Investigating Factors Affecting Purchase Intention in Collaborative Consumption: The Antecedents of Social Trust and Self-efficacy

A thesis submitted for the degree of Doctor of Philosophy

By

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I hereby declare that this thesis is my original work and has never been submitted for a degree in any other university.

Abstract

Collaborative consumption (CC) has transformed the way people consume goods and/or services nowadays. With the information communication technology (ICT), CC platforms connect the users to trade services and products. On the one side of the platform consists with consumers, on the other side of the platform consists with services and/or product providers. The increased popularity of the CC platforms has challenged many traditional incumbents. Several attempts have been made to address the issues, such as the social and economic impacts, drivers of CC, the attributes of the users and characteristics of the CC model. Nevertheless, limited research attention has explored how social trust and self-efficacy could affect people's intention to participate in collaborative consumption, hence failing to explain how collaborative consumption could be promoted in society to support community building and the resource-saving consumption culture. To address this research gap, this study proposes a comprehensive framework that explains how social trust and self-efficacy drive users' purchase purchase intentionin CC. The framework also investigates the antecedents of social trust through system quality, shared goals, social referral and network stability, whereas the antecedents of self-efficacy include social referral and shared goals.

Employing partial least square structural equation modelling (PLS-SEM) and importance-performance matrix (IPMA), with data collected from 373 respondents using TaskRabbit, a skill-based exchange collaborative consumption platform. The findings from this study reveal that both social trust and self-efficacy play vital roles in determining user's purchase intention in CC. Social referral, system quality, and shared goals were found to positively affect social trust and self-efficacy. In particular, shared goals is proven as the strongest antecedent in determining social trust and self-efficacy, highlighting its relevance in promoting collaborative consumption.

This study is the first to introduce and empirically test the effects of social referral on individuals' self-efficacy. The framework developed in the study provides new insights into the understanding of social trust and self-efficacy in CC, leading to practical managerial implications for collaborative consumption platforms and firms.

Keywords: collaborative consumption (CC); social referral; social trust; self-efficacy; shared goals.

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Glossary

CC = Collaborative consumption

CFA = Confirmatory factor analysis

CB-SEM = covariance-based structural equation modelling

GSCA = generalised structured component analysis

IPMA = Important performance analysis

ICT = Information and communication technology

IS = Information system

MCD = Minimum covariance determinant

MVE = Minimum volume ellipsoid

PLS = Partial least square

SD-LOGIC = Service dominant logic

SEM = Structural equation modelling

TAM = Technology acceptance model

Chapter 1 Introduction

CHAPTER 1: INTRODUCTION

1.1 Study Background

Collaborative consumption (CC) has become a prevalent form of exchange between individuals, as evidenced by the rapid growth of 60% in 2017 (Ozcan et al., 2017). With 23% of the UK population actively using the service (Ozcan et al., 2017), CC is expected to be worth over £140 billion by 2025 (PwC, 2015). CC distinguished itself from traditional business frameworks, as it relies on a peer-based triadic framework that involves sellers or service providers, buyers, and the platform owners (Benoit et al., 2017; Machuca et al., 2022; Wainaina and Mutogh, 2022). It can be defined as "a scalable socioeconomic system that employs technology-enabled platforms to provide users with temporary access to tangible and intangible resources that may be crowdsourced." (Eckhardt et al., 2019). Typically, CC firms operate as platform owners to facilitate matchmaking mechanisms to connect both sides of the users. One side of the platform consists of consumers who are searching for services or goods – that is, a price reduction offered by sellers on the other side of the platform.

Within the framework of CC, all actors benefit from economic gains (Belk, 2007; Botsman and Roger, 2011; Benoit et al., 2017), so-called consumer value co-creation (Nadeem et al., 2020). Value co-creation refers to a procedure that different parties generate valued outcomes collaboratively (Prahalad and Ramaswamy, 2004). CC unlike traditional business, instead of paying full price and owning things, the buyers only need to pay a matching fee to the platform owners and a temporary access fee to the sellers (Bardhi and Eckhardt, 2012). The sellers then obtain the monetary benefit from sharing their goods or skills, whereas the platform owners obtain the economic gain from matching the buyers and sellers (Benoit et al. 2017). CC has posed competitive threats to traditional incumbents (Eckhardt et al., 2019), ranging from transportation (e.g., Uber), lodging (e.g., Airbnb), financial service (e.g., Funding Circle), food services (e.g., Deliveroo) and skill-based exchange (e.g., TaskRabbit).

The triadic model of CC can be traced back to human history (Felson and Spaeth, 1978). It has been viewed as a way to meet people or help each other in the community (Bardhi and Eckhardt, 2012). By providing social value, the development of CC helps to foster a sense of

community by increasing interpersonal interactions (Belk, 2007; Botsman and Roger, 2011). CC also helps reduce resource waste by encouraging users to exchange and reuse their unwanted or underutilised assets (Albinsson and Perera, 2012), responding to the calls for sustainable living through resource sharing and efficiency (Leismann et al., 2013). Such benefits have drawn great attention from various research communities, including information systems, marketing, economy and psychology in discussing why and how the sellers and the platform owners could develop alternative business strategies that help them increase their popularity (Lamberton and Rose, 2012; Celata et al., 2017; Mauri et al., 2018). Furthermore, research also shows that the concepts of CC, including the participated individuals do not hinge on the ownership of products but, rather, on new opportunities for exchange that comes with nostalgic pleasure (Guiot and Roux, 2010; Botsman and Roger, 2011; Sundararajan, 2014). This is because nostalgic pleasure is stemmed from self-determined motivations, such as monetary benefits, social value, sense of community and eco-efficiency (Bucher et al., 2016; Tussyadiah, 2016; Luri Minami et al., 2021; Wainaina and Mutogh, 2022).

However, some scholars argue that relying on a motivation-based approach alone to promote CC is insufficient, as the triad of CC requires maintenance and enhancement by promoting entry and growth of users (Maciel and Fischer, 2020; Rong et al., 2021; Wainaina and Mutogh, 2022). In order to maintain the triad of CC, a business ecosystem in continued growth is required (Rong et al., 2021). This is not uncommon to most CC platforms since the sellers are the suppliers of CC. Acquier et al. (2017) pointed out the necessity of identifying factors that may affect the balance between the users. This is crucial because the more sellers or service providers join the platform, the more likely it will attract more users to register with the platform (Scaraboto, 2015). Correspondingly, the greater the number of users (as potential buyers), the greater the platform's advantage for the sellers or service providers.

1.2. Problem Statement

The existence of CC is often situated within the grey regulatory area, where the sellers or service providers are random individuals rather than professionals (Sundararajan, 2016). For example, the gardener on TaskRabbit may be someone who is proficient in his/her own gardening rather than a professionally trained gardener. As such, for CC users, social trust has

become an important factor that explains the purchase intention of CC, knowing that the service provider may not be a professional and the platforms are not so well regulated. Furthermore, CC distinguishes itself from other e-commerce platforms or digital marketplace by facilitating CC exchanges physically. For instance, an Uber ride means that a user will have to enter the driver's car physically in order to complete the ride, which in turn, creating higher risks for both the sellers and the buyers, such as malicious behaviours. In the case of lodging, studies have found that the hosts of Airbnb suffered from digital discrimination (Liu & Mattila, 2017), such as racial and sexual discrimination (Edelman et al., 2017).

CC implies working together as a community which often involves interdependence (Albinsson and Perera, 2012), the members must therefore rely on others in various ways to complete the transactions. Since the transactions in CC imply co-presence and dealing with unregulated service providers (Celata et al., 2017), the balance between trust and risk is considered of critical importance in the purchase intention of CC (ter Huurne, et al., 2017; Ert, Fleischer & Magen, 2016). Nevertheless, extant literature on CC has not fully addressed the potential problems of trust associated with individuals using the platforms, nor have the studies attempted to understand the antecedents that drive trust. This thesis argues that social trust is particularly relevant in the context of CC, as it is a type of trust that associated with multiple entities (Delhey and Newton, 2003; Zhai, 2019; Tchorek et al., 2020). Social trust defined as the expectations that derived from cooperative behaviour between the members in a honest community, based on common shared norms (Fukuyama, 1996). Compared to generalised trust and interpersonal trust, which concerned with two entities, such as trustor and trustee (Mayer et al., 1995; Jones and George, 1998; Wang and Emurian, 2005). The concepts of social trust address the trust arises between the members of a community (Fukuyama, 1996). Thus, by investigating the role of social trust in CC, this thesis enriches the knowledge of trust in CC.

Furthering the vital role of trust, another relevant factor is self-efficacy (Bandura, 1986), which derives from the connections between individuals and their social environment. Bandura (2001) stated that self-efficacy helps individuals to form the belief and ensure their capability of completing certain tasks. In the context of ridesharing, self-efficacy has been found as a

fundamental factor that drives the users' perceptions of value and their intentions to purchase into purchase in (Zhu et al., 2017). However, self-efficacy is a multidimensional facet (Choi et al., 2001). In this study, self-efficacy is measured as an application-specific self-efficacy. It can be defined as a set of beliefs that individuals established to ensure they are capable of executing task-specific performance (Bandura, 1997). Wu and Wang (2015) suggested that the validity and predictive relevance will be greater when self-efficacy is examined for task-specific or technology-related context. purchase intentionpurchase intentionThus, self-efficacy may represent a vital role in driving individuals' CC purchase intention purchase intention. Zainab et al., (2017) studied the context of e-learning platform, the results did not show that self-efficacy has an impact on users' purchase intention. These results are inconsistent, suggesting the needs for re-examination of self-efficacy according to the study settings. In addition, examining self-efficacy in CC is important, as it adds to the understanding of why individuals use CC, including concepts such as behavioural outcome. Since the participation of CC require the use of platform technology before the perception of values, this prompts the question about the factors that could influence individuals' perceptions of self-efficacy in CC purchase intentionpurchase intention.

This study tackles these unaddressed yet important factors in this study by focusing on CC as a virtual community (Belk, 2007), thereby complementing with work focused on the effects of self-efficacy (Bandura, 1986; Lewis et al., 2003; Zhu et al., 2017) and the antecedents of social trust in social capital (Chiu et al., 2006; Williams, 2006; Luo et al., 2020). Whilst most of the CC studies are focused on ridesharing or lodging services (Eckhardt et al., 2019), this study chooses the skill-based exchange in CC - TaskRabbit - to investigate the effects of social trust and self-efficacy on individuals' purchase purchase intention. Skill-based exchanges focus on a different kind of resource-sharing. Compared to lodgings (e.g., Airbnb) and transportation services (e.g., Uber), skill-based exchanges do not require sharing goods or temporary ownership of properties but individuals' skills and time. TaskRabbit connects buyers to service providers and facilitates the exchange of everyday tasks, such as cleaning, moving heavy goods, delivering and handyman work. By empirically testing how social trust and self-efficacy drives CC purchase intentionpurchase intention, this study sheds new light to the understanding of purchase purchase intentionpurchase intentionin CC. Therefore, this study will specifically address the following research question:

What are the effects of social trust and self-efficacy on individual's intentions to purchase into purchase inpurchase in CC, and how are these effects influenced by the antecedents?

A research framework is established along with seven hypotheses proposed to answer this research question.

1.3 Thesis Statement

This study argues that social trust along with self-efficacy play important roles in the context of CC. More specifically, these two constructs have effects on individuals' intentions to CC. Based on the comprehensive literature review, four possible antecedents were identified and included in the framework: social referral, network stability, shared goals and system quality. Social trust derived from CC as an online community is determined by the perception of social referral, network stability, shared goals and system quality. Whereas the antecedents of self-efficacy include shared goals and social referral. The developed framework utilised the relevant literature (e.g., online community, collaborative consumption, purchase intention) and applying the concepts of social capital theory and social cognitive theory, to investigate the relationships between proposed antecedents and the effects on purchase intention

1.4 Research Motivations

This study is mainly motivated by the needs of understanding of trust in CC, the results will also support the CC firms to address the related issues when operating in Britain. Prior studies stated that some CC firms are more successful than others and investigated the drivers of likelihood to use CC (Hamari, Sjöklint and Ukkonen, 2015; Möhlmann, 2015; Liang et al., 2021). Further, most of the CC literature have focused on certain settings, in particular, investigating ridesharing and lodging settings. This study is concerned with the skill-based exchange and sheds light on the understanding of skill-based exchange in CC. Moreover, previous research on trust related issues in CC have stated that the trust is established by the rating system (Botsman and Roger, 2011). However, Celata et al. (2017) argued that relying on the rating system alone is insufficient to establish trust between the users. The trust in CC

is likely to be related to social capital or associated with the communities (Sundararajan, 2016). Research in technology related platform has also shown that trust is a crucial factor in driving individuals' purchase intention. The need for this study arises which lead to a set of aims and objectives.

1.5 Research Aims and Objectives

This study aims to investigate the trust and risk tension in CC purchase intention, by examining how social trust and self-efficacy affect user's CC purchase intention as well as the antecedents. The results of the study extend the knowledge of the context of CC and the drivers of purchase intention. In order to address the question, the following objectives are proposed:

1. To specify the characters of CC by conducting a comprehensive literature review on CC and show the difference between traditional business models and CC model.

2. To develop a framework that represent the understanding the role of social trust and self-efficacy and the outcome variable (purchase intention).

3. To empirically and conceptually assess the hypothesised relationships and validate the research framework.

4. To compare the results with the relevant literature and provide theoretical and managerial implications based on the key results. And provide new directions and suggestions for future research.

1.6 Research Methodology

In order to understand the effects of social trust and self-efficacy and how their antecedents can together drive individuals' purchase intention in CC, this thesis first conduct a comprehensive literature review on the characters of CC and the concepts of trust in CC. Second, the study draws on social capital literature (Nahapiet and Ghoshal, 1998) and social cognitive theory (Bandura, 1986) to develop a framework to identify the antecedents of social trust and self-

efficacy and whether these two concepts affect individuals' purchase intention. As this study attempts to predict that social trust and self-efficacy can drive individuals' purchase intention, a positivist approach is chosen. Hence, the study aims to empirically and conceptually validate the framework through a quantitative method. The development of questionnaire was constructed based on the research framework and the relevant literature. Due to the nature of CC, for example, it is not operating in all regions of Britain currently. Moreover, this study aims to capture the representative data in addressing the research question. The chosen survey method was stratified random method (Saunders et al., 2018). Focusing on the certain regions (Bristol, Manchester, Birmingham, and London) in the United Kingdom, the relatively new market that the skill-based exchange - TaskRabbit established in 2018, an online quantitative survey was conducted, with usable data collected from 373 TaskRabbit users. The data had been screened for identifying missing data and outliers before the estimate. The analysis methods include partial least square structural equation modelling (PLS-SEM), importance-performance matrix (IPMA) and robustness checks to ensure the results are unbiased.

1.7 Thesis Outline

The structures of this thesis involve seven chapters, which follow the five stages of the research. These five stages encompass background literature, focal theories, development of model and hypotheses, data collection and statistical analysis, and finally, results and contribution. The background literature is concerned with identifying and evaluating the study area, motivations and needs. Focal theories refer to the stage that identifies the relevant theories, which can be used to explain a phenomenon. Next, the development of research framework and hypotheses involves reasoning and evaluating the possible relationships between the constructs. After that, data collection and statistical analysis are concerned with the identification of adequate design of methodology and method for the study. Finally, results and contribution consist of a discussion of the results of the study and the reflection of the existing literature, whilst drawing the conclusions of the study accordingly. The seven chapters of this thesis are briefly outlined below,

Chapter 1: Introduction

This chapter present the outline of this study, includes the research background, problem statement, motivations, and statement. It also briefly illustrated the key findings and contributions of the study.

Chapter 2: Literature Review of Collaborative Consumption

This chapter is concerned with a critical review of the CC literature and identifying the literature gap. It starts by exploring the definitions and the concepts of CC. It then highlights the three positive impacts that CC generates, which are economic, environmental and social. Whilst illustrating the impacts, the downside of the CC is also presented. For example, the barriers that prevent the growth of CC as well as the legal and regulatory issues. Next, the business model of CC and the characteristics of CC are classified. This thesis then focuses on the factors that may affect the maintenance of the CC model. The examples were also demonstrated and discussed. Finally, this thesis showed the characters that can distinguish the difference between traditional e-commerce and CC.

Chapter 3: The conceptual framework and hypotheses development

This chapter focuses on the relevant theories and the theories employed to guide the development of the conceptual framework. After explaining the theories and the relevant literature, seven constructs are included in the framework. This chapter then illustrates the proposed hypotheses according to the existing literature.

Chapter 4: Research Methodology

This chapter starts with a discussion on the different research methodologies and methods. It then explains the reasons behind the chosen methodologies and methods for the study. In addition, this chapter presents a map to show the research design of the study. Next, it illustrates the common methods of data collection, and selects a method that can capture the representable data for the model. After obtaining the ethic approval, the following tests were conducted, pre-test and pilot study to ensure that the model and its measurements have satisfactory reliability

for a larger test. Finally, this chapter presents the data collection procedure involved in the main study.

Chapter 5: Data Analysis and Results

This chapter focuses on the analysis of the main study and the results from PLS-SEM. It presents first, the results from data screening and descriptive statistics. Second, using measurement assessment model to evaluate the reliability and validity. Third, using structural assessment model to estimate the predictive statistics of the model, hypotheses testing. And finally, the second analysis was also conducted and presented in this chapter, which is importance-performance matrix.

Chapter 6: Discussion

In this chapter, a discussion of the results from PLS-SEM is illustrated. The results are discussed according to the relationships between the constructs and their positions within the relevant literature. The thesis also considers the findings across different disciplines to compare different findings and the possible explanations.

Chapter 7: Conclusion

This chapter is the last chapter of the thesis. It concludes the study according to the key findings and the main contributions. It also offers theoretical implications and managerial implications for the relevant business practices. Finally, it highlights the limitations of the study and suggests future research directions.

Chapter 2 Literature Review

CHAPTER 2 – LITERATURE REVIEW

2.1 Introduction

Collaborative consumption (CC) has experienced rapid growth in recent years. This has resulted in significant impact on traditional incumbent. The motivations of individuals participating CC and the concept of CC have recently gained significant academic attention. Such motivations are not sufficient in understanding the participants of CC. In addition, the concept of CC in the literature has been suffered from a lack of coherence, thus, indicating that there is a need to review the literature. This chapter, therefore, examines the literature that focus on the definitions, concepts, business model, and the participants' motivations of CC. Through the review of literature, this thesis highlights the main characteristics of CC and the differences between traditional e-commerce and the model of CC. In addition, this chapter also provides the barriers that preventing the growth of CC and the need for enhancing the model of CC.

The rest of this chapter is structured as follows. Firstly, this chapter defines CC and discusses the differences between each definition in the literature. Then, examine the impact of CC from economic, social and environmental perspectives. Having reviewed the impacts that showed in the literature, this thesis then provides the negative sides of CC. Next, an analysis of different types of CC and their business models. From here, this thesis uses examples to show how each type is distinguished from each other. Finally, this chapter will show the research gaps based on the literature review and drawn a conclusion.

2.2 Defining Collaborative Consumption

Collaborative consumption (CC) has been acknowledged as a type of exchange between peers and, stated "as old as humankind" by Belk (2014a). The participation of CC enables individuals to interact with each other to exchange information, experiences, time, skills, and materials. The existing literature showed no general agreement upon the definition of CC (Nadeem et al., 2020), though researchers emphasised the characteristics of one specific aspect of CC. First, the studies considered that CC as a technological phenomenon, emerged from peer-to-peer (P2P) sourcing and online file sharing. According to Belk (2014a), CC is a technological phenomenon as its reliance on the Internet, especially the use of Information and Communication Technology (ICT). The growth of ICT facilitated platforms have not only

created new ways of sharing but also extended the older forms of sharing (Hamari, Sjöklint and Ukkonen, 2015). Classical examples of these involve P2P file sharing platform like Soulseek where individuals can share music and files; open-source software like GitHub that is collectively established and renewed by a group of web developers. And collaborative online encyclopaedias (e.g., Wikipedia) that are usually created by volunteer peers and can be accessed by anyone (Frenken and Schor, 2017). These examples are considered as non-compensations exchange, where the users can freely upload or access to the vast collection of shared files (Belk, 2014a). Botsman and Roger (2011) described the phenomenon as "collaboration" to illustrate the ICT-facilitated exchange between individuals is no longer limited to geographical, cultural, or community-ascribed factors. These definitions characterised ICT mediated CC, encompass exchange like bartering, trading, and swapping. However, CC in its totality is much more than the use of ICT and the exchange between peers.

Second, the modes of exchange in CC are based on leasing and rental arrangements. Bardhi and Eckhardt (2012) used the term "access-based consumption" to describe CC. CC provides its users temporarily access to products rather than full ownership of goods. Therefore, the notion of renting out under-utilised assets is also one of the concepts in these definitions (Richardson, 2015). The access-based exchange is considered as compensation-based exchange (Belk, 2014a), range from bikes, tools, household items, cars and individuals' own properties (Botsman and Rogers, 2010). Belk (2014a) described that this type of exchange is within the conceptualisation of social practices that required self-interest motivations and the values. In essence, the rental and leasing exchange in CC is based on a business relationship but disguised as communal sharing. The renters perceive reduced rental fee while using goods that they like or need, while the owner of the goods/properties receive a fee from leasing (Benoit et al., 2017). Thus, all users receive the values as well as risks from the transactions. The examples including sharing of space in the case of Airbnb. Airbnb enables individuals to book and share their own properties. Other example includes the case of Karshare where individuals can lease their vehicles or book vehicles for temporarily use. However, this concept of CC may be precise in the context of car sharing and lodging (Ertz et al., 2019), it excludes other modes of exchange such as, second-hand goods consumption, skills and time-based exchange (Botsman and Rogers, 2010).

***Table 2-1**: List of definitions of collaborative consumption*

Authors	Definitions of collaborative consumption	Mode	Examples
Felson and Spaeth (1978)	"Those events in which one or more persons consumer economic goods or services in the process of engaging in joint activities with one or more others" (p. 614)	Offline	Sharing within community
Belk (2007)	"…the act and process of distributing what is yours to others for their use and also the act and process of receiving something from someone for your own use" (p. 126)		
Botsman and Rogers (2010)	"The rapid explosion in swapping, sharing, bartering, trading and renting being reinvented through the latest technologies and peer-to-peer marketplaces in ways and on a scale never possible before" (p. xv)	Online and offline	Netflix, Zipcar, and Car sharing
Bardhi and Eckhardt (2012)	"Access-based consumption as transactions that may be market mediated but where no transfer of ownership takes place" (p. 881)	Online	Carsharing
Heinrichs (2013)	"…economic and social systems that enable shared access to goods, services, data and talent…. take a variety of forms but all leverage information technology to empower individuals" (p. 2049)	Online	
Belk (2014a)	"People coordinating the acquisition and distribution of a resource for a fee or other compensation" (p. 1597)	Online	Carsharing
Richardson (2015)	"…forms of exchange facilitated through online platforms, encompassing a diversity of for-profit and non-profit activities that all broadly aim to open access to under-utilised resources through what is termed 'sharing'". (p. 121)	Online	
Hamari, Sjöklint and Ukkonen (2015)	"Peer-to-peer based activity of obtaining, giving, or sharing the access to goods and services, coordinated through community-based online services" (p. 2049)	Online	
Muñoz and Cohen (2017)	"a socio-economic system enabling an intermediated set of exchanges of goods and services between individuals and organisations which aim to increase efficiency and optimisation of under-utilised resources in society" (p. 21)	Online	
Perren and Kozinets (2018)	"a market that is formed through an inter-mediating technology platform that facilitates exchange activities among a network of equivalently positioned economic actors" (p. 21)	Online	Skill-based exchangeskill-based exchange, renting vehicles, ride-sharing service, swapping
Eckhardt et al. (2019)	"A scalable socioeconomic system that employs technology-enabled platforms to provide users with temporary access to tangible and intangible resources that may be crowdsourced." (p. 7)	Online	

Ertz et al. (2019)	"The set of resource circulation schemes that enable consumers to both receive and provide, temporarily or permanently, valuable resources or services through direct interaction with other consumers or through an intermediary." (p.32)	Online
Klarin and Suseno (2022)	"commercial and non-commercial sharing of goods and services that is coordinated via online platforms without the transfer of ownership." (p. 250)	Online

Third, the CC is defined by the crowd-based capitalism and transformation of the values from one side of the users to another. Sundararajan (2016) observed that the resources in CC are owned by individuals rather than owned by a company. Through a digital platform operated by an intermediary firm, these resources are accessible to all the participants with a fee (Bucher et al., 2016). Although most studies agree on the general concepts of CC as acts of joint consumption of goods that are owned by one of the sharing parties, other defining concepts of CC are debated when the literature shifted from conceptualising CC to exploring the type of exchange in CC. For example, Albinsson and Perera (2012) examined non-profit mode of exchange and considered the users of CC are anticonsumption of goods. Scaraboto (2015) emphasised the blurring line between non-fit exchange (e.g., gift-giving) and market-based exchange (e.g., leasing). However, non-profit modes of exchange should be excluded from the context of CC (Bardhi and Eckhardt, 2010; Lamberton and Rose, 2012; Belk, 2014b; Sundararajan, 2016; Ertz et al., 2018; Eckhardt et al., 2019).

Instead, CC can be characterised by the entities involved in the transactions. First of all, the exchange involves renting or leasing goods is temporarily accessed (e.g., Bardhi and Eckhardt, 2012; Lutz and Newlands, 2018). Second, the access to goods or services requires a monetary fee, since CC does not include informal sharing activities which fits Belk's definition of 'true sharing' (Belk, 2014a), such as providing a guest room for a friend to stay over without expectation of payment (Kumar et al. 2018). Third, the transactions in CC are operated by a digital platform which provides match-making algorithm to connect the goods/services providers and the users of resources (Benoit et al., 2017). Fourth, CC extends the role of consumer involvement since the consumers in CC can take on roles from both acquisition and disposition (Bardhi and Eckhardt, 2010). For example, the Uber drivers have to maintain and clean their vehicles for the next user. Finally, the supply of resources in CC is crowdsourced

from different individual consumers (Sundararajan, 2016). For example, the Uber drivers aggregate their time and vehicles to fulfil the balance of supply and demand.

Table 2-1 provides a list of definitions developed for CC; previous studies appear to define CC based on the forms of exchange. As a result, the definition used in the study is from Eckhardt et al. (2019, p.7) who defined CC as "a scalable socioeconomic system that employs technology-enabled platforms to provide users with temporary access to tangible and intangible resources that may be crowdsourced." This definition provides the foundation of CC including the sharing parties and the characteristics of CC. The following section discusses the impact of these key components of CC on different dimensions.

2.3 Economic, Environmental, and Social Impact

CC model includes sharing, trading, or renting goods and services, providing individuals opportunities to utilised others' cars, tools, properties and even personal skills. By doing so, CC also bringing individuals together as buyers and sellers, circulating the pooled resources to co-create the value (Nadeem et al., 2020). Value co-creation refers to a process that different parties work together to approach valued outcomes (Chen et al., 2018). Since the resources in CC are owned by the sharing parties, the cost of transactions is generally low (Hamari, Sjöklint and Ukkonen, 2015). Sharing goods or services is often regarded as economical (Belk, 2010), allowing more efficient way of saving economic resources (Phipps et al., 2013). Fraiberger and Sundararajan (2015) explored the economic impact of Getaround (a car sharing firm), they found that car sharing industry provides consumers a substitute of ownership and consumer surplus, particularly for the users with below-median income. Zervas et al. (2013) observed the economic activities of Airbnb (an accommodation sharing firm) and its impacts on traditional hotel industry. Their empirical evidence showed that CC is significantly changing the consumption patterns, Airbnb offers a viable though imperfect, alternative types of overnight accommodation. The growth of Airbnb also provides a sign of increasing demand for accommodation, suggesting the impact could be more pronounced over time (Guttentag, 2015). The participation in CC also provides opportunities for innovations and new jobs (Sundararajan 2016), for instance, Etsy (a retailing firm) that focus on selling handmade or vintage items and crafts from individual sellers. Sundararajan (2016) point out that the sellers were able to quit their day job after a year of selling their crafts on Etsy. Therefore, the more individuals

participate in CC the higher chances lead to a new economic model, in which the ownership of goods will be replaced by access with lower-cost options (Botsman and Rogers, 2010) as well as empower the micro-entrepreneurs (Zmyślony et al., 2020).

CC comprises the capacity of accumulating individuals' resources while brining economic interests in line, it maximised the consumption of under-utilised assets by putting them into more productive use (Koopman et al., 2015). Therefore, CC is also considered as a more sustainable business model than other sectors (Murillo et al., 2017). Hamari, Sjöklint and Ukkonen (2015) found that the users in CC often influenced by intrinsic benefits such as an ecological way of consuming goods, while Tussyadiah (2014) point out the sustainability benefits to be the key motivational factor in participating accommodation sharing. Gransky (2014) described that there is an increased awareness of environmental pressure, more and more individuals are looking for ways to use resources in a more efficient way. Hence, participation in CC reduces the productions of new goods thus reduce the consumption of raw materials, in which encourage the development of durable product for intensify use (Botsman and Rogers, 2010). In the context of accommodation sharing, individuals enjoy reduced energy consumption and resources (Jiang and Tian, 2018). In car sharing and ride sharing, one individual uses the service meaning one less car on the roads.

Sharing in the conceptualisation of CC is considered as "act and process of distributing what is ours to others for their use and/or the act and process of taking from others for our use" (Belk 2007, p. 126). In fact, sharing between peers is rooted from offline community where individuals were helping each other in their neighbourhood (Felson and Spaeth, 1978). With the advancement of ICT, the act of sharing has become more feasible. Thus, provide individuals more opportunities to interact with each other. Guttentag et al. (2018) explore the social impact on accommodation sharing website, they discovered that the users generally find it was enjoyable to interact with people in the locals compared to staying in a traditional hotel. Liang et al. (2021) found that participating in skill-based exchange allows individuals to extend their social networks and improve their social recognition, such as making new friends and doing tasks that they are proficient in. Indeed, that many follow-up studies have found social impact related factors include sense of community (e.g., Barnes and Mattsson, 2017) and feeling connected to societies (Ballantine, 2010). Botsman and Rogers (2010) explained that CC

transformed consumers' point of view in physical products, individuals ownership and self-identity. As the fundamental concept of CC is "you are what you can access" (Belk, 2014b), using or providing shared resources help individuals to express who they are.

