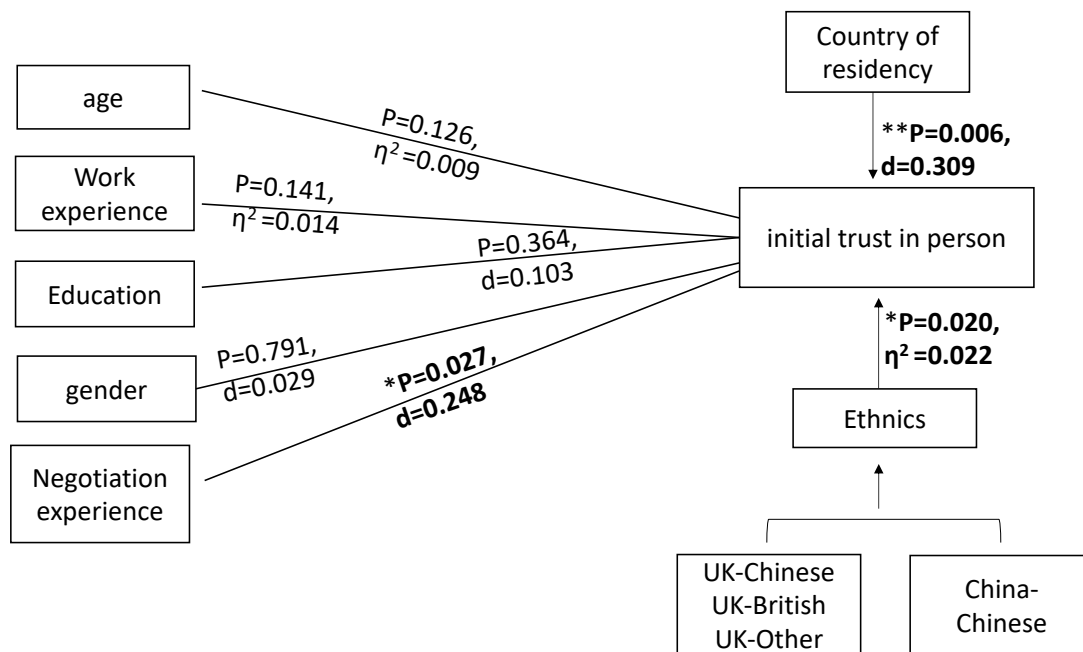


Figure 4-19: The effect of social and cultural effect on initial trust in person

In the study, respondents in UK who did the survey in English had higher initial trust than the respondents in China who did the survey in Chinese, and Chinese people in UK who did the survey in English had higher initial trust than Chinese people in China who did the survey in Chinese. The difference between the groups was significant. The results of respondents' explanation also showed respondents in UK/English and China/Chinese had different emphasis and showed different values in different cultures/languages. It implied that the cultural effect on initial trust might be associated with the languages used (Chinese and English) in the study. Table 4-10 summarises the findings and implications from the study.

Table 4-10: The results and inferences from study 1.

Theoretical background	Study	Findings and implications
Culture and initial trust	People's initial trust in UK and China.	1. Gender, age, education and work experience had no effect on initial trust in person. 2. Negotiation experience had a small effect on initial trust in person. 3. Culture matters in initial trust in person based on initial trust between countries and ethnics. 4. Language might have an effect on initial trust in person. 5. The cultural effect on initial trust might be associated with the languages used.

However, this study is limited in supporting the implication that language in use might affect initial trust because the Chinese respondents who did the survey in English lived in UK and might be affected by UK culture and the sample sizes in the groups were not sufficient. To confirm the implication, further explorations are required to control cultural variables, improve sample sizes and focus on the role of language in initial trust.

4.6 Chapter summary

In this chapter, study of people's initial trust in person, initial trust in organisation and business intentions with an organisation in business context in UK and China were analysed and presented. The social factors have limited effect on initial trust and business intentions such as gender, age, education and working experience. Negotiation experience had a small effect on initial trust in person. Culture matters in initial trust level especially in initial trust in person. The ethnic backgrounds contribute to the cultural effect on initial trust in person, which is attributed to people living in UK and Chinese people living in China. Based on the different initial trust level between Chinese people in UK and Chinese people in China, an implication was developed that language might be a significant factor affecting initial trust in different cultures. The implication requires further study to confirm the effect to language on initial trust and control social and cultural factors.

Chapter 5 People's initial trust in Chinese and English

5.1 Introduction

This chapter describes the study that was carried out to investigate people's initial trust in Chinese and English. This study was conducted based on the implications developed from the study of cultural effect on initial trust which was described in chapter 4. This study was carried out among university students studying in China who spoke Chinese as mother language and were able to fluently use English. This is a way to control social and cultural variables and focus on the role of language in initial trust. The specific methods for data collection and data analysis were described in the chapter of methodology. This chapter presents the results and discusses the findings from the study. The quality of the study is discussed too.

5.2 Results

This section presents the results from the data analysis of the study. Quantitative data were responses collected from the closed-ended questions and qualitative data were responses collected from the open-ended questions in the survey. For the quantitative data, 447 valid data out of 521 collected data were analysed. Initial trust by the group of language was addressed to identify whether language had an effect on initial trust. For the qualitative data, text analysis was adopted to explore evidence for the results of quantitative data analysis and explore potential reasons for the results.

5.2.1 Initial trust by the group of language.

In the study, language involved Chinese (N=235) and English (N=212). According to the means in the group of language (Figure 5-1), respondents who answered the questions in English had higher level of initial trust in person (M=3.03), higher initial trust in organisation (M=3.15) and were more likely to do business with an organisation without face-to-face communication (M=2.39) than respondents that did the survey in Chinese, M=2.55, M=2.92, M=2.05 respectively. However, regarding of intention to do business with an organisation

when doubting its representative’s personality, respondents answering the questions in English (M=2.42) were less likely to do business than respondents who did the survey in Chinese (M=2.60). The means in the groups indicated that there was tendency that respondents had different level of initial trust and intention to do business in certain situations when they were in different language context.

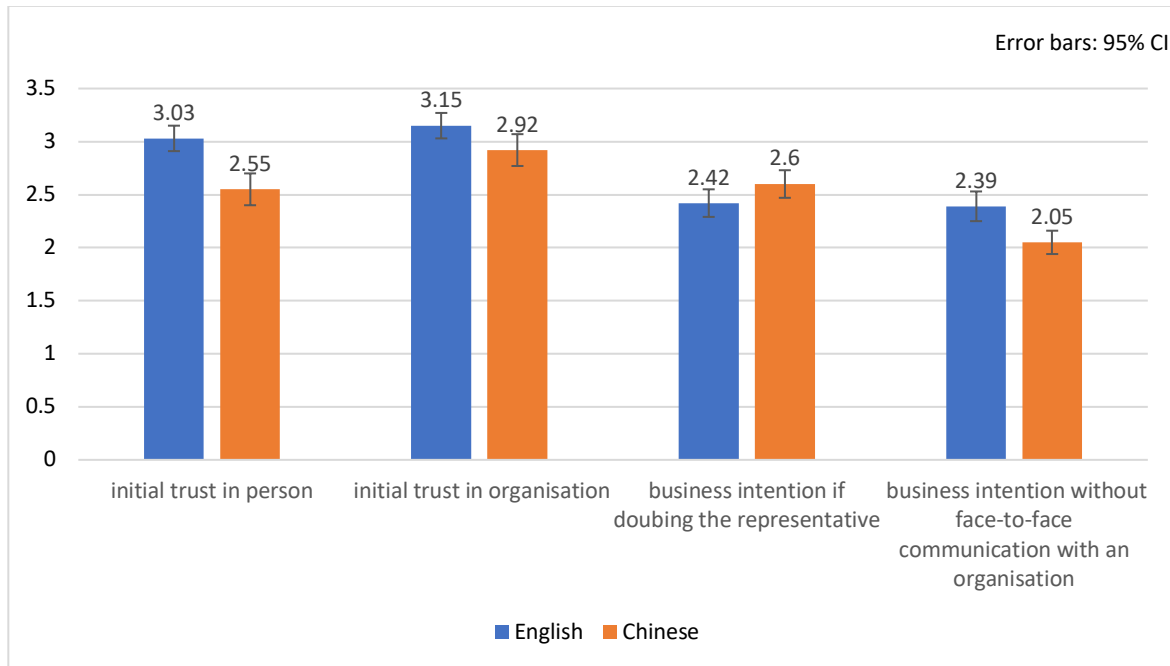


Figure 5-1: Means of initial trust in English and Chinese

Mann-Whitney test (Appendix 5-1) was run to analyse whether there was significant difference between the groups of language. The mean ranks in the groups (Figure 5-2) showed there tended to be difference between the groups. The mean rank of initial trust in person was higher in the group of English (Mean rank=251.88) compared to the mean rank in the group of Chinese (Mean rank=198.85) with significant difference and small to medium effect size ($U=30819.500$, $P<0.001$, $d=0.419$). The results indicated that respondents’ level of initial trust in person was affected by language and respondents had higher level of initial trust in English than that in Chinese.

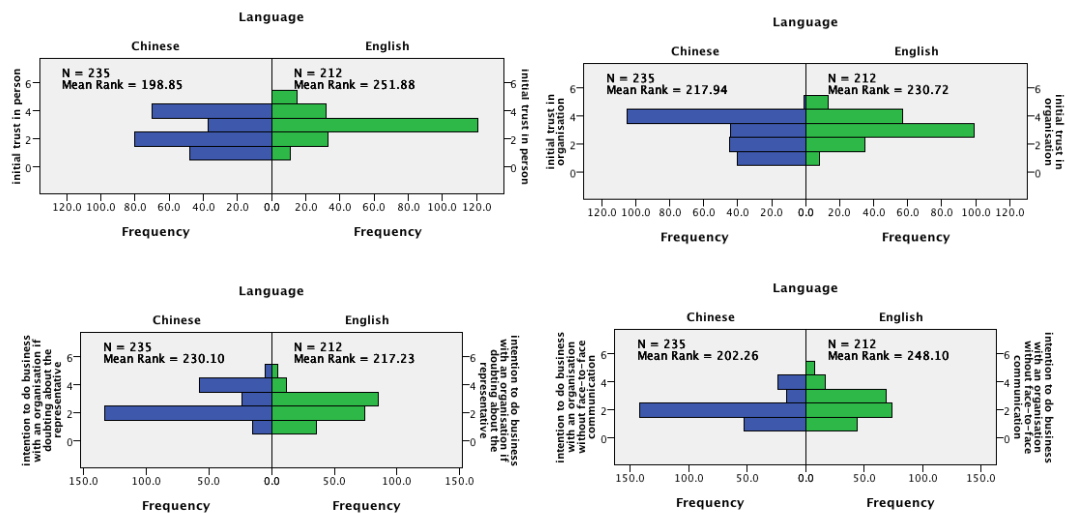


Figure 5-2: Mean ranks of initial trust in the language group

For data of initial trust in organisation, the mean rank in the group of English (Mean rank=230.72) was higher than the mean rank in the group of Chinese (Mean rank=217.94). However, the difference between the groups was not significant ($U=26334.500$, $P=0.274$) and the effect size was very small ($d=0.099$), indicating initial trust in organisation was not affected by language, see Figure 5-3. Regarding of intention to do business if doubting a representative’s personality, the mean rank in the group of English (Mean rank=217.23) was lower than that in the group of Chinese (Mean rank=230.10). The difference between the groups was not significant ($U=23475.500$, $P=0.262$) with very small effect size ($d=0.1$), indicating the intention to do business in the context was not affected by language, see Figure 5-3. For data of intention to do business without face-to-face communication, mean rank in the group of English (Mean rank=248.10) was higher than that in the group of Chinese (Mean rank=202.26) with significant difference ($U=30020.000$, $P<0.001$) and small to medium effect size ($d=0.36$), indicating the intention to do business with a new company without face-to-face communication was affected by language in the study, see Figure 5-3.

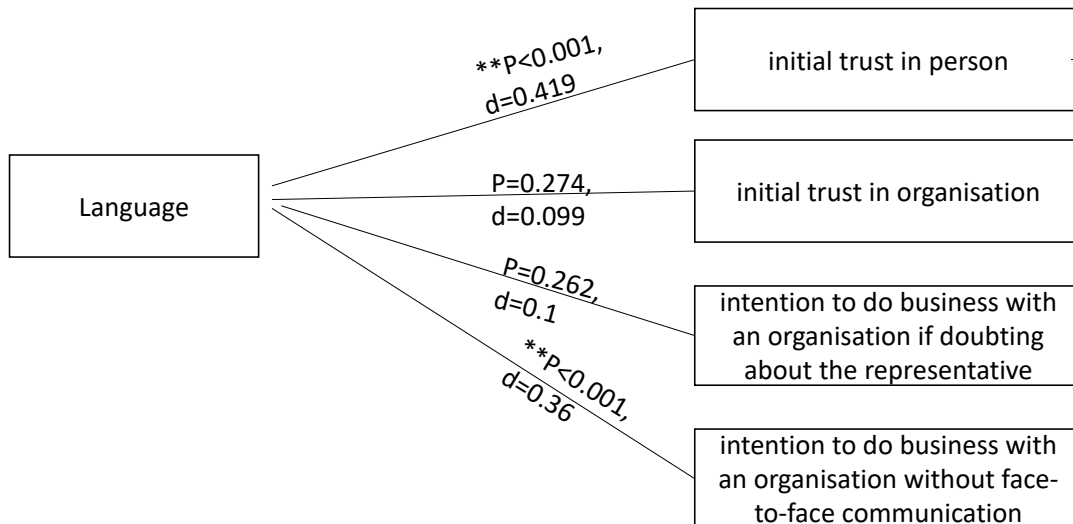


Figure 5-3: The effect of language on initial trust

5.2.2 Initial trust by the group of gender

In the group of gender (male=146, female=299), the mean ranks were slightly different between the groups, see Figure 5-4. Mann-Whitney test was run to analyse whether there was difference between male and female (Appendix 5-2). For data of initial trust in person, the mean rank in the group of females was 229.77, slightly higher than that in the group of male (Mean rank=209.13). The difference was not significant, and the effect size was very small ($U=23852.500$, $P=0.098$, $d=0.151$, Figure 5-5), indicating gender did not affect the respondents' level of initial trust in person in this study.

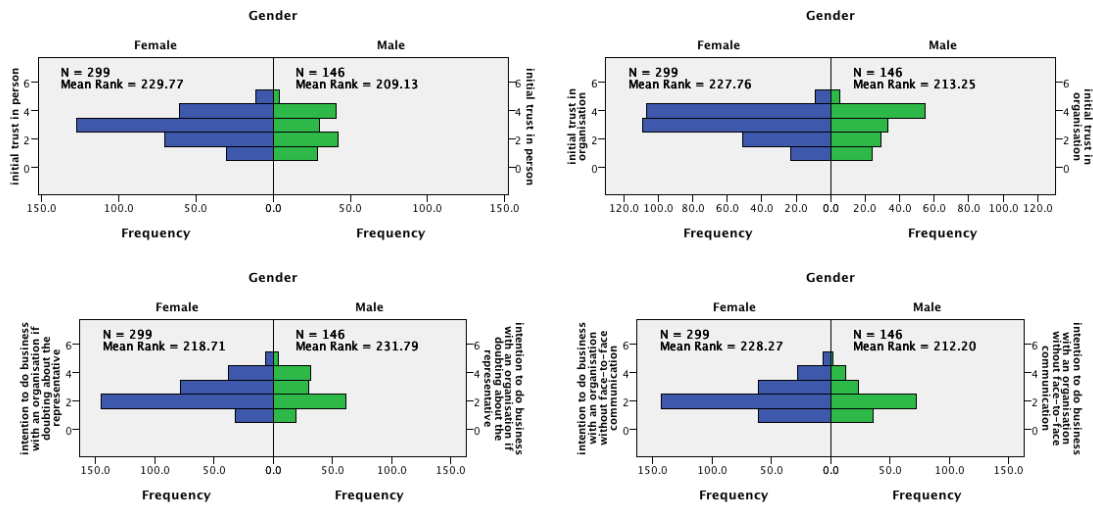


Figure 5-4: Mean ranks of initial trust by the group of gender in study 2

For data of initial trust in organisation, the mean rank in the group of females was 227.76, slightly higher than that in the group of males (Mean rank=213.25) with no significant difference and very small effect size ($U=23251.000$, $P=0.242$, $d=0.106$, Figure 5-5). Regarding of intention to do business if doubting the representative's personality, the mean rank in the group of females (Mean rank=218.71) was lower than that in the group of male (Mean rank=231.79). The difference was not significant, and the effect size was very small ($U=20543.500$, $P=0.283$, $d=0.096$). For data of intention to do business without face-to-face communication, the mean rank in the group of female (Mean rank=228.27) was slightly higher than that in the group of male (Mean rank=212.20) with non-significant difference and very small effect size ($U=23403.500$, $P=0.184$, $d=0.118$). The results indicated that gender did not affect people's initial trust and intention to do business in this study.

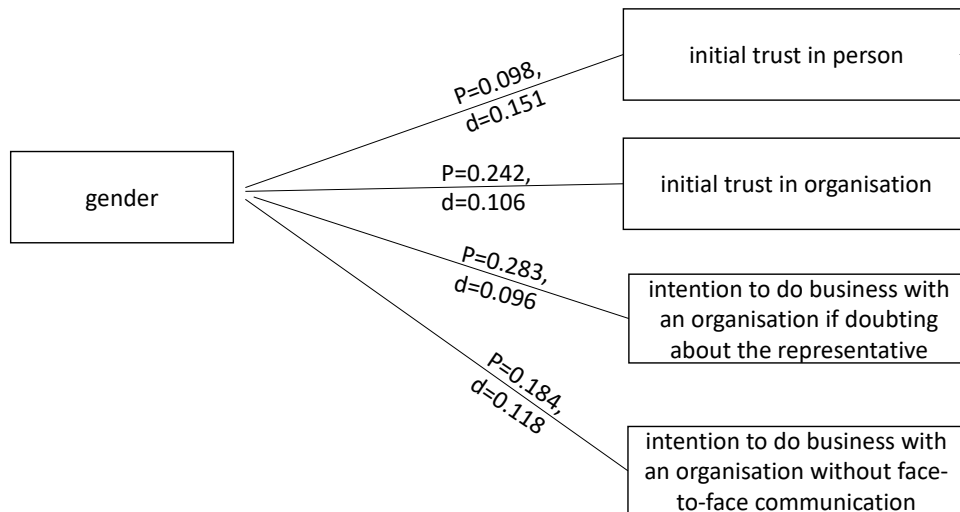


Figure 5-5: The effect of gender on initial trust in study 2

5.2.3 Initial trust by the group of age

In this study, respondents' age mainly ranged under 20 years old (N=193, generally from 18 to 20) and from 20 to 29 years old (N=175). Other groups were from 30 to 39 years old (N=61) and 40 to 49 years old (N=7), see Table 5-1. The means in the groups were different, indicating the tendency that initial trust and intention to do business was different within the age groups.