2.4 Barriers: Legal, Regulatory and Policy Issues

Although CC provides many benefits, it is becoming clear that CC is situated within the grey regulatory area (Koopman et al., 2015). First, legal and regulations are sought to protect consumers, such as unequal bargaining power, inadequate competition, price gouging, health and safety. Unfortunately, the current regulation does not apply to those who are re-using the goods or providing services through CC platforms (Koopman et al., 2015). The sellers or service providers in CC are random individuals rather than professionals (Sundararajan, 2016). For example, the hosts who offer short-term accommodation rental/sharing through platforms like Airbnb are not like traditional hoteliers. Similarly, the delivery couriers who offer to goods or food delivery through platforms like TaskRabbit are not like traditional delivery couriers. The rising concern about liability can prevent individuals from using CC.

Second, the concerns over submitting personal information to unregulated firms (Lutz et al., 2017). Since the transactions in CC are facilitated through digital platforms, the users are requested to submit their personal information for digital identity verification. The personal information may include full name, date of birth, home address, profile pictures and the details of credit cards. A regulated firm has to complete legal actions before requesting such personal information from individuals, unlike CC firms where no current policy is applicable regarding data privacy issue (Ranzini et al., 2017). Moreover, the transactions in CC often require co-presence, in which extend online privacy concerns to the physical privacy concerns (Lutz et al., 2017). For example, inviting a stranger into home when renting out property on Airbnb. Likewise, taking a ride provided by an unlicenced taxi driver in Uber.

Third, taxation issues. In general, taxation is served to secure public revenues for social functions, purchase of common goods and other welfare schemes. Therefore, the size of public revenues depends on the tax base and the applicable tax laws. The service providers or goods owners in CC are usually not have a clear determination of the tax, as they do not need to

declare their income (Bozdoganoglu, 2017). This is because the CC platforms are not regulated, they do not need to report the data they collected from the transactions (Selloni, 2017). Lutz et al. (2017) point out that the users can use CC platforms to find the service providers, and simply cancel the booking, then continue the transaction privately on a cash basis. The complexity of taxation in CC transactions has also led to the criticisms of unfair competitions with traditional incumbents as well as the employment rights (Eckhardt and Bardhi, 2015; Frenken and Schor, 2017; Eckhardt et al., 2019). For example, the traditional taxi drivers protest against Uber which led to temporary or permanent bans in many cities across the globe.

Fourth, workforce related controversies. CC has been recognised as employment opportunities that provide flexibilities. However, often, the individuals who act as sellers do not have insurance cover. From the CC firms' perspectives, this group of individuals are classified as independent contractors, which removed the legal liability from the potential issues. For example, injuries, poor services, damages to the shared assets; CC firms deny responsibilities because the firms are registered as technology firm rather than the category that it belongs to (Eckhardt et al., 2019). Sundararajan (2016) stated that CC firms often try to offer the sellers employment-like benefits, such as protections of shared assets. Yet, no law obligates the firms should function as an employer. Nevertheless, solutions behind the regulatory issues perhaps require the coordinated efforts from different authorities, such as from local to national levels (Stemler, 2017). The following section will take closer look into the business models of CC and the sharing parties in more details and highlight the differences between traditional incumbents and CC.

2.5 The Business Model of Collaborative Consumption

The above discussions illustrate the complexity of defining and regulating CC, this is often due to the consumers in CC may take on different roles as sellers and buyers – called "two-sided consumer role" (Ertz et al., 2019). In addition, other scholars have described the business model of CC as an umbrella of sharing, owing to CC's usefulness and innovations (Habibi et al. 2016; Acquier et al., 2017; Codagnone and Martens, 2017; Hawlitschek et al., 2018). However, the term of umbrella is based on a broad scope to connect the new phenomena, therefore, carry out a thorough investigation on the business model of CC is limited (Acquier et al., 2017). One way to diminish the complexity in understanding the business model of CC is to observe (1) the nature of exchange and (2) the number of entities interplay. To do this, this thesis examined

the research on the business model of CC, in which can be divided into three streams: access-based consumption, platform economy and community-based economy (Acquier et al., 2017). After that, the thesis will focus on the entities, including value co-creation, the motives, and the activities.

2.5.1 Access-based Consumption

The first stream studies the core of CC as access-based consumption that allows individuals to share underutilised assets and optimise their use (Belk, 2014a), and identifying the reasons of individuals participating CC activities. Belk (2014b) implied that many CC related research focus on the idea of maximising the underused assets and allowing other individuals to access to those assets. The assets may range from material resources, time and personal skills (Botsman and Roger, 2011). Further, the participation is determined by the manifestation of de-ownership, as access-based consumption allows individuals to purchase a temporal access rather than a transfer of ownership. Although this model is similar to traditional rental or leasing models, e.g., renting a car, on the economic and social aspects of CC, it presents broader, faster and cheaper access to assets for its users in the short term (Bardhi and Eckhardt, 2012). On the environmental side, access-based consumption is promoted as a sustainable model of consumption (Hamari, Sjöklint and Ukkonen, 2015).

Nevertheless, the access-based aspect of CC suffers from tensions that limit its social and environmental impacts, such as anti-consumption and trust related issues (Yao, Baker and Lohrke, 2022). Since individuals are purchasing the temporal access to assets, consumers are shifting from hyper-consumption to anti-consumption practices (Albinsson and Perera, 2012). Anti-consumption practice refers to “an active and passive form of resistance by the consumer” (Albinsson et al., 2010, p.414). This group of consumers are motivated by a wide range of social, political, and cultural factors (Cherrier et al., 2011). On the social aspect, anti-consumption practice is considered as downshifting lifestyle, simplifying life, and decreasing material possessions (Etzioni, 2009). Thus, affecting individual’s social recognition (Cherrier, 2007). On the trust related issue, Bardhi and Eckhardt (2012) illustrated that sharing does not mean caring. In their study, they found that individuals do not treat shared car gently, and therefore, do not want to be identified when they access to the shared goods. This misbehaviour is likely lead to costly investments for the owners, thus increase the risk of sharing. On the

environmental impact, Koopman et al. (2015) argued that access-based consumption does not offer sustainability instead, it encourages individuals to purchase more goods to generate the monetary benefits from sharing.

2.5.2 Platform Economy

The second stream of the CC research attempts to examine the business model from digital platform perspective. Platform economy refers to the exchanges between peers are intermediate decentralised via a digital platform (Tripp, McKnight and Lankton, 2022; Acquier et al., 2017). The digital platforms are typically owned by firms, such as Uber, Airbnb, and Karshare. This type of firms does not focus on production and numbers of sales, rather create a digital platform that can connect and organise individuals' exchange activities. Within the term "digital platforms", it may refer to several organisations' digital platforms (e.g., Cisco) or online marketplaces (e.g., Amazon, Apple, Microsoft). However, the digital platform in CC differs from traditional platforms, as CC platforms act as an online marketplace or intermediaries that manage and connect peers (Sundararajan, 2019; Eckhardt et al., 2019). Hence, the transactions in the CC platforms are usually between peers rather than professionals which is also recognised as a form of crowd-based capitalism (Sundararajan, 2016; Tóth *et al.*, 2022a) or self-regulated platform (Cohen and Sundararajan, 2015).

In order to organise the exchange in a peer-to-peer manner, the firms focus on the development of algorithms and the governance of data that can help individuals to find the best match. Such algorithms and data may include rating system (Beldad et al., 2010; Basukie, Wang and Li, 2020), pricing method (Bardhi and Eckhardt, 2012; Tóth *et al.*, 2022) and information asymmetry (Basukie, Wang and Li, 2020; Xu, Cui and Lyu, 2022; Yao, Baker and Lohrke, 2022) Rating system is often used as the trust mechanism to mitigate opportunistic behaviours in CC, individuals are allowed to rate each other or write a review after the transaction – so called "reputation society" (Mikołajewska-Zając, 2018). Recent studies have shown that disappointed buyers often do not rate or write reviews, whereas reviews are likely to be written by those buyers that had a good experience (Masterov et al., 2015). Hence, the rating system implemented in CC platforms is a simultaneous-reveal system, in which the ratings will only revealed when both parties have submitted their ratings. Research have found that users are reluctant to provide negative feedback since they suspect that it might affect other users

purchase intention (Luca, 2017). Pricing method is usually based on the demand, rating, performance, and work assignment that is delivered by the sellers/service providers. Whilst information asymmetry refers to managing the data generated from the exchange and the users' information. For example, Uber provides demand forecasting information for the drivers, this includes particular days, times of day and certain areas (Basukie et al., 2020).

2.5.3 Community-based Platform

The third stream of CC literature examines CC as an online community. The concept of community-based platform refers to initiatives coordinating via non-contractual, non-hierarchical, or non-monetised forms of interactions (Acquier et al., 2017). The concept of CC can be traced throughout human history (Felson and Spaeth, 1978) as ways to meet people or helping each other in the community (Bardhi and Eckhardt, 2012). In addition, Sharing in CC does not necessary fuelled by the economic value, rather fuelled by concerns about societal issues, such as climate change, pollution, and reducing cost of monetary coordination within communities (Hamari, Sjöklint and Ukkonen, 2015). The act "sharing" indicates a prosocial activity (Belk, 2010), it is therefore, an act in which individuals and organisations work together in order to enhance community and sustain resources (Botsman and Roger, 2011). By doing so, they can produce social capital, as the values arise with the number of users signing up to the "ecosystem", including the sellers/service providers and consumers (Sundararajan, 2016). In more recent work, Nadeem et al. (2020) used similar logic and exemplify how CC firms use the digital platform to form consumer value co-creation which will be discuss in detail in section 2.5.5.

CC as a community-based platform is similar to the concept of online communities (Sundararajan, 2016). Online communities refer to communities that are operated through networked technology (Preece, 2000). One of the earliest studies on the effects of online communities, conducted by Armstrong and Hagel (2000), described online communities as the centre of the Internet that fulfil the individuals' needs for entertainment, communication and information. More recently, Chen et al. (2018) viewed online communities as the foundation of value co-creation whilst Chiu et al. (2006) considered online communities as an activity involving a group of people with shared common interests and goals. With the rapid growth of technology and the widespread use of the Internet, chances for individuals to gather information and interact with each other have increased. The interactions between individuals

are no longer constrained by geographic areas (e.g., a city or a neighbourhood), but rather creating social ties and online identities within the online community platform (Chiu et al, 2006). Thus, the development of online communities is suggested as the foundation to enable peer-to-peer transactions (Vaskelainen and Piscicelli, 2018).

2.5.4 Actors in the Triad of Collaborative Consumption and Their Motivations

In the context of CC, each transaction typically involves three actors, namely, a customer, a peer service provider and platform provider. The transactions in CC therefore induce a triadic model which moves beyond the notion of consumer (Benoit et al., 2017; Machuca et al., 2022; Wainaina and Mutogh, 2022). First, the platform provider in CC refer to the entity in the triadic model that provides a particular CC marketplace for its users (Benoit et al., 2017). These platform providers typically motivated by the economic value that, generated from facilitating a marketplace which connects individuals according to their needs. This mechanism is recognised as "matchmaking" mechanism (Eckhardt et al., 2019; Klarin and Suseno, 2021; Wainaina and Mutogh, 2022). For example, CC firms (e.g., Uber) operate as platform owners (e.g., Uber app) to facilitate matchmaking mechanism to connect both sides of the users. One side of the platform consists of consumers who are searching for services or goods – that is a price reduction offered by sellers on the other side of the platform. Benoit et al. (2017) stated that the rapid growth of CC is due to the innovative platforms that is flexible and can be changed according to events, such as customer preferences, time, and locations. The classic example is Uber, which allowing customer to choose the size of vehicle and available within a few minutes.

Second, a customer in CC refer to the entity in the triadic model that requests access to a particular service or good in exchange for economic contribution (Benoit et al., 2017; Machuca et al., 2022). Studies have found that this group of entity is mainly motivated by the monetary benefits, such as reduced costs (Barnes and Mattsson, 2017). Similarly, Milanova and Maas (2017) point out that customers in CC are price conscious, assessing to goods is considered as making cost-savings compared to goods purchasing. The existing studies also found other motivations, such as social motives, hedonic value, and environmental benefits. The use of Internet and more recently ICT have increased social sharing activities and can be served as one initial driver of such sharing activities (Benkler, 2004). Specifically, in the context of

lodging, Lutz and Newlands (2018) found that community benefits were a key determinant in the usage of CC. For example, talking to people from the local area. Customers may also perceive hedonic value while paying the access to goods, such as when they wear luxury clothes (e.g., designer clothes) which they cannot normally afford to own (Belk, 2014b). In the case of designer clothes sharing, Lawson et al. (2016) found that sharing provides satisfactions by fulfilling customers desire, such as social status. While access to shared goods allow customers to utilise the goods without paying the full price, sharing also offers environmental promise (Eckhardt and Bardhi, 2015). Sustainability has been found to have a positive influence on customers' attitude towards using CC (Tussyadiah, 2016).

Third, a service provider or seller in CC refer to the entity in the triadic model that provide access to a particular asset (e.g., a Karshare vehicle) in exchange for economic contribution from the customer (Benoit et al., 2017; Machuca et al., 2022). CC not only creates job opportunities for the sellers (Belk, 2014b), the monetary benefits from the exchange also help these individuals to receive additional income (Botsman and Roger, 2011). As aforementioned, CC is not fully regulated, therefore, the entry to become a seller is less strict compared to traditional business (Koopman et al., 2015). For example, obtaining a taxi driver licence is not necessary for becoming an Uber driver. Thus, CC provides entrepreneurial freedom for individuals who wish to work with the platform providers, in which match the customers' needs with those sellers who are willing to provide services/assets (Benoit et al., 2017). For example, sellers who are good at repairing furniture can use TaskRabbit when they are available for as far as they want. CC also provide the sellers the opportunities to connect other individuals from different countries. In the case of Airbnb, Lutz and Newlands (2018) found that renting out property or sharing property provide the hosts chances to share underutilised assets with travellers. In addition, the hosts can also get to know tourists around the world.

Table 2-2: *CC participants' motivations*

Author	Examples	Motivations for participation	Actor(s)
Benkler (2004)	NA	• Low transaction costs	Customer, peer service provider
Bu and Go (2008)	Car sharing, accommodation sharing	• Utility • Trust, • Cost savings	Customer, peer service provider

		• Familiarity	
Moeller and Wittkowski (2010)	Goods rental	• Convenience • Price consciousness • Trend orientation • Environmental benefits	Customer
Bardhi and Eckhardt (2012)	Car sharing	• Hedonic value • Utilitarian	Customer
Hamari, Sjöklint and Ukkonen, (2015)	Crowdsourcing	• Sustainability • Enjoyment • Monetary benefits	Customer
Möhlmann (2015)	Car sharing	• Utility • Trust • Cost savings • Familiarity	Customer, peer service provider
Tussyadiah (2016)	Accommodation sharing	• Enjoyment • Monetary benefits • Accommodation amenities	Customer
Bucher et al. (2016)	Crowdsourcing	• Moral • Social-hedonic • Monetary benefits	Customer, peer service provider
Milanova and Maas (2017)	Insurance sharing	• Egoistic motives • Financial benefits	Customer, peer service provider
Barnes and Mattsson (2017)	Car sharing	• Perceived economic benefits • Environmental benefits • Social benefits	Customer
Roos and Hahn (2017)	NA	• Enjoyment • Cost savings • Efficient use of resources • Sense of community	Customer
Lee et al. (2018)	Car sharing	• Benefits and trust in platform • Platform quality	Customer, peer service provider
So, Oh and Min (2018)	Accommodation sharing	• Price value • Enjoyment • Home benefits	Customer, peer service provider
Guttentag et al. (2018)	Accommodation sharing	• Social interaction • Home benefits • Novelty • Local authenticity	Customer
Liang et al. (2018)	Accommodation sharing	• Authenticity • Value • Price sensitivity • Electronic word-of-mouth	Customer
Zhang et al. (2019)	NA	• Technical value • Economic value • Social value • Emotional value	Customer
Kong et al. (2019)	Accommodation sharing	• Social referral • Information quality • Transaction safety	Customer

Minami et al. (2021)	NA	• Enjoyment • Trend orientation • Convenience • Social and community benefit	Customer

Within the framework of CC, all actors benefit from economic gains (Belk, 2007; Botsman and Roger, 2011; Benoit et al., 2017). Instead of paying full price and owning things, the buyers only need to pay for a matching fee to the platform owners and a temporary access fee to the sellers (Bardhi and Eckhardt, 2012). The sellers then obtain the monetary benefit from sharing their goods or skills, whereas the platform owners obtain the economic gain from matching the buyers and sellers (Benoit et al., 2017). Table 2-2 depicts the motivations and benefits identified in the literature.

2.5.5 Value Co-creation and the Process

The triad of CC has redefined the roles customers play in value creation (Botsman and Roger, 2011). As the above discussion shows, consumers in the model of CC may, on the one hand, perceive their participation as enjoyable and economical. On the other hand, the consumers can switch side to act as sellers/service providers. As a sellers/service provider in CC, individual may offer services or access to assets such as parking spaces, vehicles, properties, personal skills, and tools. Whilst uploading the shared assets and services to CC platforms, individuals allow the firms to organise and perform algorithms to find the best match (Benoit et al., 2017). The existing literature explained the interactions between the customers and CC firms are based on service dominant logic (SD-logic) (Vargo and Lusch, 2008; Chen et al., 2018), in which firms co-opt customers' assets and skills for value creation (Zhang et al., 2018). Value creation or value co-creation refers joint creation of value by both customers and the firms (Prahalad and Ramaswamy, 2004). By circulating the value co-creation process, CC posits an ecosystem with the three entities (Botsman and Roger, 2011; Sundararajan, 2016; Hossain, 2020; Rong et al., 2021). The conceptualisation of co-creation process in CC, Zhang et al. (2019) suggested that the three distinctive stages: pre-consumption, mid-consumption, and post-consumption stage.

Pre-consumption stage. In the current context, pre-conception stage reflects the interactions and communications between the providers and the consumers. Both providers and consumers

develop initial understanding and knowledge about the products or services. Similar to offline shopping experience, CC also value smooth and enjoyable communications that can lead to a positive impression of the products or services (Prahalad and Ramaswamy, 2004). For example, in the case of Airbnb, guests are allowed to contact the hosts in regard to payment methods, property conditions and reservations (Guttentag et al., 2018). The hosts can express their kindness and friendliness to guests, consumers may also express their willingness to befriend the hosts. Through the initial interactions with the hosts, consumers perceive various values, such as assurance, trust, and satisfactions (Zhang et al., 2019).

Mid-consumption stage. Mid-consumption stage relates to the outcome of pre-consumption stage, that is, the values stemming from the social and relational ties among the participating entities in CC (Nadeem et al., 2020). Zhang et al. (2019) shows in the hospitality industry, the basis of value perception for both hosts and guests is formed through social relationships. Taking Airbnb as an example, the hosts might share the story of the town, areas, or country with guests who might admire or identify with, such as histories or food. In addition, customers might also perceive functional values, for example, a clean bed and bathroom may indicate a comfortable experience of stay. Indeed, as many consumers join CC not only for the economic value, but also for the social values. As accessing to private assets for consumers in CC meaning the connections between peers or members, which lead to a sense of belongingness to a social network (e.g., a group) or community (Milanova and Maas, 2017).

Post-consumption stage. Post-consumption stage relates to the rating system in CC, which also utilised as an indication or reference for the next consumer (Newmark, 2012). The rating system in CC is associated with the feedbacks after consumption from the service providers/sellers and customers (Beldad et al., 2010). At this stage, the value is a dynamic concept and may include functional, emotional concepts as well as the social value (Zhang et al., 2019). In the case of carsharing, a customer's feedback after consumption may come from the perceived functional value of vehicle, such as the cleanliness, horsepower, and brand of the car. The customer's emotional feeling towards the carsharing experience from using the platform. And the customer's social interactions with the car owner and the perception of social approval after using the car (Zhang et al., 2018). From the sellers/service providers perspective, the feedback may come from the perceived economical value, such as the length of rental. The emotional feeling towards the platform that enables the sharing and the car after sharing, such

as cleanliness and damage if applicable after usage. And the social interactions with the customers before and after sharing (Benoit et al., 2017). These types of value may also boost the users' gain in their reputation or status among the peers, thus, provide them a sense of self-efficacy and achievement (Katz and Blumler, 1974).

Therefore, CC pursued the ecosystem through consumer value co-creation (Acquier et al., 2017). In essence, CC crystallises customer needs and the affordability through a digital platform that organised by a business enterprise – CC firms. CC firms operate as platform owners to manage the value chain and turn the payments from the customers into profit (Muñoz and Cohen, 2017). Hence, each entity in CC requires to contribute the ecosystem, from consumers seeking to providing information through CC platforms (Zhang et al., 2018). And by exercising such interactions, the ecosystem of CC helps to foster a community (Belk 2007; Botsman and Roger, 2011) and create collective wellbeing (Rong et al., 2021) Without the contributions from each entity, CC would not exist. In other words, the triadic model of CC is heavily relying on its ecosystem (Nadeem et al., 2020). Turning now to the crucial elements of maintaining and sustaining the model of CC.

2.6 Sustaining the Collaborative Consumption Model

Over the past years, several sharing-based businesses have emerged. For example, Airbnb allows individuals rent out part or entire property for short stays. Justpark provides individuals rent out their underused private parking spaces for long and short rental. Uber enables real-time, location-based ridesharing. Despite the rapid growth, CC is still not in a mature stage (Leung et al., 2019). This is due to the nature of CC, the triadic model must be sustained and maintained with all relevant actors (Sundararajan, 2016; Acquier et al., 2017; Parente et al., 2019). Celata et al. (2017) proposed four elements in sustaining such model. The first element pertains to the connectivity between the three actors. Without the use of ICT, sharing with individuals outside of existing social network would be very limited. For example, sharing within a single neighbourhood or locality. To upscale beyond the range of offline sharing, the practice must be mediated by Internet-facilitated platforms that can provide self-regulated networks or socially bounded relationships (Botsman and Roger, 2011). This kind of Internet-facilitated platforms differ from other Internet-facilitated platforms (e.g., Amazon.com), because it uses a decentralised exchange mechanism to manage the transactions between

individuals (Celata et al., 2017). With the implementation of decentralised exchange mechanism, it eliminates the possibility of hierarchical control by allowing direct flow of information between individuals (Benkler, 2004; Sundararajan, 2016). For example, when booking an Uber, the communications, vehicle, and interactions only exist between the driver and the customer(s). The role of platform is to connect and enable the exchange. By making the act of sharing easier, also increase the risk of negative consequences, such as opportunistic behaviours (Celata et al., 2017).

The second element concerned with how the value of shared assets is compensated (Celata et al., 2017). In many CC cases, the use of shared assets is often monetarily compensated. As sellers, they can obtain monetary benefits from sharing out their assets. As customers, they can access to the assets that they need at affordable price. Benkler (2004) highlights that rationality behind the sharing practices is because sharing is apparently easier and more efficient than reselling the assets in second-hand markets. In addition, sharing within the scope of CC, also generates social and psychological benefits. For example, sellers can use the earning from sharing their car to pay the car finance while they can get to know the individuals in their neighbourhood. Therefore, Celata et al. (2017) propose the third element to sustain the model as a sense of community. Because grant strangers access to privately owned assets is risky, sellers must believe or expect the customers share the same interest or at least some degrees of social benefits. Thus, the communitarian value is embedded in such sharing practice. In addition, according to the authors, a sense of community mobilises trust in CC through shared beliefs, morality, ethic, solidarity, and collective responsibility. The social aspect of CC brings the final element of sustaining the model – trust (Botsman and Roger, 2011; Hartl et al., 2016; Celata et al., 2017). However, trust is often the most relevant yet complex issues as it is related to its social depth (Lewis and Weigert, 1985; Molm et al., 2000; McCole et al., 2010; Celata et al., 2017).

Belk (2014) point out that since sharing in CC is through decentralised mechanism which enables self-regulation and free flow of information. Thus, the practice implies several issues regarding the obligation of responsibilities and care when participating. The perception of risks from possible opportunistic, mistrustful and inappropriate behaviours is relatively high in peer-to-peer exchanges (Celata et al., 2017). The existing literature have provided several solutions

for the trust related issues, this may include refund systems and rating systems. However, Celata et al. (2017) argued that relying on these systems alone is insufficient in sustaining the model of CC. Since the role of consumers in CC are extended to such as cleaning and maintenance after allowing others access to the shared assets (Bardhi and Eckhardt, 2012), rating can become biased and unreliable sources for trust (Belk, 2014b). For example, an individuals' perception of the shared car brand.

2.6.1 Shareability

Gansky (2019) described the transactions in CC are based on the concept of shareability. From privately owned assets to services, sharing in CC is a practice performed within a community. Typically, this kind of community relies on the advanced digital networks which allows it to expand all over the globe, delivering shared assets and services without the limit of time and location. This concept of CC is confirmed by Sundararajan (2016) where it is termed as crowd-based capitalism. In the book, crowd-based capitalism provides individuals opportunities from sharing assets to sharing personal skills, allowing them to be utilized and applied at its full capacity. However, Brewer and Hsiang (2002) questioned that what characteristics of assets are required in matching the users' capabilities. In other words, what assets are qualified as shareable assets. Bodenhorn (2000) used food sharing to distinguish the concept of shareability and suggested that sharable assets depending on what is perceived as common and individual property. Later, Benkler (2004) expand the notion of shareability to the class of physical goods that can generate excess capacity. For example, vehicles, most vehicles are not driven twenty-four hours a day. Therefore, most vehicles can be described as shareable goods. On the other hand, components for computers for example, are not shareable. Because these goods are pre-installed and cannot operate solely, individuals are likely to purchase instead of sharing (Sundararajan, 2016). Excess capacity also represents a mix of social cues and market-based interaction (Bodenhorn, 2000; Brewer and Hsiang, 2002; Benkler, 2004), in which organized through CC platforms. On the one hand, the social cues stimulate the practice of sharing in CC. On the other hand, the market-based interaction helps CC to foster a purpose-drive virtual community (Benkler, 2004).

2.6.2 Modes of Exchange in Action

Turning now to the understanding of modes of exchange in CC. The premise of CC model enables crowd-based capitalism that contains different modes of exchange (Sundararajan, 2016). Each mode of exchange is drawn by the participants as well as the platform owners. The existing studies have claimed that CC provides environmental benefits (Zervas et al., 2013; Kathan et al., 2016; Jiang and Tian, 2018; Lee et al., 2018), social values (Benjaafar et al., 2015; Tussyadiah 2016; Yang et al. 2017), and economic benefits (Piscicelli et al., 2015; Bucher et al., 2016; Tussyadiah, 2016). However, other scholars argued that the benefits may depending on the mode of exchange (Hofmann et al., 2017; Milanova and Maas, 2017; Eckhardt et al., 2019). For example, for some, the profits are primarily from shared capital whilst for others, the profits are mainly from the labours. For this reason, Schor (2016) explored four modes of exchange in CC: *recirculation of goods, increased utilisation of durable assets, exchange of services, and sharing of productive assets*. Additionally, Constantiou et al. (2017) classified each mode into two dimensions: *the rivalry between the participants* and *control exercised by platform owners*. Whilst the rivalry consists with market coordination mechanism, the control dimension refers to the organisational coordination mechanism. This section will explore each mode along with its dimension accordingly.

Recirculation of goods. Recirculation of goods refer to reselling unwanted or underutilised goods to increase the durability and maximise its usage with secondary market price (Schor, 2016). This category is more in line with the online second-hand market, such as eBay and Gumtree. eBay, founded in 1995, it has been recognised as the root of CC development (Gobble, 2017). The platform facilitate recirculation of goods is under a low rivalry dimension with tight control performed by platform. As such the participants are specified and monitored by the platform owner while the price of the goods depends on the compensation of the sellers' costs (Constantiou et al., 2017). The original ideas were to enable peer-to-peer transactions with a rating system to mitigate the risk of transacting with strangers. The rating system is based on crowdsourced information that provided when buyers write feedbacks about the sellers and the purchased products (Luca, 2017; Resnick and Zeckhauser, 2002). The marketplace on eBay has now mainly occupied by professional online sellers and shops, selling items including clothing, books, toys, furniture, workout equipment, household goods, and home goods. Therefore, eBay provides sellers entrepreneurial opportunities as well as

economic values (Boyd, 2002). On the other hand, eBay offers buyers low cost and enjoyment (Che et al., 2019). eBay as the platform owner has to enhance trust for each transaction while maintaining the innovative platform (Botsman and Roger, 2011).

Increased utilisation of durable assets. The second mode of exchange concerned with short-term or long-term rental of privately owned goods (Schor, 2016). He pointed out that many households have purchased goods and not utilised to their total capacity, and therefore, occupying spare rooms and garages. A classic example can be used is Karshare, a peer-to-peer real-time car rental platform. In this case, the participants include the vehicle providers, customers, and the platform owner. The platform owner simply uses the information presented by the vehicle providers to connect the customers who are looking for a vehicle to rent, whilst making profits from selling car insurance and matching fee. The information includes the geographical location, registration, type, and colour of the car. For the customers, the platform requires them to provide their personal information, such as home address, a copy of driving licence and bank details. In the lodging sector, such as Airbnb and Couchsurfing, which used the same mechanism to pair peers. This type of exchange platforms has tight control over the participants, for example, its organisational coordination mechanism lies in the use of information provided by the participants to assist the real-time matchmaking mechanism and simultaneously offer low costs for the customers and personalised service (Constantiou et al., 2017). Sundararajan (2016) described the trend of renting out personal capital is a result of the financial recession in 2009. Renting assets provides a more economical option whilst gives a financial support for the providers (Botsman and Roger, 2011; Schor, 2016; Benoit et al., 2017). In addition, in order to provide the precise matchmaking mechanism while ensure the rental service delivers in real-time manner, the sectors require geolocation information from both providers and customers. Often the participants found using this kind of CC is a way to social and connect with the individuals within a neighbourhood or community (Colin and Brangier, 2021). As such, many studies have found that participants in this mode of exchange are mainly driven by the monetary as well as social values (e.g., Hamari, Sjöklint and Ukkonen, 2015).