Table 5-1: Means of initial trust in the group of age in study 2

		N	Mean	Std. Deviation	Std. Error
initial trust in person	a) < 20yrs	194	2.92	.983	.071
	b) 20-29	183	2.73	1.048	.077
	c) 30-39	61	2.49	1.164	.149
	d) 40-49	7	2.71	1.113	.421
	Total	445	2.78	1.045	.050
initial trust in organisation	a) < 20yrs	194	3.10	.987	.071
	b) 20-29	183	2.99	1.053	.078
	c) 30-39	61	2.92	1.201	.154
	d) 40-49	7	3.57	.787	.297
	Total	445	3.04	1.044	.050
intention to do business with an organisation if doubting about the representative	a) < 20yrs	194	2.55	1.023	.073
	b) 20-29	183	2.43	.886	.065
	c) 30-39	61	2.67	.978	.125
	d) 40-49	7	2.14	.900	.340
	Total	445	2.51	.962	.046
intention to do business with an organisation without face-to-face communication	a) < 20yrs	194	2.28	1.005	.072
	b) 20-29	183	2.22	.913	.068
	c) 30-39	61	1.93	.814	.104
	d) 40-49	7	2.14	.690	.261
	Total	445	2.21	.943	.045

The results of Kruskal-Wallis analysis (Appendix 5-3) showed within the group of age there was no significant difference in initial trust in organisation, $H(3) = 2.896$, $P = 0.408$, $\eta^2 < 0.001$. Regarding of intention to do business if doubting a representation's personality, the difference was not significant within the age groups, $H(3) = 4.218$, $P = 0.239$, $\eta^2 = 0.003$. For data of intention to do business without face-to-face communication, there was no significant difference within the group of age, $H(3) = 6.744$, $P = 0.081$, $\eta^2 = 0.008$. For data of initial trust in person, age had small effect on people's initial trust levels, $H(3) = 7.826$, $P = 0.050$, $\eta^2 = 0.011$. The results suggested that age did not affect people's initial trust in organisation and intention to do business with a new company in certain context. Although age had small effect on initial trust in person, the effect was limited as the sample size was not enough in the age group of 30-39. Figure 5-6 presents the effect size of age on initial trust.

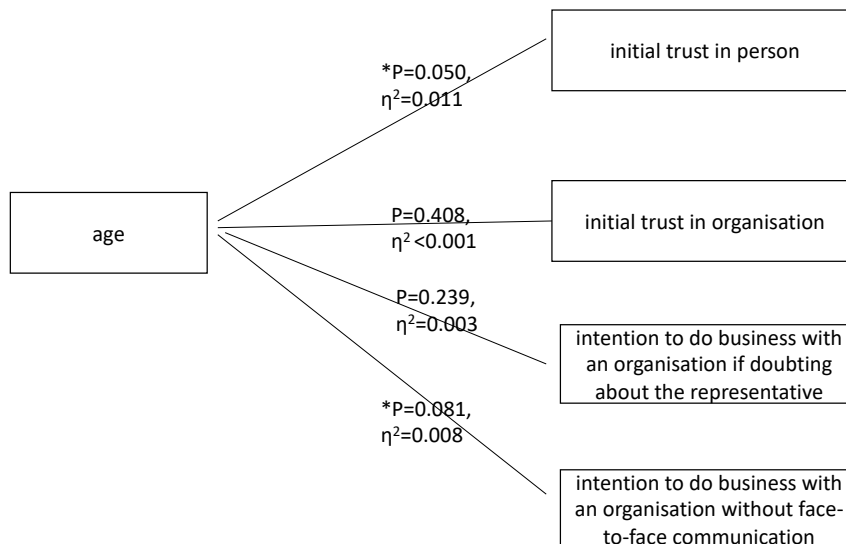


Figure 5-6: The effect of age on initial trust in study 2

5.2.4 Initial trust by the group of negotiation experience

In the group of negotiation experience, the means in the groups indicated there was some differences in the intention level to do business in certain context between respondents with negotiation experience (N=124) and respondents without negotiation experience (N=320), see Table 5-2. Respondents who had related business negotiation experience (M=2.75) tended to be more likely to do business with a new company even doubting the representative's personality than that without related experience (M=2.42). People with business negotiation experience (M=2.45) also tended to be more likely to do business with a new company without face-to-face communication than people without the experience (M=2.11).

Table 5-2: Means of initial trust by the group of negotiation experience in study 2

	Negotiation experience	N	Mean	Std. Deviation	Std. Error Mean
initial trust in person	Yes	124	2.77	1.169	.105
	No	320	2.78	.998	.056
initial trust in organisation	Yes	124	3.04	1.062	.095
	No	320	3.03	1.040	.058
intention to do business with an organisation if doubting about the representative	Yes	124	2.75	.985	.088
	No	320	2.42	.937	.052
intention to do business with an organisation without face-to-face communication	Yes	124	2.45	1.023	.092
	No	320	2.11	.894	.050

The mean rank also showed there tended to be difference between the groups (Figure 5-7). Mann-Whitney test (Appendix 5-4) was run to test the significance between the groups. For data of initial trust in person, the mean ranks in the two groups were close (223.49 compared to 219.94), with non-significant difference and trivial effect, $U=20157.000$, $P=0.786$, $d=0.025$. It indicated that negotiation experience did not affect the respondents' initial trust in person in the study.

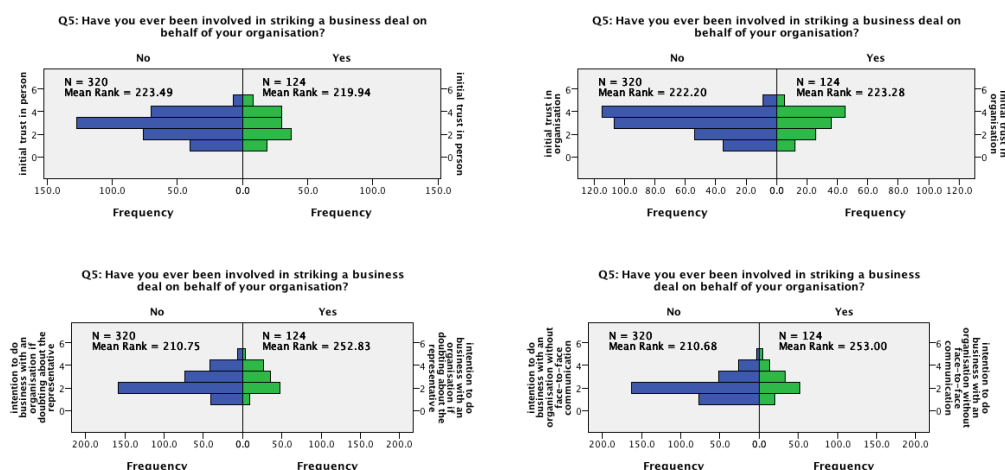


Figure 5-7: Mean ranks of initial trust in the group of negotiation experience

For data of initial trust in organisation, the mean ranks in the two groups were very close too (222.20 compared to 223.28), with non-significant difference and trivial effect, $U=19743.000$, $P=0.933$, $d=0.008$. It indicated negotiation experience did not affect the respondents' initial trust in organisation.

Regarding of intention to do business if doubting a representative's personality, the mean ranks in the two groups were different (210.75 compared to 252.83), with significant difference and small effect, $U=16078.500$, $P=0.001$, $d=0.298$. It indicated negotiation experience affect the respondents' initial trust in organisation and respondents with negotiation experience were more likely to do business with a new company if doubting a representative's personality compare to respondents without negotiation experience, but the effect was small.

Regarding of intention to do business without face-to-face communication, the mean ranks in the two groups were different (210.68 compared to 253.00), with significant difference and small effect, $U=16058.000$, $P=0.001$, $d=0.299$. It indicated that negotiation had an effect on people's intention to do business without face-to-face communication and people with negotiation experience were more likely to do business in the context, but the effect was small. Figure 5-8 illustrates the effect size of negotiation experience on initial trust in the study.

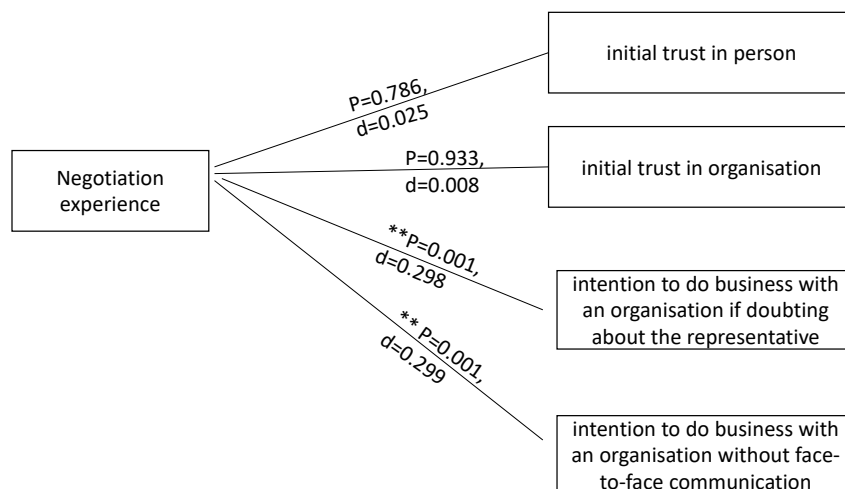


Figure 5-8: The effect of negotiation experience on initial trust

5.2.5 Initial trust by the group of education

In the group of education, undergraduate (N=347) and postgraduate (N=100) were involved. The means showed there was small difference between the groups in data of initial trust in person (2.89 compared to 2.65) and initial intention to do business without face-to-face communication (2.27 compared to 2.13), see Table 5-3. The means in the groups of education regarding of data of initial trust in organisation (3.07 compared to 3.10) and intention to do business if doubting the representative (2.52 compared to 2.54) were very close.

Table 5-3: Means of initial trust in the group of education level in study 2

	Highest educational qualification	N	Mean	Std. Deviation	Std. Error Mean
initial trust in person	undergraduate	347	2.82	1.021	.055
	postgraduate	100	2.63	1.125	.113
initial trust in organisation	undergraduate	347	3.02	1.008	.054
	postgraduate	100	3.08	1.178	.118
intention to do business with an organisation if doubting about the representative	undergraduate	347	2.50	.975	.052
	postgraduate	100	2.53	.926	.093
intention to do business with an organisation without face-to-face communication	undergraduate	347	2.24	.957	.051
	postgraduate	100	2.11	.898	.090

The mean rank of initial trust in person in the group of undergraduate (Mean rank=229.21) was higher than that in the group of postgraduate (Mean rank=205.93), see Figure 5-9. Mann-Whitney test (Appendix 5-5) was run to test whether there was significant difference between the groups. The difference was not significant, U=15543.000, P=0.099, d=0.151, see Figure 5-10, indicating that education background did not have significant effect on initial trust in person in this study.

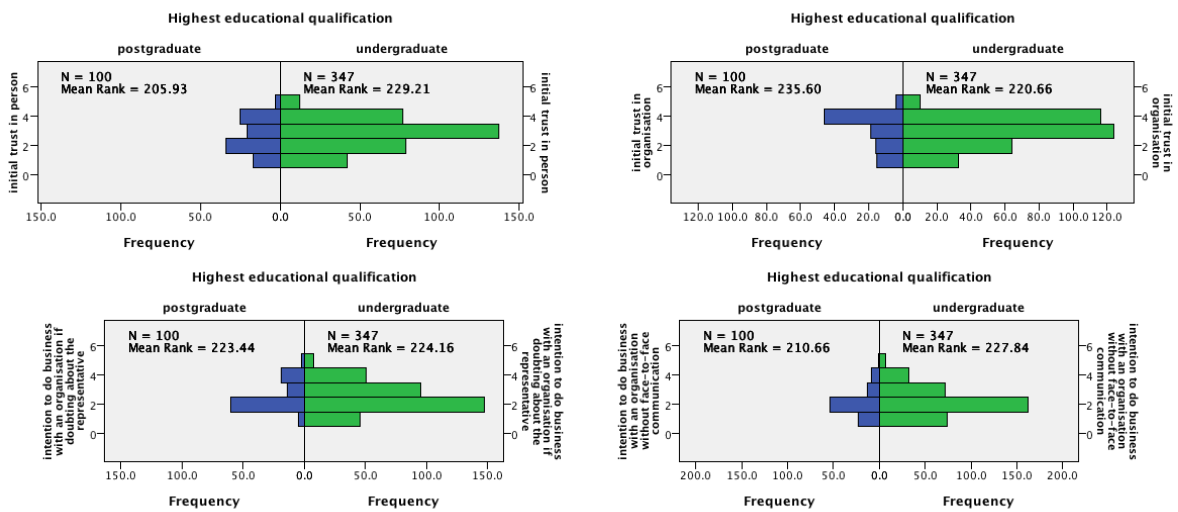


Figure 5-9: Mean ranks in the group of education in study 2

The mean rank of initial trust in organisation in the group of undergraduate (Mean rank=220.66) was lower than that in the group of postgraduate (Mean rank=235.60), see Figure 5-8. The difference was not significant, $U=18510.500$, $P=0.286$, $d=0.097$, see Figure 5-9, indicating that education background did not have an effect on initial trust in person in this study.

Regarding of intention to do business if doubting a representative's personality, the mean rank in the group of undergraduate (Mean rank=224.16) and postgraduate (Mean rank=223.44) were very close, see Figure 5-8. The results of Mann-Whitney also showed there was no significant difference between the groups of education, $U=17294.500$, $P=0.959$, $d=0.005$, see Figure 5-9, indicating that education background did not have an effect on intention to do business if doubting the representative's personality.

For data of intention to do business without face-to-face communication, the mean rank in the group of undergraduate (Mean rank=227.84) was higher than that in the group of postgraduate (Mean rank=210.66), see Figure 5-9. The difference was not significant, $U=16016.500$, $P=0.209$, $d=0.111$, see Figure 5-10, indicating education background did not have an effect on intention to do business with a new company without face-to-face communication.

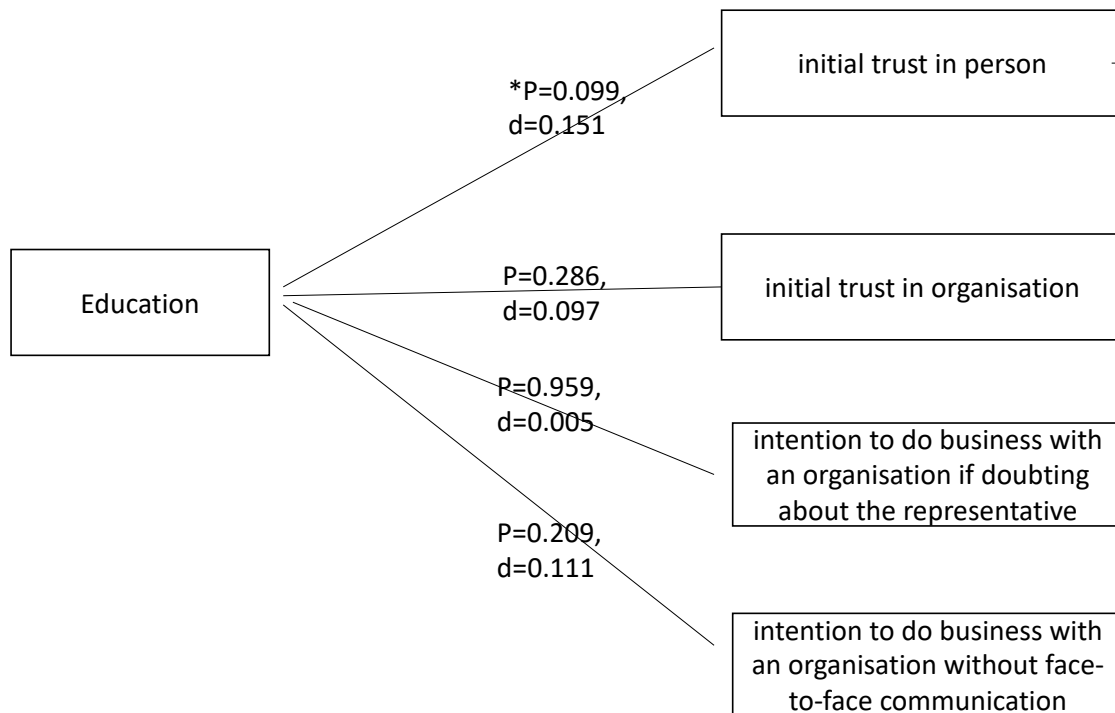


Figure 5-10: The effect of education on initial trust in study 2

5.2.6 Initial trust by the group of work experience

Table 5-4 describes the mean ranks of the observed items within the group of work experience. It showed the mean ranks were slightly different within the groups. For data of initial trust in person, people without any work experience tended to be more likely to trust a new person (Mean rank=189.70). For data of initial trust in organisation, people who had more than 10 years of service tended to be more likely to trust a new company (Mean rank=195.41).

Table 5-4: Means ranks of initial trust in the group of work experience in study 2

	work experience	N	Mean Rank
initial trust in person	none	213	189.70
	<1yr	27	175.04
	1-5yrs	40	154.00
	6-10yrs	46	158.80
	>10yrs	29	158.38
	Total	355	
initial trust in organisation	none	213	176.50
	<1yr	27	193.06
	1-5yrs	40	191.90
	6-10yrs	46	153.02
	>10yrs	29	195.41
	Total	355	
intention to do business with an organisation if doubting about the representative	none	213	172.06
	<1yr	27	166.20
	1-5yrs	40	185.09
	6-10yrs	46	210.50
	>10yrs	29	171.28
	Total	355	
intention to do business with an organisation without face-to-face communication	none	213	182.24
	<1yr	27	188.52
	1-5yrs	40	165.90
	6-10yrs	46	186.09
	>10yrs	29	140.93
	Total	355	

Although the mean ranks were different in the groups, the results of Kruskal Wallis test (Appendix 5-6) showed the difference was not significant: for data of initial trust in person, $H(4) = 8.409$, $P = 0.078$, $\eta^2 = 0.013$; for data of initial trust in organisation, $H(4) = 5.437$, $P = 0.245$, $\eta^2 = 0.004$; for intention to do business if doubting a representative's personality, $H(4) = 6.765$, $P = 0.149$, $\eta^2 = 0.008$; for intention to do business without face-to-face communication, $H(4) = 5.945$, $P = 0.203$, $\eta^2 = 0.006$ (Figure 5-11). The results indicated that work experience (years of service) did not affect people's initial trust in person, initial trust in organisation, intention to do business if doubting a representative's personality and intention to do business without face-to-face communication.

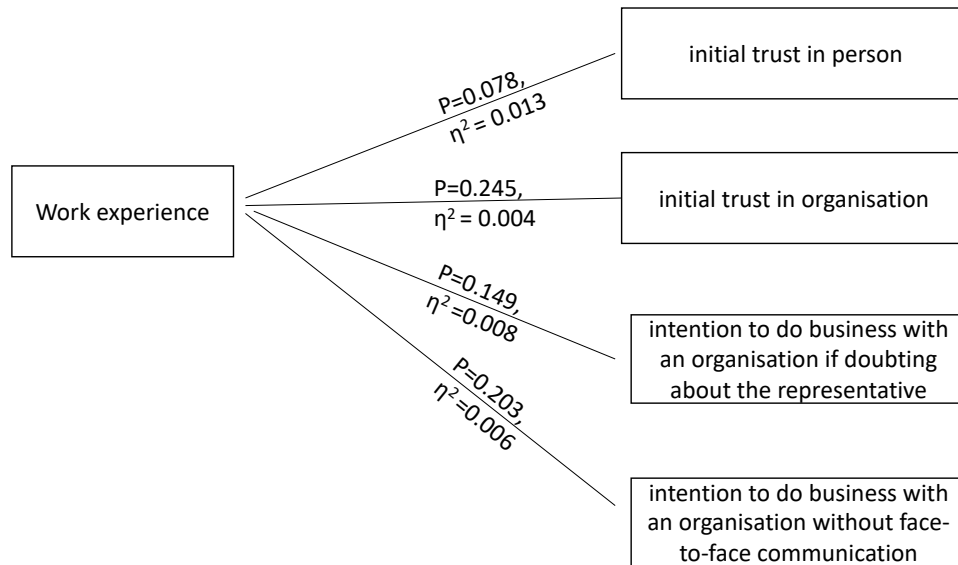


Figure 5-11: The effect of work experience on initial trust

5.3 Evidence from respondents' explanation

In this study, the results of the quantitative data analysis showed that the observed social factors had limited effect on initial trust, initial trust in person in Chinese and English was significantly different and respondents had higher level of initial trust in English than in Chinese. This suggests that language had an effect on initial trust. To find further evidence for the results and explore potential reasons for the effect of language on initial trust, respondents' explanations in Chinese and English was analysed.

5.3.1 Initial trust in person

As shown in figure 5-12, respondents in China who did the survey in Chinese showed highly trusting, fairly trusting or very low trusting in a person, and no respondents showed very highly trusting in person in the business context. Most of Respondents in China who did the survey in English had neutral trusting, fairly trusting, or highly trusting in person, and some respondents showed very highly trusting in person in the business context. This provides further evidence that respondents in English were more likely to trust a person before meeting in business context.

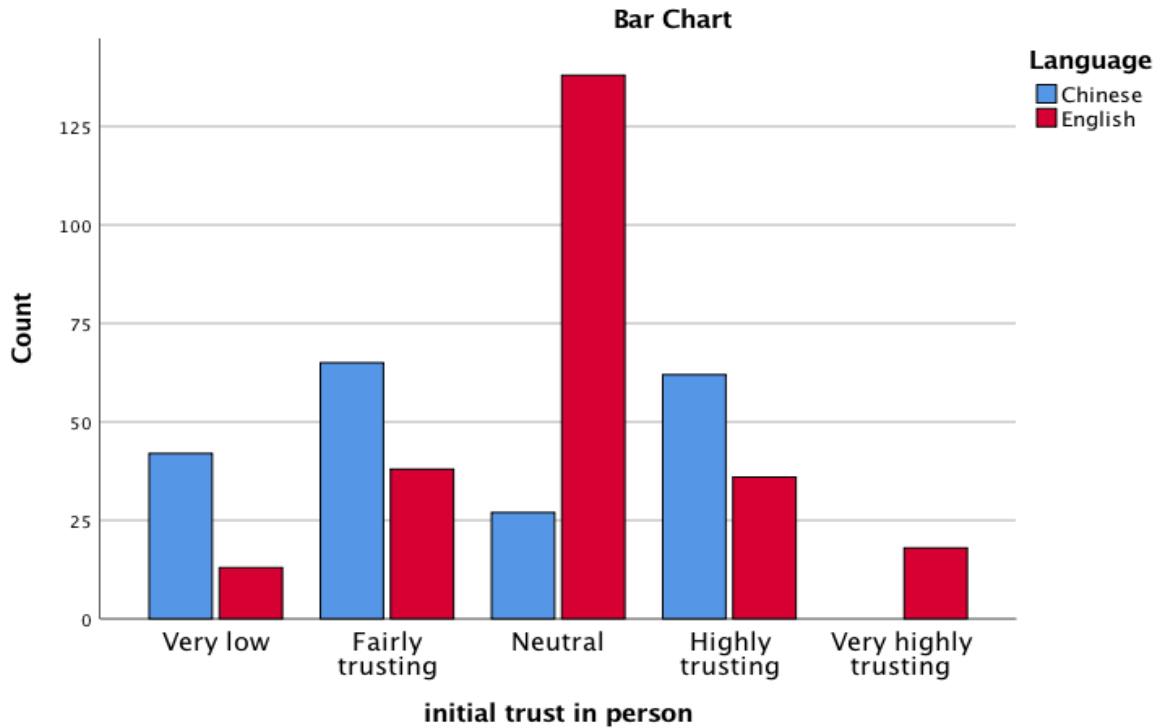


Figure 5-12: Counts of respondents' initial trust in person in Chinese and English

As described in study 1, people in China who answered the questions in Chinese addressed the value that “trust is the base, basic trust is needed, trust is the foundation to do business, etc.,” and showed more negative attitude towards an unknown person such as “cannot be trusted, cannot trust public source information, cannot trust the person and his credentials, etc.,” when making initial trust in person in the business context. The respondents addressed that they did not trust the information about the unknown person they had got. They were more subjective, addressed intuition or feelings and did not give too much explanation but addressed the information such as “not contacted before, no enough information, did not meet, he is a stranger” (Table 5-5).

Table 5-5: The content and value of respondents' explanation to initial trust in person in study 2

Responses to "initial trust in person" (N=184)		Language	
		English (N=135)	Chinese (N=49)
Content	Inadequate information	60 (44.4%)	18 (36.7%)
Values	Trust is the base	14 (10.4%)	7(14.3.3%)
	Cannot trust an unknown person	15 (11.1%)	17 (34.7%)
	Trust the research	22 (16.3%)	4 (8.2%)
	Intuition or feelings	19 (14.1%)	3 (6.1%)

People in China who did the survey in English showed more positive attitude, such as "I think there are more good people in the world than bad people, They are kind, Because I think that many people are good, etc.", when explaining their initial trust in person at the initial stage of business negotiation. They tended to be more objective, did not emphasise the intuition or feelings and more trust the information they got such as "I have done enough background studies", "Because I have done enough background studies on the person", "Since I have done enough background studies, I don't think I should be suspicious at the beginning of the meeting". The respondents gave more specific explanation, such as "The information I get may not be complete or completely true, It's the first time for me to meet the person. Though I have done enough background studies on him, he is a New Friend for me. A neutral attitude can avoid prejudice and promote cooperation, I hope they will do the same thing as we do, Do not know this person, so I do not want to make any general evaluation, and the degree of trust is the same".

Respondents from the both groups addressed that information about the person was not adequate and meeting was required and necessary, such as "He is just a stranger; It's the first time for me to meet the person; Though I have done enough background studies on him, he is

a New Friend for me; A neutral attitude can avoid prejudice and promote cooperation; I don't know him; did not meet the person, cannot make judgement, etc”.

5.3.2 Initial trust in organisation

Figure 5-13 presents the count of respondents’ initial trust in organisation in the study. Respondents in China who did the survey in Chinese mainly had highly trusting, fairly trusting, very low trusting and neutral trusting. A few respondents highly trusting an organisation. Respondents in China who did the survey in English generally showed neutral trusting, highly trusting, fairly trusting. A few of the respondents showed very low trusting in organisation. Some of the respondents very highly trust a new organisation in the business context. This provides further evidence that people in English were more likely to trust a new organisation although the difference was not significant. It also provides evidence that organisation is more trustworthy than a person.

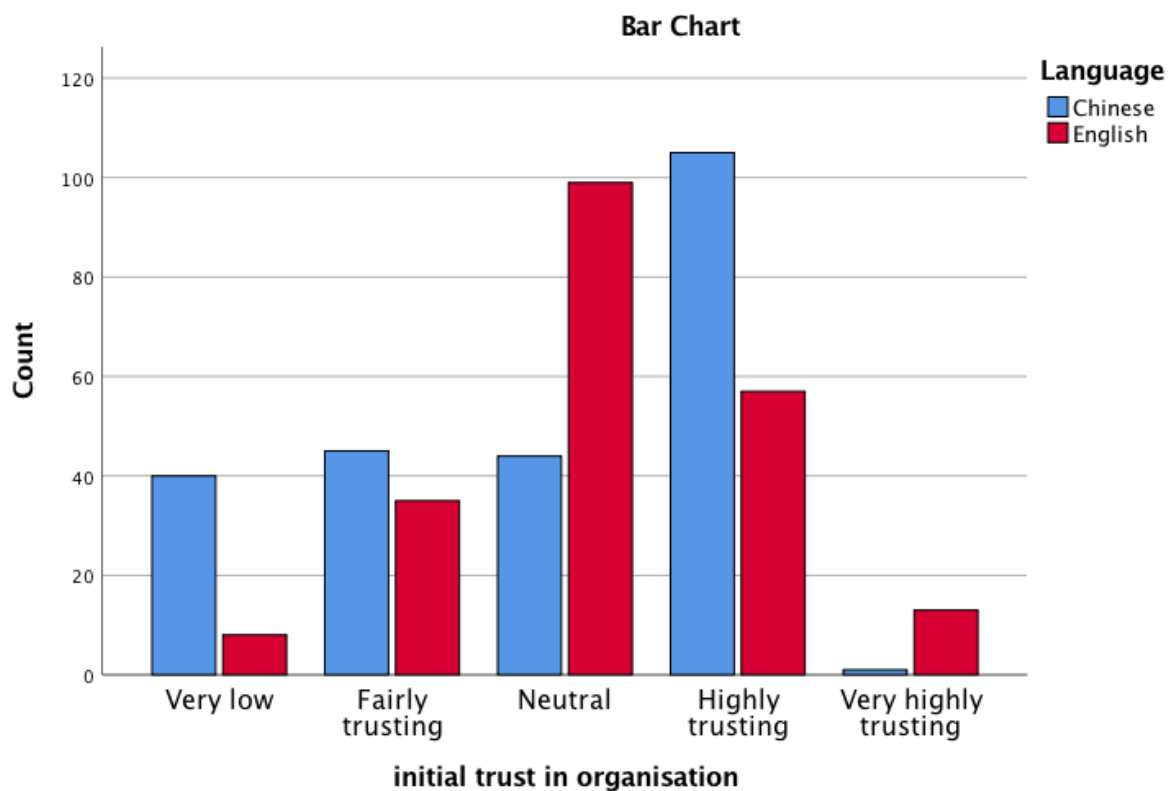


Figure 5-13: Count of respondents’ initial trust in organisation in Chinese and English

According to the respondents’ explanation for their initial trust in a new organisation, respondents in China who answered the questions in English showed more positive values,

such as “Sufficient research can make me trust, I may be satisfied with the strength of the company. Standardized production, complete system and good social reputation”, etc., and gave more specific explanation such as “An organization my company chose to make a deal must have its merits, Because we must had got enough information about the organisation which make us trust them, I think consumers' comments and the organization’s public trust can reflect its situations”, “Based on the background I have done, I am trusting enough in the organization” etc. Respondents in China answering the question in Chinese addressed that information about the organisation is not adequate, such as “does not know the company, cannot trust”; “did not meet the organisation, cannot make judgement”; “no communication, no understanding”, etc., and showed more negative attitude, such as “cannot be trusted”; “cannot make judgement”; “no foundation to trust”, etc. Respondents from both language groups addressed that organisation was trustworthy, such as “An original organisation is naturally trusty”; “Organization is always credible”, etc. People in different languages have different emphasis on information and show different values.

5.4 Assessment of the quality of the results

This section discusses the quality of the results from the study including discussion of the validation in data collection procedure and data analysis.

The questionnaires were the same one that was used in study 1. The consistency of the content was ensured between the two studies. Responses were collected with the aid of Qualtrics from a large random samples of university students in China. This helped to control social and cultural variables and focused on the role of language in human initial trust, and beneficial to confirm the implication from study 1.

In this study, university students who did the English questionnaire did self-assessment of their English proficiency basing on the measurements from 1-5 (terrible--excellent). Participants’ responses whose English was very terrible were removed from the analysis. The results showed the respondents’ English proficiency was above middle level ($M= 2.95$, Table 5-6). Therefore, the respondents did not have difficult in understanding and answering the questions in English.

Table 5-6: Descriptive Statistics of English proficiency in study 2

	N	Minimum	Maximum	Mean	Std. Deviation
English proficiency (self-assessment)	242	1	5	2.95	0.769

As in study 1, during the data analysis, missing data related to the observed items, unrelated and inaccurate responses were entirely deleted. SPSS were selected as tool to analyse data. Appropriate data analysis methods were used. Key values were reported and interpreted, including p value, effect size and CI. Results inferred from the quantitative data analysis were highly reliable and valid.

The analysis of the qualitative data collected from the open-ended questions was similar as that in study 1. Data were coded as close as possible to the participants' explanations. As an assisted method, the qualitative data provided further evidence for the results from the quantitative data. Results inferred from the qualitative data were highly valid.

5.5 Findings and discussion

Regarding of initial trust in person, language had a significant effect on people's level of initial trust in person and people in English were more likely to trust a person before first meeting than people in Chinese. Gender, education, work experience and negotiation experience did not affect the respondents' initial trust in person. Age had a very small effect on initial trust in person. The level of initial trust in organisation was not affected by language, age, gender, negotiation experience, education, and work experience in the study. The intention to do business with a new company if doubting a representative's personality was affected by negotiation experience, but was not affected by gender, age, language, education and work experience in the study. The intention to do business with a new company without face-to-face communication was affected by language, age, negotiation experience with small effect, but was not affected by gender, education and work experience in the study.

An important finding is that language in use matters in initial trust in person. People using English were more likely to trust a person before first meeting than people using Chinese in

the study. Respondents' explanation to their initial trust in a person and an organisation before meeting provided evidence that people had different emphasis on the same event in different languages. The results of study 1 indicated that culture matters in initial trust in person in business context and implied that Chinese people in UK and Chinese people in China tended to have different initial trust which was attributed to the languages (English and Chinese) they used in the study. The results of study 2 confirmed the implication from study 1 and suggests that language affects people's initial trust.

In study 1, respondents in UK had higher initial trust than respondents in China and Chinese people in UK had higher initial trust than Chinese people in China. This implied that the cultural effect on initial trust was might associated with the languages used in the different cultures, as described in Chapter 4 (Section 4.5.7). In study 2, Chinese people in China using English had higher initial trust than the respondents using Chinese. The difference between each group was significant. This is consistent with the findings from study 1. It confirms the implication from study 1 that language had an effect on people's initial trust in person. The two studies indicated that Chinese people in English had similar level of initial trust in person as that of British people whose mother language was English but had different level of initial trust from that of Chinese people in Chinese. This means that English which was used in the study changed Chinese people's level of initial trust. Therefore, language plays a significant role in affecting people's initial trust in person and the cultural effect on initial trust in person is highly resulted from the different languages that was used in different cultures in study 1.

The reason that language affects people's initial trust might be associated with the social semiotic systems of language. From social semiotic perspective, language forms its semantic system in social and cultural circumstances (Thibault, 1991; Van Leeuwen, 2005, Halliday, 1978). Language as a social semiotic system (Halliday, 1978) consists of four stratification—context, semantics, lexicogrammar and phonology, as described in the chapter of literature review (Section 2.3.2, see Figure 2-10). Meaning is realized through the stratification known as inter-stratal realisation. The systems of lexicogrammar and semantics constitute the content plane—the central meaning-making resource in language (Halliday and Matthiessen, 1999). Lexicogrammar means the systems of wording including grammatical semantics and lexical semantics. Semantics, the system of meaning, is the out layer for transformation between information and meaning, while lexicogrammar is the inner layer that operates the way of the transformation (Halliday and Matthiessen, 1999). The different systems of lexicogrammar (the

inner layer of meaning) in Chinese and English might be a reason for the different initial trust in Chinese and English. To study the effect of language on initial trust, it is necessary to study whether people have different emphasis on the lexical meaning and grammatical meaning in Chinese and English.

Apart from the lexicogrammatical meaning, affectual meaning of words might be another reason that affects initial trust in different languages. According to the respondents' explanations in the two studies, respondents from the group of English language tended to be more positive, while respondents in Chinese were more negative in trusting a person in business context. People tended to have different attitude or emotional responses in different languages. Social semiotics view words have different affectual meanings for different agents (Hodge 2017). People in different language context might have different emotional responses to words with the same meaning.

Therefore, the lexicogrammar and affectual meaning of words in the mechanism of language might be the reason for different initial trust in Chinese and English. The assumptions require further explorations, which is presented in chapter 6.

5.6 Chapter summary

This chapter presents the study of people's initial trust in English and Chinese. The role of personal information such as gender, age, education, work experience and negotiation experience in initial trust was analysed, which suggests there was no significant effect on initial trust in this study. People's initial trust in person in Chinese and English was different in this study. The results are consistent with the implication from study 1. By discussing the findings from study 1 and study 2, it is inferred that language affects people's initial trust in person and implied that the cultural effect on initial trust in person was highly associated with language. The potential reason for the effect of language on initial trust might be associated with the lexicogrammar and affectual meaning of words in Chinese and English from social semiotic view of language. Further studies are required to explore the assumptions.