Exchange of services. The third mode of exchange is associated with personal skills, community and time-based transactions (Schor, 2016). Service exchange is originated from

time banking, where the currency is time. For example, one hour equals to a service credit. Constantiou et al. (2017) described this type of platforms generally have standardised control over the participants but not the pricing. For example, standardised delivery service but the cost is determined by the providers rather than real-time supply and demand. In addition, the concept of community in service exchange differs from the previous exchange mode, as the service availability is heavily relied on the locality rather than a remote destination. The characteristics of these participants are similar to those participating community-based crowdfunding services such as conservation society, in which individuals share common interests and aim to achieve something collaboratively (Light and Miskelly, 2015). However, due to the nature of equivalent trading ratio, time banks did not expand rapidly (Schor, 2016). Yet, with the popularity of participating CC, time bank has transformed its initiatives to monetised skill-based exchange (Botsman and Roger, 2011). For example, Airtasker, a local-based peer-to-peer skill-based exchange exchange. The role of platform owner works in a similar way compared to the assets exchange mode – to pair the participants who require to get a task done with participants who is able to complete the given task. Service providers are required to provide a short personal introduction which contains their location, gender, owned tools/equipment, and skills. The introduction of sellers is generally viewed as advertisement for consumers. Consumers in this context, they can select a list of advertisements that are based on the nature of tasks as well as their locations.

One way to distinguish the differences between assets rentals and service exchange may be how the matchmaking mechanism operates when it includes the geolocation and the context of tasks. For example, a handywoman advertises as a tasker who can complete tasks like light bulb fittings. To fit bulbs may requires a ladder, yet the handywoman did claim that she has the skill but did not mention that she has a ladder. Nevertheless, studies have point out that service exchange requires a more sophisticated matchmaking mechanism and platforms, due to the nature of trade (Fitzmaurice et al., 2020). Similarly, TaskRabbit which provides peer-to-peer skill-based exchange, however, encounter the same difficulties in expanding (Schor, 2016).

Sharing of productive assets. The fourth mode of exchange is consisted with the production that generated through sharing intangibles or sharing spaces (Schor, 2016). This mode of

exchange occurs at the scale of an online community and can be practiced in formal and informal sharing. Therefore, the platforms often under self-regulated structure to exert a lose control over the participants compared to other CC platforms (Constantiou et al., 2017). For example, knowledge sharing in a digital platform allowing its participants to share knowledge freely. In contrast to the sharing assets (e.g., Uber) and spaces (e.g., Airbnb), these shared spaces and intangibles are about the exchange of social lives and professional knowledge (Milanova and Maas, 2017). The concepts of these sharing intangibles lie in the trajectory of hackerspace community (Chan and Zhang, 2021), where individuals gather to share technology-related knowledge in a physical space or through digital platforms. In educational sectors, such as Udemy and Coursera. For many individuals this type of platforms provide individuals to learn new knowledge and skills. On the other side of the platforms consist of individuals who have professional knowledge to share. In addition, the role of platforms in the mode of sharing intangibles involve facilitating the access to personal skills and knowledge as well as promoting peer instructions.

2.6.3 Similarities and Differences Between Collaborative Consumption and Traditional E-commerce

Previous section showed that the transactions in CC can be divided into four different modes, though, Codagnone and Martens (2017) argued that some of the sharing practices in CC are essentially the same compared to traditional e-commerce, such as online B2C activities. E-commerce has been proliferated across context and industries, ranging from Amazon to Uber. The term ‘e-commerce’ refers to a monetary value involved in any transactions, either direct or indirect via internet-based tools (Sanghvi, 2016). The online markets cannot occur without the diffusion of information communication technology (ICT), particularly the Internet and smart phones. Cagliano, Caniato and Spina (2003) conceptualised e-commerce model into three factors, first, e-commerce, where sales, customer service, and support are represented. Second, e-procurement, which refers to the purchasing practices via the use of the internet, including procurement of both strategic and standard, such as manage upstream relationships with suppliers. Third, e-operations, where involve management of value chain, including order processing, and tracking, production planning and scheduling, inventory, and transportation planning.

Characteristically, both e-business and CC take place in platform technology. However, Benoit et al. (2017) pointed out that CC related firms operate through the presence of triadic framework, thereby making it salient that both consumers and sellers (or service providers) stay connected with the platform to transact with each other. Sundararajan (2016) used four different concepts to identify how the triadic model of CC differs from traditional business model: (1) crowd-based capitalism, (2) reduced transaction costs, (3) leveraging the use of information and communications technology (ICT), and (4) blurring lines between professionalism and personalised service.

Firstly, the crowd-based capitalism implies that each entity recognises the benefits generated from using CC platforms (Sundararajan, 2016). Through crowd-based operations, CC firms do not own the assets, rather focus on facilitating the connectivity between the participants (Benoit et al., 2017). Therefore, the service providers or sellers are not only the primary producers also the one to provide the diversity in products and services in CC. This concept of CC has led to the second point, because the assets are owned by individuals rather than a formal business firm, the transaction costs are likely to be low (Liang et al., 2021). For example, the costs of contract negotiation. Customers (or buyers) receive reduced price on services and goods that they want, whilst sellers (or service providers) obtain the monetary value from staying on the platform and delivering services by sharing their belongings or skills. In the traditional B2C activities, the platforms and the goods are managed and owned by formal businesses.

Third, beyond the scope of sharing activities, the CC firms engage with the use of ICT to connect individuals together, such as matchmaking technology (Benoit et al., 2017). This type of technological infrastructure connects individuals in a real-time manner across different regions and communities. For instance, Uber connects drivers and customers by providing them the function of utilising drivers' own vehicles to serve customers who need a taxi service. Whilst research shows that both sides of the users are motivated by the perceived social value and hedonic value from the presence of CC transactions (Botsman and Roger, 2011; Bardhi and Eckhardt, 2012; Möhlmann, 2015), CC platform therefore works hard to sustain the triadic model and ensure it is eco-balanced (Acquier et al., 2017). Although the traditional e-commerce platforms also use ICT, often limited to certain regions.

Lastly, CC distinguish itself from traditional e-commerce as it involves blurring lines between professionalism and personalised service (Sundararajan, 2016). The participants in CC are allowed to switch different roles between consumers and servicer providers or sellers, so called two-sided consumer role (Benjaafar et al., 2015; Ertz et al., 2016; Ertz et al., 2019). Similarly, Sundararajan (2016) showed that CC offers the participants low entry barriers to become a professional-like sellers or service providers. For example, in TaskRabbit, the participants can be consumers whilst they can also be a tasker to complete tasks for others. In transportation, Uber drivers are not the same as formal taxi drivers (e.g., black cab) who obtained certificates to become professional taxi drivers. This concept may be similar compared to peer-to-peer (P2P) e-commerce where participants are individuals rather than formal business firms or sellers. From an e-commerce innovation perspective, P2P platforms and CC platforms are identical (Codagnone and Martens, 2017). However, Ertz et al. (2019) argued that CC should not be classified as P2P e-commerce, as CC is originated from online cooperation and digital sharing, for example, open-source programming and file sharing (Botsman and Roger, 2011; Gansky, 2019). The participants in CC invite themselves into the process of co-creation and anticipate the circulation of assets, therefore, they are not formal workers and employees for CC firms (Botsman and Roger, 2011; Sundararajan, 2016; Hossain, 2020; Rong et al., 2021). Further, CC allows skill-based sharing, such as teaching through Udemy, provide personalised service on TaskRabbit (T´oth *et al*., 2022). Table 2-3 demonstrates the concepts that can distinguish between traditional e-commerce and CC. These distinctions and connections are crucial as often there is confusion between traditional e-commerce and CC, especially as many studies examined CC from B2C perspective (e.g., Lamberton and Rose, 2012; Kumar et al., 2018) and P2P perspective (e.g., ter Huurne et al., 2017; Plenter et al., 2017; Rivera et al., 2017). Although recent research have shown that some sellers in CC are professional sellers or freelancers, these particular sellers use CC platforms to reach more potential customers (e.g., Rojanakit, Oliveira and Dulleck, 2022), CC platform owners generally using geographical proximity of sellers and buyers for delivering the services, which does not exit in B2C and P2P platforms. Following the work of Sundararajan (2016), Eckhardt *et al*. (2019), Zhu *et al*. (2017), T´oth *et al*. (2022), the services in CC are different from B2C and P2P.

Table 2-3*: A Comparison of Collaborative Consumption and Traditional E-commerce*

Category	Collaborative consumption (CC)	Business-to-consumer (B2C)	Peer-to-peer (P2P)
Assets	Owned by participants	Owned by the firms	Owned by participants
Platforms	Operated through ICT	Operated through ICT	Operated through ICT
Complexity of Control as the platforms	High level of complexity since the platforms function as an intermediary to facilitate real-time and location-based transactions between the supply and demand sides.	High level of complexity as the platforms may find challenges when transactions involve several thousand end-user machines as well as the costs of resources and coordination.	High level of complexity since the platform act as an intermediary to enable the transactions between individuals.
Orientation	Access-based or service-based	Transfer of ownership	Transfer of ownership
The role of consumers	Two-sided, can be supply and demand.	Consumers and customers.	Two-sided, can be supply and demand.
Entry level as sellers	Low as the participants can join as soon as they register with the platforms. However, some background check may be required.	High as formal registration, verification or certificates may be required.	Low as the participants can join as soon as they register with the platforms. However, some background check may be required.
Profit structure	Platform owners generate profit through matchmaking fee while the sellers or service providers obtain profit from sharing out their assets or skills.	Selling products.	Platform owners charge exchange fees from the sellers.

2.7 Literature Gaps and Contributions of this study

Encouraging individuals to purchase via CC will enhance high-impact capital that creates new opportunities for individuals, from resources and skills to time and economic value (Yao, Baker and Lohrke, 2022; Sundararajan, 2016). With the advancement in ICT, CC has four different modes of peer-to-peer exchange includes recirculation of goods which involve transfer of ownership (e.g., Gumtree), access-based consumption which increase utilisation of durable assets (e.g., Fat Llama, Airbnb, Uber), service exchange (e.g., TaskRabbit), and sharing of productive assets (e.g., Udemy) (Schor, 2016). Further, each type of exchange may benefit societies different way. For example, lodging and renting goods, Benoit et al. (2017) noted that buyers could use the underutilised assets owned by the sellers, while the sellers receive a rental fee for sharing their assets. During exchange, the buyers (and sometimes the sellers too) are charged by the platform providers who provide matchmaking services (Yao, Baker and Lohrke, 2022). For ridesharing, Möhlmann (2015) found that participants are mainly determined by the perceived benefits, such as cost-saving, community belonging and environmental impact.. Lastly, for skill-based exchange, studies claim that the service providers benefit from flexible schedules and utilise their skills to work from anywhere, whereas the clients may benefit from getting the tasks done at a lower price (Yao, Baker and Lohrke, 2022; Ravenelle, 2017).

Despite the benefits that CC offers, there remain a number of gaps in the literature. First, CC has been loosely defined in the literature. The term CC is used interchangeably with gig economy, sharing economy and platform economy (see for example, Ertz, Durif and Arcand, 2016; Martin and Upham, 2016; Perren and Kozinets, 2018; Hossain, 2020; Chan and Zhang, 2021; Colin and Brangier, 2021; Butschek *et al.*, 2022; Tripp, McKnight and Lankton, 2022; Yao, Baker and Lohrke, 2022). Acquier et al. (2017) further divided the CC into three categories: access-based consumption, platform economy and community-based economy. Given the varied conceptual and empirical understanding of CC, defining CC should not prevent scholars from further exploring CC (Acquier et al., 2017; Hossain, 2020).

Second, trust has been considered as a major CC use determinant (Botsman and Rodgers ,2010; Möhlmann, 2015; Sundararajan, 2016; ter Huurne et al., 2017; Yao, Baker and Lohrke, 2022). The fundamental element of CC involves interacting with strangers without the prospect of past behaviour and future interactions (Richardson, 2015; Tripp, McKnight and Lankton, 2022), participating in CC means that both the buyers and the sellers need to accept and embrace the inherent risk. This is also heightened by the lack of rules or regulations in CC (Hartl et al., 2016) –

often platform owners are not liable for the shared assets, the buyers or the sellers (Ganapati and Reddick, 2018; Nyamekye et al., 2022). Hence, the shared goods and services are booked via the Internet, buyers are often unable to evaluate and inspect them beforehand. To address this trust and risk tension, a number of studies have shown that trust may derive from reputation system (Botsman and Rodgers, 2010; Ert et al., 2015; Mikołajewska-Zając, 2018) and the platforms (Hamari, Sjöklint and Ukkonen, 2015; Nyamekye et al., 2022). However, recent studies have shown that building trust through reputation system and the platforms alone are insufficient (e.g., Celata et al., 2017; Klarin and Suseno, 2021; Tóth et al., 2022).

Third, prior studies have mainly focused on the transportation and lodging sectors (Eckhardt et al., 2019; Klarin and Suseno, 2021). The existing literature helped to explain the rapid spread of access-based consumption through the investigations of transportation and lodging sectors, however, it is often narrow and conventional due to the nature of access-based consumption (Eckhardt et al., 2019; Hossain, 2020). As such, many results from the CC studies are only applicable for certain sectors. For example, Skill-based exchange in CC concerned with personal skills rather than sharing personal cars or properties. Thus, the environmental benefits identified in transportation sector may not be relevant to service exchange mode of CC. In addition, Klarin and Suseno (2020) argued that the existing literature has over-emphasis on the accommodation and ridesharing segments. Although these segments are clearly belonging to the scope of CC, a recent study compared three segments (ridesharing, lodging, and skill-based exchange), they found that the users perceive trust and benefits differently in different platforms (Tripp, McKnight and Lankton, 2022).

Fourth, though studies have provided various of theoretical perspectives and conceptual frameworks depending on the disciplines. In management field, scholars view CC as a new working arrangement thus provide freelancers or entrepreneurs new opportunities (e.g., Muñoz and Cohen, 2017; Skirnevskiy, Bendig and Brettel, 2017; Bouncken and Reuschl, 2018; Maciel and Fischer, 2020). As well as ethics and sustainability under the development of CC (see, for example, Cherrier, Black and Lee, 2011; Cohen and Kietzmann, 2014; Frenken and Schor, 2017). In marking field, scholars study the impact of CC on traditional incumbent (e.g., Zervas, Proserpio and Byers, 2017; Kumar, Lahiri and Dogan, 2018). In order to help governments regulate CC, law related studies have also attempt to contribute the literature (e.g., Benkler, 2004; Koopman, Mitchell and Thierer, 2015; Zhu, 2020).

Lastly, many CC-related studies tend to examine this growing trend through the lens of traditional e-commerce (Eckhardt *et al.*, 2019; Zhou *et al.*, 2021). For example, Kumar et al. (2018) provided a framework to examine the service providers and customers in CC based on the B2B relationships. Albinsson and Perera (2012) explored the concept of CC through charity-oriented sectors. As discussed in the previous sections, CC not only has different modes of exchange also has different concepts compared to the context of B2B and P2P. In addition, the services and goods in CC are often supplied by individuals rather than professionals, which reflected as "personalised service" (Sundararajan, 2014) or "consumer involvement" (Bardhi and Eckhardt, 2012). Such as from giving someone a ride to the maintenance of a vehicle. Unlike in traditional rental services, where insurance companies can support damage to the rental goods, sharing in CC encompasses an obligation of care and responsibilities from both sides of users (Belk, 2007; Gu and Zhu, 2021; Yao, Baker and Lohrke, 2022). For example, Uber drivers use their vehicles as taxis; thus, the risk of mistrustful behaviours from customers or accidents may damage the vehicle.

Given the gaps in the existing literature on CC, this thesis intends to investigate the trust and risk tension. This tension highlights the extent to which a particular CC firm would encounter trust-related challenge while encouraging purchase intention (Milanova and Maas 2017), since the triadic nature of CC is open and fully voluntary, the users are typically strangers. Furthermore, the findings of Celata et al. (2017) suggested that, in order to enhance trust in CC, it is essential to examine the scope of CC as an online community. Therefore, the theoretical underpinning for this investigation is social capital theory which concerns the resource (e.g., tangible and intangible), topology (e.g., structure of the network), and the quality of relationship among the community members (Bourdieu, 1986). Studies that focus on the sharing services have proven the relevance of social capital theory in addressing the trust and risk tension (e.g., Cha and Lee, 2022). Social capital can take different dimensions: relational, cognitive and structural (Nahapiet and Ghoshal, 1998). Trust within the social capital theory is so-called social trust which is under the relational dimension. Further, different communities require certain types of dimension of social capital have been widely discussed in the literature (e.g., Yan and Guan, 2018; T´oth et al., 2022). While other studies highlight the importance of trust towards platforms and trust as a mediator, this thesis specifically addressing the antecedents of social trust towards the members. This leads to the first contribution of this study, which are the antecedents of social trust.

Social trust helps to address the trust in community level (e.g., I trust the members in this community) and thus affect purchase intension in CC. However, CC as an ICT-based platform,

participating CC requires not only one's skills in using the platform, also one's capability of belief in self in completing the tasks regardless the roles (e.g., sellers and buyers) (Klarin and Suseno, 2021). Therefore, another vital concept in addressing trust and risk tension is self-efficacy (Hsu et al., 2007; Zhu et al., 2017; Malaquias et al., 2021). Self-efficacy is a multi-dimension facet. While studies have examined self-efficacy as one's capability in completing the given tasks, such as I believe that I am capable of delivering the tasks. There is limited knowledge about the self-efficacy towards using the platform. Therefore, this thesis attempts to address this gap by examining self-efficacy towards the use of platform, such as I believe I am capable of using the platform. In addition, studies have examined access-based consumption (e.g., Airbnb, Uber), for the skill-based exchange (e.g., Upwork, TaskRabbit) have been overlooked. The second contribution of this thesis is that it addresses this gap by exploring the role of social trust and self-efficacy on skill-based exchange platform, where service providers share their skills, tools and labour with buyers. This thesis argues that current systems are not well developed to help the users' perception of trust towards the others, which limits the potential of platforms. Hence, skill-based exchange platforms are known for not providing insurance and service quality to its members (Butschek et al., 2022). In parallel to this, the third contribution of the thesis is that it develops a conceptual framework to the cumulative understanding trust and risk tension between the users.

2.8 Summary

This chapter has critically reviewed the relevant literature on CC and has discussed the trajectory of each mode of exchange. It also answers the question of how CC differs from traditional e-commerce. CC has some characters that are identical in the concepts of traditional e-commerce, such as platform oriented. As previously discussed, the model of CC differentiate itself from traditional e-commerce as it relies on a triadic model that involves three actors – sellers/service providers, customers, and the platform owners. The participants of CC volunteer themselves to get involved in the consumer co-creation process. Due to the regulatory concerns and the nature of e-commerce, trust is relatively important to be examined. Especially, in the context of CC, as shown previously that consumers in CC are classified as two-sided consumers, meaning they are allowed to switching roles. Hence, the entry level is low, individuals can get involved without a formal identity check or certificates. The tension of trust and risk issues are arguably one of the main sources that might greatly affect individuals' purchase intention in CC. Based on the literature review, this study highlights the needs to extend the growing body of literature on CC with the tension between risk and trust. A theoretical background for the

concepts of the research framework and how it is constructed will be provided in the next chapter.

Chapter 3 The Conceptual Framework and Hypotheses Development

CHAPTER 3: THE CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

3.1 Introduction

In the previous chapter, the relevant literature is explored and discussed. The limitations of the literature focusing on the trust and risk tension were also identified. In this chapter, this thesis will address these limitations by exploring CC from social capital theory and the individuals-oriented approach (Sundararajan, 2016; Celata et al., 2017) to develop a conceptual framework that contains the elements of social trust and self-efficacy. In this way, this thesis can bring new understanding of individuals' purchase intention in CC. The rest of the chapter is organised as follows. Firstly, the conceptual model is explained, and to justify and construct the model, the theories and relevant literature are explicitly discussed. Subsequently, a theoretical background of each construct in the model is provided. Next, the hypotheses developed for the model is discussed and, finally, a summary of this chapter is stated.

3.2 The Background of the Conceptual Framework

To address this tension between risk and trust, this thesis developed a conceptual framework for understanding the context of CC. Drawn from social capital theory, social cognitive theory, online community literature and the individuals-oriented approach, the conceptual framework intends to investigate the antecedents and the effects of social trust and self-efficacy on individuals' purchase intention in CC. Social capital theory can trace its roots to 1980s sociology literature (Bourdieu, 1986). Social capital can be defined as "an instantiated informal norm that promotes co-operation between two or more individuals" (Fukuyama 2001, p.7). A stock of social capital is considered to be "owned" by the collective individuals and the community (Nahapiet and Ghoshal, 1998), such as relationships among peers. At the societal level, social capital can be seen as a kind of accumulation of resources that allow other participants in the social network to access. Other participants may be of mutual acquaintance or of recognition, friendship. At the individual level, such social networks provide individuals access to a range of resources that are owned collectively, whilst everyone that participate in the social network may receive different benefits, such as social and a sense of belonginess. Thus, social capital is concerned with resources, structure of network and nature or quality of relationship (Fukuyama, 2017). Several scholars asserted that social capital theory examined how social relationships benefit individuals and firms, and how these relationships can go beyond the original context of

creation. For example, Inkpen and Tsang (2005) used social capital theory to explore the outcomes of individuals' knowledge sharing practices. Their findings illustrated that an increased propensity for cooperation have positive effect on trust and therefore benefit organisation's growth.

In addition, social capital plays a crucial role in ICT-enabled collective networks, as it enhances the collaboration among network participants in digitalised environment (Randolph et al., 2020). Williams (2006) explained that social capital in offline form served as a causal mechanism in digitalised environment. Thus, online collaboration is shifted from offline collaboration. In line with the CC literature, social capital has become more relevant than ever to investigate the concept of CC (Wasko and Faraj, 2005; Chiu et al., 2006; Sundararajan, 2016; Davlembayeva et al., 2020; Tchorek et al., 2020). For example, Penz et al. (2018) applied the theory to explain the importance of sense of community in CC and suggest that the theory is adequate in investigating trust in CC. Trust in community can be referred to social trust which provides the cohesiveness for a social network (Fukuyama, 1996). Social trust defined as "the expectation that arises within a community of regular, honest, and cooperative behaviour, based on commonly shared norms, on the part of other members of that community" (Fukuyama 1996, p. 26). The shared norms may include the values derived from collaboration process, for example, social recognition. Sundararajan (2016) claimed that social capital as a signal of trust among the users in CC. Individuals with high social capital meaning they have greater presence in society or a community, and therefore, are trustworthy.

Moreover, CC is characterised by the fact that what the participants could offer, if they prefer, they are allowed to switch roles between sellers or service providers and buyers. Hence, this may require self-efficacy (Katz and Blumler, 1974). Self-efficacy is defined as an individual's beliefs of his/her own capabilities to perform a behaviour (Bandura, 1986). Self-efficacy is a multidimensional construct, the factors of which vary depending on the context (Choi et al., 2001). In this thesis, self-efficacy is associated with a set of beliefs that someone is capable of executing task-specific performance (Bandura, 1997). Self-efficacy is particular important in the context of CC, as it may serve as trust in individual level. Such as one's trust in their own capability of adopting technology. Compeau et al. (1999) measured self-efficacy in terms of individuals' purchase intention in computing technology. Self-efficacy was identified as a

significant predictor of computing technology purchase intention. In the marketing literature, self-efficacy is identified as an important element to measure the likelihood of consumer to purchase the difference (e.g., Bagozzi and Dholakia, 1999). Similarly, Siponen et al. (2014) identified self-efficacy as a key antecedent of intentions to comply in information security related policies.

In this study, the conceptual framework yields a deep understanding of the role of trust in individuals' CC purchase intention, as it utilised social trust as trust at group level whilst self-efficacy as the trust at individual level, such as individual's trust in their capabilities. In addition, the conceptual framework showed the antecedents of social trust and self-efficacy, including network stability, social referral, system quality and shared goals. All constructs in the framework are derived from the three dimensions of social capital: relational, structural and cognitive dimension (Nahapiet and Ghoshal, 1998). These dimensions are interrelated, however, examining the constructs through three dimensions of social capital is crucial, as each context requires different dimensions of social capital (Yan and Guan, 2018). The rest of this section will focus on the explanation of how the conceptual framework is constructed by reasoning and discussing the theories and relevant literature that underpin both social trust and self-efficacy within the framework.

3.2.1 Relational Dimension

Relational dimension of social capital concerned with a set of personal relationships among participants in a social network (Bourdieu, 1986). It is also the dimension that reflects individual behavioural attitudes and norms (Nahapiet and Ghoshal, 1998). Researchers have reported that relational dimension of social capital exerted positive effects on peer-to-peer transactions (Mathwick et al., 2008; Svendsen and Svendsen, 2009; Mewes et al., 2021). Studies have also employed a number of variables to measure relational social capital, such as identification, shared norms, mutual trust, obligations and expectations and social trust.

First, Users' identification acts as one's identity of perceived members of a social network (Nahapiet and Ghoshal, 1998). Perceived identification is often applied when studies attempt to examine the long-term commitment between users and operators in the context of commercial online communities. Studies have shown that perceived identification could increase the frequency of existing cooperation (Chu and Kim, 2011; Guo *et al.*, 2017; Huang,

Chen and Wong, 2020). Second, shared norms refer to a socially defined action that is held by the others not the actor within the social network (Coleman, 1990). As such, the role of perceived shared norms is to motivate the exchange between the existing members (Putnam and Garrett, 2020). Norms are commonly employed when studies attempt to understand individuals' actions under the existing conditions (e.g., Macgillivray, 2018; Ali and Yousuf, 2019; Rodríguez-Aceves, Mojarro-Durán and Rivera, 2022).

Third, mutual trust refers to the favourable belief towards an individual according to the previous exchange history (Tsai and Ghoshal, 1998). Therefore, mutual trust is associated with the belief developed through repeated interactions between the members (Rodríguez-Aceves, Mojarro-Durán and Rivera, 2022). Studies have employed mutual trust to examine the influence of past interactions between the members within an online community (Chen, Zhang and Xu, 2009; Khan *et al.*, 2021) and the relationship between employees in an organisation (Inkpen and Tsang, 2005). Fourthly, obligations and expectations refer to a commitment or duty to cooperate in the future (Nahapiet and Ghoshal, 1998). Coleman (1990) ascribed such obligations and expectations act as credits held between the cooperative parties. Studies have employed obligations and expectations to examine the functions of social capital, such as bonding and bridging (e.g., Julien, 2015; Lee *et al.*, 2019; Schwitter, 2020). Lastly, social trust refers to the expectation that occurs within a network of regular, honest, and cooperative interactions (Fukuyama 1996). Social trust defers from mutual trust as it examines trust at a collective level and not based on previous exchange history, such as trust among members (Wang *et al.*, 2022) or trust in community that provide the cohesiveness (Williams, 2006).

Following the work of Kim and Park (2013), Belk (2014) and Sundararajan (2016), social trust is adopted to measure the relational social capital in CC and discussed its effect on individuals' purchase intention. There are several reasons for applying social trust in this study. First, in the formation of collaborative behaviour, social trust is applied to diminish malicious behaviour (Newton, 2001). For example, the trust in friendship, community, and organisation. Therefore, it has a strong linkage between the collaboration and social network (White *et al.*, 2013). In the context of CC, the transections involve first meet virtually and then face-to-face. During these

transactions, the role of social trust is particularly important as it ensures that other members are honest and reliable (Fukuyama, 2001), as members are moved from strangers toward friendships (Belk, 2014). Thus, it provides the second reason that social trust is adopted as it exists in both online and offline settings (Inkpen and Tsang, 2005). This is because the information acquisition process is often practiced in offline settings rather than online settings (Coleman, 1990). For example, obtaining information about an online social group through a friend. Yan and Guan (2018) explored how social trust is formed in an online community, they found that social trust does not generate directly in online settings, the relationships often already exist in offline settings before moving on to online settings (Child and Westermann, 2013; Luo *et al.*, 2020). On the contrary, Williams (2006) showed that social trust can only be sifted from offline to online through repeated offline interactions.

Nevertheless, whether social trust is shifted from offline or exists simultaneously, its role and influence remain unclear in the context of CC. Sundararajan (2016) described the process of developing trust between the members in CC begins in the use of online social networking platforms, such as Facebook and Twitter. Due to the existence of anonymity in online environment, individuals learned to trust strangers through the experience of using online social networking sites. In this process, individuals have to learn to trust the platform as well as other users within the platform. This can be found when individuals provide information about themselves in the profiles and add friends on Facebook without having enough knowledge about those people (Nepal et al., 2013). Such experience provides individuals an initial trust cue. As the growth of CC increases, more and more participants join the co-creation process, the social trust become a norm and an enabler of sharing with strangers (Sundararajan, 2016). However, the role of social trust are not only about the experience of using online social networking sites, but also about whether the behaviour of other members can be relied upon at any given time and in both offline and online settings (Granovetter, 1992).

Third, social trust has been significantly and consistently verified its role in the sharing behaviour between individuals. E-commerce related literature has documented that individual needs social trust to enable coordination and cooperation for mutual benefit (Mutz, 2005; Nepal, Sherchan and Paris, 2011; Nah and Chung, 2012). Given its relevance, this study

considered that social trust may be a more appropriate factor affecting individuals' purchase intention in CC.

3.2.2 Social Trust

Social trust refers to the expectation that occurs within a network of regular, honest, and cooperative interactions (Fukuyama, 1996). It is generally believed that social trust is the most common type of trust when individuals deal with others in a cooperative manner (Delhey and Newton, 2003). Without social trust in others' actions, individuals may have to consider risks and uncertainties to take actions, which may destroy the foundation of community (Fukuyama 1996). Social trust in social relationships plays a fundamental role in daily life, some may take it as a routine without noticing it. For example, helping a friend move, holding a door for others, and sharing meals with families and friends. In the context of organisation management, social trust enhanced the relationships between the workers, leading organisation to achieve the goals (Chow and Chan, 2008). In the scope of online community, such as knowledge sharing online community, social trust is served as a mediator that enhance the relationships between the members (Wu et al., 2012) and encourage the sharing behaviour (Inkpen and Tsang, 2005). These instances require neither an expectation of return the favour nor an expectation of receiving monetary value from others (Putnam, 2000). The role of social trust in above instances reflects the willingness of being vulnerable in interactions with others.