Chapter 6 Potential mechanisms that language impacts initial trust in business context

6.1 Introduction

A significant finding from study 1 (Chapter 4) and study 2 (Chapter 5) is that language affects people's initial trust in person. From the social semiotic view of language, it is attributed to the different semantic systems in Chinese and English which are formed in social structures. Among the semantic systems, the system of lexicogrammar (lexis and grammar) is the inner layer of meaning and provides basic semantic resources for meaning making as discussed in Chapter 5 (section 5.5). Apart from the system of lexicogrammar, the affectual meaning of semantic resources such as words in Chinese and English might be different (section 5.5) and people might have different emotional responses to the words in Chinese and English. To explore the potential mechanisms that language impacts initial trust, studies of lexical meaning, grammatical meaning and affectual meaning in Chinese and English were designed and conducted. This chapter presents the results and discusses the findings.

6.2 The lexical meaning in Chinese and English

This section presents the studies of words related to business trust in Chinese and English. It includes two studies. One study investigates the accuracy of the words represented in Chinese and English to explore whether these words are corresponding in meaning between the two languages. The other one studies the association of these words with business trust in Chinese and English to explore whether the lexical meaning of business trust is different in Chinese and English. In the two studies, four words that are related to trust in business context (business trust) were investigated, including reliability, honesty, competence and feel safe. These words were designed on the basis of previous studies that define reliability, honesty and competence are significant factors leading to trust in business context (Kim and Tadisina, 2003; Siau and Wang, 2018). Security is another significant factor in initial trust (Chiu *et al.*, 2017). In the studies, feel safe was used to represent security. The following sections present the results and discussions of the two studies.

6.2.1 Accuracy of words related to trust in Chinese and English

In the study, respondents were asked to evaluate whether the words (reliability, honesty, competence and feel safe) were accurate when they were translated in Chinese and English (1-3: not accurate to very accurate). The purpose of the study was to investigate whether the different forms of words in Chinese and English had association with the different initial trust in the two languages.

160 valid responses out of 211 collected responses were analysed. Table 6-1 shows the results of the descriptive statistics which includes means of the accuracy of the words in Chinese and English. The means of the accuracy was between 2.23 and 2.44 (mini value=1, max value=3). This indicates that accuracy of the words between Chinese and English was high. This also implies the accuracy of the words between the two languages was not totally corresponding although the accuracy was high.

Table 6-1: Means of translation accuracy

Variables	N	Mean	Std. Deviation	Std. Error Mean
reliability	160	2.44	.631	.050
feel safe	160	2.23	.666	.053
competence	160	2.21	.667	.053
honesty	160	2.43	.640	.051

The bar chart (Figure 6-1) presents the counts of the responses. It showed most of the respondents agreed that the words in Chinese and English were corresponding in the meaning. The percentage of the responses that showed the words in Chinese and English was not corresponding in meaning was small (reliability 7.5%, feel safe 13.1%, competence 13.8% and honesty 8.1%, see Table 6-2).

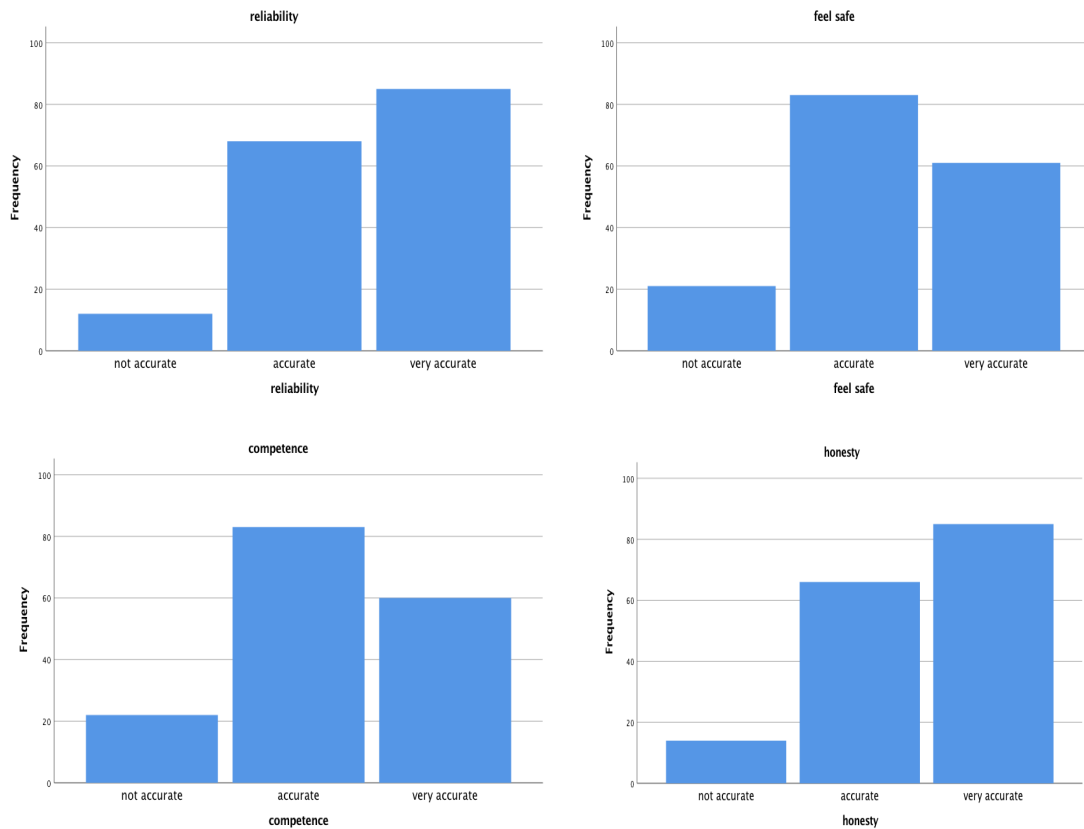


Figure 6-1: The counts of the observed items in each group

Table 6-2: Frequency table of the non-accuracy of the words in Chinese and English

		Frequency	Percent	Valid Percent	Cumulative Percent
Reliability	not accurate	12	7.5	7.5	7.5
Feel safe	not accurate	21	13.1	13.1	13.1
Competence	not accurate	22	13.8	13.8	13.8
Honesty	not accurate	13	8.1	8.1	8.1

The results showed that the words were highly corresponding in meaning between Chinese and English. Another finding was that the meaning of the words between the two languages were not 100% corresponding. This is consistent with the social semiotic view of language. Different languages differ in semantic resources, such as words, phrases and pronunciation (Halliday and Matthiessen, 1999) and there is no 100% one-to-one corresponding meaning between two languages (Hodge, 2017). This study implied that the words which were represented in Chinese

and English were highly corresponding in meaning between the two languages and respondents should not have difficulty in understanding business trust in Chinese and English.

6.2.2 Lexical meaning of trust in Chinese and English

In this section, lexical meaning of business trust in Chinese and English was studied to explore the lexical meaning in the two languages. The observed items were the same words investigated in the study of accuracy of words in Chinese and English as described in section 6.2. The observed items by the group of language was addressed during the data analysis. Results were presented and findings were discussed.

6.2.2.1 Results

Figure 6-2 presents the means of the observed items by the group of language (Chinese=312, English=324). The means of reliability (M=0.69), feel safe (M=0.42), competence (M=0.29) and honest (M=0.70) in Chinese were slightly different from that of reliability (M=0.72), feel safe (M=0.44), competence (M=0.32) and honest (M=0.69) in English. In both groups, the means of reliability and honesty were higher than feel safe and competence. The means in the two languages suggested there was not significant difference in the lexical meaning of business trust between the two languages.

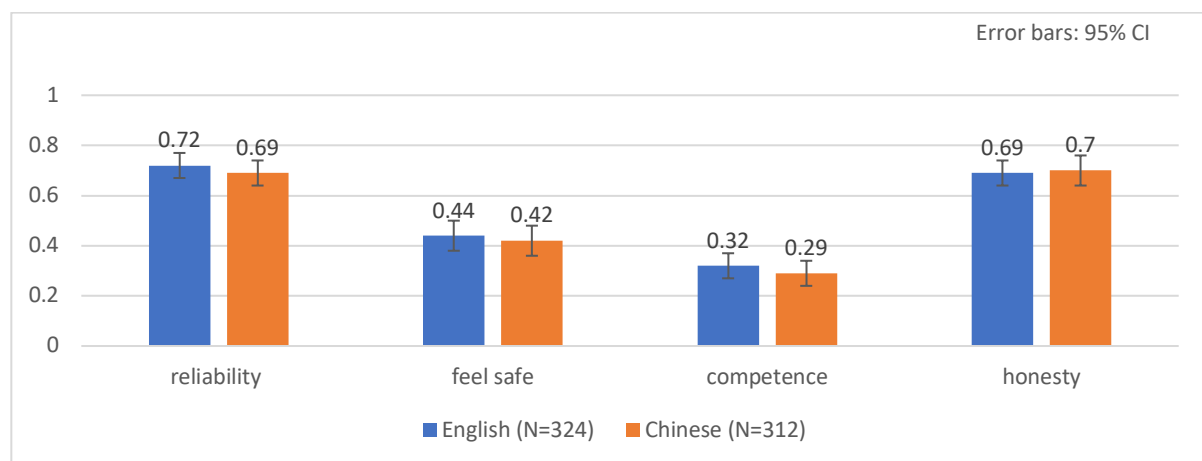


Figure 6-2: Means of *reliability*, *feel safe*, *competence* and *honesty* in English and Chinese

The mean ranks of the words between the languages were compared (Figure 6-3). The mean ranks of reliability (314.15 compared to 322.69), fee safe (315.50 compared to 321.39),

competence (313.77 compared to 323.06) and honesty (319.17 compared to 317.85) in the groups of language were very close.

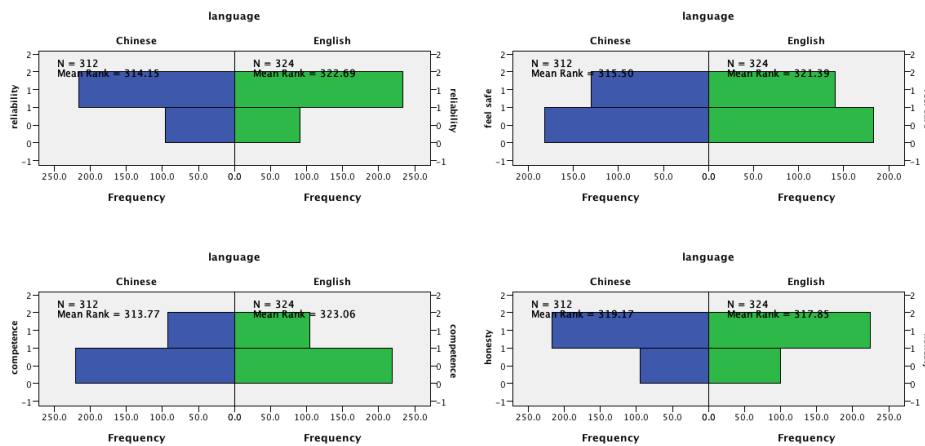


Figure 6-3: Mean ranks of *reliability*, *feel safe*, *competence* and *honesty* in Chinese and English

The results of Mann-Whitney U test (Appendix 6-1) further confirmed there was no significant difference in the items between the language groups: reliability, $U=49188.000$, $P=0.458$, $d=0.046$; feel safe, $U=49608.000$, $P=0.637$, $d=0.032$; competence, $U=49068.000$, $P=0.426$, $d=0.051$ and honesty, $U=50334.000$, $P=0.910$, $d=0.007$. It indicated that respondents did not have different understanding of the lexical meaning of business trust between the groups, that is, the lexical meaning of business trust was not significantly different in Chinese and English (Figure 6-4).

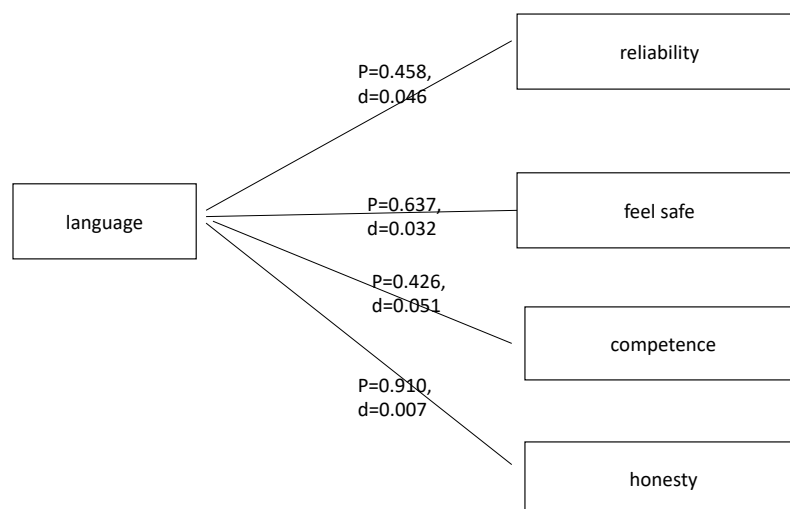


Figure 6-4: The effect of language on *reliability*, *feel safe*, *competence* and *honesty*

6.2.2.2 Findings and discussion

The results of the two studies showed that the four words related to business trust were highly corresponding in meaning but not totally corresponding between Chinese and English. Respondents did not have different understanding of business trust between the two languages. This suggests the lexical meaning of trust in business context is not significantly different in Chinese and English.

In the studies, data were collected from the closed-ended questions in the questionnaires. Questionnaires involved Chinese version and English version. To a large extent, the contents of the questionnaires were ensured to be equivalent between Chinese and English. The procedure of data collection was conducted with the aid of online survey. Participants had total right to quit the survey at any time. Participants were university students who were studying in China. The cultural variables were highly controlled. Participants' English proficiency was highly ensured, and the responses were as true as possible. As in study 1 and study 2, during the data analysis, missing data related to the observed items, unrelated and inaccurate responses were entirely deleted. Appropriate data analysis methods were used with the assumptions approximately met. Key values were reported and interpreted. Findings inferred from the data analysis were highly reliable and valid.

6.3 The grammatical meaning in Chinese and English

This study investigated items regarding of the meaning of possibility in Chinese and English to study whether the grammatical meaning was different between the two languages. Meaning of possibility conveys attitude or mood and plays a significant role in evaluation meaning of language (Martin, 2005). In the studies of initial trust in business context, the meaning of possibility was involved (e.g., would, how likely). In this study, grammatical words (should, must, could, might, would, must certainly, might possibly, would probably, and will) regarding of the possibility that "The application is dealt with in a public hearing" (Appendix 3-4) were investigated. These words were developed from Martin's study of evaluation meaning in English (Martin, 2005).

6.3.1 Results

98 valid responses out of 156 collected responses were analysed. The possibility of the observed items between the language group was addressed. The following sections present the results and discusses the findings from the study.

The means of must ($M_{\text{English}}=2.77$, $M_{\text{Chinese}}=2.71$), would ($M_{\text{English}}=2.54$, $M_{\text{Chinese}}=2.54$) and must certainly ($M_{\text{English}}=2.79$, $M_{\text{Chinese}}=2.76$) were much close in the groups. The means of should ($M_{\text{English}}=2.05$, $M_{\text{Chinese}}=2.32$), could ($M_{\text{English}}=2.21$, $M_{\text{Chinese}}=2.58$), might ($M_{\text{English}}=2.31$, $M_{\text{Chinese}}=2.58$) and might possibly ($M_{\text{English}}=2.46$, $M_{\text{Chinese}}=2.68$) were lower in the English group compared to that in the Chinese group. The means of would probably ($M_{\text{English}}=2.46$, $M_{\text{Chinese}}=2.34$) and will ($M_{\text{English}}=2.44$, $M_{\text{Chinese}}=2.05$) were higher in the group of English compared to that in the Chinese group. Figure 6-5 presents the means of the grammatical items in Chinese and English. It indicated there was certain difference in the meaning between the two languages.

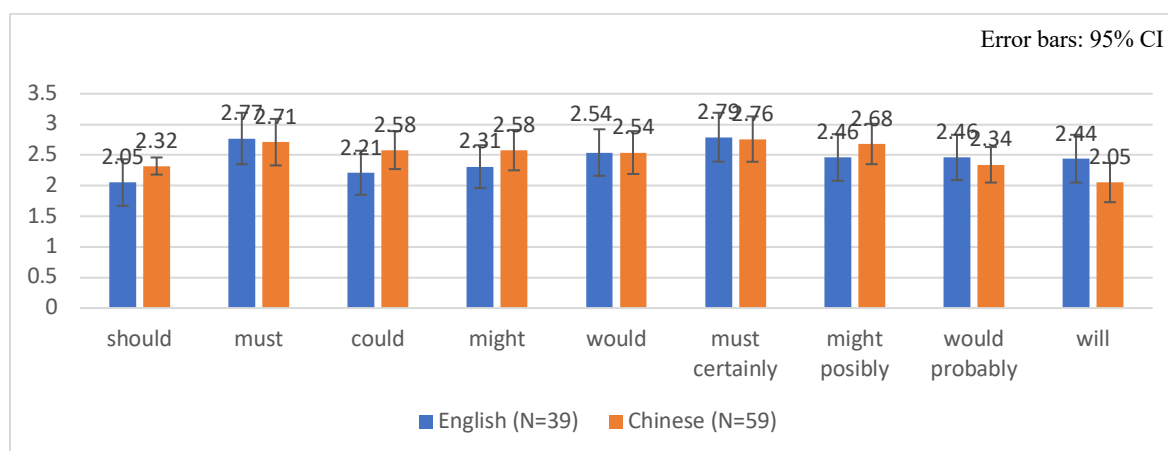


Figure 6-5: Means of the grammatical items in Chinese and English

The mean ranks of the items were much close in the groups of English and Chinese except the items of could (43.65 compared to 53.36) and will (55.45 compared to 45.57), see Table 6-3.

Table 6-3: Mean ranks of the grammatical items in English and Chinese

Ranks				
	Language	N	Mean Rank	Sum of Ranks
should	English	39	46.18	1801.00
	Chinese	59	51.69	3050.00
	Total	98		
must	English	39	50.51	1970.00
	Chinese	59	48.83	2881.00
	Total	98		
could	English	39	43.65	1702.50
	Chinese	59	53.36	3148.50
	Total	98		
might	English	39	45.91	1790.50
	Chinese	59	51.87	3060.50
	Total	98		
would	English	39	50.05	1952.00
	Chinese	59	49.14	2899.00
	Total	98		
must certainly	English	39	49.67	1937.00
	Chinese	59	49.39	2914.00
	Total	98		
might possibly	English	39	46.65	1819.50
	Chinese	59	51.38	3031.50
	Total	98		
would probably	English	39	51.62	2013.00
	Chinese	59	48.10	2838.00
	Total	98		
will	English	39	55.45	2162.50
	Chinese	59	45.57	2688.50
	Total	98		

According to the results of Mann-Whitney test (Appendix 6-2) between Chinese and English, it showed the difference between the groups was not significant, *should*, $U=1021.000$, $p=0.327$, $d=0.191$, *must*, $U=1111.000$, $p=0.767$, $d=0.058$, *could*, $U=922.500$, $p=0.081$, $d=0.339$, *might*, $U=1010.500$, $p=0.293$, $d=0.206$, *would*, $U=1129.000$, $p=0.871$, $d=0.032$, *must certainly*, $U=1144.000$, $p=0.961$, $d=0.01$, *might possibly*, $U=1039.500$, $p=0.407$, $d=0.163$, *would probably*, $U=1068.000$, $p=0.534$, $d=0.121$, *will*, $U=918.500$, $p=0.077$, $d=0.345$. The effect size showed language had a small effect on the interpretation of *could* and *will* although there was no significant difference ($d=0.3$). Regarding the other items, the effect size was very small ($d<0.2$). The results suggested that language had a limited effect on people’s interpretation of the grammatical meaning of the items. Figure 6-6 presents the difference and effect size between the groups.

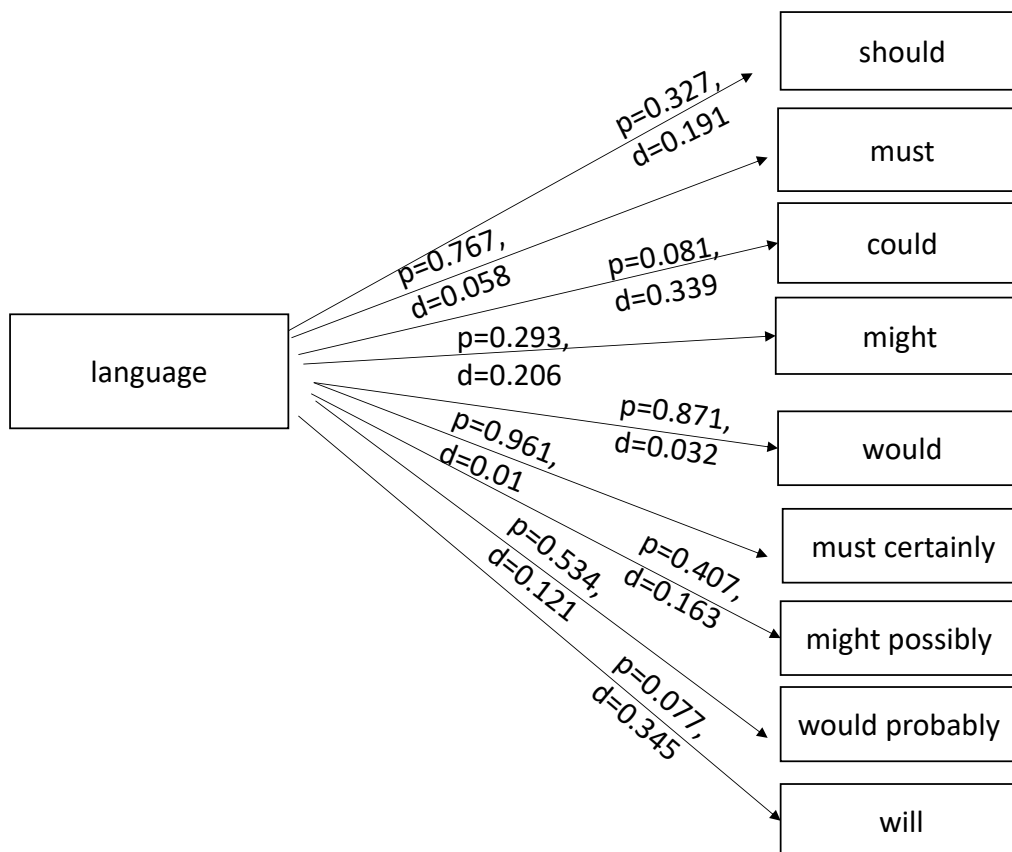


Figure 6-6: The effect of language on the grammatical items in the study

6.3.2 Findings and discussion

Among the items regarding of possibility, *must* and *must certainly* were of high certainty and *should*, *could*, *might* were of low certainty in both languages. The item “*will*” afforded mildly

high certainty in English while very low certainty in Chinese, but the difference was not significant. The results are consistent with the social semiotic view of language which view system as an important part in social semiotics (Hodge, 2017). Semantic resources in the system afford different values, which is significant in meaning making. The results are also consistent with value of the semantic systems of possibility which view *certainly and must* as high value and *might, probably and possibly* are of low value (Martin, 2005). Respondents in this study did not have significantly different interpretation of the possibility of the event in Chinese and English. This suggests that the grammatical meaning in Chinese and English is not significantly different and the grammatical system of language has limited effect on initial trust.

In the study, data were collected from the closed-ended questions in the questionnaires. Questionnaires involved Chinese version and English version. The equivalence between the Chinese version and English version of the questionnaire was ensured as that in previous studies involving Chinese and English questionnaires. Participants were from the same group (university students in China) as that in previous studies. Participants' cultural backgrounds and English proficiency were highly controlled. During the data analysis, missing data related to the observed items, unrelated and inaccurate responses were entirely deleted. SPSS were selected as tool to analyse data. Key values were reported. The results inferred from the quantitative data analysis were highly valid.

6.4 Affectual meaning of words in Chinese and English

The respondents' explanation for their initial trust in business context implies that people had different emphasis and tended to show different attitude (positive/negative) in Chinese and English, as described in Chapter 4 (section 4.3) and Chapter 5 (section 5.3). Language as a social semiotic system (Halliday, 1978) affords social meanings. Hodge (2017) proposes that all words have social meaning and affectual meanings, and different agents have different emotions on the same words, as described in Chapter 5 (section 5.5). Words are formed in a social and cultural context and people might have different emotional responses to the words in different languages.

To explore the effect of affectual meaning of words on human initial trust, people's emotional responses to some words in Chinese and English were investigated. In the study, 25 words were investigated. Some of the words were developed from Hodge's (2017) experiment about affectual meaning which were used to test the relationship between emotional responses and social backgrounds in English, including *children, failure, museum, perfect, surprise, and warmth*. Other words were commonly and metaphorically used in business context such as, *help, quality, army, war, e-commerce, ecosystems, chess, poker, marathon, sculpting, performance, dancing, marriage, journey, team and family*. The detailed methods for data collection were described in the chapter of methodology. This chapter presents the results and discusses the findings of the study.

6.4.1 Results

808 valid responses out of 875 collected responses were analysed. The means of the affectual meaning of the items in Chinese and English were described (Figure 6-7). The means of some items in the group of Chinese were higher than that in the group of English, such as *help* ($M_{\text{Chinese}}=4.02$, $M_{\text{English}}=3.73$), *quality* ($M_{\text{Chinese}}=4.33$, $M_{\text{English}}=3.85$), *army* ($M_{\text{Chinese}}=4.10$, $M_{\text{English}}=3.26$), *war* ($M_{\text{Chinese}}=3.32$, $M_{\text{English}}=1.92$), *museum* ($M_{\text{Chinese}}=3.89$, $M_{\text{English}}=3.73$), *perfect* ($M_{\text{Chinese}}=4.30$, $M_{\text{English}}=4.17$), *loss* ($M_{\text{Chinese}}=2.50$, $M_{\text{English}}=2.37$), *warmth* ($M_{\text{Chinese}}=4.36$, $M_{\text{English}}=4.09$), *ecosystem* ($M_{\text{Chinese}}=3.75$, $M_{\text{English}}=3.47$), *chess* ($M_{\text{Chinese}}=3.40$, $M_{\text{English}}=3.31$), *e-commerce* ($M_{\text{Chinese}}=3.59$, $M_{\text{English}}=3.33$), *poker* ($M_{\text{Chinese}}=3.13$, $M_{\text{English}}=3.01$), *marathon* ($M_{\text{Chinese}}=3.66$, $M_{\text{English}}=3.46$), *sculpting* ($M_{\text{Chinese}}=3.63$, $M_{\text{English}}=3.26$), *performance* ($M_{\text{Chinese}}=3.74$, $M_{\text{English}}=3.48$), *journey* ($M_{\text{Chinese}}=4.18$, $M_{\text{English}}=4.00$), *team* ($M_{\text{Chinese}}=4.08$, $M_{\text{English}}=3.76$) and *brake* ($M_{\text{Chinese}}=3.29$, $M_{\text{English}}=3.00$). The means of some items were very close in the groups, such as *children, failure, dancing, marriage and family*. The means of *fraud* ($M_{\text{Chinese}}=1.79$, $M_{\text{English}}=2.22$) and *surprise* ($M_{\text{Chinese}}=3.46$, $M_{\text{English}}=3.79$) were lower in the group of Chinese than that in the group of English.

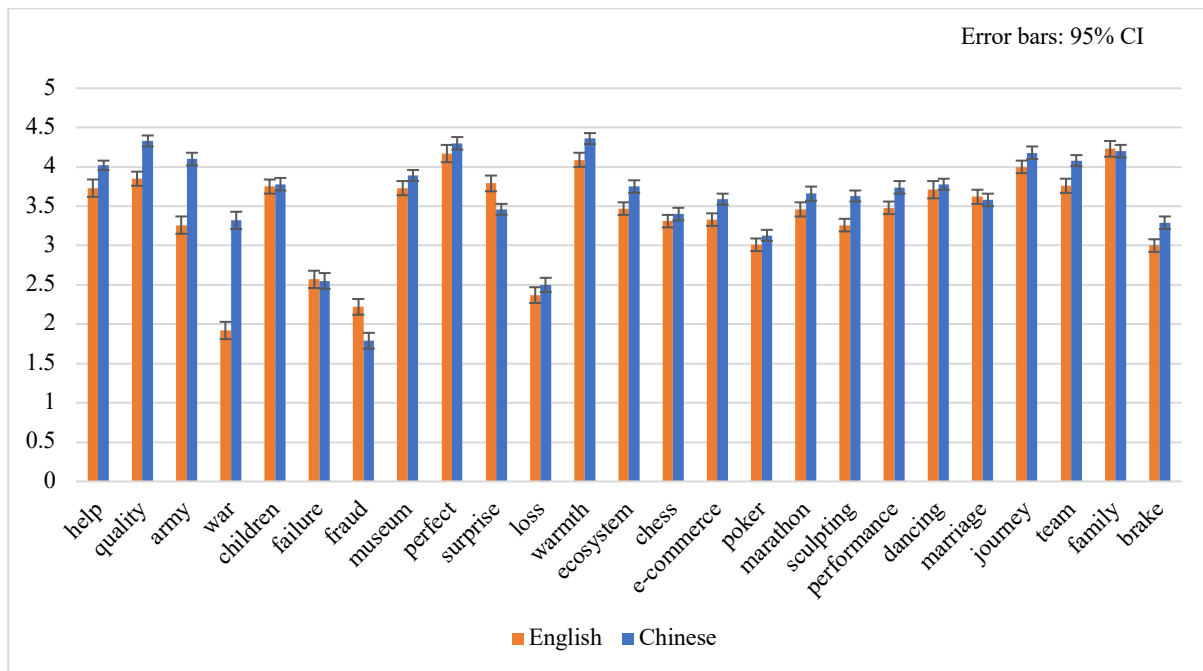


Figure 6-7: Means of the affectual meaning in Chinese and English

The results of Mann-Whitney test (Appendix 6-3) showed there was significant difference in the groups in the emotional responses to some items, such as *help* ($U=72291.500$, $P=0.003$, $d=0.197$), *quality* ($U=59116.000$, $P<0.001$, $d=0.489$), *army* ($U=45994.500$, $P<0.001$, $d=0.814$), *war* ($U=30379.000$, $P<0.001$, $d=1.292$), *fraud* ($U=61270.000$, $P<0.001$, $d=0.44$), *museum* ($U=74216.500$, $P=0.019$, $d=0.155$), *surprise* ($U=61887.000$, $P<0.001$, $d=0.426$), *warmth* ($U=69612.000$, $P<0.001$, $d=0.255$), *ecosystem* ($U=67751.000$, $P<0.001$, $d=0.295$), *e-commerce* ($U=67018.000$, $P<0.001$, $d=0.311$), *poker* ($U=75414.500$, $P=0.037$, $d=0.13$), *marathon* ($U=72178.000$, $P=0.003$, $d=0.199$), *sculpting* ($U=62204.500$, $P<0.001$, $d=0.419$), *performance* ($U=67751.000$, $P<0.001$, $d=0.295$), *journey* ($U=73616.500$, $P=0.010$, $d=0.168$), *team* ($U=66682.000$, $P<0.001$, $d=0.319$) and *brake* ($U=66769.000$, $P<0.001$, $d=0.317$).

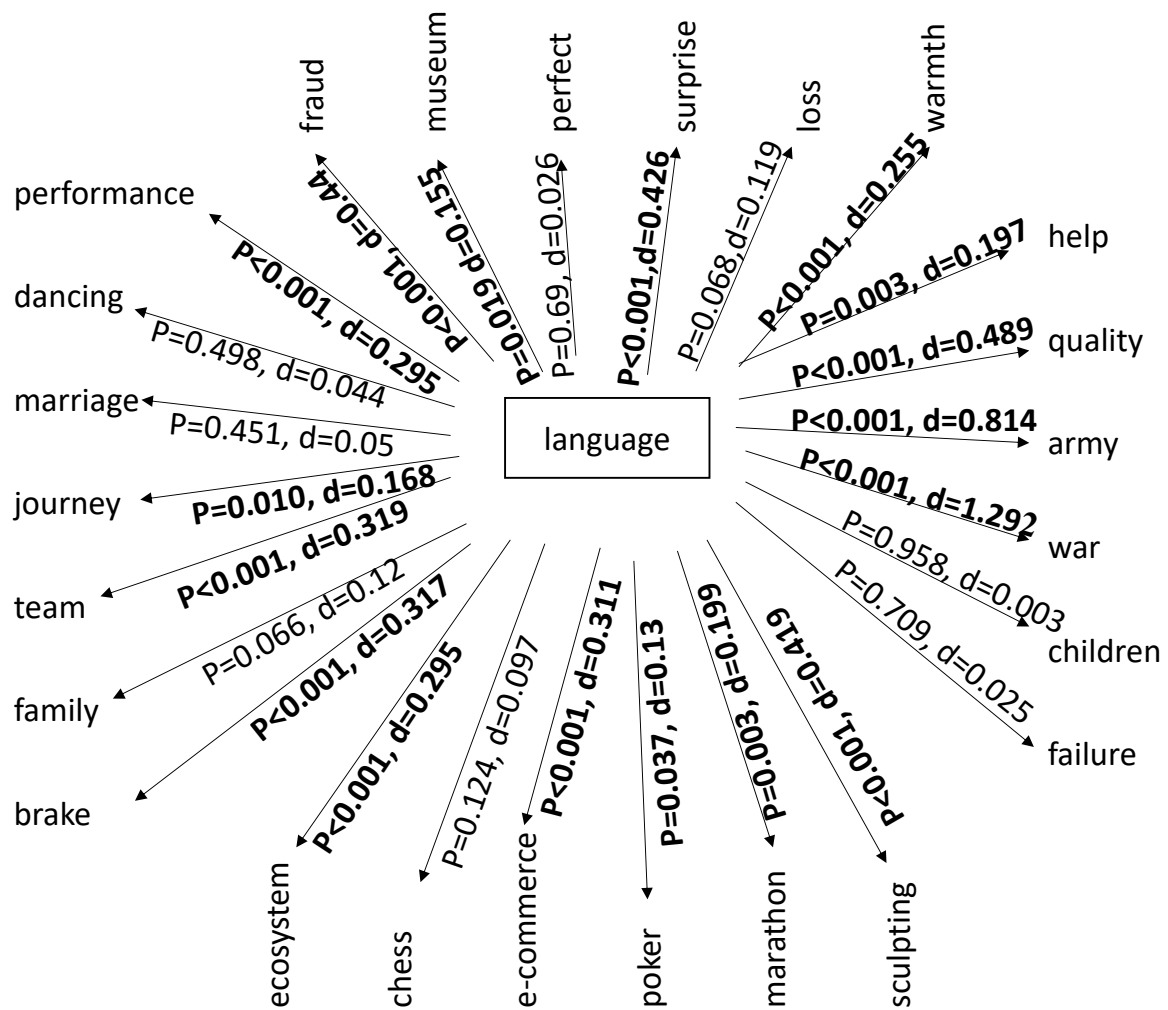


Figure 6-8: The effect of language on the affectual meaning of words in the study

However, the emotional responses were not significantly different between the groups regarding of *children* ($U=81346.000$, $P=0.958$, $d=0.003$), *failure* ($U=80334.000$, $P=0.709$, $d=0.025$), *perfect* ($U=80298.500$, $P=0.691$, $d=0.026$), *loss* ($U=75901.000$, $P=0.068$, $d=0.119$), *chess* ($U=76928.000$, $P=0.124$, $d=0.097$), *dancing* ($U=79419.500$, $P=0.498$, $d=0.044$), *marriage* ($U=79151.000$, $P=0.451$, $d=0.05$) and *family* ($U=75861.000$, $P=0.066$, $d=0.12$). The effect size indicated that respondents' emotional responses were highly affected by language used in the study (Figure 6-8).

The mean ranks in the groups (Table 6-4) showed respondents had more positive emotional responses to most of the items in the group of Chinese compared to that in the group of English, such as *help* (426.55 compared to 380.86), *quality* (458.07 compared to 347.08), *army* (489.47 compared to 313.43), *war* (526.82 compared to 273.39), *museum* (421.95 compared to 385.80),

warmth (432.96 compared to 373.99), *ecosystem* (437.42 compared to 369.22), *e-commerce* (439.17 compared to 367.34), *poker* (419.08 compared to 388.87), *marathon* (426.83 compared to 380.57), *sculpting* (450.69 compared to 355.00), *performance* (437.42 compared to 369.22), *journey* (423.38 compared to 384.26), *team* (439.97 compared to 366.48), *brake* (439.77 compared to 366.70), which were significantly different between the groups. Generally, these words afford positive or neutral meaning. Respondents showed more negative emotional responses to the items of *fraud* (356.08 compared to 456.40) and *surprise* (357.56 compared to 454.82) in the group of Chinese than that in the group of English, which was significantly different between the groups. The two words afford negative meaning to an extent.