However, the concept of social trust is more complex when the events involve monetary value, often refers to economic ties in social capital (Putnam, 2000; Guiso et al., 2004; Sanyal, 2009). Economic ties refers to the monetary cost in the event of collaboration (Fukuyama 1996). This kind of event does not necessarily be repeated or in a circulate kind. In other words, once the monetary fee is received, the collaboration with the party (or parties) is complete (Guiso et al., 2004). Further, when monetary value engages in events, economic ties may serve as an enforcement of obligations and responsibilities between the exchange parties (Putnam, 1993). This view is correspondent with Belk's (2010) "*sharing*". In his study, he specified the difference between gift giving and sharing with a fee. The event of gift giving where no exchange of monetary value requires, hence, it only occurs when the parties are expecting gift debts. For example, exchanging Christmas gifts with others. The monetary value in gift giving, however, only available to the gift giver since the price tags and receipt are usually removed before given the gift away. Therefore, the concept of gift giving is similar to the instances like online communities where no clear monetary value is involved. In the contrast to sharing with a fee, the fee serves as economic obligations between the

parties. Since the fee makes the exchange an unconditional reciprocal transaction, the exchange does not necessarily take place with the same parties (Belk, 2010). In line with this, trust in CC is linked to the monetary value (Piscicelli, 2016; Tussyadiah, 2016; Eckhardt et al., 2019).

Moreover, in the context of CC, the exchange appeared to be random connects between the buyers and sellers. The pairing process may vary depends on the matchmaking mechanism that operated by the CC firms. In the case of Airbnb and TaskRabbit, it has potential for repeated exchange that often enabled through the prior experiences with the sellers (Ert et al., 2016). Nevertheless, when there are issues occur in the exchange, there are no obligations that who is responsible. Because contracts and other legal documents are largely missing during the exchange in CC, it appears in a grey regulatory area (Celata et al., 2017). The existing literature indicated that how crucial it is to establish trust in CC and suggested that rating system is the trust enabler in CC (Botsman and Roger, 2011). Rating system refers to review system that is implemented by the platform owner, allowing the participants to rate each other after exchange (Basukie et al., 2020). From buyers' perspective, a rating system is a piece of information which individuals can collect or articulate the knowledge of the seller, the service, and the product. From sellers/service providers; perspective, rating system provides the first impression of the buyers. From platform owners perspective, it signifies a self-regulatory model and therefore, engender trust (Zimmermann et al., 2018).

As discussed in the Chapter 2 that the exchange in CC is underlying a triadic model that involves three entities, namely, the service providers/sellers, buyers, and the platform owners (e.g., Machuca et al., 2022). This thesis argues that the development of trust along with the monetary value and rating system alone is rather insufficient and weak (Celata et al., 2017). The participants of CC often require establishing trust in the platforms and trust in other participants that often not having prior experiences of interactions. On one hand, the participants have to trust strangers. On the other hand, they also have to trust that the platform will oblige to the matchmaking as well as keep the personal information private (Ranzini et al., 2017). When establishing trust in an event that involves more than two parties, social trust is particularly relevant (Fukuyama, 1996). Individuals exercise social trust to deal with multiple parties, and on this basis they expect that the parties will response in a certain way accordingly (Kwon 2019). Therefore, social trust can be viewed as trust at group level. Although studies have confirmed its impacts on individuals' sharing behaviour, very few researches have done to explore the antecedents. Since social trust

is rooted in the relational social capital and used to promote sharing behaviour, prior studies have shown that how other two dimensions of social capital impact on relational social capital (e.g., Lu and Yang, 2011). In the next section, this study will explain the structural social capital.

3.3 Structural Dimension

The structural dimension of social capital is concerned with the volume of social network and network ties (Burt, 1987; Nahapiet and Ghoshal, 1998; Newton, 2001). In essence, social network constitutes a group of individuals that accumulate and distribute resources, whereas network ties are the channels for information and keep resources flow (Nahapiet and Ghoshal, 1998). Typical examples of social network may include churches, organisations, and communities. Previous studies have suggested that social trust results from structural dimension of social capital (Lu and Yang, 2011; Sun *et al.*, 2012; Chen, Huang and Davison, 2017). As the resources are owned by the users (Nadeem et al., 2020), as such, be part of large system of exchange and networks (Hamari, Sjöklint and Ukkonen, 2015). When the resources are available and accessible, the interaction between the members will also increase over time. Therefore, the relationships between the members will become stronger, and the members will more likely to perceive social trust (Lu and Yang, 2011; Tsai, 2014; Cha and Lee, 2022).

The most important facets of this dimension include the effect of social network and the strengths of relationships between the members (Hsu and Hung, 2013), the outcome of collective activities (Granovetter, 1992; Sainaghi and Baggio, 2014; Davlembayeva, Papagiannidis and Alamanos, 2020), and network configuration (Rowley, Behrens and Krackhardt, 2000; Inkpen and Tsang, 2005; Wang, Yang and Guo, 2020). In addition, Structural dimension has been studied at individual and collective level. The measures for the individual level often involve experience of being a member (Inkpen and Tsang, 2005; Rickley, 2021), strength of network ties (Shane and Cable, 2002; Cross and Sproull, 2004; Gage, 2013), social referral (Sainaghi and Baggio, 2014), network stability (Inkpen and Tsang, 2005; Zimmermann *et al.*, 2018; Dasanayaka and Matsuda, 2022) and system quality (Hsu and Hung, 2013; Chen, Huang and Davison, 2017). In comparison, the measures for the structural dimension at the collective level often considered centrality, complexity and density of a social

network, such as the number of participants in a social network (Rowley et al., 2000; Adler and Kwon, 2002; Moran, 2005), network configuration (Rowley, Behrens and Krackhardt, 2000; Dasanayaka and Matsuda, 2022) and structural holes (Gedajlovic *et al.*, 2013; Perez and Ting, 2022) Moreover, the choice between the individual level and the collective level may depends on the objectives of the study. For example, studies intend to explore a social network would observe structural social capital at the individual level, whereas studies intend to explore the complexity, configuration and size of social networks would focus on the collective level (Sainaghi and Baggio, 2014). Given the fact that this study attempts to identify the drivers of individuals' purchase intention, investigate structural dimension at the individual level is essential. Therefore, the rest of this section will be discussing the choice of measures for structural dimension of social capital.

Studies employed variables such as experience of being a members and strength of network ties have aimed to not only explore the existing memberships but also the strength of a social network (e.g., Cross and Sproull, 2004). This is because the strength of a social network can be determined by the strength of network ties (Burt, 1987), thus the role of network ties in a social network is to distribute information and resources (Tsai and Ghoshal, 1998). Network ties can be divided into two categories, direct ties (e.g., friends and family members) and indirect ties (e.g., strangers). Direct ties compared to indirect ties are easier to activate information flow, as Brown and Reingen (1987) specified that individuals use strength of ties to determine the trustworthiness of information or resource. For example, a piece of information that is only available to the members of a social network (Delhey and Newton, 2003). However, studies used these two measures aimed to explore how the resource is being accumulated and distributed. For example, Chiu et al. (2006) found that network ties provide the opportunities for individuals to combine and exchange knowledge in online communities. Since the aim of this study is to explore how these accumulated resources being accessible and available to the members, the measures for structural social capital are system quality, network stability and social referral.

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3.3.1 Network Stability

Network stability refers to the density of a network that can deliver relationship transactions (Shane and Cable, 2002). In line with social capital theory, network stability is a fundamental element of social network and can be viewed as a shared feature that belongs to the network members (Inkpen and Tsang, 2005). Burt (1992) described that network stability determines the success of structures of a network. In the literature, network stability is often studied as size of membership. For example, Inkpen and Tsang (2005) studied the knowledge sharing behaviour, they found that when a social network suffers from highly unstable size of membership, it may reduce knowledge diversity and minimise opportunities for the development. As such, when a member exits a network, one part of accumulated sources disappears (Putnam, 2000). In the context of CC, network stability is particularly important as the resources are accumulated and shared among the participants. The services and products suppliers in CC are the participants rather a manufacturer. Thus, the more individuals join the network, the more diversity of products and services can be delivered.

Network stability may also refer to service availability in the marketing literature. According to Bäckström and Johansson (2006), the availability of the products and services is associated with consumers purchasing. Making the products and services available for purchasing can in turn, lead to a positive shopping experience (Schneider and Zielke, 2021). In contrast, perceived time of waiting for products and services is associated with negative shopping experience. McGuire et al. (2010) stated that the longer the wait the more negative attachment towards the firms arise. Since CC is operated through crowd-capitalism (Sundararajan, 2016), products and services are supplied by the members of platform, the framework includes the construct: network stability.

3.3.2 System Quality

In social capital theory, the overall connectivity is considered to be a factor that enhance the network among the members (Coleman, 1988). In the offline setting, overall connectivity refers to whether the network is able to expand its size by welcoming more newcomers (Coleman, 1988). In the online setting, the factor related to overall connectivity of a social network is often called system quality (Lin et al., 2014). System quality refers to whether the system is user friendly (Seddon, 1997). It indicates that perceived system quality is about a platform's overall capabilities, accuracy and connectivity, such as efficient service delivery. The concept of system quality is similar to the concept of ease of use in technology acceptance model (TAM), which is defined as "the degree to which a person believes that using a particularly system would be free of effort" (Davis 1989, p.320). Ease of use has been empirically examined in many computing technologies related literature (e.g., Wu and Wang, 2005; Lee, 2009; Hartono et al., 2014), and it is generally accepted as an antecedent of generalised trust (e.g., Tsai, 2014).

However, in this study, system quality is employed to examine the infrastructure of a CC network. System quality has been recognised as a crucial element of a successful online community (Luo et al., 2020). Perceived system quality helps newcomers or the members to easily navigate on the website, making the process enjoyable and encourage the members to interact with each other (Chen et al., 2017).

3.3.3 Social Referral

Social referral refers to a process of transferring information that is often derived from network ties (Coleman, 1988). By its very nature in social capital theory, social referral is derived from the members' existing social ties (Nahapiet and Ghoshal, 1998), providing information or opportunities whilst influencing the opportunity to combine and exchange knowledge (Burt, 1992). It has been examined in job-finding literature, as a way to provide opportunities for individuals outside of the social network (e.g., Smith, 2005). In the marketing literature, it is associated with relational marketing strategy (Lai et al., 2017). Typical example includes world-of-mouth (WOM). WOM defined as "all informal communications directed at other consumers about the ownership, usage or characteristics of particular goods or their seller" (Steffes and Burgee, 2009, p.42). WOM has been examined numerous times in marketing literature and have been classified as one of the significant elements in driving consumer choice

(e.g., Sen and Lerman, 2007; Komunda and Osarenkhoe, 2012; Vivek et al., 2012). One way to distinguish the difference between social referral and WOM is by the strength of social ties. Social referral only includes the strong and direct social ties whilst WOM includes mass communication (Katz and Blumler, 1974), such as online review generated by strangers (e.g., Ladhari and Michaud, 2015). Strangers are considered as weak ties, whilst strong ties include the existing relationships, such as friends and family members.

The strong and direct social ties is the information receivers in the concept of social referral (Lai et al., 2017). In line with social capital theory, Putnam and Garrett (2020) stated that the information delivered through strong network ties are usually perceived as most trustworthy and is likely to motivate the receivers the most. In the context of CC, Guttentag et al., (2018) found that the participants enjoy sharing their experience of using CC with their friends and family. Similarly, Zhang et al. (2019) examined the context of Airbnb, their results showed that many participants chose to use CC because it was recommended by their friends. However, social referral in the context of CC remains unclear, for example, whether social referral has effect on trust in CC. Therefore, the framework of this thesis considers social referral as a construct.

3.4 Cognitive Dimension

Cognitive dimension of social capital indicates the resources an individual acquires through sharing with others, from learning the knowledge of sharing to forming the norms of practice (Nahapiet and Ghoshal, 1998; Wasko and Faraj, 2005; Yan and Guan, 2018). Nahapiet and Ghoshal (1998) implied that the cognitive dimension is a broad concept that signify the shared vision between the network members. Shared vision is defined as “a bonding mechanism that helps different parts of an organisation to integrate or to combine resources” (Tsai and Ghoshal, 1998, p.467). When a social network has a clear shared vision, the members would be more willing to collaborate (Inkpen and Tsang, 2005; Aklamanu, Degbey and Tarba, 2016). It embodies the aspirations of the members and simultaneously signalling the collective goals. For example, people who join a religious organisation often have high level of perceived shared vision (Nahapiet and Ghoshal, 1998).

Shared vision may have different forms, such as shared goals, expectation, language, codes, and learning. Previous studies have suggested that the term shared vision can be applied to study relationships at the national level, the society level, and the organisational level (Guo *et al.*, 2017). At the macro level, shared vision in general refers to cultural perspective of social capital, such as shared language and codes (Tsai and Ghoshal, 1998). At the micro level, shared vision is usually associated with community consensus building (Chow and Chan, 2008). Following prior research (Chow and Chan, 2008; Lu and Yang, 2011; Alyahya *et al.*, 2020), the approach of using individual's perception of shared goals in examining the cognitive dimension. Cognitive dimension has positive effects on relational dimension where social trust is examined. Firstly, shared goals can be viewed as an influencer has been found to have effect on collective behaviour (Randolph et al., 2020). Fukuyama (1996) stated that members may achieve the shared goals in a different way, even in a successful social network. When shared goals is presented in the network, the members will establish a common understanding which determine how they should interact and collaborate with each other to achieve the goals (Meek et al., 2019). Secondly, CC is characterised as consumer value co-creation, where actors share the mutual benefits through sharing (Nadeem et al., 2020). Engaging in sharing practice requires the shared understanding among the users, such as common interests and shared values (Yan and Guan, 2018). Moreover, shared goals ensure that the members' motivations to engage in sharing practice. Since CC needs all actors to participate and engage in a collaborative manner (Benoit *et al.*, 2017), the role of shared goals is particularly relevant here. Thirdly, perceived shared goals can nurture the atmosphere of sharing, such as easy communication between the members (Chow and Chan, 2008; Hau and Kim, 2011; Alyahya *et al.*, 2020). From one angle, CC requires actors to have diverse skills and perspectives. By emphasising shared goals to indicate cognitive dimension are facilitated when the members have the cognitive capability to comprehend and apply the knowledge of sharing, thus promoting members to integrate their sharing practice (Yan and Guan, 2018).

3.4.1 Shared Goals

Shared goals refer to individuals' concerns of similarities in values and goals (Öberg and Shih, 2014). Social capital theory suggested that the role of shared goals is to inspire the members of a network (Putnam and Garrett, 2020). When shared goals is presented in the network, the members will develop similar perceptions as to understand each other (Tsai and Ghoshal,

1998). In contrast, when shared goals is missing may result in conflicts between the members in the network. In online community literature, shared goals has been investigated as a bonding mechanism that encourage the members to share (Chow and Chan, 2008). In organisational studies, shared goals has been found to be associated with knowledge sharing behaviour (Yan and Guan, 2018). Inkpen and Tsang (2005) stated that the logic behind the shared goals is that it provides individuals a sense of belief that something can be achieved through collaborate with others.

As discussed in chapter 2, previous research on CC has indicated various type of motivations that drive individuals to participate (Hamari et al., 2015; Möhlmann, 2015; Barnes and Mattsson, 2017; Roos and Hahn, 2017), strong goals-oriented motivations may include economic value and environmental benefits. These goals-oriented motivations will only become obvious when participants join the triad (Öberg, 2018). In the crowdfunding setting, the shared goals would be allowing the requesters to receive loans that they could not take from the traditional banks whilst the loaners would receive interest rate paid by the requesters. In the carsharing setting, the shared goals would be a wish to produce something (e.g., a personalised service) or become a taxi driver that can generate economic value whilst providing a reduced cost for the customers. As such, shared goals is a construct in the framework.

3.5 Self-efficacy

To investigate trust at individual level in the context of CC, based on social cognitive theory, the conceptual framework includes self-efficacy. Self-efficacy refers to an individuals' capabilities to take on a certain action (Bandura, 1997). Self-efficacy influences individuals' actions whether they should act pessimistically or optimistically in an event. For example, a person's capabilities in overcome obstacles and failures. Bandura (1994) suggested that if individuals fail to recognise their capabilities may result in their meaningless behaviour, such as demoralising. The concept of self-efficacy has been applied in many disciplines, including education, psychology, information system (IS), and organisation management. In education related literature, for example, Zimmerman (2000) found that students with high level of self-efficacy have higher performance in academic achievement. In the psychology related literature, self-efficacy is associated with individuals' creativity and innovation (e.g., Puente-Díaz, 2016). In IS literature, self-efficacy is linked to individuals' belief that they are capable

of using computing technology (e.g., Lewis et al., 2003). In organisation management literature, self-efficacy is associated with trust in organisation's system and organisation (e.g., Dirks and Ferrin, 2001).

The existing literature showed that self-efficacy is a multidimensional construct, its role may vary depending on the context. In this thesis, self-efficacy is associated with a set of beliefs that someone is capable of executing task-specific performance (Bandura, 1997). The existence of CC is characterised by its two-sided consumers, in which consumers, if preferred, can take on different roles between buyers or sellers and service providers (Ertz et al., 2019). In Bardhi and Eckhardt's (2012) study, they point out the extended consumer roles in CC is essential since there are no guarantee or contracts. Consumers in CC are responsible to take care of the shared products, for example, cleaning the car after using. Katz and Blumler (1974) stated that extended role in consumers require the concept of self-efficacy. However, the concept of self-efficacy was not specified. In recent CC related study conducted by Zhu et al. (2017), self-efficacy was examined as one's belief in using products and services as well as the belief in recognising the values of using ridesharing. Their study asserted that self-efficacy is a fundamental element that influence the participants' perceptions of values. Wu et al. (2012) employed self-efficacy as one's belief in his or her ability to initiate social contact in terms of develop new friendship in sharing activities. Nonetheless, the concept of self-efficacy remained unexplored in the context of CC, as CC is heavily relied on the use of ICT which often unaddressed in the literature.

Participating CC encompasses several steps, starting with downloading the app or browsing the website. After that, individuals are required to register as members, where consumers are required to specify which role is preferred. If the consumers prefer to take two roles at once, the platform will require them to set up two different profiles, one for the role of buyer and one for the role of providers. And finally, use the platform to find other individuals to collaborate tasks. Due to a lack of related information (Koopman et al., 2015), the processes may create uncertainties and confusions which make individuals doubt whether they can complete their journey of collaborating with others and eventually adopt it. Therefore, the concept of self-efficacy in this thesis is aligned with Compeau et al. (1999), where self-efficacy was found to

be one's trust in their capabilities of adopting computer technology. The concept of self-efficacy is important in the context of CC, because it can be viewed as trust in individual level (Hossain, 2020). As the process of participating CC showed that perceived self-efficacy is not just about pursuing individuals of the values derived from their participation. It is also about educating, guiding and encouraging individuals to trust their capabilities of using the digitalised platform (Compeau et al., 1999).

3.6 Purchase Intention as the Outcome

Previous studies have investigated the following variables for the drivers of purchase intention: social trust and self-efficacy. Intention often been referred to purchase intention, and therefore, the greater intention is the greater the likelihood of making purchase (Kim and Park, 2013). First, purchase intention is defined as the likelihood of purchasing a service or product in the future (Richardson, Jain and Dick, 1996). Evidence from prior studies suggested that users' social trust can influence the purchase intention. For example, Mutz (2005) examined the relationship between purchase intention and several factors such as social trust and generalised trust in e-commerce and found that social trust in the online platform has a significant effect on purchase intentions. Cha and Lee (2022) compared the effect of perceived social trust towards sharing practices in India and the U.S., they found that social trust did not influence individuals' sharing practices in India but the U.S.

However, Lal (2017) investigated the determinants of purchase intention such as trust towards members and trust towards community. They found that the role of trust towards community is to enhance the communication and interaction between the members and trust towards members has considerable influence on members' purchase intention. Al-adwan and Kokash (2019) verified the effects of social trust on purchase intention in the context of social commerce. They examined four key cues (trust, familiarity, information seeking and social presence) related to purchasing decisions in social commerce shopping and claimed that social trust is an essential element than generalised trust in increasing trust in platform and in turn, develop purchase intention.

However, previous studies have typically focused on the social commerce websites (e.g., e-commerce) to investigate the relationship between trust and purchase intention. Moreover, prior studies have treated social trust as social cues which increase generalised trust. Social trust in CC is more likely to be an influencer than a social cue due to the nature of CC. Therefore, there is a need for an empirical and conceptual analysis of the effects of social trust on purchase intention in the field of CC.

Moreover, self-efficacy can help further understanding CC purchase intention by highlighting the effects of individuals' social environment (Bandura, 1986). Self-efficacy has been measured in different ways to predict the cognitive perceptions of individuals in IS research(Lin and Huang, 2010). For example, Luo *et al.* (2010) employed self-efficacy as individuals' belief about his or her capabilities to perform a task in mobile banking application. They found that self-efficacy helps individuals to manage the perception of trust and risk tension and influence over the behavivoural intention to use mobile banking application. Similarly, Singh and Srivastava (2018) observed self-efficacy as individuals' belief in his or her ability in using computers. Self-efficacy was proved to have influence on intention to use mobile application technology. Malaquias *et al.* (2021) measured self-efficacy as individuals' belief about his or her own abilities to solve problems when using computer technology. Their results showed that self-efficacy influence the perception of trust and behavioural intention. On the contrary, Zainab, Bhatti and Alshagawi (2017) observed the role of self-efficacy in relation to e-training platform purchase intention. They found that self-efficacy does not have effect in driving platform purchase intention.

While prior studies focus on the relationship between self-efficacy and specific technologies, this study focus on a comprehensive approach, where self-efficacy is applied to investigate individuals' belief about their capabilities in using CC platforms to make a purchase. For example, navigating and completing a booking on the platform. Furthermore, previous studies have shown that self-efficacy has an effect on technology purchase intention (e.g., Compeau, Higgins and Huff, 1999; Kim, Kim and Choi, 2020), suggesting that self-efficacy has an effect on purchase intention.

Together, trust and self-efficacy have been considered to have influences on sharing behaviour in virtual communities (Hsu *et al.*, 2007; Lu, Xu and Kumar, 2022). A strong sense of social trust between members increases individuals' sharing intention because those who trust other members take on collaborative actions and achieve co-operative ends (Fukuyama, 2001; Li, Xu and Kumar, 2022). Whilst a strong sense of self-efficacy produces a greater belief in oneself to have capabilities in achieving the desired results (Bandura, 1997). Thus, this thesis argued that social trust and self-efficacy have effects on purchase in the context of CC. Table 3-1 provides a summary for the definitions of each construct.

***Table 3-1**: Constructs and the definitions*

Construct	Definitions
Social Trust	The expectation that occurs within a network of regular, honest, and cooperative interactions (Fukuyama 1996, p.26).
Self-efficacy	A set of beliefs that someone is capable of executing task-specific performance (Bandura 1997).
Network Stability	The density of a network that can deliver relationship transactions (Shane and Cable 2002).
Social Referral	A process of transferring information that is often derived from strong ties (Coleman 1988).
Shared Goals	Individuals' concerns of similarities in values and goals (Öberg and Shih 2014)
System Quality	Whether the system is user friendly (Seddon 1997).
Purchase Intention	The likelihood of the future purchase of a service or product (Richardson, Jain and Dick, 1996).

3.7 The Conceptual Framework

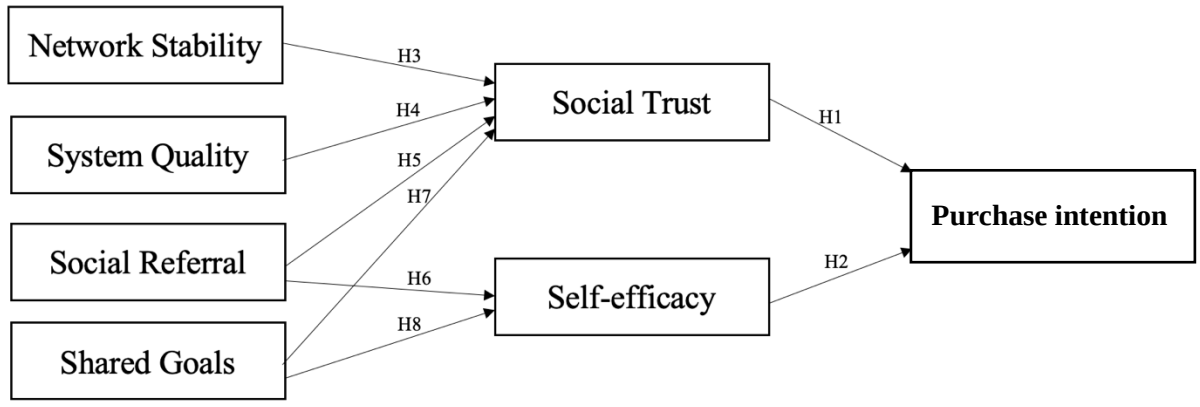
Figure 3-1 depicts the research framework, which postulates that individuals' perception of social trust and self-efficacy can help address the trust-risk balance, thus increasing one's purchase intention in CC. Moreover, based on the literature, the framework comprises four latent variables

(individuals' perception of network stability, system quality, social referral, and shared goals) to model individuals' antecedents of social trust and self-efficacy.

3.8 Hypotheses Development

The conceptual framework was developed for investigating effects of social trust and self-efficacy on to purchase intention. The framework examines four constructs as the antecedents of social trust and two constructs as the antecedents of self-efficacy. It hypothesises that these antecedents will have effects on individuals' perceptions of social trust and self-efficacy. The framework consists of eight hypotheses which are discussed below.

***Figure 3-1**: Conceptual Framework*



3.8.1 Social Trust and Purchase Intention

Social trust refers to the expectation that arises within a network of regular, honest, and cooperative interactions (Barber, 1983; Fukuyama, 1996; Nahapiet and Ghoshal, 1998). In social capital, social trust serves as the foundation of collective behaviours that create productive cooperation, sustain peaceful and the stability of social relations (Newton, 2001). Social trust differs from generalised and particularised trust, as it is categorised as the trust in community (Fukuyama, 1996). For example, trust in society and trust in strangers. In this research context, social trust refers to a CC platform user's trust towards others in the CC platforms, believing that as a collective entity, they are trustworthy, reliable, and not engaging in opportunistic behaviour.

While CC literature often refers to trust that stem from social capital (Sundararajan, 2016; Cha and Lee, 2022), trust in people (Belk, 2007), and trusting beliefs toward community (ter Huurne et al., 2017), most of the extended work is generally normative and does not explore trust at a social level, towards a collective entity. For example, Ert et al. (2016) found that when using Airbnb, hosts with profile photos are perceived more trustworthy and can charge higher prices than hosts without profile photos. Lamberton and Rose (2012) notice fees serves as an incentive for hosts to share their possessions, because fees can be used to compensate the costs (e.g., mortgage and utility bills). Therefore, the monetary value is applied to ensure trust between the hosts and the sharing partner. In the context of car sharing, Bardhi and Eckhardt (2012) discovered that the users like to remain anonymous to eliminate the possible negative effects in future, focusing on trust at the individual personal level. Their findings contradict to Hartl and Hofmann (2021), who found that badge system (e.g., identity check and certification) can be used as trust cues. However, based on the arguments made above, it seems that the understanding of social trust in CC is scarce. Additionally, most studies in the domain aimed to investigate the impact of two particular CC areas: peer-to-peer accommodation (Cheng and Foley, 2018; Abdar and Yen, 2020) and peer-to-peer transportation (Bardhi and Eckhardt, 2010; Möhlmann, 2015; Watanabe et al., 2016; Cha and Lee, 2022). Extant literature has not discussed how social trust works in peer-to-peer skill-based exchange.

In addition, skill-based exchange often does not offer insurance against any loses, this is because the platform owners see the users as freelancers. More importantly, there has not been suitable regulations over this type of exchange. Unlike other segments, for example, lodging is being covered by the host liability insurance that offered by platform owners. Ridesharing platforms provide partner protection insurance. Celata et al. (2017) posit three concepts of generalised reciprocity mechanisms in CC: sharing activities, resources, and trust. Considering the triad of CC is community-based initiatives, when users experience higher social trust towards other users in the same community and believing that together they can provide and sustain the exchange model, as promised by the CC platform, they are more likely to want to engage in the CC initiatives. Thus, this study argues that low social trust will limit individuals' purchase intention. For instance, if the members of CC do not trust others will not deliver their services or shared goods as promised, they might choose to use traditional service or alternative goods suppliers instead. Therefore, this thesis postulates that individuals with higher social trust towards others in the CC platform are more likely to continue the purchase intention of CC in the future:

H1. A user's social trust towards others in a CC platform will increase the user's purchase intention this CC platform.

3.8.2 Self-efficacy and Purchase Intention

Self-efficacy is defined as an individual's belief of his/her own capabilities to perform a behaviour (Bandura, 1986). Self-efficacy has been applied by many information system (IS) studies to understand how self-efficacy affects individuals' purchase intention in e-commerce. Researchers focus on sharing behaviour in virtual communities has established that perceived self-efficacy shapes individuals' belief in organising and executing actions (Hsu et al., 2007), reflecting on one's trust towards one's own ability in participating in a CC platform and preforming the required task. Individuals with high self-efficacy are more likely to exercise sharing than those individuals with low self-efficacy (Chai and Kim, 2010; Zhu et al., 2017; Bouncken and Reuschl, 2018; Klarin and Suseno, 2021). In the context of ridesharing application, Zhu et al (2017) examined self-efficacy as individuals' capability to successfully perform ridesharing through the use of mobile applications. They found that self-efficacy influence ridesharing users' understandings of the perceived value, derived from the use of CC. Similarly, Agarwal and Karahnna (2000) and Eckhardt et al. (2019) found that self-efficacy is regarded as an individual's capability in understanding the use of CC platforms and how CC could benefit one's daily life, such as cost saving and resources saving.

Since one's self-efficacy is a strong indicator of whether to engage in sharing activities (Davlembayeva, Papagiannidis, and Alamanos, 2021), this study argues that when individuals regard themselves having better capability in understanding and performing the required tasks, using a CC platform, this individual is more likely to purchase in the CC platform. For instance, Yi and Hwang (2003) found that individuals' acceptance of new computer technology is affected by their perceived self-efficacy and the higher individuals score on self-efficacy, the higher the intention to use the new computer technology. Taken together, this study hypothesises the following:

H2. A user's CC Platform self-efficacy will increase the user's purchase intention in the CC platform.

3.8.3 Network Stability and Social Trust

According to Parente et al. (2017), the boundaries to prevent the growth of CC are network stability and social interactions between the users. Network stability is defined as "change of membership in a network" (Inkpen and Tsang, 2005, p. 153). This definition indicates the number of registered members in a network; as such, an unstable network may prevent the development of eco-balanced CC triad. The more individuals joining a platform, the more diverse servicers a platform can provide. Sundararajan (2016) points out that the connection among the members is the key facet that enables reciprocity, which consequently facilitate the increase of trust amongst network members, leading to a more eco-balanced triadic model (Machuca et al., 2022). In other words, CC relies on the convergence of services and goods that are provided by individuals, lack of service providers or lack of consumers would be intolerable for the triadic model. For example, when an individual intends to book a services or purchase goods, but find there is no provider available, the individual is less likely to trust that the CC platform can provide solutions to help resolve his/her own problem, thus reducing one's trust in the platform's capability in delivering the proclaimed promise or values.

In other words, network stability contributes to individuals' evaluation of overall value of using CC (Eckhardt et al., 2019). Gawer and Cusumano (2014) proposed that the larger the size of the network, the higher the resulting more users using the platform and the more positive the users' trust toward the platform. They found that this network effect serves as the foundation of trust, especially for newcomers. Furthermore, Inkpen and Tsang (2005) study the outcome of network stability and found that networks with stable pool of memberships lead to long-lasting cooperative behaviour within organisations. Whilst CC represent an organic and alternative format of human organisation, this thesis argues that network stability plays an important role in serving individual's social trust. Therefore,

H3. A users' perceived CC platform network stability will increase the user's social trust towards the CC platform.

3.8.4 System Quality and Social Trust

The perception of connectivity that stem from the system quality is essential in digitalised platforms, because it enhances the network among the members (Williams, 2006; Geebren et al., 2021). System quality refers to the extent connectivity in a network is structured and configured by the platform owners (Zhou, 2012). William and Ephraim (2003) highlight the importance of system

quality in developing successful platforms. A recent study found that social trust served as the foundation for trust in platform, which consequently leads to sharing practice (Cha and Lee, 2021). Compared to traditional online business platforms, the premise of CC platforms is that it should increase the access speed, navigation, and ease-of-use for both buyers and sellers, and simultaneously process the matching system to connect the users who are available online.

CC platforms with poor system quality is likely to experience very limited growth (Zhang et al., 2018). From the social networking perspective, when individuals feeling excluded from networks they desire to join, the individuals' perception of social trust are likely to decrease (Coleman, 1988; Fukuyama, 2001; Williams, 2006). For example, consumers from one side of the platform cannot reach the sellers on the other side of the platform, these individuals may think the platform is poorly structured and it is preventing them to access to the resources or services from the network. This study, thus, propose the following hypothesis:

H4. A users' perceived CC platform system quality will increase the user's social trust towards the CC platform.

3.8.5 Social Referral and Social Trust

Social referral refers to channels that keep the flow of information within the network or outside of the network, it derives from social ties (Nahapiet and Ghoshal, 1998). It refers to the networks which individuals developed overtime (Brown and Reingen, 1987; Inkpen and Tsang, 2005). Individuals share information or knowledge actively with others in their network through social referral. These pieces of information are often considered valuable by network members because they help reduces the network members' search time and are often relevant to these members' topic of interests, especially if they are shared by family or friends (Nahapiet and Ghoshal, 1998).

In marketing literature, social referral is often understood as world-of-mouth communications (WOM) whether communicated through mass communication channels or online feedback mechanisms (Dellarocas, 2003). Both social referral and WOM imply the flow of information across groups and increase the connected fellow's trust. However, compared to social referral, the concept of WOM is generally on a larger scale and from people outside existing social ties (Brown and Reingen, 1987). For instance, reading an online review, written by a stranger is different from

reading a personal invitation, written by one's family or friends. Whilst the concept of social referral involves receiving information from an individuals' familiar sources, such as friends and family (Nahapiet and Ghoshal, 1998), information received from such sources is regarded as more trustworthy than from other unknown sources. This thesis therefore argues that social referral helps reduce the risk associated with signing up and participating in a new CC platform with the problems of anonymity and grey regulations. As such, social referral from friend and family can help improve user's social trust towards a CC network. Bulte et al. (2018) proposed that individuals' relationships with a firm would have strengthened, when they realise that their acquaintance, family member and friend is also the firm's customer because such social connection increases individuals' social trust, social value and bonds with the firm. Following the same argument, this study proposes the following:

H5. Social referral will increase a user's social trust towards the CC platform.

3.8.6 Social Referral and Self-efficacy

A similar relationship has been observed in community-based research, individuals' perception of self-efficacy is sporadic – individuals' decision is depending on their physical social environment (Motl et al., 2007). This means that the perception of self-efficacy is shaped by individuals' social environment over time (Bandura, 1994). Being socially recognised by close others as having the capacity to engage and achieve the tasks required for participating in a CC platform, increase one's perceived self-efficacy regrading this CC platform. Using this rationale, this study argues that when individuals are referred to participate in a CC platform by their friend or family member, they are more likely to regard themselves as having the capability to join in and become part of the community, since their acquaintances are already in the network and they have received the social approval and recognition to join the same network (Arnould and Rose, 2016; Bar-Gill, Inbar and Reichman, 2021). Therefore, this study proposes the following hypothesis:

H6. Social referral will increase a user's self-efficacy towards the CC platform.

3.8.7 Shared Goals and Social Trust

Shared goals have been recognised as a set of practices that motivate cooperative behaviours (Inkpen and Tsang, 2005) and refers to "collective goals and aspirations of the members of a cooperative network" (Tsai and Ghoshal, 1998, p. 157). When network members have the same vision regarding how they should work together, this can help promote the efficiency of communications and mutual understandings amongst the members, thus encouraging idea and

resource sharing within the network (Nahapiet and Ghoshal, 1998; Tsai and Ghoshal, 1998; Chow and Chan, 2008).

Several studies have shown that the common goals or vision signifies network members' shared values in the cooperative process. For instance, Inkpen and Tsang (2005) find that shared goals among the employees reflects the firms' intellectual capital, which leads to better strategic alliance within the organisation. Zhang (2020) also reveal that shared goals is an inclusive force in building and maintaining the ecosystem of networks. Although network members are not necessarily known to each other, their shared values provide them the common memberships in some ways (Twenge et al., 2012). For instance, to facilitate a fair exchange, Airbnb require all its users to respect each other's house rules and if any buyers do not look after the rented property and leave damage, their service fee may not be returned. Instead, a bad review will be left on the buyers' profile. Acknowledging the common goals (e.g., sharing fairly) help increase members' social trust towards the CC platform at the collective level. This explains why Tussyadiah (2016) found that both sellers and buyers feel a stronger sense of community and social benefits after using CC accommodation sharing. Therefore:

H7. A users' shared goals will increase the user's social trust towards the CC platform.

3.8.8 Shared Goals and Self-efficacy

Shared goals serve as the foundation that promotes cooperative behaviour amongst network members. Sharing a common goal means that the individuals are more likely to understand the tasks required and improve one self-efficacy so that he or she can better achieve the common goal (Bandura, 1991). Individuals with scoring high on shared goals tend to have better understanding of the potential values resulting from participating in the cooperation with peers. Theoretically, this will promote self-efficacy and maintain long-term relationships (Ventura et al., 2015; Dong et al., 2022). For example, when a CC platform user agrees with the platform's common goals (e.g., sharing fairly), this person is more likely to work on improving one's self-efficacy so that she or he can participate in the CC platform to share fairly. Thus, this study postulates the following hypothesis:

H8. A user's shared goals will increase the user's self-efficacy towards the CC platform.

Overall, there are eight hypotheses proposed for this thesis. Table 3-2 provided the summary of eight hypotheses.

***Table 3-2**: Research Hypotheses*

Number	Research Hypotheses
H1	A user's social trust towards others in a CC platform will increase the user's purchase intention this CC platform.
H2	A user's CC Platform self-efficacy will increase the user's purchase intention on CC platform.
H3	A users' perceived CC platform network stability will increase the user's social trust towards the CC platform.
H4	A users' perceived CC platform system quality will increase the user's social trust towards the CC platform.
H5	Social referral will increase a user's social trust towards the CC platform.
H6	Social referral will increase a user's self-efficacy towards the CC platform.
H7	A users' shared goals will increase the user's social trust towards the CC platform.
H8	A user's shared goals will increase the user's self-efficacy towards the CC platform.

3.9 Summary

This chapter has showed how the social capital theory can be used in the context of CC. This chapter also showed the significant of the use of each construct, and provided explanations, justifications, and the relevance to the context of CC. Based on the related literature, a conceptual framework was developed with eight hypotheses to examine the antecedents of social trust and self-efficacy and their effects on individuals' purchase intention CC. This chapter also showed each hypothesis is supported by the relevant literature. The next chapter will focus on the explanation of the research design as well as justify the most suitable research methodology and data collection method for this study.

Chapter 4 Research Methodology

CHAPTER 4: RESEARCH METHODOLOGY

4.1 Introduction

In the previous chapter, this thesis showed the development of the conceptual framework, in which focuses on the investigation of the antecedents of social trust and self-efficacy and purchase intention as the outcome variable. This chapter aims to set the basis for the research analysis, therefore, will explain the possible methodological approaches and identify an appropriate one for this research.

In order to identify the suitable approach, this chapter presents an overview of research methodology and justify how the research method was developed. First, a discussion of different research approaches will be provided and justified. Second, preparedness of identifying the promising research methods. Finally, an initial test was conducted and its results discussion, a set of identified measures for improved research will be presented.

4.2 Research Paradigms

This section explores several research paradigms as it is an essential step to identify the most adequate paradigm for the research instrument of this thesis. A research paradigm refers to a group to assumptions that are employed to determine the applications of appropriate methodological approach (Myers, 1997). Under the scope of philosophical concepts of research, research paradigm is essential for choosing an adequate research methodology. Patton (1990) pointed out that understanding different research paradigms will help researchers to justify and select a sound methodology. In addition, understanding different paradigms can also guide the research method in data collection process as well as the selection of possible data analysis techniques (Lovelock and Gummesson, 2004). However, the concepts of research methodology and research method are interchangeably related, yet, having different principles that can distinguish them (Cecez-Kecmanovic, 2011). Research methodology refers to a broad term that indicated an overall strategy of conducting research. Research method, on the other hand, concerned with a set of techniques and procedures that are applied in studies. The core philosophical consideration behind this, is about the principles that can be applied and studied in both the real world and scientific studies (Hudson and Ozanne, 1988). This section starts with the two dominant approaches in the IS related research, which are positivism and

interpretivism. Some other approaches, including action research and critical theory will also being reviewed (Creswell, 2003; DeLuca et al., 2008; Baskerville and Wood-Harper, 2016).

4.2.1 Positivism

According to Creswell (2003), positivism, holds a deterministic philosophy in which reflects the experiences of causal effects through statistical experiments. Thus, reality is objective, ordinary, and can be governed by strict mathematical laws, and the independence of human behaviour. Positivist approach also refers to deductive approach, such as quantitative research. Myers (1997) argued that positivist researchers assumed a general rule in which reality can be investigated by statistical means. However, Schrag (1992) stated that the goal in positivism is to isolate and control the variables that identified in the complexity of human interactions. Hence, the independent variables in positivism are often viewed as instrumental tools or "treatments", dependent variable is viewed as the consequences (Schrag, 1992). The primary features of positivist approach consist of at least one theory, data collection that can support or disproves the theory, perform necessary revisions and statistical tests (Creswell, 2003). The employment of theory or theories is to guide positivist research while observing and reasoning the human behaviour, as theories are developed to understand reality (Punch, 2013).

Positivism is mainly applied for research in understanding behavioural intention of individuals. As such, there is a necessity to collect data from relevant individuals. The data collection process is generally through a survey instrument. A survey instrument is thought to be the most popular data collection method in positivism, as it provides not only efficient way but also cost-effective way of collecting data (Creswell 2003).

4.2.2 Interpretivism

In contrast, Collins (2010) explained that interpretivism encompasses the philosophical position of idealism, often used to gather diverse approaches. Interpretivism should be used to reject the objectivist view, as it acts upon the independency of individuals' consciousness (Collins 2010). In other words, studies that focused on social constructionism, hermeneutics, and phenomenology should employ interpretivism (Creswell, 2003). Interpretivism holds the views that value-free data does not exist as the researchers can supervise the process of data collection. Furthermore, interpretivist researchers appreciate the heterogeneity of human

behaviour. Interpretivist approach is often referred to inductive approach, such as qualitative research. Walsham (1995) explained that during the interview process, the changes of conscious minds can occur through the interactions between the two parties (e.g., interviewee(s) and interviewer). As such, the development of the questionnaire can be semi-developed before data collection in this approach. In addition, Myers (1997) indicated that interpretivist researchers often presume that the reality can be evaluated through conducting interviews.

However, interpretivism assumes that the development of knowledge in understanding of a phenomena needs to be completed through investigating the participants' deep thoughts and reasonings (Schwandt, 2000). Typically, the deep thoughts and reasonings are observed through the interactions between the researchers and the participants during interviews. In order to capture the data, the interview process is co-created by the dialogues or a controlled environment (Orlikowski and Baroudi, 1991). Taken together, the interpretivist paradigm is not applicable to this study as it is focused on emphasise the measures of a social phenomenon.

4.2.3 Action Research

Davison et al. (2004) suggested an approach called action research which aims to expand research knowledge through the cycles of five-steps, (1) diagnosis, identify the research problem; (2) plan, determine the extent to which action to take; (3) execution, taking the action; (4) evaluation, assess the results and (5) specification, identify the lessons learned through the study and plan for the next cycle. Therefore, action research takes on a cyclical process of actions that help researchers to evaluate different research problems and reflect on these problems. In this paradigm, planning the action for each research problem is essential, as it shows the possible ways of tackling the problems (Braa and Vidgen, 1999). Accordingly, this approach is appropriate in organisational management research, as its main objective is to understand the internal aspect of an organisation. Therefore, action research is not being considered as accurate methodology for this study.

4.2.4 Critical Theory

Another approach is critical theory where focus is mainly on theoretical contributions (Agger, 1991). It is a paradigm that applied to challenge the social reality (Kincheloe and McLaren,

1994) and highlighting the potential conflicts within the structure of a social system (Orlikowski and Baroudi, 1991). Critical theory assumes that social relationships in social reality are produced by a group of individuals. In order to investigate social relationships, criticists aim to observe social factors, for instance, cultural and political factors (Orlikowski and Baroudi, 1991). This approach is used applied to challenge and evaluate the present state of reality. However, this study focuses on investigating the antecedents of social trust and self-efficacy and the purchase intention as outcome, it is believed that critical theory is not suitable for this study.

Moreover, Creswell (2003) described that researcher interested in studying consequences of individual's experience tend to choose positivism. In contrast, researchers interested in studying the occurrence of effects under certain conditions tend to utilise interpretivism, such as interviews. Hence, the nature of research cannot be relied on data that is collected through manipulated environment (e.g., interviews), as it will not provide the explanation of predictability of individuals' purchase intention CC. Therefore, quantitative approach is thus, the most appropriate approach for this study. IS research have a long been associated with quantitative research method and often based on positivism approach (Becker and Niehaves, 2007). This is because IS researchers typically aim to explain and explore relationships between existing concepts or identifying new concepts (Creswell, 2003). Adopting quantitative research method allow IS researchers to capture an observable phenomenon through survey questionnaire (Kothari, 2012).

4.4 Quantitative Research Strategies

Previous section has explained and justified the reason that positivism is appropriate for this thesis, hence, this thesis is quantitative research. Quantitative method is an approach concerned with numeric data collection, organisation and analysis (Hart and Prais, 1956; Schrag, 1992; Straub and Gefen, 2004; DeLuca et al., 2008; Hesse and Ofosu, 2017). The suitable research design and development of measurements are both key components for yielding a good quality research in quantitative research (Creswell, 2003). There are several research strategies for quantitative method, in which have been employed with different measurements and descriptions, for instance, experimental design and survey (Creswell, 2003). The extent to which research strategy is suitable may depend on the nature of research questions (Myers,

1997). In addition, Myers (1997) suggested that proposed hypotheses and the development of measurement should be first applied to guide the choice of research strategy.

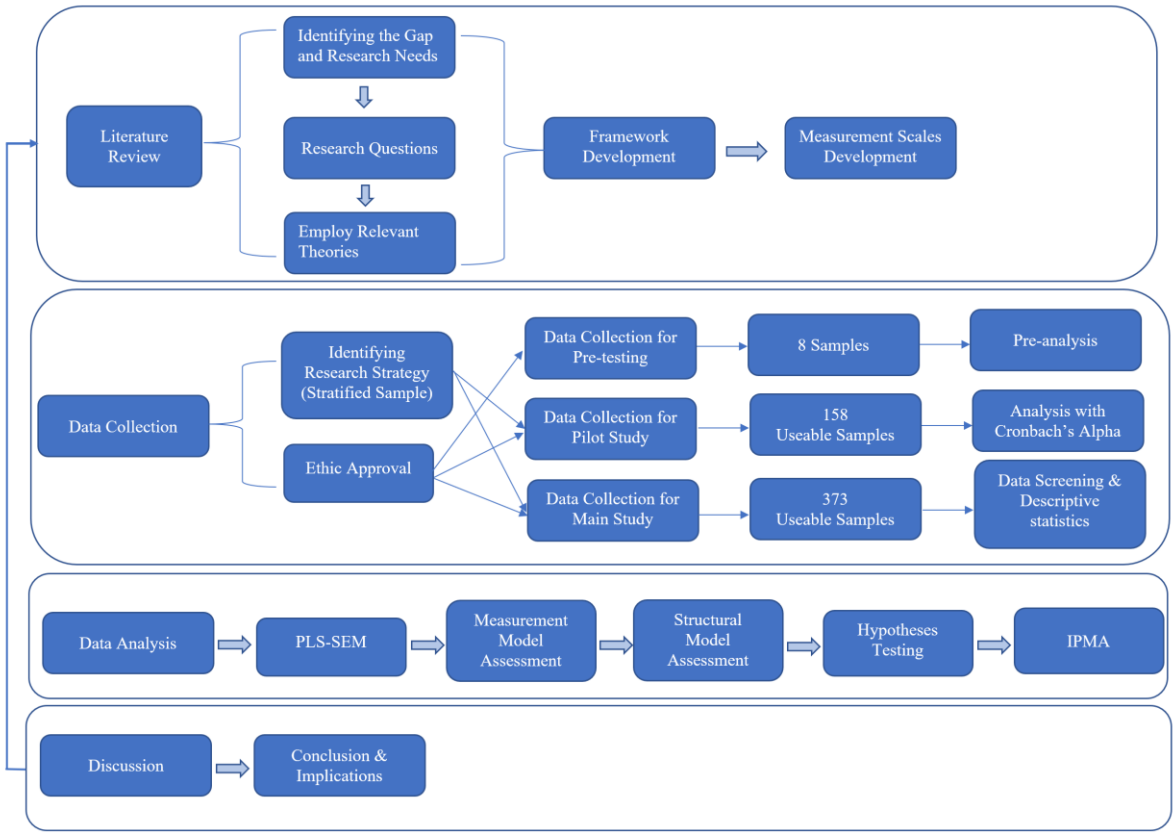
Experimental studies allow researchers to introduce an intervention in data collection process and observe the changes of effects (Wu and Zumbo, 2008). Often, the researchers use experimental method to manipulate the independent variables whilst observing whether the dependent variables are being affected or not (Creswell, 2003). As independent variables are isolated in a controlled environment, thus, it provides researchers more accurate results. However, it is believed that experimental method is not relevant to this study. Firstly, this study aims to investigate the effects of social trust and self-efficacy on purchase intention, these variables are difficult to be manipulated. Secondly, most of experimental studies aim to identify whether the changes of factors can affect a condition or not. For example, the changes between room temperature and weather. Thus, this quantitative method is unrelated for this study.

Since this study concerned with individuals' purchase intention as an outcome of the effects of social trust and self-efficacy, quantitative survey is suitable for this study. The purpose of quantitative survey method is to investigate a specific phenomenon or occurrences that may be affecting individual's outcome behaviours (Creswell, 2003), such as intention. Quantitative survey method permits researchers' knowledge to extent from the statistical analysis of the collected data. By exploiting a robust statistical approach, the data can then be used to identify patterns, mathematical probability, causal relationships and results (O'Gorman and MacIntosh, 2015). However, Bland (2015) argued that the number of variables may affect the results interpretations and increase the statistical errors. To minimise statistical errors, Schield's (1999) "method of reasoning" is employed in the study. Method of reasoning provides an instruction of identifying the appropriate statistics for quantitative survey method, known as formal reasoning or deductive reasoning (Schield, 1999). Method of reasoning is useful for studies that are developed through the lens of theories and studies that required empirical tests. These were all considered and reviewed before the completion of final design of the research method. In the next section, this thesis will provide the detail of research design in a step-by-step manner along with justification.

4.4 Research Design

As forementioned, deductive approach is selected as part of research methodology. The empirical design of the study is based on the five steps (Figure 4-1). In this section, this thesis will present the discussion of each step and show how each step is justified, namely, research paradigm, research strategy, design, construct validity and main study.

***Figure 4-1**: Research Design and Development of Method*



4.4.1 Step 1: Research Definition and Identifying the Knowledge Gaps

Based on the review of literature, the concepts of CC were identified. CC distinguished itself from traditional e-commerce through a triadic model that contains three actors, namely, platform owners, buyers and service providers or sellers (Benoit et al., 2017). The existence of CC is based on the interactions between the actors in which generate the value co-creation. There are different types of CC showed in the literature, including recirculation of goods, goods rentals, service exchange and sharing of productive assets. The suppliers of each type are the consumers rather than manufacturers. Moreover, the CC related studies have identified the motivations that drives individuals to participate CC, mainly includes social value, economic

value and positive environmental value (e.g., Wainaina and Mutogh, 2022). However, the existing literature showed a lack of coherence in terms of the findings. Firstly, the literature has been focusing on one particular type of CC, such as Airbnb and Uber. Secondly, some studies used incorrect context to explore and define CC. Thirdly, the role of trust has been neglected in the literature. Given the fact that transactions in CC require co-presence as well as interactions with strangers, the role of trust is perhaps the most important element in this context. Fourthly, since the suppliers in CC are the users, to maintain and enhance the triad is necessary. However, the factors that may help to address this issue remains unclear. Therefore, the goal of this thesis is to enrich and extend prior studies in this domain by examining the antecedents of social trust and self-efficacy as well as individuals' purchase intention. In addition, this thesis examined CC based on the case of a service exchange firm.

4.4.2 Step 2: Review the Literature and Recognise Related Theories

In order to identify the most appropriate theories to address issues in CC, this thesis started with a systematic literature searching. Systematic literature searching is recognised as a crucial component in many research domain, it involves a systematic search in guidance and published studies (Cooper et al., 2018). The literature searching process in the thesis, the resources used are in a combination of books, academic journals, government reports, company reports, and trusted websites. The majority of the resources are from "MIS Quarterly", "SAGE", "Web of Science", "Google Scholar", "Scopus", "Elsevier", and "Emerald Insight", which are available from the Brunel University Library. To capture specific topics, the search terms used were "sharing economy", "peer-to-peer", "collaborative consumption", "collective action", "trust in community", "intention", "purchase intention" and "trust in group". In order to achieve in-depth knowledge of the field and identify the relevance, there was no limits in the duration used for literature search. Only some limits applied, such as subjects, written in English and full-text articles.

This process helped the thesis to develop an understanding of conceptualisations, history, definitions, current status and challenges in the context of CC. As discussed in Chapter 2, CC exists as individuals collaborate with each other (Belk, 2007; Sundararajan, 2016; Ertz et al., 2019). Nevertheless, due to the nature of CC that contains different types of exchange, many findings in the literature were inconsistent. In addition, trust has been viewed as a crucial

component in e-commerce, however, CC literature has not paid attention to address the issues of trust and rick and the effects on purchase intention. To address the issues, the thesis believed that examining CC as an online community is appropriate. Hence, the characteristics of CC are similar to the characteristics of online communities (Möhlmann, 2015; Richardson, 2015; Piscicelli, 2016).

IS research has investigated how and why individuals intend to purchase with a new information technology. There have been various streams of research examined this outcome variable by theories or empirical literature search. Popular theories include the TAM model (Gefen et al., 2003), theory of reasoned action, game theory, and motivation theory (Menard et al., 2017). The existing CC related studies assumed that the trust in CC is established through the values and motivations. The common theories applied in CC literature includes self-determination theory (Deci and Ryan, 2012) and theory of reasoned action (TRA) (Kim, 2008). Nevertheless, social capital theory was chosen for this study, not only because it is suggested in the previous CC studies for future research (Wasko and Faraj, 2005; Sundararajan, 2016; ter Huurne et al., 2017; Sundararajan, 2019), but also because social capital is known for addressing individuals' collaborative behaviours (Coleman, 1990; Nahapiet and Ghoshal, 1998; Berry and Rickwood, 2000; Fukuyama, 2001; Inkpen and Tsang, 2005; Bisung et al., 2014; Zmyślony et al., 2020).

4.4.3 Step 3: Development of Research Framework and Hypotheses

In order to address the knowledge gaps in the CC literature, this study developed a conceptual framework based on social capital theory, online community literature, sociology, psychology and social cognitive theory. Each construct had been reasoned and explained in the Chapter 3. The CC literature mainly focused on the context of lodging and ridesharing. Therefore, to empirically test the proposed framework and hypotheses, this study chose to collect data from users of TaskRabbit, which is a CC skill-based exchange platform in the United Kingdom.

Skill-based exchange in CC distinguish itself from other services, as it operates on the basis of personal skills and time exchange. Unlike accommodation or rides-sharing, skill-based exchange in CC focuses more on the intangible side of sharing. In the skill-based exchange, individuals

exchange for example, tools, skills, and time that are often unquantifiable and the value of each exchange is very much based on subjective understanding of fairness from both parties. By collecting empirical data based on a peer-to-peer skill-based exchange, it helps to add nuance understanding to increase our understanding of CC.

TaskRabbit was launched in Boston, United States in 2008, TaskRabbit is able to generate US$ 4 million profit monthly. It expanded the platform to London, United Kingdom in 2013. In 2020, there were more than 29,000 individuals applied to become taskers. As the year went on, it has served over 250,000 customers across four UK cities – Bristol, Manchester, Birmingham, and London. Within the platform (www.taskrabbit.co.uk), sellers as service providers are referred to taskers, while buyers are called customers.

4.4.4 Step 4: Sampling Strategies, Questionnaire Design and Pre-testing

This study follows positivism paradigm, as such the quantitative method is employed. This paradigm is adequate for this research because the development of the framework is predictive oriented model. With the quantitative method will allow the study to collect a considerable amount of samples which will increase the predictive power of the model (Saunders et al., 2018). Turning now to present the sampling techniques available for the study.

4.4.4.1 Sampling Techniques

In quantitative studies, one of the important parts is to recruit a sample that can reflect the aspects of the target population. This can be achieved by using (1) possibility sampling and (2) non-possibility sampling (Bryman and Bell, 2007). The first, possibility sampling refers to a technique that equally and randomly select the sample. Therefore, each sample has equal chance to be selected. This technique increases the valid interference of a population and thus, decreases sampling errors. It is often used in stratified random, systematic and cluster (Saunders et al., 2018). The second technique, non-possibility sampling refers to a technique that randomly select the sample from the population without the possibility of chances (Saunders et al., 2018). Since the possibility of chances is unknown, the sampling errors is almost impossible to be minimised in the collection process (Bryman and Bell, 2007). In some cases, the application of non-possibility sampling is not an appropriate method, such as studies that aim to measure the size of a population (Field et al., 2006). However, non-possibility

sampling is usually known as convenience sample, such as snowball sampling (Bryman and Bell, 2007). In comparison, non-possibility sampling is the most cost effective and uses the least time of collecting data. Researchers have suggested possible way to reduce the sampling errors, for example, plans for data collection (Blumberg et al., 2014). Different sampling techniques will produce different results and can sometimes affect the validity of a study. Table 4-1 presents an overview of sampling techniques with the advantages and disadvantages.

Given the nature and objectives of this thesis, nonprobability sampling is adopted. Nonprobability sampling is often used when the studies are sensitive to biased sample (Taherdoost 2018; Guttentag etal., 2018). Saunders et al. (2018) described that nonprobability sampling allows researchers to reflect on the relationships between the data, population, and external validity of the findings. Nonprobability sampling require a plan that contains the description of population members (Erba et al. 2018), which fit into the research setting of this thesis. As shown in the previous step, this thesis intends to assess the conceptual framework in skill-based exchange. This context appears to be limited in the UK, it is not operated in many regions. Therefore, nonprobability sampling techniques are reasonable for this study. More precisely, this study adopted stratified sampling method, as it allows the researcher access to the regions that TaskRabbit operates. Other probability sampling methods are invalid for this study, as this study aims to explore the users of CC, specifically targeting TaskRabbit users rather than entire population of the country. Thus, the samples were targeted in the regions of Bristol, Manchester, Birmingham, and London. To ensure the relevance of the sample for the study, only the individuals that have experienced of using CC were qualified. Specifically, to use TaskRabbit, a potential customer can perform a task search detailing the nature of the task, (e.g., assembling a Table/Desk, plumbing, painting, decorating, etc.), time required for the task, vehicle requirement, preferred dates and location. The platform will return a list of available taskers, based on their attributes, such as price per hour, percentage of reliability, reviews, and vehicle options. In order to help both taskers and customers reach mutual understanding and expectation, short descriptions of tasks and an introduction of themselves are also required. Next, to minimise sampling errors or bias, a sample size in such survey technique is necessary.