Table 6-4: Mean ranks of the affectual meaning of the words in English and Chinese in the study

	language	N	Mean Rank
help	Chinese	418	426.55
	English	390	380.86
	Total	808	
quality	Chinese	418	458.07
	English	390	347.08
	Total	808	
army	Chinese	418	489.47
	English	390	313.43
	Total	808	
war	Chinese	418	526.82
	English	390	273.39
	Total	808	
children	Chinese	418	404.89
	English	390	404.08
	Total	808	
failure	Chinese	418	401.69
	English	390	407.52
	Total	808	
<i>fraud</i>	<i>Chinese</i>	<i>418</i>	<i>356.08</i>
	<i>English</i>	<i>390</i>	<i>456.40</i>
	Total	808	
museum	Chinese	418	421.95
	English	390	385.80
	Total	808	
perfect	Chinese	418	407.40

	English	390	401.39
	Total	808	
surprise	<i>Chinese</i>	<i>418</i>	357.56
	<i>English</i>	<i>390</i>	454.82
	Total	808	
loss	Chinese	418	417.92
	English	390	390.12
	Total	808	
warmth	Chinese	418	432.96
	English	390	373.99
	Total	808	
ecosystem	Chinese	418	437.42
	English	390	369.22
	Total	808	
chess	Chinese	418	415.46
	English	390	392.75
	Total	808	
e-commerce	Chinese	418	439.17
	English	390	367.34
	Total	808	
poker	Chinese	418	419.08
	English	390	388.87
	Total	808	
marathon	Chinese	418	426.83
	English	390	380.57
	Total	808	
sculpting	Chinese	418	450.69
	English	390	355.00
	Total	808	
performance	Chinese	418	437.42
	English	390	369.22
	Total	808	
dancing	Chinese	418	409.50
	English	390	399.14
	Total	808	
marriage	Chinese	418	398.86
	English	390	410.55
	Total	808	
journey	Chinese	418	423.38
	English	390	384.26
	Total	808	

team	Chinese	418	439.97
	English	390	366.48
	Total	808	
family	Chinese	418	390.99
	English	390	418.98
	Total	808	
brake	Chinese	418	439.77
	English	390	366.70
	Total	808	

6.4.2 Findings and discussion

In this study, respondents had significantly different emotional responses to most of the words in Chinese and English. This is consistent with the social semiotic view of language that language is a social semiotic system and semantic resources afford social meaning (Hodge, 2017). In this study, generally respondents in the group of English tended to have lower emotional responses to the observed items affording neutral or positive meaning than respondents in the group of Chinese. This is not consistent with the findings from study 1 and study 2 which suggest that people speaking English tend to have higher level of initial trust in business context. People in the group of Chinese had more negative responses to the words affording negative meaning than people in English. However, in study 1 and study 2 people's business intention if doubting a representative was higher in the language group of Chinese in which *doubting* is a word with negative meaning. The contradictory results between the affectual meaning and initial trust implied that the affectual meaning of words was limited in affecting human initial trust in Chinese and English.

In this study, data were collected from the close-ended questions in the questionnaires. Questions were developed basing on the results from the previous studies and the social semiotic view of language. Participants were from university students in China, similar background as that in previous studies. During the data analysis, missing data related to the observed items, unrelated and inaccurate responses were entirely deleted. SPSS were selected as tool to analyse data. Descriptive statistics and Key values were reported. The findings inferred from the quantitative data analysis were valid.

6.5 Discussion of the four studies

This section discusses the findings from the four studies, develops inferences from the studies with theoretical explanations and assesses the quality of inferences. The four studies were conducted to explore the potential mechanisms that language affects initial trust from the social semiotic view of language.

Study 3 investigated the meaning corresponding of the words in Chinese and English. Study 4 investigated lexical meaning of business trust in Chinese and English. The results of the two studies implied that the lexical system of language had limited effect on the different initial trust in Chinese and English. Study 5 investigated the grammatical meaning of possibility in Chinese and English. The results indicated that the grammatical system of language was limited in resulting in the different initial trust in Chinese and English. Study 6 studied the affectual meaning of words by investigating respondents' emotional responses to the words in Chinese and English. The results suggested that the affectual meaning of words was limited in affecting the different initial trust in Chinese and English.

The findings from the four studies suggested that the wording level (lexicogrammar and affectual meaning of words) did not have significant effect on people's level of initial trust in Chinese and English. Based on the stratification of language, it is inferred that the potential mechanisms that language affects people's initial trust lie at the interface between lexicogrammar and semantics of the content plane of language. Table 6-5 presents the development of the inferences from the findings of the studies.

Table 6-5: The development of the inferences from the findings from the four studies

Theoretical background	Studies	Findings	Inferences
Social semiotic view of language	Study 3 and study 4 (quantitative)	Lexical system was limited in affecting people's initial trust in Chinese and English.	The interface for meaning making between lexicogrammar and semantics of the content plane of language play an important role in affecting people's initial trust in Chinese and English
	Study 5 (quantitative)	Grammatical system was limited in affecting people's initial trust in Chinese and English.	
	Study 6 (quantitative)	Affectual meaning of words was limited in affecting people's initial trust in Chinese and English.	

As described in Chapter 5 (section 5.5), language is a stratified semantic system consisting of four levels—context, semantics, lexicogrammar and phonology (Halliday, 1978). The four levels are viewed as the four coding levels of language which realize meaning by the semiotic relationship through the levels (Miriam, 2011). In the system of language, phonology is viewed as the expression plane, lexicogrammar and semantics constitute the content plane, while context is viewed as extra-linguistic level (Halliday and Matthiessen, 1999). The main semantic resources lie in the content level consisting of lexicogrammar and semantics. Between the boundaries of semantics and lexicogrammar, an interface mediates the inter-stratal realization between lexicogrammar and semantics through which choice of semantic resources is processed (Halliday and Matthiessen, 1999). The interface is the place where coding is processed between sender and receiver. The sender encodes and generates meaning by lexicogrammar. The receiver decodes the lexicogrammar to interpret the sender's meaning (Miriam, 2011). Figure 6-9 illustrates the stratal-realisation between lexicogrammar and semantics. Human interpret meaning and transform meaning into information on the semantic level. Lexicogrammar provides resources to actualize the meaning and information. Coding (encoding/decoding) happens at the interface between semantics and lexicogrammar. From social semiotic perspective, meaning making is viewed as social practice. This is consistent

with Bernstein’s code theory that the coding of language is formed in social processes (Jones, 2013). Therefore, the coding interface between lexicogrammar (wording) and semantics (meaning) which is formed in social processes plays a significant role in affecting people’s initial trust in different languages.

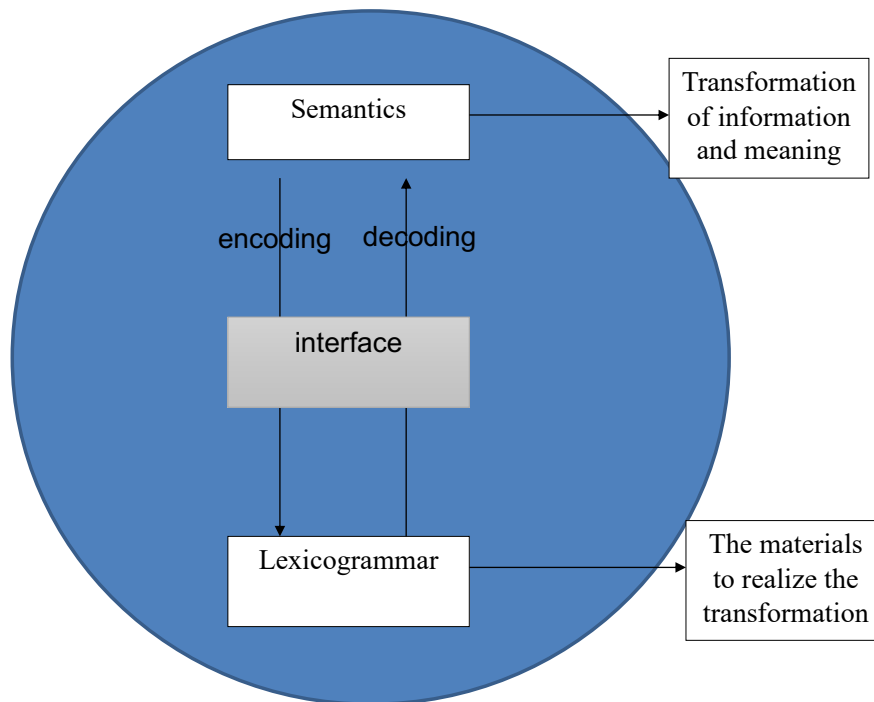


Figure 6-9: The stratal-realisation between lexicogrammar and semantics.

The interface between lexicogrammar and semantics is also known as syntactic-semantic interface (Miriam, 2011). Figure 6-10 presents the internal stratification of language, which is developed by Miriam (2011) from Hjelmslevian model of language stratification and Hallidian model of language stratification. In the model, semantics is the substance of content and lexicogrammar is the form of content, which is built basing on adult language. The syntactic-semantic interface between lexicogrammar and semantics is of natural relationship developed in social processes.

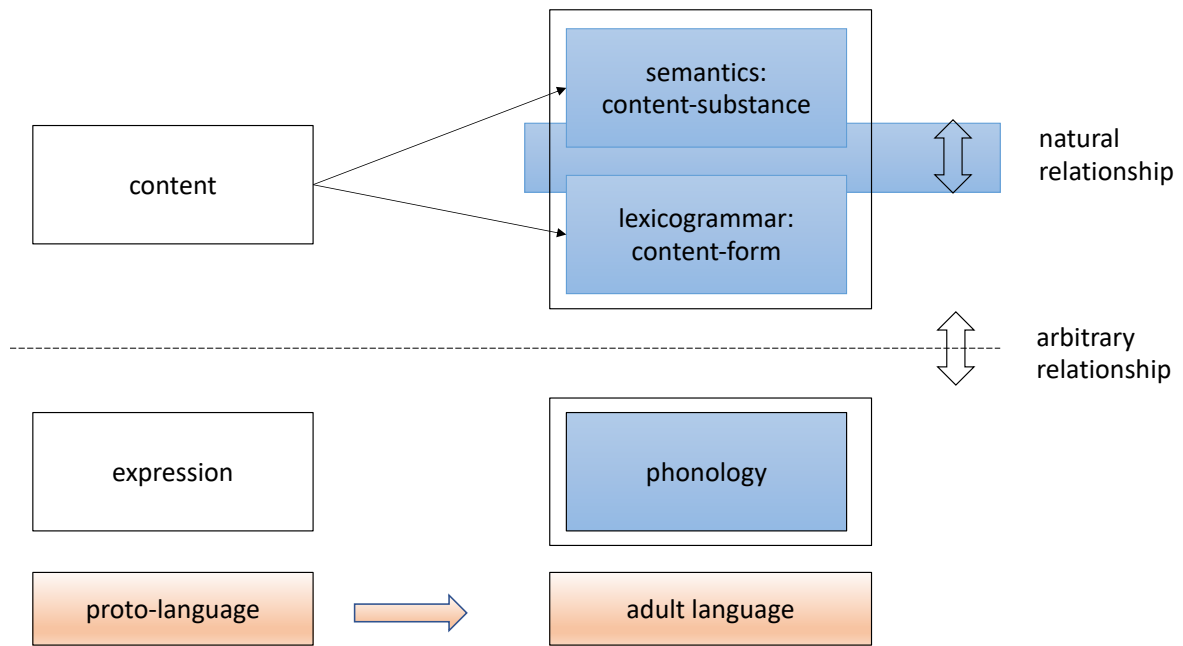


Figure 6-10: The internal stratification of the content plane (adapted from Miriam, 2011)

The studies implied that the syntax-semantic interface between lexicogrammar and semantics plays a significant role in affecting initial trust. Through the interface, meaning is created with the “logical scaffolding” (Hodge, 2017) of language which is naturally developed within a social and cultural context, that is, the natural logic of language underpins meaning making. Therefore, the studies implied it was the natural logic of language that played a significant role in affecting people’s initial trust in Chinese and English.

6.6 Chapter summary

This chapter discusses the outcomes from the four studies and develops inferences to explain the potential mechanisms of language that impacts initial trust. The four studies investigated the lexical meaning, grammatical meaning and affectual meaning of words in Chinese and English. The results indicated that the lexicogrammar and affectual meaning of words was limited in affecting initial trust in Chinese and English, that is, the wording level of language did not have significant role in affecting initial trust in the two languages. From the social semiotic view of language, it is inferred that syntactic-semantic interface through which meaning is encoded and decoded is significant in affecting human initial trust, in which natural logic of language underpins the meaning making.

Chapter 7 Conclusion and discussion

7.1 Introduction

It is believed that culture has an effect on initial trust. Initial trust was assumed to be different in Chinese culture and British culture. First a study was carried out in this research to investigate initial trust in Chinese culture and British culture. It demonstrated there were significant differences in the level of initial trust between Chinese and British students. However, a group of Chinese students who had freshly started their terms in the UK participated in the study and showed their initial trust levels were similar to the British students in UK and different from Chinese students in China. The only acceptable explanation lied in the languages that were used in the questionnaire. Chinese students who were living in UK answered the questions in English rather than Chinese. This led us to believe language might play a significant role in the level of initial trust in the study. A further study was carried out which focused on the bilingual students of Chinese and English in China. The results confirmed the implication that the language that was used to make choice in the study did impact the level of individual's initial trust. Further studies were carried out to explore the reasons that language had an effect on people's initial trust, which suggested the natural logic of language was significant in affecting initial trust in Chinese and English. This chapter generally concludes the main findings of this research, discusses the findings based on the research questions, presents the quality of the research and assesses the research objectives and aims. The implications, contributions, limitations and further research are also presented in this chapter.

7.2 Main findings

Culture has an effect on initial trust. In this research university students living in UK and China had different level of initial trust in business context, especially initial trust in person. The difference in people's initial trust existed between the country of current residence—UK and China which are viewed to be of different cultures. Therefore, culture matters in initial trust.

Language has an effect on people's initial trust. The results in the research demonstrated that people answering the survey in English had different initial trust in person from the people answering the questions in Chinese and even people who used English as a foreign language

had similar initial trust in person as the people who used English as native language. The difference in initial trust in person between the culture group and language group was consistent. The results suggest that language affects people's initial trust and the cultural effect on initial trust is highly associated with language used in the culture, that is, it is language that results in the cultural difference in initial trust.

The natural logic of language plays a significant role in affecting people's initial trust. In studying the potential reasons that language affects initial trust, the results demonstrated that lexicogrammar and affectual meaning of words did not have significant effect on initial trust. This means the wording level of language is limited in affecting initial trust. Based on the stratification of language, the syntactic-semantic interface between lexicogrammar (wording) and semantics (meaning) where the natural logic of language exists play a significant role in meaning making. It is inferred that people's different initial trust in Chinese and English is highly associated with the different natural logic of language that is formed in social and cultural circumstances.

7.3 General discussion

This section discusses the findings with literature supports and addresses the relevance of the outcomes with the research questions.

7.3.1 Culture has an effect on initial trust in business context.

The first research question of the thesis is whether people living in UK and China have different initial trust. Previous studies of trust suggest that culture has an effect on trust and people from different cultures tend to have different trust (Gibson and Manuel, 2003; Welter and Alex, 2011; Pai and Gasson, 2008; Van Hoorn, 2015; Yoon, 2009; Hitosugi, 2009). Initial trust is viewed as a type of trust (McKnight, *et al.*, 1998; Kim and Tadisina, 2003). Culture should have an effect on initial trust. However, studies of initial trust focus on factors leading to initial trust in the context of e-business. The factors are mainly involving of customers' position to trust, online company's characteristics or technological characteristics such as website quality (Koufaris and Hampton-Sosa, 2004; Kim and Prabhakar, 2004; Zhou, 2011; Chiu *et al.*, 2017; Susanto *et al.*, 2013). Studies of culture and initial trust are not adequate. UK and China are

two countries with different cultures according to Hofstede's culture dimensions (1980). However, few studies describe people's initial trust between the two cultures. Therefore, a study (study 1) was designed and carried out to investigate whether university students living in UK and China have different initial trusts in a business context. The outcomes of the study indicated that the respondents living in UK and China were significantly different in trusting a new person and initial intention to do business with a new company without face-to-face communication ($P < 0.05$, Table 4-1). As described in chapter 4 (section 4.2.1), respondents living in UK had higher initial trust in a person than respondents in China, and respondents in UK were more likely to do business with a new company without face-to-face communication than respondents in China. The outcomes provide further evidence for the cultural study of initial trust. The results are consistent with the cultural study of trust that people from different cultures have different trust (Gibson and Manuel, 2003; Welter and Alex, 2011). According to Hofstede's cultural dimension (1980), culture in China is collectivism while culture in UK is individualism. People from individualist culture tend to have higher and broader trust in person than people from collectivist culture (Van Hoorn, 2015). The results also support the idea that high uncertainty avoidance culture such as China decrease people's intention to do business in uncertain circumstances, such as shopping online and acceptance of new products (Yoon, 2009). The results of the study confirm the research propositions that culture is significant in initial trust and initial trust in Chinese culture and British culture is different which were developed from reviews of studies of trust and initial trust, and answered the first research question in the thesis (Do people living in UK and China have different initial trust?).

7.3.2 Language affects people's initial trust in business context

As described above, the results provided strong evidence that culture matters in initial trust, at least between Chinese culture and British culture. To explore the factor that leading to the effect, initial trust by the group of respondents' personal backgrounds were analysed. The results showed the respondents' personal background such as gender, age, education and work experience had no significant effect on initial trust. Respondents' negotiation experience had an effect on initial trust in person, but the effect was very small. A significant finding was that the Chinese respondents living in UK tended to have different initial trust from Chinese respondents living in China. The Chinese respondents in UK were student who had just arrived in UK and started their study in universities. They and the Chinese respondents in China were

from the same ethnic groups and had the same cultural background. The difference in their initial trust levels between the two groups was attributed to the languages used in the survey: Chinese respondents in UK did the survey in English while Chinese respondents in China answered the questions in Chinese. The data analysis also provided evidence that Chinese respondents in UK had similar initial trust levels as that of British respondents in UK. The two groups were of different cultural backgrounds but had similar level of initial trust. The reason also might be associated with the language used in the study. They both used English to answer the questions. It might be the language (English) used by the Chinese respondents in UK that made their initial trust similar to the British people in UK whose native language was English. This indicated that the cultural effect on initial trust might be resulted from language used in the culture. This is a new finding implied from the study of initial trust in Chinese culture and British culture. To an extent, the implication answered the second research question regarding of factors leading to the cultural effect on initial trust, but it requires further explorations to confirm the implication.

Based on the implication from the study of culture and initial trust in this research, a further study (study 2) was conducted to investigate university students' initial trust in China who were bilinguals of Chinese and English. The results provided strong evidence that language used in the study (Chinese and English) had an effect on initial trust in the business context, especially initial trust in person. This confirmed the implication from the study of initial trust in Chinese culture and British culture because the cultural variables were controlled and the social factors observed in the study (gender, age, education, work experience, negotiation experience) had limited effect on initial trust. An important finding was that Chinese people who answered the questions in English, which was their foreign language, they had similar initial trust levels with the British people who did the survey in English which was their native language. The finding provided evidence that the different initial trust in Chinese culture and British culture was highly associated with languages used in the culture. This further suggests that language has an effect on people's level of initial trust. The findings suggest that language plays a role in shaping the way people thinking of an event and changing people's initial trust levels in business context. The finding is novel and there is no similar research to discuss with. There are no related studies of initial trust and language to discuss with, but the results are consistent with the Sapir-Whorf hypothesis that language affects its speaker's view of the world (Hussein, 2012). Halliday (1978) holds the same view that people speaking different languages have different views of the world around and even people speaking two languages have different

emphasis on the same event. The reason is attributed to the social semiotic view of language which view different languages differ in semantic resources for meaning making (Halliday and Matthiessen, 1999). Language as a social semiotic system (Halliday, 1978) affords social and cultural meaning. When people use a language, he/she is affected by the social and cultural meaning of the language. Thus, the cultural effect on initial trust is caused by language used in the culture. The outcomes answered the second research question regarding of the factors leading to the cultural effect on initial trust.

7.3.3 The natural logic of language plays a significant role in affecting initial trust

Further studies were carried out to explore the possible reasons why language can affect the initial trust. Study 3, 4, 5 and 6 were designed and conducted with the intention of investigating people's interpretation of lexicogrammar and emotional responses to words in Chinese and English. The reason to conduct the studies were described in chapter 5 (section 5.5), which was designed from social semiotic view of language and respondent's explanations for the questions in study 1 and study 2. These studies collected responses from university students to investigate if they had different interpretation of the lexicogrammatical meaning and affectual meanings of words in Chinese and English. The outcomes suggested that respondents did not have different understanding of the meanings on the lexicogrammatical level in Chinese and English. Although respondents tended to have different emotional responses to words when they were investigated in Chinese and English, the different level of emotional responses were not consistent with the different initial trust level in Chinese and English. The results suggest language does not affect initial trust on the wording level. According to the internal stratification of language (Figure 6-10) and coding interface for stratal-realisation between lexicogrammar and semantics (Figure 6-9), the potential mechanisms of language that affect initial trust were attributed to the natural logic of language (discussed in chapter 6, section 6.5). In this research, two languages (Chinese and English) were involved. The logic of Chinese is viewed as a language emphasizing *yihe* (hypotactic) while the logic of English is viewed as *xinghe* (paratactic), which is defined by a Chinese linguist Wang Li (1943). *Yihe* means that language such as Chinese addresses meaning and the functional words such as conjunctions, conjunctive adverbs and prepositions are not always necessary in use when denoting the logical-semantic relationships between clauses. *Xinghe* means in language such as English the formal structures of sentences are addressed, and the functional words are generally required to present the relationship between clauses (Yu, 1993). The logic meaning is often implied in

Chinese and the way that people interpret the meaning is highly based on context. English is on the opposite—lexically expressed and low in relying on context (Yu, 1993). This is consistent with Hall's (1976) high-context culture and low-context culture. According to the respondents' explanations for their initial trust in person and organisation in study 1 and study 2, respondents in Chinese more addressed social and cultural values and gave more general explanations such as *“does not know the person/company, cannot trust”*; *“did not meet the person/organisation, cannot make judgement”*; *“no communication, no understanding”*; *“trust is the basis “An organization my company chose to make a deal must have its merits”*, *“Because we must had got enough information about the organisation which make us trust them”*, *“I think consumers' comments and the organization's public trust can reflect its situations”*, *“Based on the background I have done, I am trusting enough in the organization*, etc. Therefore, the different initial trust in English and Chinese is highly associated with the different logic-semantic relationships of the two languages which underpin meaning making at the syntactic-semantic interface of language. This suggests that the logic of language which is naturally developed in social and cultural circumstances plays a significant role in meaning making and information interpretation, thus significant in affecting people's initial trust. The outcomes from these studies addressed the third research questions regarding of the reason why the cultural factor impacts initial trust.

7.4 The quality and validity of the research

At the beginning of the research, the most appropriate research method (mixed-method research) was selected basing on research questions and the purposes of the mixed-method study, as described in the chapter of research methodology. This helps to ensure the design quality of the studies. The findings were developed from the results of the data analysis of studies in this research. The internal consistency and construct validity of each study was analysed and the quality in data collection and data analysis was discussed, which suggested that the results developed from these studies were reliable. This provides evidences to ensure the quality of the findings from the mixed-method results.

Basing on the recommended validity criterion by Wenkatesh *et al.* (2016) for mixed method research, the quality in the procedures of the studies was systemically assessed. Table 7-1 presents the quality of the research basing on the validity criterion involving of design

suitability, design adequacy, analytical adequacy, integrative efficacy, inference transferability and integrative correspondence.

Table 7-1: The quality in the procedures of the studies

Criteria	Indicators
Design suitability	Mixed-method research was selected as appropriate method based on the research questions and the purposes of mixed-method research which suggest that single method is limited in answering the questions.
Design adequacy	Quantitative and qualitative study, multi-strand studies, concurrent and sequential arrangements were designed basing on the research questions. All the studies were cross sectional. Participants were targeted at university students in UK and China to control social variable and focus on the effect of culture on initial trust. Cultural variables were controlled by targeting on university students in China when studying the effect of language on initial trust.
Analytical adequacy	The quantitative data was statistically analysed with the aid of SPSS to test the propositions. Appropriated analytical methods were adopted basing on the assumptions of each method and the purpose of the studies. Text analysis was applied to analyse the qualitative data.
Integrative efficacy	Meta-inferences were developed from the findings inferred from the results of the multiple studies. The quality of each study was assessed and discussed.
Inference transferability	Inferences were consistent with the proposed propositions.
Integrative correspondence	All the research questions were addressed as generally discussed in section 7.3. The research aims and objectives were realized too, which is assessed in section 7.8

Basing on Onwuegbuzie and Johnson's (2006) legitimation criteria, the quality of meta-inferences (findings from the mixed-method research) was further assessed, including sample integration legitimation, inside-outside legitimation, weakness minimisation legitimation, multiple validity legitimation and political legitimation (Table 7-2).

Table 7-2: Legitimation of the meta-inferences

Criteria	Indicators
Sample integration legitimation	A concurrent mixed method was adopted in collecting the samples. Questionnaires with closed and open-ended questions were used to collect the qualitative and quantitative data. Participants were from similar groups (university students). In study 1 and study 2, the same questionnaires were used, ensuring the sample integration.
Inside-outside legitimation	The questions in the questionnaires were discussed with colleagues and supervisor when designing the studies. The researcher and investigators were outside the investigation when collecting data. The researcher discussed with colleagues and supervisor to select appropriate methods to analyse the collected data.
Weakness minimisation legitimation	The potential threats and remedies were identified in the following section.
Conversion legitimation	When analysing respondents' explanation, the interpretation was conducted as close as possible to the respondents' feedback based on social semiotics.
Multiple validity legitimation	The construct reliability and validity of each study were tested. The quality in data collection and analysis was assessed in each study.
Political legitimation	Inferences and findings were developed on the basis of the results of the studies with theoretical explanations.

The sequential legitimation, paradigmatic mixing, and commensurability legitimation were not addressed in this research. This research conducted sequential methods. The following studies

were designed and conducted basing on the findings and implications of the previous studies. The results were consistent between the studies. In this research, paradigmatic paradigm was adopted, which is compatible for mixed methods. Commensurability legitimation involves switching between qualitative lens and quantitative lens. This was ignored in this study, as quantitative studies acted as the primary method. Onwuegbuzie and Johnson (2006) also suggested that the threat to the sequential legitimation and paradigmatic mixing would not result in major issues.

Based on the framework of Venkatesh *et al*, potential threats and remedies were discussed to minimize the threats, mainly focusing on the stages at data collection and data analysis.

Different respondents participated in the investigations in different phases. This resulted in certain threats to sample integration and inferences. To reduce the threats, the studies collected data mainly from university students. Regarding of initial trust in Chinese culture and British culture, data were collected from university students in UK and China. For the study of initial trust in the languages of Chinese and English, data were collected from university students in China. Different questionnaires were used in the studies. To reduce the threats to sample integration, questionnaires in each phase were designed from the implications from the previous studies. In phase 2, the questionnaire used in the study was the same one as in the study in phase 1 which was developed from reviews of previous studies of initial trust. Regarding of the studies in phase 3, the questionnaires used in the studies were designed following the suggestions developed from the qualitative data and quantitative data analysis of study 1 and study 2. All the questionnaires were of Chinese and English versions. To reduce the threats to sample integration, the translation between the languages were discussed with bilinguals of Chinese and English who were living in UK. Sample sizes were not always equal between Chinese group and English group. Large sample sizes in each study were applied to reduce the threats to sample integration.

Text analysis was utilised to analyse the qualitative data collected from respondents' explanations to the open-ended questions. This introduced threats to the objectivity during the conversion. To reduce the threats, the coding and interpretation was processed with the guidance of social semiotic view of language. To reduce the threats to multiple validities, quality of each study was discussed, and previews were conducted before the main study.

7.5 Implications

7.5.1 Language logic is significant in shaping human thinking.

This research identified that people had different level of initial trust in person when they were investigated in Chinese and English and people had similar level of initial trust in the language group of English. Initial trust occurred naturally with relevant information discovered before meeting an unknown person. The result indicated that language affects people's initial trust in a person and implies that language is significant in shaping people's thinking which is formed in social and cultural circumstances. Language is a social semiotic system formed in a social and cultural context, affording social and cultural meaning. Language acts as a prominent communication tool conveying information in human life, significant in human activities including human thinking. People who are using the same language would have similar view of an event, even the language is not their native language. The research identified that the meaning (lexical and grammatical meaning) on the wording level is not significantly different in Chinese and English. It implies that the main way that language affects human thinking lies in the natural logic of language, not on the wording level.

7.5.2 Language affects information interaction

As described above, language has an effect on human thinking. People using different languages tend to have different emphasis when interpreting information. Information is created and interpreted on the basis of meaning. Human actors interact with information through an interface between human actors and information content which is named as human information interface (Kamata, *et al.*, 2003; Dzandu and Tang, 2015). Through the interface, information activities such as information generation and information interpretation are carried out. All human information activities were performed by human thinking. This research implies that language affects human thinking, thus implies that language plays a significant role in human information interaction. Different languages are different in semantic resources to make meanings. The difference in natural logic of language that is developed in social processes is very significant in meaning making, thus significant in the way people interpret information on the basis of meaning. The natural logic of language would play a role in human information interface which conducts the transformation between meaning and information.

7.5.3 People are more likely to trust a person in foreign language

In the study of initial trust between the two languages of Chinese and English, Chinese was participants' native language while English was the participants' foreign language. It showed people in foreign language (English) were more likely to trust a person and have higher willingness to do business with a new company without face-to-face communication than people in native language (Chinese). This implies that people are more likely to trust a person in foreign language. It also implies that people are more likely to take risk in a foreign language. The result is consistent with Keysar and his team's (2012) studies of risk judgement in foreign language and propose that people are more likely to take risk in foreign language. But this requires further studies to provide more evidence, e.g., whether British people in foreign language have higher initial trust than people in native language.

7.5.4 People have different emotional responses to words in native language and foreign language

Words afford referential meaning and social meaning. The study of affectual meaning of words in Chinese and English indicated that people in native language tended to have more positive responses to the words with positive and neutral meaning (such as, help, quality, perfect, etc), and have more negative responses to the words with negative meaning (such as, failure, fraud) than in foreign language. More explorations are required to provide more evidence, e.g., whether people whose native language is English have different emotional responses to words in Chinese as foreign language.

7.5.5 Personality and the way of communication affects initial trust in business context

In study 1 and study 2 in the business context, initial trust in person, initial trust in organisation, initial business intention regarding of trustee's personality and the way of communication were investigated and analysed. The results from the two studies implied that organisation was more trustworthy than an individual before first meeting. This is in line with Kramer's viewpoints (2010) that the more formalized and institutionalized factors of organisations make organisations more stable and predictable than individual relations. This research implied that

trustee's personality is significant in initial trust and business intentions. Even the trustee represents an organisation, the representative's doubting personality would reduce the other parties' initial trust in the organisation and the intention to do business with the organisation. This is consistent with the studies of trust dimensions which describe that trustee's personal characteristics are important factors leading to trust and initial trust, such as reliability, honesty and competence (McKnight, *et al.*, 1998, Kim and Tadisina, 2003). It also implied that without face-to-face communication decreases the intention to do business with a new company. The result is in line with Growe's viewpoint (2018) that face-to-face communication is significant in trust development.

7.6 Contributions

7.6.1 Practical contribution

Uncertainty is highly associated with trust (Botsman, 2017) and is viewed as a proxy of customer trust (Friedrich *et al.*, 2019). It includes actual uncertainty and perceived uncertainty that lead to customer trust (Figure 2-1). Perceived uncertainty is subjective and is affected by individual's perceptions. This research provides evidence that culture matters in initial trust and language plays a significant role in affecting initial trust in different cultures. It implies that customer's cultural backgrounds and language environments play a significant role in perceived uncertainty, thus affecting customer trust in business context. In international business, different cultures are always involved, which can have an effect on customer's perceived uncertainty and affects customer trust. Managers in international organisations can notice the effect of different cultures on trust. To reduce the effect of culture on trust and improve customer trust, it is helpful for organisations to develop better language strategies because cultural effect on trust is highly associated with language.

In e-commercial context, face-to-face communication is not necessary which might make users more tentative to do business with a new company. Trust management is significant for online firms to attract new customers. Information systems help to provide information for customers to develop trust. This research provides evidence that culture and language have an effect on customer's initial trust and implied that language is significant in shaping human thinking and affecting human information interaction. It is difficult to control potential customers' culture

and language backgrounds. To reduce the cultural and language effect and improve customer's initial trust, IS designer and manager for international business need to pay more attention to system usability such as security, privacy, website quality, information quality, usefulness, ease to use, enjoyment of technology and familiarity with online environment. These manageable factors are associated with actual uncertainty which has an effect on perceived uncertainty (Friedrich *et al.*, 2019). Reducing actual uncertainty helps to reduce the cultural effect on perceived uncertainty and improve customer trust in international business.

It contributes to cross-cultural business communication and negotiation in which misunderstanding and different expectations often happen because of different cultures and languages. This research is beneficial for businessmen to predict the level of trust of the other party and make appropriate strategies to develop trust management by considering the other party's culture and language, which is helpful to reach an agreement.

For new product promotion in a new market with different cultures, language strategy is important. On one hand, using the local language is helpful to understand the local culture. On the other hand, using a foreign language for advertisement might help to increase potential customers' business intention, because people are more likely to trust others and take risk in foreign language.

7.6.2 Theoretical contribution:

7.6.2.1 New approach to initial trust

This research addressed the association among culture, language and initial trust from a social semiotic view. Cognitive-based, personality-based culture-based and technological-based perspectives are popular in studying the factors leading to initial trust in previous studies. This research provides a new approach to initial trust by addressing the role of language in initial trust and for the first time describes that the cultural effect on initial trust is associated with language. It also introduces a new approach to the cultural study of trust by introducing social semiotics which helps to deep study the reasons for the cultural effect on trust. It also develops

the research scope of social semiotics by studying social semiotic resource (e.g. language) in initial trust.

7.6.2.2 New approach to human information interaction

It provides new perspectives to understand the meaning base of human information interaction. HII is a dynamic and complex process on the basis of meaning. Belkin (1980, 2005) describes that human actors (information generators and information recipients) interact with information through text which is realized through linguistic and pragmatic transformation. Information is generated and interpreted on the basis of meaning at both linguistic and cognitive level. Dervin (1992) addresses the meaning base of information and describes that information production and interpretation is a sense-making process in a social, cultural and situational context. Dzandu and Tang (2015) view HII as a semiotic process in a social and cultural environment and describe that information interaction is processed through semantic interface which exists between human actors and information content. Through the interface, meaning is encoded and decoded, and information is generated and interpreted. This research implies that language logic is significant in meaning making and affects human thinking, thus has an effect on human information interface. This provides a new perspective to study how information is generated and interpreted by studying the role of language logic in human information interface. Human information interaction is processed on the basis of meaning in social and cultural context. Social semiotic view of initial trust in different cultures and languages provides evidence that social semiotics is appropriate to study meaning generation and interpretation in social dimension, integrating meaning making with social and cultural context. This provides a new approach to study the dynamics and complexity of HII from social semiotic perspective.

7.6.2.3 Expansion of the studies of human judgement in foreign language

Chinese respondents in the study of initial trust in Chinese and English used Chinese as native language and used English as foreign language to answer the questions. The results of the study imply that people have different initial trust levels in native language and foreign language, especially initial trust in person. It extends the studies of human judgement in foreign language which previously focus on moral judgement (Costa, *et al.*, 2014; Geipel, *et al.*, 2015) and risk

judgement (Keysar, *et al.*, 2012). This research not only identifies that people have different initial trust in foreign language and native language, but also provides evidence that people using foreign language have similar initial trust level with the people using the language as native language. It indicates that language affects the level of initial trust and has an effect on human thinking. The finding is new. There is no such knowledge in science, therefore new contribution to social science.

7.6.2.4 New contribution to Sapir-Whorf hypothesis

This research indicates that language affects people's initial trust and implies that language is significant in shaping human thinking. It further provides evidence for Sapir-Whorf hypothesis (Hussein, 2012) which studies the relationship between language and human thinking and proposes that language affects its speaker's thinking. This research identifies that meaning on the wording level (lexical meaning, grammatical meaning and affectual meaning) have limited effect on the different initial trust in different languages and proposes that the effect of language on initial trust lies in the natural logic of language not on the wording level. This provides a new perspective to study Sapir-Whorf hypothesis which previously focuses on different wording categories in different languages, such as time expressions (Boroditsky, *et al.*, 2002) colour categories (Andrews, *et al.*, 1994) or emotion (Cook and Bassetti, 2010).

7.7 Limitations

Limitations exist in the research. In the studies of the research, equivalent questionnaires in Chinese and English were used. The translation between the two languages was not assessed in methodical way but by discussing with bilinguals of Chinese and English. Although this research identifies that translation on the wording level has limited effect on people's meaning interpretation, it would be more reasonable to cross check the translation of the questionnaires between Chinese and English in a methodical way.