Table 4-1*: Overview of Sampling Techniques*

Techniques	**Descriptions**	**Advantages**	**Disadvantage**

Probability sampling			
Simple random	Every case has equal possibility of being selected.	Can examine the whole population	- Standard errors can be high - Not cost effective
Systematic	Selecting cases from multiple datasets, for example, every fifth consumer.	High level of simplicity	- Could be biased - Data could be unrepresentative - Time consuming
Stratified random	Dividing the population into strata (or subgroups) and take the sample from each subgroup.	Obtaining highly representative data	- High cost - Requires more planning to collect relevant data
Cluster	Diving the whole population into clusters or groups.	Obtaining data from over large geographical areas, such as countries.	- Difficult to produce precise results
Multi-Stage	Using step-by-step process to collect data from broad to narrow.	Allow research concentrate in a few geographical regions, such as towns and cities.	- Hard to reach samples that can represent entire population - Can be subjective
Non-probability sampling			
Quota	Choose the participants based on predetermined characteristics.	Giving researchers high control in examining certain characteristics.	- Can be subjective
Snowball	Increased sample size through recruitment technique in which the participants are requested to assist researchers. For example, using friends and family as part of sample.	Can represent small populations and least expensive.	- Representativeness is not always guaranteed - Researchers may have very little control

Source: Ackoff (1953); Malhotra and Birks (2006); Taherdoost (2018); Saunders et al. (2018)

4.4.4.2 Sample Size

To address the research questions, often require a large sample size (Saunders et al., 2018). However, a large size in samples does not mean the level of precision (Bryman and Bell, 2011). Bryman and Bell (2011) specified three key components that should be considered, first, time

and cost. Second, non-response rate and third, heterogeneity of the population. Whilst Saunders et al. (2018) recommended that the determinant of sample size should be based on the population standard deviation, tolerance of standard error and the sampling technique of choice. Nevertheless, the population size can be difficult to obtain and can be time consuming (Ackoff, 1953).

This study intends to use structural equation modelling (SEM) to examine the relationships between the latent variables, a large sample size may require (Hair et al., 2017). Given that quota sampling is adopted for collecting the samples, the adequate sample size can be obtained from the result of pre-test (Bryman and Bell, 2011). However, Tabachnick and Fidell (2001) provide rules of thumb for sample size in SEM studies as 100 cases indicated poor, 200 cases indicated fair, 300 cases indicated good, 500 cases indicated very good, and 1000 or more cases indicated excellent sample sizes. In addition, to ensure that the sample size is statistically adequate, G*Power software was used. Based on an effect size of 0.15, power of 0.8 and the number of predictors set at 6, the minimum sample size obtained was n=366. The sample size for the thesis fulfils both rules of thumb and the minimum requirement.Next, questionnaire development will be presented.

4.4.4.3 Questionnaire Development

Survey questionnaires are the most common methods for collecting data in a short time. In addition, the survey questionnaires produce quantified data, which make the data analysis heavily depend on the mathematical facts. Thus, produce less subjective results than other methods (Etikan and Bala, 2017). The previous studies in online community and CC domains have employed survey questionnaires method to collect data (Lee et al., 2008; Steinfield et al., 2008; Chai and Kim, 2010; Masabumi et al., 2013; Barnes and Mattsson, 2017; Böcker and Meelen, 2017; Lindblom and Lindblom, 2017; Ranzini et al., 2017; So et al., 2018; Zhang et al., 2018). Further, to develop appropriate questionnaires for the study, it is recommended to first observe the relationships between the constructs (Schield, 1999). Then, identify appropriate measurements for the constructs through the relevant literature. Adopting measurements from the existing literature can reduce possible errors in the study (Oppenheim, 1992).

The questionnaires for the study consist of seven variables: network stability, system quality, social referral, shared goals, social trust, self-efficacy and purchase intention. In addition, four demographical questions were included: gender, age, education level, and household income.

4.4.4.4 Instrument Measurement

In the design of surveys, Likert-scale is the most common method in designing survey as the measurement scales are equally distributed in all constructs (DeLone and McLean, 1992). Liker-scale can be 5- or 7-point, as such, respondents will be asked to rank the value from 'strongly agree' to 'strongly disagree'. The empirical relevant studies have shown that Likert-scale provides ability to achieve an in-depth understanding of individual's behaviour (e.g., Ferrin and Dirks, 2003; Flavia ´n et al., 2006; Nevado-Peña et al., 2019).

To fulfil the aims of the study, the questionnaire measurement items were adapted from the relevant literature, each construct was measured with four questions. The dependent variable (purchase intention CC) was measured with the items developed by Kim and Park (2013), probing for likely to purchase or use the CC skill-based exchange in the future. Items for measuring social trust and shared goals were adapted from social capital research by Chow and Chan (2008). Items for system quality were adapted from IS literature that focus on online community-building, including Montoya-Weiss et al. (2003) and Chiu et al. (2006). Items from self-efficacy were adapted from Yi and Hwang (2003) and Hsu and Chiu (2004). Items for measuring social referral were adapted from Kim and Park (2013), and shared goals were from Chow and Chan (2008). Items for measuring network stability were taken from Inkpen and Tsang's (2005) conceptual paper that discusses network stability. Taken together, these measurements (Appendix B) are applied to test individuals' purchase intention.

4.4.4.5 Research Ethics and Approval

The research participants were the users of TaskRabbit in the UK. Before the start of data collection, the research proposal was reviewed and approved from Brunel Research Ethics Committee (REC). REC has the statutory duty to provide research participants' dignity, right, privacy, safety and welfare. The role of REC also includes reviewing research protocols and supporting certificates on scientific and ethical merit. Furthermore, the REC is assigned to

ensure that the proposed research is carried out according to governmental and institutional policies and regulations.

4.4.5 Step 5: Preparing for the Main Study: Pre-Test

This step is the final step of research design of the study. Pre-test plays a vital role in determine the quality of a survey. There are several reasons that point out the importance of this step, first, pre-test can help researchers to re-evaluate the questionnaires, format, length and wording. Second, identifying the ways to increase participants' interest and willingness of involving in the study. And third, ensuring the development of a good survey (Saunders et al. 2018).

The pre-test for this study involved eight participants, who were frequently using CC related services at least once a week. All of whom were asked to provide feedback on the questionnaire design. The wording and format were re-evaluated. Further, a pilot study would be useful to validate the questionnaire as suggested by academic experts. Based on this, a pilot study was conducted.

4.5 Pilot Study

The objectives of pilot study were to assess the validity and reliability of the measurement scale (Saunders et al. 2018). The validity is assessed by using Confirmatory Factor Analysis (CFA), while reliability was assessed by using Cronbach's alpha. The software packages used in the pilot study's data analysis were SPSS statistics and SPSS AMOS.

The questionnaire was distributed in a paper-based format to the experienced users of CC in London, UK in May 2019. In total, 162 samples were collected. However, there were four incomplete surveys, leaving 158 usable samples. The participants in the pilot study were about 58% female and 42% male, the largest age group was between 25 to 34 with almost 40%. Many of them are fairly educated with 43% holding an undergraduate degree and 19% holding a post-graduate degree. The average time spent in answering the questionnaire was 5 minutes, indicating the questionnaire does not take long to complete. The CFA results revealed all of the items were loaded onto each latent variable, explaining 65% of the total variance. This signifying an adequate validity of the questionnaire. Next, Cronbach's alpha was used to

examine the reliability. Hudson and Ozanne (1988) suggested that Cronbach's alpha (α) ≥ 0.90 is considered to be excellent reliability, value between 0.70 and 0.90 are interpreted as high reliability, value between 0.50 and 0.70 are thought to be moderate reliability, and value ≤ 0.5 is considered as poor reliability. All scales were found to have high reliability as all had $\alpha \geq$ 0.76. Table 4-3 presents the detail of each construct's Cronbach's alpha. Additionally, the relationships between the constructs were assessed by using item-to-total correlations. All constructs showed strong correlations (see Appendix A).

***Table 4-3**: Reliability assessment for the pilot study*

Construct	Number of items	Cronbach's alpha
purchase intention	4	0.891
Social Trust	4	0.768
Self-efficacy	4	0.871
Network Stability	4	0.901
System Quality	4	0.868
Social Referral	4	0.838
Shared Goals	4	0.845

4.6 Main Study

The results of pilot study indicated that there is no need to change or amend the items. The data collected in the pilot study was to validate the measure item and ensure the internal consistency of the framework. Therefore, the sample from the pilot study was excluded from the main study. For the main study, a quantitative online survey was distributed and administrated via Survey Monkey between November and December 2019. The survey collector company is appropriate for this study, as it is typically at an affordable price, it also allows researchers to control all steps of the collecting process (Bentley and Lottridge, 2020). TaskRabbit was a new CC platform in the UK, therefore, this study did not focus on only recruiting existing users of TaskRabbit, but individuals who have prior experience with any CC platforms (including Airbnb, Uber, etc.).

In the cover page of the survey, images of CC related firms were uploaded to remind individuals the context of CC. In the introduction, it described the research context and the objectives, then question the participants whether they have used TaskRabbit before. It also stated explicitly that only individuals have clicked on the link or with experience of use TaskRabbit were eligible to take part in the study. Therefore, participants without prior experience of using TaskRabbit must click on the link to proceed to the next page of the survey. In order to capture the sample as precise as possible, the control variables were set to the length of living in the locations were TaskRabbit is available (London, Birmingham, Manchester and Bristol), experience of using CC platforms and age. In addition, to recruit high-quality responses, questionnaires were designed and available only to those with acceptance rate of 72% on the survey website, indicating they have instantly determined their quality responses. Moreover, the questionnaire included an attention check question in the middle of the survey, with the wording, "The following question is to check whether you are paying attention to question wording. Please select Green option." There were 8 respondents (2%) failed this question, left us with a sample of 373 respondents, where 261 were existing users of TaskRabbit, while 112 have not used TaskRabbit before but have used other CC platforms in the past.

The above settings are largely in line with the demographic composition of the CC users in the UK (Ozcan et al. 2017). There were five demographic information related questionnaire at the first part of the survey. After that, the rest of questionnaire was designed in five-point Likert-scale style, the respondents were required to rate the given phrases from 1 to 5 (1= "strongly disagree", 2 = "Disagree", 3 = "Neither disagree nor agree", 4 = "Agree", and 5 = "Strongly agree"). On average, the survey took approximately 8 minutes to complete. At the end of the survey, 1.5 British Pound Sterling were offered as a monetary reward and were distributed by the survey collector company.

4.7 Data Analysis

Data analysis in the main study was based on a partial least squares structural equation modelling (PLS-SEM) software called SmartPLS 3.0 to contemporaneously assess the measurement instrument and the conceptual model. SPSS statistics was an additional software package used

to provide descriptive statistics, including participants profile, and data screening. In the next few sections, this thesis will explain the reason why PLS-SEM is appropriate for this study.

4.7.1 Structural Equation Modelling (SEM)

SEM approach is a multivariate analysis method, it has been applied in various research disciplines such as education (Lin et al., 2020), marketing (Hwang and Griffiths, 2017), psychology (Anderson and Gerbing, 1988), IS research (Ege Oruç and Tatar, 2017) and sociology (Moore and Carpiano, 2020). In particular, Gefen et al. (2011) recommended that scientific studies focus on behavioural intention and especially in IS research should use SEM. SEM approach is useful for studies that aim to investigate the relationships between independent and dependent variables that identified from relevant literatures or theories (Gefen et al., 2000).

There are two types of measurements in employing SEM approach: formative and reflective. Formative measurements have the indicators caused by the latent variables and the associations are not interchangeable (Byrne, 2016). Whilst reflective measurements have the latent variables that are usually highly correlated and are interchangeable (Sarstedt et al., 2014; Byrne, 2016). Therefore, the reliability and validity should be carefully inspected (Wong, 2019). Since the measurements in this study is based on Likert-point and were drawn from theories and the relevant literature, indicating that the data analysis should be based on the rules of reflective measurement scales (Hair et al., 2021).

There are three common ways to apply SEM approach, namely, partial least square (PLS), covariance-based (CB-SEM) and component-based SEM. The advantage of partial least square structural equation modelling (PLS-SEM) is that it requires much fewer sample sizes and aim at explaining the variance of dependent construct (Hair et al. 2013). Whilst CB-SEM allows direct test of measurement invariance and the structural invariance (Qureshi and Compeau 2009). Both have been applied to test hypotheses in confirming and rejecting theories. In comparison, CB-SEM has strict data assumption (e.g., normal distribution and large sample size), whereas PLS-SEM is less strict in data assumptions, especially when the number of participants is limited (Wong 2019). Component-based SEM is usually applied through generalised structured component analysis (GSCA). Table 4-4 provides the details of the comparison between different SEM approaches. PLS-SEM is chosen for this study, as the cost

of obtaining quota sample is high and can be limited. Hence, this study aims to capture high representative data within the minimum requirement of the sample size (n=373).

4.7.2 Partial Least Square Equation Modelling (PLS-SEM)

PLS-SEM is a new variance-based SEM approach developed in the mid-1960 by a econometrician and statistician Herman Wold (Wold, 1985). PLS-SEM offers flexibility for exploratory modelling comparing to CB-SEM (section 5.6.3). There are several reasons that PLS-SEM is the chosen approach for the main study. First reason, PLS-SEM calculates latent variables based on the exact weighted linear combinations of the observed variables (Wong, 2019). Therefore, using scored the values of latent variables for prediction purposes. Second reason, PLS-SEM does not measure the parameters simultaneously, rather it separates the parameters during the calculation. By exploring the significance between the parameters, it enables scholars to extend the knowledge of both the research model and the measurements (Rodríguez-Entrena et al., 2018). Third reason, it only needs a small sample size in comparison to other SEM approaches (Wold, 1985). PLS-SEM has been recognised as the main technique applied in IS research (Gefen et al., 2011). Therefore, it is the best match according to the objective of the thesis.

Apart from the strengths of using PLS-SEM approach, it can suffer from (1) possibility of biased estimation; and (2) possibility of generating large amount of mean square errors in the estimates of component loadings and path coefficients (Wong, 2019). However, these can be prevented by examining the model's outer loadings, average variance extracted (AVE), composite reliability and its square root. According to Hair et al. (2013), the software packages available to apply PLS-SEM are SmartPLS, PLS-PC and PLS-Graph. The chosen software package in the study is SmartPLS. This approach is considered appropriate, as SmartPLS is known for delivering valid results for academic studies that contain relatively complex models with small sample sizes (Chin, 1998). In addition, SmartPLS has been identified as an effective tool for PLS-SEM in management-related studies that have a predictive research scope (Chin, 1998; Ringle et al., 2012; Hair et al., 2021).

***Table 4-4**: Comparison Between Covariance-based and Component-Based SEM*

Features	Covariance-based	Partial Least Square	Component-based
Objective/ purpose	Build causal models	Predictive causal system	Build Causal relationships
Measurement	Reflective measure	Reflective and formative	Reflective and formative
Distributional assumption	Multivariate normality (Parametric)	Cross Validated, component-based estimation	Predictor specification (non-parametric)
Parameter estimates	Consistency at large: at least 10 times the number of items in complex constructs.	Small to moderate complexity (e.g., less than 100 variables)	Consistency at large: at least 10 times the number of items in complex constructs.
Model evaluation	Goodness of fit, overall model fit, R^2, AGFI	R^2, Q^2, f^2composite reliability, AVE, outer loadings and square root	R^2, significant t-values
Best suited for:	Confirmatory research and theory testing	Predictive exploratory research and theory testing	Exploratory research and theory building

Source: Wold, (1985); Gefen et al. (2000); Hair et al. (2013); Byrne (2016); Wong (2019)

4.7.3 Assessment of Measurement Model

PLS-SEM is composed of measurement model and structural model. The measurement model represents the relationships between the samples and the latent variables, whilst the structural model represents the relationships between the latent variables (Hair et al., 2013). Both sub-models should be statistically assessed before the hypothesis testing. As the measurements for the study contains reflective measurement scales, the assessment of measurement model starts with inspecting the relationships between the constructs and their measures. This includes the outer model loadings (Wong, 2019) and the measure's reliability (Ali et al., 2018). In addition, to rigorously ensuring that the constructs are precisely measured, the assessment of validity is essential (Hair et al., 2012). Validity refers to the extent to which a construct is accurately measured (Hair et al., 2016) whilst measure's reliability refers to the internal consistency of reliability. Assessment of measurement model is a crucial step in validating a model and confirming the items can represent the constructs (Hair et al., 2020). This study examined the outer loadings of each item, average variance extracted (AVE) and Heterotrait-monotrait ratio of correlations (HTMT) to evaluate convergent and discriminant validity. To establish internal consistency reliability, this study uses composite reliability (CR) and rho_A (Dijkstra and Henseler, 2015).

Convergent assessment refers to the extent to which the latent variable converges to explain the variance of its items. Statistically, convergent validity is established through assessing the average variance extracted (AVE). In addition, Wong (2019) suggested that indicator loadings should be inspected before assessing the convergent validity. Each indicator should load higher than 0.4, the values close to 0.7 indicating adequate discriminant and convert validity (Hulland, 1999). To assess AVE, this study uses Bagozzi and Yi's (2012) proposed benchmark AVE $\geq$ 0.5. For example, AVE values of 0.50 or higher indicating that the latent variable explains at least 50% of the variance of its items. Therefore, the AVE values must be greater than 0.5 for establishing approximate validity.

Discriminant validity assessment denotes that a construct is unique from the other constructs (Hair et al., 2012). It is used to ensure the reflective construct has established strong relationships with its own indicators (Hair et al., 2020). Traditionally, discriminant validity is settled by using the Fornell and Larcker's (1981) criterion. Fornell-Larcker criterion denotes a comparison between

the AVE (shared variance within) of the constructs and the squared correlation. However, Hair et al. (2020) suggested that studies with reflective constructs should use HTMT for a more precise discriminant validity assessment. HTMT was proposed by Henseler et al. (2016), accordingly, when HTMT level is close to 1 indicates invalid discriminant validity, level close to 0.90 indicates a lack of discriminant validity. In addition, Wong (2019) suggested that the tolerance of HTMT for models with predictive purpose should be no higher than 0.85.

Internal consistency reliability refers to the correlation between the measurements and the purpose of measuring (Hair et al., 2017). It is established to ensure that the measurements are measuring the constructs. To assess the internal consistency reliability, Wong (2019) suggested Cronbach's alpha and composite reliability. However, studies have argued that Cronbach's alpha offer a smaller amount of precise measure of reliability in PLS-SEM (Hair et al., 2012). Thus, this study uses Bagozzi and Yi's (2012) composite reliability (CR). The greater value of composite reliability meaning greater level of reliability. Accordingly, the values between 0.60 and 0.70 are considered as acceptable, values between 0.70 and 0.90 indicate a satisfactory reliability, values of 0.95 or above indicate high levels of internal consistency reliability. In addition, Dijkstra and Henseler (2015) proposed a modern way of assessing the internal consistency reliability with rho_A value. Rho_A is a value that returned from the average of Cronbach's Alpha and CR. Statistically, rho_A value should be 0.70 or greater. Meanwhile, values of rho_A above 1 indicate invalid internal consistency reliability. Table 4-5 summarises the values that should be assessed under the measurement model.

***Table 4-5**: Measurement Model Assessment Indices*

Measurement Model Assessment	**Recommended Thresholds**
AVE	≥ 0.5
HTMT	<0.85
CR	≥0.6 and 0.7, acceptable ≥0.95, good
rho_A	≥0.7

4.7.4 Assessment of Structural Model

The purpose of assessing the structural model is to ensure that the model is capable of determine the outcome variable (Hair et al., 2012). That is, the predictive ability of the model (Hair et al., 2017). The standard assessment criteria include the coefficient of determination (R^2), predictive relevance (Q^2), collinearity, and the models' effect size (f^2). Table 4-6 provides the required values for assessing the structural model.

Multicollinearity refers to the associations among the predictor constructs. Therefore, it is assessed to make sure that there is no bias in the regression results and whether some variables should be eliminated (Wong, 2019). In PLS-SEM, this is addressed in the value of variance inflation factor (VIF). Hair et al. (2017) stated that VIF values should be close to 3 or lower, and values above 5 present the problem of multicollinearity. Models that have multicollinearity issues should create higher-order models that are supported by theory (Wong, 2019). Once the multicollinearity is examined, the next is to assess the value of R^2.

Coefficient of determination refers to an evaluation of the model's explanatory power (Shmueli et al., 2019). This is usually completed by examining the R^2 value. In addition, R^2 value is also referred to the in-sample predictive power (Roldán and Sánchez-Franco, 2012). R^2 range from 0 to 1, the closer to 1 indicate the greater level of predictive power. Hair et al. (2016) suggested that R^2 values of 0.75 indicates substantial, values of 0.50 indicates moderate, and values lower than 0.25 indicates weak predictive power. However, R^2 can be also too high (R^2>0.90) indicate that the model overfits the data. In other words, the model would likely not fit on a different sample. Therefore, R^2 values between 0.10 and 0.25 is acceptable.

Effect size refers to the value of f^2. This value provides a rank order of the predictor constructs' relevance in the outcome variable. As a rule of thumb, f^2 values smaller than 0.02 indicates small, values larger than 0.15 is considered as medium, and values larger than 0.35 depicts large effect sizes.

Predictive relevance refers to a metric (Q^2) that combines aspects of the out-of-sample prediction and in-sample explanatory power (Sarstedt et al., 2014). Q^2 value provides the overall predictive accuracy of the model (Geisser, 1974). Although R^2 provides predictive power, it is based on in-sample whereas Q^2 combines out-of-sample and in-sample approach. Q^2 is calculated through the blindfolding procedure where the original data points were systematically removed to provide a prognosis of the values. Hair et al. (2020) stated the values of Q^2 must be larger than zero, values higher than, 0, 0.25 and 0.50 indicate small, medium and large predictive relevance.

***Table 4-6**: Structural Model Assessment Indices*

Structural Model Assessment	Recommended Threshold
VIF	≤ 3
R^2	>0.72, satisfaction
	>0.56, commitment
	Between 0.10 and 0.25, acceptable
f^2	<0.02, small
	≥0.15, medium
	≥0.35, large
Q^2	>0, small
	≥0.25, medium
	≥0.50, large

Source: Hair et al. (2017); Geisser (1974); Wong (2019)

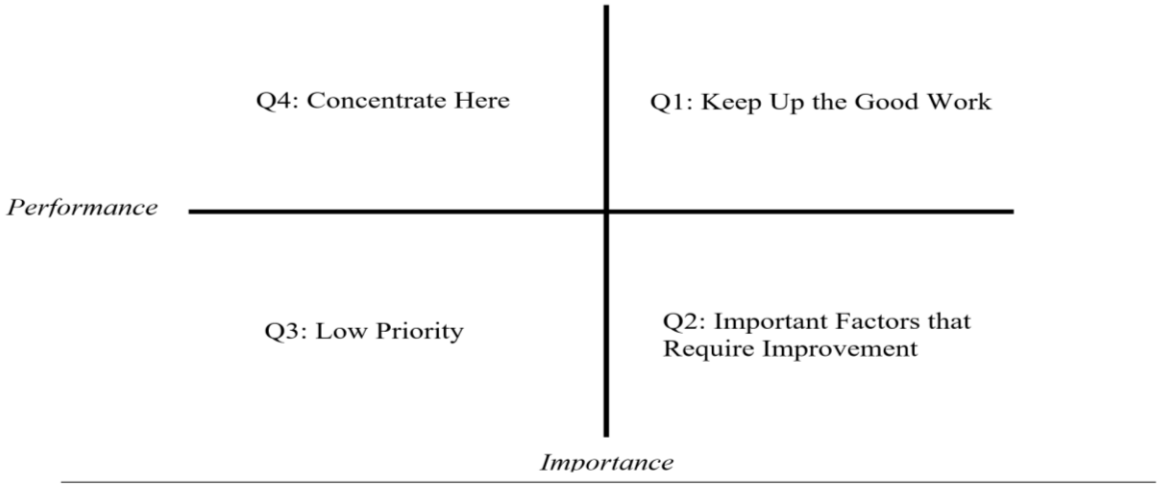
4.8 Importance-Performance Map Analysis

Importance-performance map analysis (IPMA), also known as importance-performance matrix. IPMA is a useful analysis approach employed to extend the standard results from PLS-SEM, as it considers the total effects and the scores of each construct in predicting the outcome variable regardless of the measurement model is formatively or reflectively specified (Hair et al., 2021). More precisely, in IPMA, the total effects represent the importance of a construct while the average latent variable scores represent a construct's performance in shaping a certain

target variable (Martilla and James, 1977; Fornell et al., 1996; Ringle and Sarstedt, 2016). The aim of using IPMA is to identify constructs that have high values in importance for the target variable (e.g., variables that have strong total effects), but have a relatively low performance (e.g., variables that have low average scores). More importantly, IPMA offers in-depth knowledge for studies with predictive purposes, for example, antecedents of constructs and managerial actions (Slack, 1994; Wook et al., 2019; García-Fernández et al., 2020; Tailab, 2020).

Ringle et al. (2012) emphasised the requirements to perform IPMA. The first step involves checking if the scales are all aligned. For example, studies that use 5-Likert points should represent the value for strongly disagree as 1 whilst the value for strongly agree as 5. The second step starts from examining whether the outer weights estimates is positive or not. IPMA cannot be carried out if the outer weights estimates are negative, as it means the indicator and its scales may have reversing direction. Therefore, the constructs that involved these issues should be removed before performing an IPMA. In terms of interpretation of the results, Martilla and James (1977) showed that the results from IPMA can be illustrated as Q1 – management is good, Q2 – important factors that require improvement, Q3 – least important, Q4 – the factors that should be concentrate on (See Figure 4-2). IPMA is performed in the main study as secondary analysis to help the thesis to highlight the critical factors in identifying the antecedents of self-efficacy and social trust in predicting individuals' purchase intention CC.

***Figure 4-2**: Importance-Performance Matrix Results Interpretation*



Source: Martilla and James (1977, p. 78)

4.9 Summary

This chapter has extensively discussed the methodology adopted in this study. Firstly, the review of research paradigms showed that the positivism approach is the most suitable paradigm for this study. Hence, the conceptual framework for this study is predictive based, a quantitative approach with survey questionnaire is adopted. The design of the survey questionnaire was based on the consideration of the relevant theories and literature. Through the review of sampling strategies and the consideration of the research context, the quota sampling method is adopted in the study. Moreover, the sample size for the study was also discussed and defined. After that, the research ethical related issues were assessed and permitted. Therefore, the reliability of questionnaire was first assessed in pre-test and then assessed in a pilot study to ensure it is adequate for the main study. To confirm the independency of the main study, the data collected for pilot study is not included in the main study. In the main study's data collection, there were a usable sample of 373 collected using online survey format that distributed and administrated via Survey Monkey. Finally, this chapter also offered a description of the statistical techniques used in the main study: PLS-SEM and IPMA.

Chapter 5 Data Analysis, Results and Findings

CHAPTER 5: DATA ANALYSIS, RESULTS & FINDINGS

5.1 Introduction

This chapter illustrates the results from the analysis techniques discussed in the previous chapter. The software packages used in the main study includes SPSS statistics, Eviews and SmartPLS. The first step of analysis involves a data screening and management, such as identifying missing data, common measurement errors and multicollinearity. Then, the descriptive statistics of the constructs of the model was presented. The third step was to assess the reliability and validity of the measurement scales. Subsequently, PLS-SEM was performed to test the hypothesised relationships. Fourthly, importance performance matrix (IPMA) was performed as a second analysis, using effect sizes of the constructs to determine the critical factors of the model. Finally, robustness checks was carried out to ensure that the results are valid.

5.2 Data Screening and Management

The data collected for the main study was first screened on SPSS statistics software to identify any missing values, outliers and multicollinearity. This study did not find any missing values. However, the attention check question capture eight respondents were not paying attention to the survey and therefore, they removed from the dataset (N=373).

5.2.1 Outliers and Treatments

Outliers refer to the values that are extreme and different from other values (Hair et al., 2016). The extreme values consist of very high or very low, which might result in non-normal data (Hair et al., 2017). Outliers can be categorised as univariate and multivariate outliers. Univariate outliers encompass cases with extreme value that is distinguished from the expected population values for a single construct (Grubbs, 1969). On the other hand, multivariate outliers encompass the odd combinations of unexpected scores on at least two constructs (Filzmoser, 2016).

The data was first examined for multivariate outliers, using Mahalanobis distance (D^2). D^2 (d-squared) is a common method to detect whether multivariate outliers are contained in the

dataset. Essentially, D^2 measures the distance between a distribution and a point, a multivariate outlier has a value of D^2 greater than the critical value, which is obtained from chi-square value table (Penny, 1996). No cases were identified as multivariate outliers. Next, univariate outliers were examined by assessing the Z scores. Before conducting the Z scores, all of the values were converted to standard scores. Using standardised z score between + and – 3.29 (Field, 2013), outliers were found in the dataset. Table 5-1 provides the summary of the univariate outliers. Outliers must be dealt before the final estimation; two approaches can be used to deal with it (Wong, 2019). First approach encompasses robust estimators assessment whilst second approach is to identify and manually remove the outliers. The second approach is generally not accepted, as it is not always guaranteed to define an outlier. Hence, removing outliers may implies to a loss of useful information from the dataset and reduced statistical power (Gideon and Hollister, 1987).