During the data collection in study 1 and study 2, some respondents did online questionnaires and some respondents did physical questionnaires. It would be better to only use online questionnaires or physical questionnaires, which helps to control potential threats during the collections. Regarding of qualitative data analysis, respondents' emphasis on inadequate

information and values conveyed by the respondents' explanations were summarised. It would be more objective to send back the summarised points to the respondents and obtain their feedback whether they agree these are their points.

This research identifies the cultural effect on initial trust by investigating people's initial trust in business context in UK and China and involves the languages of English and Chinese. The participants were targeted at university students. It is limited in generalizing the results into other cultures, languages and communities. It would provide more evidence for the findings that language affects people's initial trust by investigating people's initial trust in different languages and in other cultures. Regarding of the languages, this research only investigated Chinese native speakers who was bilinguals to English, it would more support the findings to investigate enough British people who speak English as native language and use Chinese as foreign language native speakers who are bilinguals to Chinese. Therefore, the results based on Chinese students can be cross checked and this can be a future research topic.

7.8 Assessment of research aims and objectives

The research objectives and aims were achieved, which were set out in Chapter 1 that describes the research background, motivation and research questions. Chapter 2-7 presents how the research objectives and aims were achieved.

In chapter 2, studies of trust and initial trust was reviewed. Definition of initial trust was defined and key factors leading to initial trust was addressed. Popular approaches to initial trust was studied such as cognition-based, personality based and culture-based perspectives. Research opportunity was clarified that the association between culture and initial trust requires further explorations from social semiotic perspective. Research scope was defined to focus on people's initial trust in business context in UK and China which are of different cultures. Social semiotics were studied, the key concepts and concerns of social semiotics were defined, the social semiotic base of initial trust and culture was clarified, and the theoretical background of this research was established.

In Chapter 3, research methodology was established. Pragmatism was chosen as an appropriate paradigm. Mixed methods were used, involving multi-phases arrangement and both qualitative

and quantitative approaches. Questionnaires with closed and open-ended questions were adopted as data collection method. Analysis methods were selected involving of descriptive analysis and inference analysis (Mann-Whitney test and Kruskal-Wallis test). Abductive reasoning was utilized to draw inferences from the mixed-method studies. Quality assessment methods were established.

In chapter 4, responses collected in UK and China regarding of initial trust in business context were analysed and discussed. Cultural effect on initial trust was identified by analysing data by the group of country. The potential reasons were discussed from the results by the group of ethnics and implications were drawn that language used in the study might affect people's initial trust and might be the reason for the cultural effect on initial trust in person.

In chapter 5, the objective to confirm implications developed from study 1 was achieved. The implication from study 1 that the different languages used in the different cultures might be associated with the cultural effect on initial trust was confirmed in this chapter by analysing people's initial trust by the group of languages (Chinese and English) in China. The results showed people were significantly different in initial trust in person in Chinese and English. The difference in initial trust in person between the two languages was consistent with the difference in initial trust in person between Chinese culture and English culture. This is consistent with the implication described in Chapter 4. Therefore, it is inferred that language affects people's initial trust and the different initial trust in different cultures is highly associated with language used in the culture. The potential reasons that language affects initial trust was discussed from social semiotic perspective and respondents' explanations for their answers to initial trust in the business context in study 1 and study 2. Propositions for further studies were developed.

In chapter 6, the research objective was achieved, which was to confirm propositions developed from previous studies that the different lexicogrammar and affectual meaning of words might play a role in affecting initial trust in Chinese and English. The results indicated that the lexicogrammar and affectual meaning of words were limited in affecting the different initial trust in different languages of Chinese and English and suggested that the natural logic of language plays a significant role in affecting people's initial trust in different languages.

In chapter 7, the outcomes were generally discussed, and key findings, implications, contributions and limitations were concluded.

With the fulfilments of the objectives, the research aims were achieved. The cultural effect on initial trust was further identified. The factor leading to the effect was identified, which was attributed to the language used in the cultures. The study of potential mechanism of language further identified the reasons for the cultural effect on initial trust.

7.9 Chapter summary

In this chapter, the outcomes were generally discussed based on research questions including the quality of the outcomes. All research questions were addressed, and the outcomes were highly reliable. This chapter concluded key findings, presented implications and contributions, describes limitations of the research. Key findings included that people with different cultural backgrounds have different initial trust in business context, language affects people's initial trust, the cultural effect on initial trust is associated with language, and the natural logic of language is significant in affecting initial trust. It develops implications for human thinking, human information interaction and the effect of foreign language on decision making. The findings have practical contributions to trust management and information systems management in business context and theoretically contribute to the study of trust and human information interaction. This research has limitations in data collection and data analysis and is limited in generalizing the outcomes into other contexts. Research objectives were evaluated by describing the contents of each chapter. With the fulfilment of research objectives, research aims were realized.

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Appendix

Appendix 3-1: Questionnaire for investigating the initial trust in different cultures.

Dear participants

I am doing my PhD study at the Informatics Research Centre/Business Informatics, Systems and Accounting, University of Reading, United Kingdom. I am conducting a study to measure the level of business trust, which is a part of my research on cultural effect on initial trust. There are no wrong or right answers and every response is very useful to the researchers for the purpose of the study. You are assured of the strictest confidentiality and anonymity. The questionnaire consists of 2 parts. Part 1 is about business trust in person and organisation and the likelihood to do business. Part 2 is about the personal basic information. Your participation in this research is voluntary. It should take you around 10 minutes to complete the studies. You have the right to withdraw at any point during the study, for any reason, and without any prejudice. If you would like to contact the researcher to discuss this research, please e-mail e.li@pgr.reading.ac.uk. Your participation is greatly appreciated.

Instruction: Assuming your company is involved in a new major business deal with another company and you are going to meet the representative(s) of that company. Given that you have done enough background studies on the company and the person you are going to meet; as the representative of your company,

1a) What would be your initial trust in the person you are going to meet?

1-Very low 2-Fairly trusting 3-Neutral 4-Highly trusting 5-Very highly trusting

1b) Briefly explain the basis of your answer? _____

2c) What would be your initial trust in the organisation you are going to strike the business deal with?

1-Very low. 2-Fairly trusting. 3-Neutral. 4-Highly trusting. 5-Very highly trusting

2b) Briefly explain the basis of your answer? _____

3) If you have doubt about the person you are going to meet, how likely are you to do business with the company he/she represent?

1-Not very likely 2-Not likely 3-Neutral 4-Highly likely 5-Very highly likely

4) Would you strike the deal with the new organisation without actually meeting them face-to-face?

1-Not very likely 2-Not likely 3-Neutral. 4-Highly likely 5-Very highly likely

5) Have you ever been involved in striking a business deal on behalf of your organisation?

Yes[] No[]

Background

i) Gender:	a) Male	b) Female				
ii) Age:	a) < 20yrs	b) 20-29	c) 30-39	d) 40-49	e) 50-69	f) 60+
iii) Country of current residence:	a) UK	b) China	c) Other (state)			
iv) Ethnic origin:	a) British	b) Chinese	c) Other (state)			
v) Highest educational qualification:	a) undergraduate b) postgraduate					
vi) Work experience/Years of service:	a) none	b) <1yr	c) 1-5yrs	d) 6-10yrs	e) >10yrs	

Appendix 3-2: Questionnaire for investigating words translation in Chinese and English

Dear participants

I am doing my PhD study at the Informatics Research Centre/Business Informatics, Systems and Accounting, University of Reading, United Kingdom. I am conducting a study to measure the corresponding of words in Chinese and English, which is a part of my research on cultural effect on initial trust. There are no wrong or right answers and every response is very useful to the researchers for the purpose of the study. You are assured of the strictest confidentiality and anonymity. Your participation in this research is voluntary. It should take you around 2 minutes to complete the studies. You have the right to withdraw at any point during the study, for any reason, and without any prejudice. If you would like to contact the researcher to discuss this research, please e-mail e.li@pgr.reading.ac.uk. Your participation is greatly appreciated.

Question: Do you think the translation of the following words is accurate? (1=not accurate, 2=accurate, 3=very accurate)

可靠——reliability

有安全感——feel safe

能干——competence

诚恳——honesty

Background

i) Gender:	a) Male	b) Female			
ii) Age:	a) <18	b) 18-25	c) 26-35	d) 36-45	e) >46
iii) Country of current residence:	a) UK	b) China	c) Other (state)		
iv) Mother language:	a) Chinese	b) Other (state)			

Appendix 3-3: Questionnaire for investigating meaning of business trust.

Dear participants

I am doing my PhD study at the Informatics Research Centre/Business Informatics, Systems and Accounting, University of Reading, United Kingdom. I am conducting a study to measure the meaning of business trust in Chinese and English, which is a part of my research on cultural effect on initial trust. There are no wrong or right answers and every response is very useful to the researchers for the purpose of the study. You are assured of the strictest confidentiality and anonymity. The questionnaire consists of 2 parts. Part 1 is about words related to business trust. Part 2 is about personal information. Your participation in this research is voluntary. It should take you around 5 minutes to complete the studies. You have the right to withdraw at any point during the study, for any reason, and without any prejudice. If you would like to contact the researcher to discuss this research, please e-mail e.li@pgr.reading.ac.uk. Your participation is greatly appreciated.

Question: To what extent do you think the following words are related to business trust (0=not related, 1=related).

- Fair
- Reliability
- honesty
- integrity
- act as thinking
- genuine
- feel safe
- competence

Background

i) Gender:	a) Male	b) Female			
ii) Age:	a) <18	b) 18-25	c) 26-35	d) 36-45	e) >46
iii) Country of current residence:	a) UK	b) China	c) Other (state)		
iv) Mother language:	a) Chinese	b) Other (state)			
v) Your foreign language proficiency:	a) Excellent	b) Good	c) Average	d) Poor	e) Terrible

Appendix 3-4: Questionnaire for investigating grammatical meaning of possibility

I am doing my PhD study at the Informatics Research Centre/Business Informatics, Systems and Accounting, University of Reading, United Kingdom. I am conducting a study to measure the grammatical meaning in Chinese and English, which is a part of my research on cultural effect on initial trust. There are no wrong or right answers and every response is very useful to the researchers for the purpose of the study. You are assured of the strictest confidentiality and anonymity. The questionnaire consists of 2 parts. Part 1 is possibility evaluation. Part 2 is about personal information. Your participation in this research is voluntary. It should take you around 5 minutes to complete the studies. You have the right to withdraw at any point during the study, for any reason, and without any prejudice. If you would like to contact the researcher to discuss this research, please e-mail e.li@pgr.reading.ac.uk. Your participation is greatly appreciated.

Question: Please evaluate the possibility of the following statements (1-very unlikely, 2-unlikely, 3-neither likely nor unlikely, 4-likely, 5-very likely).

1. The application should be dealt with in a public hearing.
2. The application must be dealt with in a public hearing.
3. The application could be dealt with in a public hearing.
4. The application might be dealt with in a public hearing.
5. The application would be dealt with in a public hearing.
6. The application must certainly be dealt with in a public hearing.
7. The application might possibly be dealt with in a public hearing.
8. The application would probably be dealt with in a public hearing.
9. The application is thought to be dealt with in a public hearing.
10. The application will be dealt with in a public hearing.

Background

i) Gender:	a) Male	b) Female			
ii) Age:	a) <18	b) 18-25	c) 26-35	d) 36-45	e) >46
iii) Country of current residence:	a) UK	b) China	c) Other (state)		
iv) Mother language:	a) Chinese	b) Other (state)			
v) Your foreign language proficiency:	a) Excellent	b) Good	c) Average	d) Poor	e) Terrible

Appendix 3-5: Questionnaire for investigating affectual meaning of words.

Dear participants

I am doing my PhD study at the Informatics Research Centre/Business Informatics, Systems and Accounting, University of Reading, United Kingdom. This questionnaire is meant to study the affectual meaning of words in Chinese and English, which is a part of my research on cultural effect on initial trust. There are no wrong or right answers and every response is very useful to the researcher for the purpose of the study. You are assured of the strictest confidentiality and anonymity. The questionnaire consists of 2 parts. Part 1 is about the positive/negative feelings of some items. Part 2 is about personal information. Your participation in this research is voluntary. It should take you around 10 minutes to complete the studies. You have the right to withdraw at any point during the study, for any reason, and without any prejudice. If you would like to contact the researcher to discuss this research, please e-mail e.li@pgr.reading.ac.uk. Your participation is greatly appreciated.

Question: Please evaluate the positive or negative meaning of the following items when you read them (1-Extremely negative, 2-Somewhat negative, 3-Neither positive nor negative, 4-Somewhat positive, 5-Extremely positive).

- help
- quality
- army
- war
- children
- failure
- fraud
- museum
- perfect
- surprise
- loss
- warmth
- ecosystem
- chess
- e-commerce
- poker
- marathon
- sculpting
- performance

Background

i) Gender:	a) Male	b) Female				
ii) Age:	a) < 20yrs	b) 20-29	c) 30-39	d) 40-49	e) 50-69	f) 60+
iii) Country of current residence:	a) UK	b) China	c) Other (state)			
iv) Mother language:	a) Chinese	b) Other (state)				
v) Your foreign language proficiency:	a) Excellent	b) Good	c) Average	d) Poor	e) Terrible	

Appendix 5-1: The output of Mann-Whitney test for initial trust by the group of language in study 2.

	initial trust in person	initial trust in organisation	intention to do business with an organisation if doubting about the representative	intention to do business with an organisation without face-to-face communication
Mann-Whitney U	19000.500	23485.500	23475.500	19800.000
Wilcoxon W	46730.500	51215.500	46053.500	47530.000
Z	-4.504	-1.093	-1.121	-4.019
Asymp. Sig. (2-tailed)	.000	.274	.262	.000
a. Grouping Variable: Language				

Appendix 5-2: The output of Mann-Whitney test for initial trust by the group of gender in study 2.

	initial trust in person	initial trust in organisation	intention to do business with an organisation if doubting about the representative	intention to do business with an organisation without face-to-face communication
Mann-Whitney U	19801.500	20403.000	20543.500	20250.500
Wilcoxon W	30532.500	31134.000	65393.500	30981.500
Z	-1.653	-1.170	-1.073	-1.327
Asymp. Sig. (2-tailed)	.098	.242	.283	.184
a. Grouping Variable: Gender				

Appendix 5-3: The outputs of Kruskal-Wallis test for initial trust by the group of age in study 2.

	initial trust in person	initial trust in organisation	intention to do business with an organisation if doubting about the representative	intention to do business with an organisation without face-to-face communication
Kruskal-Wallis H	7.826	2.896	4.218	6.744
df	3	3	3	3
Asymp. Sig.	.050	.408	.239	.081
a. Kruskal Wallis Test				
b. Grouping Variable: Age				

Appendix 5-4: The outputs of Mann-Whitney test for initial trust by the group of negotiation experience in study 2.

	initial trust in person	initial trust in organisation	intention to do business with an organisation if doubting about the representative	intention to do business with an organisation without face-to-face communication
Mann-Whitney U	19523.000	19743.000	16078.500	16058.000
Wilcoxon W	27273.000	71103.000	67438.500	67418.000
Z	-.272	-.084	-3.305	-3.345
Asymp. Sig. (2-tailed)	.786	.933	.001	.001
a. Grouping Variable: Q5: Have you ever been involved in striking a business deal on behalf of your organisation?				

Appendix 5-5: The outputs of Mann-Whitney test for initial trust by the group of education in study 2.

	initial trust in person	initial trust in organisation	intention to do business with an organisation if doubting about the representative	intention to do business with an organisation without face-to-face communication
Mann-Whitney U	15543.000	16189.500	17294.500	16016.500
Wilcoxon W	20593.000	76567.500	22344.500	21066.500
Z	-1.650	-1.067	-.052	-1.257
Asymp. Sig. (2-tailed)	.099	.286	.959	.209
a. Grouping Variable: Highest educational qualification				

Appendix 5-6: The outputs of Kruskal Wallis test for initial trust by the group of work experience.

	initial trust in person	initial trust in organisation	intention to do business with an organisation if doubting about the representative	intention to do business with an organisation without face-to-face communication
Kruskal-Wallis H	8.409	5.437	6.765	5.945
df	4	4	4	4
Asymp. Sig.	.078	.245	.149	.203
a. Kruskal Wallis Test				
b. Grouping Variable: work experience				

Appendix 6-1: The outputs of Mann-Whitney test for the meaning of reliability, feel safe, competence, honesty in Chinese and English.

	reliability	feel safe	competence	honesty
Mann-Whitney U	49188.000	49608.000	49068.000	50334.000
Wilcoxon W	98016.000	98436.000	97896.000	102984.000
Z	-.742	-.472	-.796	-.114
Asymp. Sig. (2-tailed)	.458	.637	.426	.910
a. Grouping Variable: language				

Appendix 6-2: The results of Mann-Whitney test for grammatical meaning of words in Chinese and English.

	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
should	1021.000	1801.000	-.981	.327
must	1111.000	2881.000	-.296	.767
could	922.500	1702.500	-1.742	.081
might	1010.500	1790.500	-1.052	.293
would	1129.000	2899.000	-.164	.870
must certainly	1144.000	2914.000	-.049	.961
might possibly	1039.500	1819.500	-.829	.407
would probably	1068.000	2838.000	-.622	.534
is thought to be	1055.000	1835.000	-.717	.473
will	918.500	2688.500	-1.767	.077

Appendix 6-3: The output of Mann-Whitney test for the affectual meaning of words in Chinese and English.

	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
help	72291.500	148536.500	-3.014	.003
quality	59116.000	135361.000	-7.220	.000
army	45994.500	122239.500	-11.136	.000
war	30379.000	106624.000	-15.831	.000
children	81346.000	157591.000	-.052	.958
failure	80334.000	167905.000	-.373	.709
fraud	61270.000	148841.000	-6.485	.000
museum	74216.500	150461.500	-2.341	.019
perfect	80298.500	156543.500	-.398	.691
surprise	61887.000	149458.000	-6.320	.000
loss	75901.000	152146.000	-1.824	.068
warmth	69612.000	145857.000	-3.910	.000
ecosystem	67751.000	143996.000	-4.444	.000
chess	76928.500	153173.500	-1.538	.124
e-commerce	67018.500	143263.500	-4.800	.000
poker	75414.500	151659.500	-2.091	.037
marathon	72178.000	148423.000	-2.985	.003
sculpting	62204.500	138449.500	-6.337	.000
performance	67751.000	143996.000	-4.472	.000
dancing	79419.500	155664.500	-.678	.498
marriage	79151.000	166722.000	-.753	.451
journey	73616.500	149861.500	-2.565	.010
team	66682.000	142927.000	-4.809	.000
family	75861.000	163432.000	-1.841	.066
brake	66769.000	143014.000	-4.996	.000

a. Grouping Variable: language