Table 5-1*: Construct's Standard Scores*

		Z score	
Construct	**N**	**Minimum**	**Maximum**
Social Referral	373	-3.569	1.466
Network Stability	373	-4.075	1.705
System Quality	373	-4.286	1.717
Social Trust	373	-3.397	2.211
Self-efficacy	373	-3.507	2.052
Shared Goals	373	-4.173	1.672
Purchase Intention	373	-3.211	1.498

In light of this situation, the thesis uses robust PLS to overcome the outliers (Schamberger et al., 2020). Robust PLS was first introduced by Dijkstra and Henseler (2015), used to analyse data that contains outliers. Accordingly, the Pearson correlation estimates should be assessed. Hence, Pearson correlation is well-known for being highly sensitive to outliers, with a single outlier can distort the correlation estimate (Yuan and Bentler, 1998a; Yuan and Bentler, 1998b; Schamberger et al., 2020). In addition to the correlation, Spearman's and Kendall's can also be

used to estimate (Gideon and Hollister, 1987). This study uses Pearson correlation to obtain correlation estimate. For the final estimation, it is recommended to use Minimum Covariance Determinant (MCD) and the Minimum Volume Ellipsoid (MVE) estimator to produce representative subsample that are not affected by the outliers (Schamberger et al. 2020). Such methods are included in the chosen software (SmartPLS) and applied for the final assessment. This thesis has taken this situation into account and therefore, used bootstrapping method to perform PLS-SEM. Bootstrapping method has been introduced as the treatments for dataset that includes outliers in PLS-SEM (e.g., Salibian-Barrera and Zamar, 2002; Martin and Roberts, 2006).

5.2.2 Multicollinearity

Multicollinearity is an important assumption for reflective measurement models that should be assessed before conducting PLS-SEM. As described in the previous chapter, multicollinearity refers to the associations among the latent variables. Multicollinearity becomes an issue when the outcome variable is strongly corrected, benchmark $r \geq 0.9$. To detect the possible multicollinearity issues, assessing the variance inflation factors (VIF) and the tolerance were necessary. Tolerance refers to the extent to the amount of beta coefficients are influenced by the other independent variables in a model. The values of tolerance lower than 0.1 and values of VIF is ≥ 5 indicating multicollinearity issues (Hair et al., 2017). Table 5-2 present the VIF values of each construct. As all VIF value are less than 5, indicating this thesis do not produce any multicollinearity issues.

***Table 5-2**: Multicollinearity Test*

Construct	Collinearity Tolerance	VIF
Social Trust	0.521	1.918
Self-efficacy	0.683	1.464
Network Stability	0.395	2.531
Shared Goals	0.579	1.729
System Quality	0.377	2.652
Social Referral	0.558	1.792

Furthermore, the Pearson's correlation of the independent variables was conducted to ensure that the independents variables are not correlated at 0.9 or above. Table 5-3 shows the results of correlation, it suggests that no multicollinearity issues were found.

***Table 5-3**: Pearson's correlation*

	Social Referral	**Network Stability**	**System Quality**	**Social Trust**	**Shared Goals**	**Self-efficacy**	**Purchase intention**
Social Referral	1						
Network Stability	0.609	1					
System Quality	0.572	0.738	1				
Social Trust	0.473	0.511	0.563	1			
Shared Goals	0.443	0.439	0.471	0.607	1		
Self-efficacy	0.443	0.470	0.513	0.364	0.396	1	
Purchase Intention	0.549	0.563	0.527	0.484	0.438	0.543	1

5.3 Common method bias: errors in variables

Before analysing the data, a bias associated test was conducted. Common method bias occurs when the measurement times correlated to each other. This error is called errors-in variables, which is often related to the self-reporting approach when collecting data (Ory and Mokhtarian, 2010). This problem may also arise when inadequate measurement instruments have been employed (Zaefarian *et al.*, 2017). For example, the scale items were not suitable for the research context, survey was not properly translated, and non-reliable measurement items. Research fail to consider this analysis can cause biases and lead to false conclusion. To detect this error, the Average Full Collinearity VIF (AFVIF) method (Kock and Lynn, 2012) was

adopted. The results gave an AFVIF value of 2.132 < 3.3, which confirmed that common method bias does not affect our empirical results.

5.4 Demographic Characteristics

Data was collected from the users of TaskRabbit in the UK. The data collection process took eight weeks, during which time 373 usable data was received. The response rate was 90%. The demographic profiles of the sample are given below. The demographic details of the respondents revealed that the characters were equally split, at 53% male and 47% female. The gender of the respondents is outlined in Table 5-4.

***Table 5-4**: Gender*

Gender	Frequency	%	Cumulative percent
Male	197	52.8	52.8
Female	176	47.2	100.0
Total	373	100	

The figures of the respondent's age revealed that most of the users were aged below 44 years old. The largest age group were between 25 to 34, at about 33%. Followed by age between 35 to 44, at 24%. The third largest group was age between 18 to 24, about 16%. About 12% are between 45 to 54 whilst, only 14% of the respondents are older than 55. Table 5-5 showed the detailed description of the respondent's age.

***Table 5-5**: Age*

Age	Frequency	%	Cumulative percent
18 – 24	60	16.1	16.1
25 – 34	124	33.2	49.3
35 – 44	90	24.1	73.5

45 – 54	45	12.1	85.5
55 +	54	14.5	100.0
Total	373	100	

Data collected for the main study also showed that the respondents are fairly educated. More than 53% of the respondents have an undergraduate degree. Next, 24% of the respondents holding an A-level or equivalent whilst 23% holding GCSEs or equivalent education level. Table 5-6 presents the description of the respondents' education level.

***Table 5-6**: Education Level*

Education level	**Frequency**	**%**	**Cumulative percent**
GCSEs or equivalent	87	23.3	23.3
A-levels or equivalent	88	23.6	46.9
University Undergraduate degree	132	35.4	82.3
University post-graduate degree or above	66	17.7	100
Total	373	100	

With regard to household income level, the majority of the respondents (e.g., about 40%) have above £39,999 whilst 39.4% of the respondents have between £20,000 to £39.999. About 21% of the respondents have low household income level. Table 5-7 outlines the household income level of the respondents.

***Table 5-7**: Household Income Level*

Income level	**Frequency**	**%**	**Cumulative percent**
£0-£19,999	77	20.6	20.6
£20,000-£39,999	147	39.4	60.1
£40,000-£59,999	75	20.1	80.2

£60,000-£79,999	37	9.9	90.1
£80,000-£99,999	22	5.9	96.0
£100,000-£119,999 and up	15	4.0	100.0
Total	373	100	

The data collected for the main study shows that not all participants are the users of TaskRabbit, overall, 257 participants have experience of using TaskRabbit and 116 participants have not been used the platform before.

***Table 5-8**: Experience of the participants*

Experience	Frequency	%	**Cumulative percent**
Yes	257	68.9	68.9
No	116	31.1	100.0
Total	373	100	

5.5 Descriptive Statistics

The descriptive statistics showed that the respondents generally have positive response to the constructs of the model, as the averages were greater than 3.0. The standard deviation (SD) provides information about the distribution in the dataset as well as the spread around the average values of measurements. If the values of SD are equal or beyond 2, indicating the dataset contains non-normal distribution (Field 2013). The statistics showed that all the constructs have small SD values, suggesting that the data is around the mean and proved that the data is dependable. Table 5-8 shows the table of descriptive statistics with each construct's Cronbach's alpha.

***Table 5-9**: Descriptive Statistics*

Construct	N	Mean	Median	SD	Cronbach's alpha
Purchase Intention	373	3.72	4.00	0.849	0.779
Social Trust	373	3.42	3.50	0.713	0.805
Self-efficacy	373	3.86	4.00	0.684	0.831
Network Stability	373	3.82	4.00	0.692	0.862
Social Referral	373	3.84	4.00	0.794	0.882
System Quality	373	3.86	4.00	0.666	0.845
Shared Goals	373	3.52	3.50	0.720	0.835

In addition to the descriptive statistics, this thesis also assessed each item's average, median and SD values. Table 5-9 provides the summary of the figures for each item used in the study. Further, this table proved that there were no missing data found in the dataset.

Table 5-10: *Descriptive Statistics for Each Item*

Construct	Items	Valid N	Mean	SD
Social Referral	SR1	373	3.81	0.948
	SR2	373	3.97	0.934
	SR3	373	3.95	0.891
	SR4	373	3.62	0.924
Network Stability	NS1	373	3.85	0.834
	NS2	373	3.82	0.832
	NS3	373	3.89	0.795
	NS4	373	3.72	0.828
System Quality	SQ1	373	3.79	0.810
	SQ2	373	3.87	0.854
	SQ3	373	3.91	0.801
	SQ4	373	3.85	0.756
Social Trust	ST1	373	3.44	0.861
	ST2	373	3.40	0.904
	ST3	373	3.57	0.870
	ST4	373	3.28	0.953

Shared Goals	SG1	373	3.69	0.829
	SG2	373	3.26	0.990
	SG3	373	3.49	0.876
	SG4	373	3.65	0.815
Self-efficacy	SE1	373	3.89	0.828
	SE2	373	3.84	0.875
	SE3	373	3.74	0.876
	SE4	373	3.95	0.776
Purchase Intention	IA1	373	3.66	0.953
	IA2	373	3.87	0.943
	IA3	373	3.66	1.000
	IA4	373	3.72	0.971

5.6 Assessment of the Measurement Model

Assessment of the measurement is used to represent the relationships between the dataset and the constructs. The measurement scales developed for this study were adopted from the existing literature. In a review of research methodology for the main study, showed that the measurement scales used in this study were subject to reflective measurement scales. Therefore, the tests were following the suggestions provided by Hair et al. (2016). First, the content wording and design were assessed in the pre-test stage. Second, a pilot study was conducted to assess the internal reliability of the scale with Cronbach's alpha (α). The results from the pilot study showed that the measurement scales were ready for the main study.

The analysis techniques utilised in the main study were based on PLS-SEM with reflective measurement scales. The results show that the outer loadings of each item exceed the recommended threshold 0.4, the values close to 0.7 indicating adequate discriminant and convergent validity (Hulland, 1999). The internal consistency reliability tests were conducted using composite reliability (CR) (Bagozzi and Yi, 2012) and rho_A (Dijkstra and Henseler, 2015). CR values of greater than 0.85 were achieved, while rho_A values of higher than 0.80 were attained, representing a high level of internal consistency reliability (Hair et al., 2016). Moreover, to ensure that the measurements for each construct was accurately correspond to the concept of interest, convergent and discriminant validity were evaluated. The average variance

extracted (AVE) was used to assess convergent validity. The results showed AVE values of greater than 0.50, confirmed that a high level of convergent validity for each construct is established (Hair et al., 2016). The assessment of discriminant validity was conducted by using HTMT (Benitez et al., 2016). The HTMT values of smaller than 0.85 were achieved. Overall, the measurement scales of this study have shown a high level of validity and reliability.

5.6.1 Convergent Validity

To examine the convergent validity of the constructs by assessing the average variance extracted (AVE). The values of AVE should be larger than the generally recognised 0.5 for all constructs (Fornell and Larcker, 1981). Further, following Werts et al. (1973), internal consistency should be assessed by using the composite reliability (CR) when the research model involves theoretical constructs. Acceptable values of ICR should exceed 0.7 (Fornell and Larcker, 1981). Additionally, this study also include the modern method of assessing the consistency reliability with Dijkstra and Henseler (2015) proposed method, the value of rho_A. Accordingly, the values of rho_A should be equal to or greater than 0.7, however, the values should not exceed 1. As shown in table 5-10, all the AVE, CR, and rho_A values have met the recommended threshold, indicating the absence of measurement error and a great internal consistency in the model.

***Table 5-11**: The Results of the Measurement Model*

Constructs	Items	Measures	Loadings
Purchase Intention	PI1	I am likely to purchase products/services on TaskRabbit.	0.876
CR = 0.931 AVE = 0.772 Rho_A = 0.901	PI2	Given the opportunity, I would consider purchasing products on TaskRabbit in the future.	0.869
	PI3	It is likely that I will actually purchase products on TaskRabbit in the near future.	0.888
	PI4	Given the opportunity, I intend to purchase products/services on TaskRabbit.	0.880
Social Trust	ST1	I know people within TaskRabbit are truthful in dealing with one another.	0.762
CR = 0.872 AVE = 0.631	ST2	I can always trust the members from TaskRabbit.	0.818

Rho_A =0.804			
	ST3	I can always rely on the members to get what I need to do.	0.789
	ST4	Members in TaskRabbit will not take advantage of others even when the opportunity arises.	0.807
Self-efficacy	SE1	I am confident of using TaskRabbit if I have only the online instructions for reference.	0.820
CR = 0.888 AVE = 0.664 Rho_A = 0.888	SE2	I am confident of using TaskRabbit even if there is no one around to show me how to do it.	0.836
	SE3	I am confident of using TaskRabbit even if have never used such a system before.	0.820
	SE4	I feel confident finding information on TaskRabbit.	0.783
Network Stability	NS1	When I need it, I can always find a service provider on TaskRabbit.	0.862
CR = 0.906 AVE = 0.707 Rho_A = 0.906	NS2	In general, it is easy to find a service provider from TaskRabbit.	0.856
	NS3	There is always at least a service provider from TaskRabbit that is available for me to book.	0.830
	NS4	It is not hard to find some service providers from TaskRabbit.	0.815
System Quality	SQ1	TaskRabbit.com quickly loads all the text and photos.	0.793
CR = 0.897 AVE = 0.685 Rho_A = 0.897	SQ2	It is easy to find what I am looking for on TaskRabbit.	0.845
	SQ3	It is easy to move around online using TaskRabbit.com.	0.828
	SQ4	TaskRabbit.com offers a logical layout that is easy to follow.	0.843

Social Referral	SR1	I have heard from others that TaskRabbit is very useful.	0.866
CR = 0.919 AVE = 0.739 Rho_A = 0.919	SR2	I have heard from others that TaskRabbit is very easy to use.	0.888
	SR3	I have heard from others that TaskRabbit is very reliable.	0.856
	SR4	I have heard from others that TaskRabbit is not worth the effort.	0.827
Shared Goals	SG1	The members in TaskRabbit share the vision of helping others solve their problems.	0.815
CR = 0.891 AVE = 0.671 Rho_A = 0.891	SG2	The members and I will always share the same vision of values.	0.831
	SG3	The members in TaskRabbit are always enthusiastic about pursing the collective goals.	0.811
	SG4	The members in TaskRabbit share the same value that helping each other is pleasant.	0.821

5.6.2 Discriminant Validity

To evaluate discriminant validity, two traditional assessments were evaluated: first criterion, the Cross-loadings criterion concerned with the indicator level, in which the loadings of the measures should be higher than their loadings on all other latent variables (Hair et al., 2017). As demonstrated in table 5-11, the items for each construct are adequately measured (Chin, 1998).

***Table 5-12**: Cross Loading Criterion from the Results of the Discriminant Validity*

Items	Purchase Intention	Social Trust	Self-efficacy	Network Stability	System Quality	Social Referral	Shared Goals
IA1	**0.876**	0.449	0.493	0.441	0.409	0.450	0.390
IA2	**0.869**	0.441	0.504	0.446	0.441	0.473	0.356
IA3	**0.888**	0.416	0.496	0.455	0.436	0.476	0.366
IA4	**0.880**	0.377	0.498	0.481	0.425	0.452	0.370

ST1	0.430	**0.762**	0.406	0.455	0.477	0.466	0.514
ST2	0.357	**0.818**	0.317	0.389	0.424	0.317	0.551
ST3	0.406	**0.789**	0.330	0.478	0.548	0.444	0.462
ST4	0.322	**0.807**	0.228	0.350	0.393	0.299	0.580
SE1	0.515	0.342	**0.820**	0.371	0.400	0.366	0.310
SE2	0.423	0.340	**0.836**	0.406	0.457	0.445	0.235
SE3	0.416	0.338	**0.820**	0.394	0.452	0.397	0.338
SE4	0.487	0.305	**0.783**	0.373	0.463	0.364	0.302
NS1	0.507	0.502	0.415	**0.862**	0.685	0.524	0.451
NS2	0.419	0.479	0.364	**0.856**	0.613	0.448	0.411
NS3	0.413	0.390	0.438	**0.830**	0.702	0.493	0.386
NS4	0.393	0.394	0.384	**0.815**	0.556	0.469	0.359
SQ1	0.386	0.473	0.397	0.567	**0.793**	0.400	0.400
SQ2	0.300	0.497	0.408	0.728	**0.845**	0.518	0.437
SQ3	0.326	0.466	0.487	0.603	**0.828**	0.511	0.413
SQ4	0.369	0.493	0.507	0.612	**0.843**	0.469	0.390
SR1	0.463	0.440	0.400	0.516	0.479	**0.866**	0.391
SR2	0.489	0.347	0.459	0.530	0.518	**0.888**	0.293
SR3	0.446	0.387	0.409	0.483	0.496	**0.856**	0.306
SR4	0.415	0.485	0.388	0.446	0.481	**0.827**	0.424
SG1	0.386	0.544	0.397	0.469	0.470	0.426	**0.815**
SG2	0.300	0.595	0.408	0.344	0.367	0.300	**0.831**
SG3	0.326	0.499	0.487	0.380	0.396	0.346	**0.811**
SG4	0.369	0.528	0.507	0.381	0.391	0.284	**0.821**

Second criterion, Fornell and Larcker (1981) suggest using the comparison between the AVE and the square root of correlation values among the latent variables. The AVEs should be greater than the squared correlation estimates. Table 5-12 depicts the square root of AVE of each construct is notably greater than the correlations of all the other constructs. However, this criterion has limitations in robust check (Benitez et al., 2020). Therefore, this study also checked recommended HTMT.

***Table 5-13**: Fornell and Larcker (1981) Criterion for the Results of Discriminant Validity*

Constructs	Purchase Intention	Network Stability	Self-efficacy	Shared Goals	Social Referral	Social Trust	System Quality
Purchase Intention	**0.878**						
Network Stability	0.519	**0.841**					
Self-efficacy	0.567	0.474	**0.815**				
Shared Goals	0.422	0.481	0.364	**0.819**			
Social Referral	0.527	0.574	0.482	0.414	**0.860**		
Social Trust	0.480	0.530	0.407	0.662	0.485	**0.794**	
System Quality	0.487	0.760	0.543	0.496	0.574	0.583	**0.827**

In addition, Hair et al. (2020) suggested that studies with reflective measurements should further assess the discriminant validity with HTMT. Henseler et al. (2016) recommended that the threshold for HTMT close to 1 meaning invalid discriminant validity, and above 0.9 shows insufficient discriminant validity. More importantly, the model with predictive purpose should not have HTMT value higher than 0.85 (Wong 2019). Only one appeared to exceed the threshold recommended by Wong (2019), however, it does not have a value that is insignificant different from 1. Therefore, the results show that the discriminant validity is well established. Table 5-13 shows the HTMT results of the constructs.

***Table 5-14**: HTMT Results*

	IA	NS	SE	SG	SR	ST	SQ
IA							
NS	0.584						
SE	0.652	0.562					
SG	0.485	0.561	0.436				
SR	0.592	0.659	0.564	0.478			
ST	0.559	0.625	0.493	0.807	0.567		
SQ	0.557	0.888	0.649	0.589	0.664	0.703	

5.7 Assessment of the Structural Model and Hypotheses Testing

Following the assessment of measurement model, the results confirmed that the model is ready for hypotheses testing. The method used is bootstrapping in PLS-SEM (Martin and Roberts, 2006). The multicollinearity related issues were confirmed in the data screening process (no VIFs were greater than 2.7), therefore, the evaluation of R^2 values of the endogenous latent variables were checked. After that, the hypotheses testing were carried out with a two-tail test and a significance level of 0.05 to assess the t-statistics and the p-values. Finally, to evaluate the consistency of this thesis's contribution, the assessment of the Stone-Geisser's value ($Q2$) and the model's effect size ($f2$) were checked (Cohen, 1988). More importantly, this thesis provides an extension of the findings by assessing the importance-performance matrix (IPMA) with the target of dependent variable – purchase intention (Ringle and Sarstedt, 2016). Figure 5-1 presents the results from the PLS analysis.

5.7.1 Coefficients of Determination (R^2)

The values of R^2 show the evaluation of the model's explanatory strength (Shmueli et al., 2019). R^2 values can also imply to the in-sample predictive power (Roldán and Sánchez-Franco, 2012). In the case of overfitting, the values of R^2 should not be exceed 0.9 (Hair et al., 2016). Table 5-14 shows the R^2 value of each construct. Social trust has R^2 value of 0.537, indicating network stability, system quality, social referral and shared goals can jointly explain 54% of the variance. Self-efficacy has R^2 value of 0.265, indicating social referral and shared goals can jointly explain 27% of the variance. And finally, purchase intention has R^2 value of 0.396, meaning social trust and self-efficacy can together explain 40% of the variance.

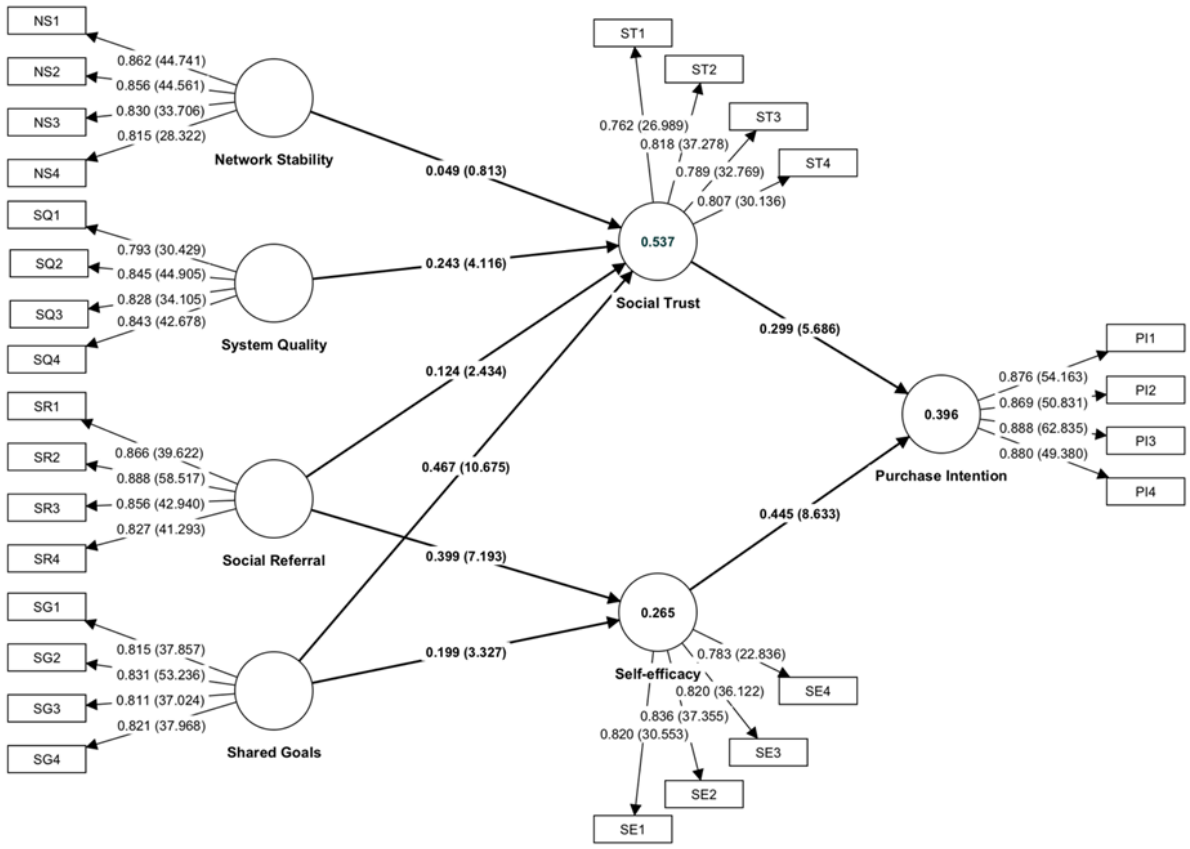
***Table 5-15**: R^2 values of the constructs*

Constructs	$\boldsymbol{R^2}$
Social Trust	0.537
Self-efficacy	0.265
Purchase Intention	0.396

5.8 Hypotheses Testing

Based on the characteristics of the model, the hypotheses were tested by assessing the path significance of the relationships with the standardised estimate. A significant relationship will have a *p* value equal to or larger than 0.05 (Hair et al., 2016). The effects of social trust (β= 0.30, $p < 0.01$) and self-efficacy (β= 0.45, $p < 0.01$) on individuals' purchase intention is indeed significant predictors and thus, support H1 and H2. There were four proposed direct links toward social trust, namely, network stability (H3), system quality (H4), social referral (H5) and shared goals (H7). The results confirm the positive effects of system quality (β= 0.24, $p < 0.01$), social referral (β= 0.12, $p < 0.05$) and shared goals (β= 0.47, $p < 0.01$) on social trust.

***Figure 5-1**: Results of Bootstrapping Technique*



On the contrary, the results show an insignificant link between network stability and social trust, rejecting H3. Finally, the study proposed two direct links, including individuals' perception of social referral (H6) and shared goals (H8). These two paths were positive and significant, indicating that the samples support the contention that individual's social referral (β= 0.40, $p \leq 0.01$). And

shared goals (β= 0.20, $p < 0.01$) increase their self-efficacy. Table 5-15 illustrates that the results of hypotheses testing.

5.8.3 f^2 Effect Sizes

Next, this study used Cohen (1988) recommended approach to evaluate the effect size (f^2), the value of f^2 shows the strength of relationship between the constructs. According to the guidance provided by (Chin et al., 2003), our results indicated that both self-efficacy (0.27) and social trust (0.12) reached the medium level toward purchase intention. Whilst, among the constructs toward social trust, shared goals (0.34) showed the largest effect followed by system quality (0.05) and social referral (0.02). In this test, network stability did not reach the minimum level, which explained the reason behind the insignificant result. Finally, the social referral toward self-efficacy reached the medium level at 0.18, followed by the small effect of shared goals (0.05). For the rigorous results, the values of effect sizes of the constructs will be examined further with the IPMA in the next few sections.

***Table 5-16**: Summary of Hypotheses Testing*

Hypothesis		**Beta**	**p-values**	**Results**
H1:	Social Trust → Purchase Intention	0.30	0.00	Supported
H2:	Self-efficacy → Purchase Intention	0.45	0.00	Supported
H3:	Network Stability → Social Trust	0.30	0.41	Not Supported
H4:	System Quality → Social Trust	0.24	0.00	Supported
H5:	Social Referral → Social Trust	0.12	0.02	Supported
H6:	Shared Referral → Self-efficacy	0.40	0.00	Supported
H7:	Shared Goals → Social Trust	0.47	0.00	Supported
H8:	Shared Goals → Self-efficacy	0.20	0.00	Supported

5.8.4 Predictive Relevance (q^2)

Finally, this study applied blindfolding procedure to assess the Stone-Geisser's Q^2 value (Hair et al. 2012). The Stone-Geisser's Q^2 value implies that to what extent a construct can predict the model's endogenous latent variable. The omission distance was set to 7 as recommended by Geisser (1974). According to the recommendation by Hair et al. (2012), the results show that all of the constructs reached at least the medium value of Q^2 (Table 5-16). Specially, social trust was the highest (0.33) in predicting individuals' purchase intention.

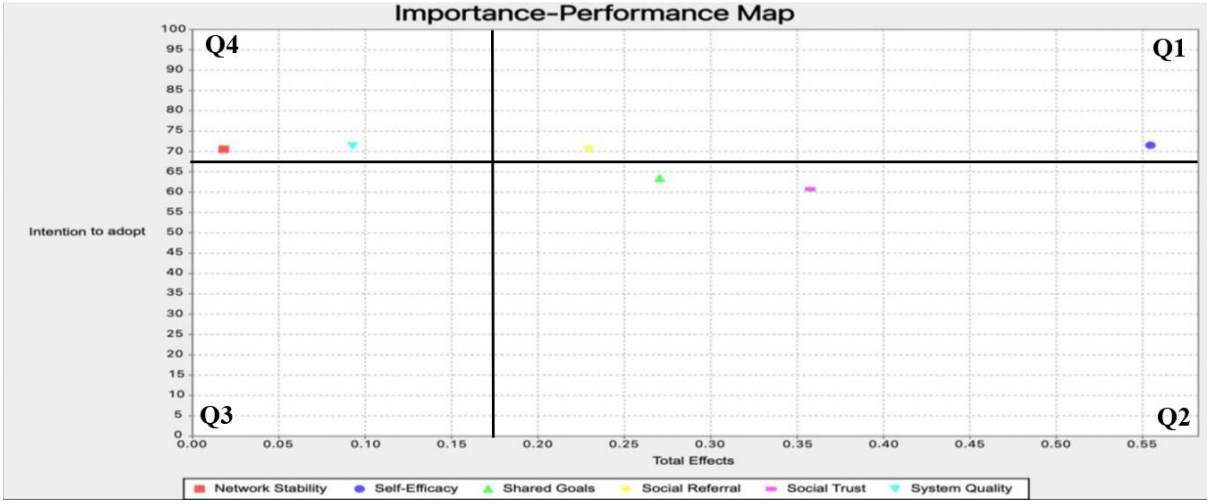
***Table 5-17**: The Results of Predictive Relevance Test*

Constructs	$\boldsymbol{Q^2 = (1 - \frac{sse}{sso})}$
Social Trust	0.328
Self-efficacy	0.173
Purchase Intention	0.297

5.9 Importance-Performance Map Analysis (IPMA)

Importance-Performance Matrix (IPMA) was an additional analysis using *purchase intention* as the target construct. To improve the outcome from the target variable, IPMA compares each constructs' total effect with the average values of its performance scores (Ringle and Sarstedt, 2016). The attractive feature of IPMA is that it offers management strategies with two-dimensional grid – total effects and the constructs' performance toward the target variable (Martilla and James, 1977). One criterion of IPMA was to ensure the model's outer weights values should be all positive. No problematic values were found.

***Figure 5-2**: IPMA Results with Purchase intention*



Based on the results of IPMA (Figure 5-2), the constructs have an average performance rate of 68, indicating each construct has relatively high impact on purchase intention. Table 5-17 provides the figures of the results. In line with the Martilla and James's (1977) approach, both self-efficacy and social referral are in the Q1 area, indicating the firm managing individual's self-efficacy and social referral well. Next, both social trust and shared goals are in Q2 area, indicating these two factors are important to the firm but need to be improved. Lastly, network stability and system quality appeared to be in Q4 area, indicating the firm should focus on the improvement of these two factors. Additionally, self-efficacy showed the highest effect on individuals' purchase intention.

***Table 5-18**: Full Results from IPMA*

	Purchase Intention	
Latent Variables	**Total Effect (Importance)**	**Index Value (Performance)**
Self-efficacy	0.554	71.519
Social Trust	0.358	60.733
Shared Goals	0.270	63.393
System Quality	0.093	71.393

Social Referral	0.229	70.791
Network Stability	0.018	70.550
Mean	0.254	68.063

5.10 Robustness checks

The final step of the data analysis was to carry out robustness tests to ensure that the results are adequate and avoid mistakes in drawing empirical conclusions. As suggested by the recent literature (Zaefarian *et al.*, 2017; Sarstedt *et al.*, 2020; Hair *et al.*, 2021), robustness checks should be a mandatory standard before reporting the results obtained from PLS-SEM. The tests should include endogeneity bias check, quadratic effect (non-linear effect), and unobserved heterogeneity bias.

5.10.1 Endogeneity bias

This thesis takes the possible endogeneity bias into account to ensure that the constructs are not correlated with the error term of the exogenous variable, sample selection bias and no reverse causality between the constructs (Sarstedt et al., 2020). The potential endogeneity bias was addressed by performing Durbin-Wu-Hausman test (Nakamura and Nakamura, 1985) with the help of EViews 13 software. This test has also been used in recent studies to address endogeneity issues (e.g., Covin et al. 2015; Zaefarian et al. 2017). As shown in table 5-18, it is confirmed that endogeneity bias is not a problem in our data.

***Table 5-19**: Assessment of Endogeneity Bias Using the Durbin-Wu-Hausman Test.*

Test	**Coef (β)**	***P* value**	**F-statistic**	**Bias present**
NS → ST	0.534	0.000**	0.000**	No
SQ → ST	0.617	0.000**	0.000**	No
SR → ST	0.425	0.000**	0.000**	No
SR → SE	0.210	0.000**	0.000**	No
SG → ST	0.192	0.000**	0.000**	No
SG → SE	0.341	0.000**	0.000**	No
ST → PI	0.169	0.012**	0.012**	No

SE → PI	0.400	0.000**	0.000**	No

5.10.2 Quadratic effect (non-linear effect)

As suggested by Sarstedt et al. (2020), this thesis assessed nonlinear effects using Ramsey's RESET, endogeneity bias check using Durbin-Wu-Hausman test, and unobserved heterogeneity using FIMIX-PLS. First of all, a recent study claimed that the relationships between the constructs are usually assumed to be linear, however, this is not always the case (Ahrholdt, Gudergan and Ringle, 2019). When a relationship is nonlinear, the size of effect between the two constructs not only do not increase or decrease according to the estimates in the exogenous construct but also depends on its value (Hair *et al.*, 2018). To identify whether or not the relationships in our model are nonlinear, we used Ramsey's regression specification error test (RESET). The results are presented in Table 5-19, with values of $p > 0.05$, indicating that the linear effect's robustness in the model.

Table 5-20: *Assessment of Nonlinear Effects.*

Structural Path	**Coef (β)**	***P* value**	**t-Statistics**
Social Trust → Purchase Intention	0.376	0.060	1.856
Self-efficacy → Purchase Intention	0.585	0.090	1.693
Network Stability → Social Trust	0.035	0.554	0.592
System Quality → Social Trust	0.194	0.126	1.532
Social Referral → Social Trust	0.077	0.184	1.330
Shared Goals → Social Trust	0.356	0.072	1.800
Shared Goals → Self-efficacy	0.225	0.322	0.992
Social Referral → Self-efficacy	0.420	0.290	1.059

5.10.3 Unobserved heterogeneity bias

Unobserved heterogeneity can be a major threat to the empirical results, an examination of unobserved heterogeneity bias was included in robustness checks. Unobserved heterogeneity occurs when all participants are assumed homogeneous rather heterogeneous (Hair, *et al.*, 2016). In addition, research fail to consider the examination of unobserved heterogeneity is bound to produce incorrect results (Sarstedt *et al.*, 2020; Hair *et al.*, 2021). In order to assess this potential issue, we conducted finite mixture PLS (FIMIX-PLS; Hahn et al. 2002). Following the guideline provided by Sarstedt et al. (2020), this thesis considered all

demographic characters of the sample (gender, education, household income, user and non-user, and age) along with the constructs within the model. When selecting the number of segments, researchers should jointly considered the modified Akaike's information criterion with factor 3 (AIC_3) (Bozdoogan, 1994) and consistent AIC (CAIC; Bozdogan 1987) (see, e.g., Hair et al., 2021; Sarstedt et al., 2022). Moreover, the entropy statistics (EN) should be larger than 0.5 and the segment sizes should meet the minimum sample sizes. The full results from FIMIX-PLS is demonstrated in Table 5-20. Although all segments met the criteria (EN > 0.5), five-segment and four-segment solutions did not meet the minimum sample size. The minimum sample size was determined with the help of G*power software. However, when examining the criteria (AIC + AIC_3), all segments fall into the k=1 criteria, indicating that the unobserved heterogeneity does not exist in the dataset and does not affect the empirical results (Sarstedt, Ringle and Hair, 2017).

Table 5-21: *Assessment of Unobserved Heterogeneity using FIMIX-PLS.*

	Number of segments				
Criteria	k = 1	k = 2	k = 3	k = 4	k = 5
AIC	2605.348	2530.682	2514.587	2357.426	2311.048
AIC_3	2622.348	2563.682	2564.587	2424.426	2395.048
AIC_4	2639.348	2596.682	2614.587	2491.426	2479.048
BIC	2672.015	2660.094	2710.666	2620.172	2640.46
CAIC	2689.015	2693.094	2760.666	2687.172	2724.46
HQ	2631.82	2582.069	2592.447	2461.759	2441.853
MDL_5	3074.682	3441.742	3894.982	4207.155	4630.111
LnL	-1285.674	-1232.341	-1207.293	-1111.713	-1071.524
EN	NA	0.688	0.522	0.690	0.77
NFI	NA	0.718	0.516	0.649	0.718
NEC	NA	116.216	178.229	146.618	85.666

AIC: Akaike's information criterion; AIC_3: modified AIC with Factor 3; AIC_4: modified AIC with Factor 4; BIC: Bayesian information criterion; CAIC: consistent AIC; HQ: Hannan-Quinn criterion; MDL5: minimum description length with factor 5; LnL: LogLikelihood; EN; entropy statistic; NFI: non-fuzzy index; NEC: normalised entropy criterion.

5.11 Findings and Discussion

The conceptual framework showed that social trust and self-efficacy play important roles in individual's purchase intension in CC. Such effects also showed that individuals apply social trust and self-efficacy as the primary source to address the tension between trust and risk. Moreover, this study makes the first attempt to investigate the antecedents of social trust and self-efficacy in a labour-service CC platform and explains how social trust and self-efficacy together drive CC purchase intention. Prior studies have assessed the antecedents of social trust in organisational management community development research (Qu and Yang, 2015) and community development research (Delhey and Newton, 2003). However, no prior studies had empirically validated the antecedents of social trust and its role in individuals' intention to purchase CC. Moreover, whilst the concept of self-efficacy has been examined frequently in different domains, it has not been fully understood in CC domain. More importantly, this study is the first to propose social referral has a direct effect on self-efficacy. By theoretically explaining and empirically examining how social trust and self-efficacy together drive CC purchase intention, this research extends previous understanding of CC. Specifically, the conceptual framework serves as the foundation to explain the intension to use. This section will discuss each hypothesis and comparing the results with prior studies.

5.11.1 Social Trust and Purchase intention

This study makes the first attempt to discuss how social trust drive the purchase intension of CC. By going beyond discussing users' motivation to use CC, using self-determination theory. It acknowledges the importance of social trust using social capital theory and explains how social trust drives CC purchase intension. This study found that the perception of social trust has a direct significant effect on individual's purchase intention CC. Although most of the earlier studies using social capital theory (e.g., Liao and Chou, 2012; Tsai, 2014; Liu et al., 2018; Ghasemi et al., 2020) have dealt with the purchase intention through the perception of social trust. Nevertheless, the direct relationship between social trust and purchase intention have not been considered. This thesis considered the direct effect of social trust on purchase intention and filled the knowledge gap. It has empirically tested and confirmed the direct effect in the context of CC. This particular result expands the work of Celata et al. (2017) to the context of social capital and suggested social trust as the trust in purchase intention CC.

Previous work showed that social trust has an influence on purchase intention in knowledge sharing community (Liao and Chou, 2012). Nevertheless, the present study extends the understanding of social trust beyond the knowledge sharing communities, to the context of CC. The prior research in CC claimed that the trust is derived from the rating system (e.g., Botsman and Roger, 2011; Benoit et al., 2017; Zimmermann et al., 2018), this study showed that trust in CC is social trust, which can be fostered from the collaboration between each party. In addition, most of the earlier studies have treated trust in CC as trust between two entities, for example, trustee and trustor (ter Huurne et al., 2017). This study suggested that trust in CC as a multidimensional facet, as the participants often need to establish the trust between the platform and the other participants who are strangers. The results suggested that social trust helps individuals to evaluate the tension between risk and trust in their purchase intention CC, as affected by system quality, social referral, and shared goals. In line with this, prior studies have proposed ease of use (Oum and Han, 2011), shared goals (Hau and Kim, 2011), social support (Liu et al., 2021), and community identification (Hsu et al., 2012), as the antecedents of social trust in online community sites but have not considered other constructs. This study fills that gap and proposes that the antecedents of social trust include system quality and social referral, highlighting the importance of system quality, social referral, and shared goals in building social trust in CC. In this regard, it enriches the extant CC research and offers a more in-depth understanding of individuals' purchase intention CC.

5.11.2 Self-efficacy and Purchase intention

Another major theoretical result of this thesis included the effect of self-efficacy on purchase intention CC. The effect of self-efficacy in driving CC purchase intension based on data collected from TaskRabbit, the study reveals that self-efficacy is the key driver that affects a users' evaluation of whether to purchase in the CC platform. In the line with CC literature, the finding confirms the work of Zhu et al. (2017) about the importance of self-efficacy. However, rather than focusing on one's self-efficacy on ride sharing (Zhu et al., 2017), this study discusses self-efficacy on trusting one's capability in using the platform, thus providing a different dimension to understand how self-efficacy drives CC purchase intension, shedding new light to CC literature.

Although previous work have tested the effects of self-efficacy on purchase intention in the context of computing technology (e.g., Katz and Blumler, 1974; Compeau et al., 1999; Shin, 2009), this study expands the knowledge of self-efficacy to the context of CC. The results

suggested that the role of self-efficacy in the context of CC is to enhance the participants' trust in individual level and leading the intentions to purchase in the CC. Self-efficacy in CC provides education, guidance and encouragement for the participants to trust their capabilities in using such CC platforms. This result is corresponded with the work by Compeau et al. (1999), who proved that self-efficacy reduced perceived anxiety and therefore, the higher level of self-efficacy the greater chances of purchase intention computer technology. Furthermore, the results also showed that the antecedents of self-efficacy include social referral and shared goals. In particular, shared goals were the strongest antecedent for self-efficacy.

5.11.3 Network Stability and Social Trust

This study proposed network stability as one of the antecedents of social trust, however, the result shows insignificant for the users of TaskRabbit. This outcome is contrary to that of Inkpen and Tsang (2005) who described that perceived network stability has direct impact on the members' social trust, as network stability develops a stable foundation for the members to interact with each other. One possible explanation for this finding is that, as previously discussed, two-sided consumers in CC (e.g., service providers and customers) may have an impact on the perception of network stability. To the extent this is true, the insignificant relationship may reflect the fact that when CC consumers act as customers, they perceive that they are general customers. Such as the customers in a regular shop. In other words, CC customers do not see themselves in the part of triadic model of CC. As discussed previously, the concepts of social trust include the interactions between members. Thus, if CC customers do not perceive that they play a role in the triad, they may not recognise the concept of social trust. Hence, this thesis did not distinguish the sellers and buyers. Recent studies have shown that two-sided consumers do not have the same attitudes towards the purchase intention, it is very depending on the role they are taking. As such, when they are consumers, they expect the service should be available. When they are the sellers, they work on deliver social trust with the help of platforms. Such as insurance policy.

This insignificant result is aligned with the sociology work by Haddad and Maluccio (2003), who found that the perceived network stability and social trust can be affected by the perceptions of the members between the economic benefits and the noneconomic benefits. They noted that the participants with economic benefits would recognise the importance of

membership of a network and would work to establish social trust with other members. On the other hand, social trust for the participants with no economic benefits would not matter. In line with this, the second possible explanation for this result could be due to the fact the measures captured mostly customers in the CC platform and are not able to separate out the providers versus the customers. The service providers or goods providers in CC may view as the parties with economic benefits. Whereas the customers in CC may view as the parties with noneconomic benefits since there are the one to pay for the matching fee and service fee. However, the economic benefits in the role of CC customers often referred to discounted price (e.g., Cohen and Kietzmann, 2014) or savings in fixed cost (e.g., Barnes and Mattsson, 2017). Lastly, the sample size was perhaps too small to detect the effect. Especially, the method used to collect the sample was non-probability with self-reported survey which may have caused the noise of the data. These contradicting results highlight the attributes of two-sided consumers in CC that may have impact on the perception of trust in CC.

5.11.4 System Quality and Social Trust

The results showed that perceived system quality is one of the important antecedents of social trust in CC. This is another major theoretical result of the thesis, as to the best of our knowledge, this thesis is the first attempt to show the direct effect of system quality on social trust. This highlights the importance of the infrastructure of a CC platform, suggests that the perceived system quality builds social trust. The study agrees with the suggestion of Inkpen and Tsang (2005), who claim that trust in a social group may be increased through the perception of the platform quality. As CC can be viewed as a type of online social network, the quality of platform may serve as the foundation. Therefore, decreased system quality may result in low social trust whilst increased system quality leads to an increased social trust.

Prior studies that focused on the development of online social capital have proposed a relationship between perceived ease of use and social trust (e.g., Oum and Han, 2011), measured by the concepts of TAM model. This study used the concepts of social capital theory to capture the structural aspect of CC, therefore employed system quality as an antecedent of social trust. In the online environment, Coleman (1988) noted that the infrastructure of a social network will influence the sizes of the network. When a social network is operated in an online format, a platform's system quality offers the first impression for the newcomers of a social

network. On many occasions, if the system quality is not perceived in the first place, the newcomers are likely to have reduced trust towards the platforms (Williams, 2006), and further, reduced social trust towards other members. System quality also provides the members access to the shared assets or services, therefore, when the system quality is absence, the members are likely to feel being excluded from the social network. Taken together, this hypothesis concludes that increased perceived system quality is likely to raise the level of social trust in CC.

5.11.5 Social Referral and Social Trust

This study confirmed that social referral is one of the significant antecedents of social trust. This result is consistent with the data obtained by marketing researcher, social referral was identified to be a strong indicator for consumer purchasing (e.g., Lai et al., 2017). However, the result of this study extended the knowledge and suggested that such an effect could also be the antecedent of social trust, indicates that the information from strong ties such as friends, acquaintances and families can affect the perception of social trust. In addition, social referral may not only help the participants to judge the quality of services and goods in CC, but also the overall quality of other CC participants. Social referral may be viewed as a reference or knowledge that help the participants to develop social trust in CC. The information is trustworthy as it is delivered through strong ties. Therefore, perceived social referral gives individuals reference that they can apply in the situation that they are not familiar with (Burt, 1992). Such as collaborate with strangers. This is especially important in the context of CC, as collaborate with strangers is essential.

Further, this finding broadly supports the work of Brown and Reingen (1987) in social network area linking trustworthy information with social trust. As social referral may see as a tool for the flow of information, for instance, recommending a service to friends and family members. Social referral also increased the level of communication between reputable individuals which in turn, results in higher level of social trust (Amin et al., 2012). Even if some individuals first joined a social network without the influence of social referral, they would still need social referral to establish that other participants are indeed trustworthy (Yolum and Singh, 2005). With this regards, social referral provides sources for CC users, when needed, social referral is applied to help individuals assess other members and establish social trust. This result brings new insights to the context of CC and highlights the role of social referral in trust related issues.

5.11.6 Shared Goals and Social Trust

The results indicate that the perceived shared goals has a significant direct effect on social trust. This particular result is in line with social capital literature, Randolph et al. (2020) demonstrated that the shared goals is determined by its users' vision of entire social network, therefore, shared goals was found to be the outcome of collective action. It is also consistent with the online community literature (e.g., Hau and Kim, 2011), shared goals was found to provide intrinsic motivation that can increase social trust. In online community literature, shared goals is viewed as shared norms, such as common values and collective goals. In this study, however, shared goals was proposed as the antecedent of social trust, which in turn, significantly and positively affects participants' purchase intention CC.

In the context of CC, the significant effect of shared goals on social trust suggests that shared goals provide the participants a basis for social trust (Fukuyama, 2001), it also brings the participants closer to each other through its bonding mechanism (Cohen and Prusak, 2001). Through the perception of shared goals, the participants developed a sense of belief, such as an understanding of each other's roles and how to work collectively in order to achieve those goals. In addition, this finding also reflects the motivations of participating CC in the literature. The motivations identified in the literature include social and economic values, which are viewed as goal-oriented motivations and can only be achieved through collaboration with others. Shared goals helps the participants to become motivated and committed and establish social trust that believe other participants' self-interest will not affect them adversely. This significant effect confirmed previous studies and highlights the vital role of shared goals in CC, signifying that the firms should increase the awareness of shared goals among the users and in turn, establish social trust.

5.11.7 Social Referral and Self-efficacy

Another major theoretical result of this study concerned with the influence of social environment on individuals' behaviour, as it was conceptualised that social referral as the antecedent of self-efficacy. This study made the first attempt to empirically tested the relationship between social referral and self-efficacy. Previous studies (e.g., Motl et al., 2007; Zhang et al., 2019) have proposed a relationship between social support and intention mediated

by self-efficacy but did not consider social referral as a factor. This study fills the gap and propose direct link between social referral and self-efficacy and highlights the importance of social referral in establishing self-efficacy in purchase intention.

To further dig into the effects of social referral induced by peers (e.g., friends and family members), this thesis pool the findings across multiple research for more in-depth discussions and explanations of such relationship. The empirical results from psychology suggest that individuals' behaviour may be influenced by their social networks and thoughts. If individuals desire to fit in their social networks, they would exercise the same actions that others (e.g., friends and acquaintances) are doing. Therefore, the information obtained from peers can also motivate behavioural change (Kim et al., 2011). In line with this, social referral is used as a tool for information flow, which in turn, shape an individual's decision and opinion. Thus, increase the self-efficacy to purchase in the action. In other words, the role of social referral in establishing self-efficacy is to stimulate a positive feeling in act on something that their peers (e.g., friends) are already doing.

5.11.8 Shared Goals and Self-efficacy

Perceived shared goals as the antecedent of self-efficacy was confirmed in the study. Shared goals was found to be the key driver of self-efficacy. This finding is accords with the earlier observations in social cognitive theory, which showed that strong goals-oriented motivations will increase the CC participants self-efficacy. Hence, the shared goals are only achievable when individuals learned to use the CC platforms. Prior works that focused on education have demonstrated that shared goals provide individuals descriptive pictures of their personal and collective future, therefore, its role is to motivate individuals to work towards the achievement (Pajares, 1996; Carmeli and Gittell, 2009; Slavich and Zimbardo, 2012). In order to achieve the desired outcome, self-efficacy is then applied to assess individuals' capabilities and build a sense of trusting belief to ensure that they are capable of achieving the collective goals (Bandura, 2000). In the context of CC, shared goals may include the economic value and social value. Additionally, this result supports previous studies in the organisational management literature (e.g., Yi and Hwang, 2003; Chen et al., 2015) that found shared goals has effects on self-efficacy.

Moreover, the significant effect of shared goals on self-efficacy reflects the process of consumer value co-creation in CC literature (e.g., Nadeem et al., 2020), suggesting that consumers in CC not only looking for goods and services; they also use these platforms to accomplish the collective goals. These collective goals are only attainable when the CC consumers contribute their roles; as goods providers, the role may include rent out privately owned tools at a low cost; as customers, the role may include take good care of the tools and return after use. Whilst the role of platform owners is to consistently ensure the quality of the platform. In this way, shared goals is formed and used to motivate the consumers to learn and develop self-efficacy to purchase in CC platforms in the future.

5.12 The Critical Factors in the Conceptual Framework

The empirical study has demonstrated that social trust and self-efficacy are the key drivers of purchase intention CC as well as the antecedents (social referral, system quality and shared goals). In light of PLS-SEM results, IPMA was performed as a second analysis to evaluate the extent to which elements are particularly critical in driving individuals to purchase in CC (Martilla and James, 1977). The results show that individuals' purchase intention is affected mainly by perceived self-efficacy as well as some from perceived social referral. In addition, both effects are well above the average among other assumptions, meaning CC-based skill-based exchange firms have managed individuals' self-efficacy and social referral very well. Next, the effect of perceived social trust on purchase intention was appeared to be the second strongest. Interestingly, the results demonstrate that both shared goals and social trust are underlying the same category, meaning both are equally crucial in individuals' purchase intention. However, the firm has been downplayed the potential of shared goals and social trust. The results also highlight some evidence for how individuals view the skill-based exchange CC platform, showing that perceived platform system quality is an essential factor but seemed to have been ignored by the platform owner. Moreover, the perceived network stability was proven not to have effects on perceived social trust; the explanation behind it is that individuals see network stability as a fundamental feature of CC but has been nearly absent.

The IPMA matrix showed that at least three combinations of management approaches might be considered, first approach is in the Q1 area that encompasses self-efficacy and social

referral. It is depicted that self-efficacy has the highest importance score (0.55); if individuals increase the self-efficacy by one unit point; their likelihood to purchase in CC in future is 0.55. Whilst social referral has high-performance score but relatively low score in importance, indicating that some improvements in addressing the role of social referral is required in CC. The second approach is consisted with Q2 area that includes social trust and shared goals. Social trust has a relatively high score in importance and a relatively low score in performance, indicating the role of social trust is to assist individuals' intentions to purchase in CC, yet the perception of social trust is insufficient. Compared to social trust, shared goals has average scores in both importance and performance, indicating that the participants believed that shared goals is an crucial factor, however, there are not enough information in regards of shared goals. These findings are in agreement with online community literatures (e.g., Hau and Kim, 2011; Oum and Han, 2011; Liu et al., 2018; Alyahya et al., 2020), showed that shared goals and social trust can be used to predict an individual's purchase intention a platform or social network. Such results are useful for predicting the role of shared goals and social trust in the context of CC, thus giving CC literature another leverage to improve intentional outcome.

Finally, the third approach is in the Q3 area involves network stability and system quality. Q3 area is the area that require improvement, thus the critical factors that drive individuals to purchase in CC. The results showed that network stability has relatively high score in performance but fairly low score in importance, indicating that the participants were not concerned about the network stability and were ready to use the CC service. In comparison, system quality received similar results but higher score in importance, indicating that the individuals' purchase intention was not affected by the system quality, however it is a crucial factor in the context of CC. System quality has been identified as an essential factor in driving individuals purchase intention computing technology (e.g., Ooi et al., 2011; Lee et al., 2017), emphasising that the issues should be addressed by CC firms. Taken together, IPMA results provide managerial implications, which will be presented in detail in the next chapter.

5.13 Summary

This chapter has presented the results from the analysis of collected samples. 373 usable samples were first put into statistical software for data screening. No missing data found in the

dataset; however, outliers were detected in the Z scores assessment, which led to the choice of method for analysis. As the literature showed that removing outliers may result in losing valuable information in the dataset and statistical power, this study adapts the robust PLS approach as the treatments for outliers. Then, various checks were conducted to ensure that the results are not affected by the outliers, such as variance inflation factors (VIF). In addition, this study also encompasses Pearson correlation assessment, which was followed by multicollinearity check. No issues were found. Next, demographic profile shows that the participants are generally educated and relatively young (between 25-44). Further, the descriptive statistics were also assessed to provide an initial understanding of the dataset, the results revealed that the participants are generally have positive view towards the constructs.

The measurement model was then assessed by convergent and discriminant validity. The convergent validity was measured by AVE analysis, the results indicate that all constructs have achieved the AVE value greater than 0.5. Heterotrait-monotrait ratio of correlation (HTMT) was used to ensure that discriminant validity is at acceptable value. In addition, the internal consistency reliability was assessed by check the composite reliability (CR) and rho_A values. No problematic values were found, indicating that the model is ready for the hypotheses testing. Astructural model was performed based on bootstrapping method which recommended in the literature, a method that can produce valid results with up to 50% of outliers. The hypotheses testing results revealed that almost all of the hypotheses are supported, except for H3, which was rejected. Furthermore, this study also conducted IPMA for in-depth understanding of the outcome variable. The final step of the testing was robustness checks (endogeneity bias, non-linear effect and unobserved heterogeneity), the results proven that the empirical results is solid. The next chapter will present the results obtained from the analysis of the dataset, as well as reflect on the related literature.

Chapter 6 Conclusion

CHAPTER 6: CONCLUSION

6.1 Introduction

The proposed framework addresses the issues of the tension between risk and trust in CC by examining the factors that affect the purchase intention CC: social trust and self-efficacy. More specifically, the key focus of the framework was to address the research question, which is '*What are the effects of social trust and self-efficacy on individual's intentions to purchase in CC, and how are these effects influenced by the antecedents*' The framework argues that the antecedents include social referral, shared goals, system quality and network stability have effect on social trust and self-efficacy. In addition, the framework had been tested and validated throughout different stages, involving pre-test, pilot study and main test. Each test utilised independent data, therefore, produced independent result for the main study. The data collected for the main study was stratified random method which aimed to capture the representative data, as a result, there were in total 373 usable samples. The samples were then analysed using PLS-SEM and IPMA techniques. The findings proved that social trust and self-efficacy can drive individual's purchase intention CC. In terms of the antecedents, shared goals, system quality and social referrals were found to have effect on social trust. Although the analysis of collected data did not show a significant value in relationship between network stability and social trust, shared goals was found to have strong effects on social trust and self-efficacy. Another major finding of the study includes the direct effect of social referral on self-efficacy. The contributions of this study are organised blow.

6.2 The Role of Social Trust in purchase Intention

Social trust helps individuals to cooperate with other members that they may not know in a social network. This study found that social trust affects the purchase intention in CC. It shapes the expectations towards others' behaviours and plays fundamental role in driving the consumers to purchase in CC. The antecedents include social referral, shared goals and system quality, which together explain the effect of social trust on purchase intention.

- The significant relationship between shared goals and social trust is in line with the previous literature on organisational management and online communities. Shared

goals has bonding mechanism that delivers the common understanding between the members in a network. It also provides sense of belief that to collaborate with others will achieve the goals. In the context of CC, this can be seen in the motivations identified in the previous CC literature, including economic value and social value. These motivations are goal-oriented, which then establish the social trust.

- Social referral as the antecedent of social trust was proved to have significant value. This relationship is reflected on the social capital literature, that social referral derived from individual's strong social ties have impact on the perception of social trust. Social referral as a mechanism that keep the information flows, especially, delivering the information to the existing ties. this information is perceived as trustworthy information which helped individuals to cope with the situation that they have no prior experience. The study reveals that the role of social referral in establishing social trust. Social referral enables individuals to collaborate with strangers which then develop social trust between the members of CC.

- This study also proposed system quality as the antecedent of social trust. System quality enhances the overall connectivity among the members. In this study, system quality was found to have effect of social trust which was also shown in the online community literature. Moreover, the system quality did not show a strong performance in the IPMA, indicating that the system quality is a crucial factor for the CC consumers, but the improvement of system quality is essential. As system quality gives individuals impression of how welcoming a social network is and how easy it is to use the platform, a poor system quality will result in reduced social trust and affect the purchase intention CC.

6.3 The Role of Self-efficacy in Purchase intention

Self-efficacy was included in the framework as the second factor that affect purchase intention. This study employed self-efficacy as the trust in individual level, therefore, self-efficacy was examined as individual's belief in their capabilities to use the CC platform and application. The results revealed that self-efficacy has strong effect on purchase intention CC. Its antecedents include shared goals and social referral.

- This study established that self-efficacy is significantly affect by the shared goals. This finding corresponds to the theory that showed shared goals can promote self-efficacy. Shared goals as the bonding mechanism that enhance the mutual understanding and drives individuals to work collaboratively in order to achieve the goals. In CC, without the belief of oneself is capable of completing the given tasks, the shared goals would not be achieved. As the shared goals is perceived, it will increase CC consumers self-efficacy in purchase intention.

- Social referral was also proposed as the antecedent of self-efficacy. This direct relationship is proved to have significant value in the study, suggesting that the information from strong ties is crucial in promoting self-efficacy. Moreover, this significant effect of social referral also indicates that social referral stimulates a positive feeling towards doing something that their friends, acquaintances and family members are doing.

6.4 Implications of the Study Results

This study investigated the factors that affect the CC consumers' purchase intention. It empirically and conceptually proved that social trust and self-efficacy play significant roles in driving purchase intention. It also adds the knowledge in understanding the antecedents of social trust and self-efficacy by developing a framework based on the concepts of social capital theory and social cognitive theory. The framework introduced shared goals, system quality and social referral as the antecedents. Shared goals and social referral were found to have effects on self-efficacy as well as together with system quality to affect social trust. Understanding the factors that can influence purchase intention is important and beneficial in the development of theories and business practices.

6.4.1 Theoretical Implications

Primarily this research builds on the research outcomes of Nahapiet and Ghoshal (1998), Chiu, Hsu and Wang (2006), Kim and Park (2013), Milanova and Maas (2017), Hsiao *et al.* (2018), Cha and Lee (2022), Nyamekye *et al.*, (2022), Tóth *et al.* (2022) and Yao, Baker and Lohrke (2022). The important contributions are as follow:

First, this study makes the first attempt to discuss how social trust drive the purchase intention of CC. By going beyond discussing users' motivation to CC purchase intention, using social capital theory and social cognitive theory, this thesis has enhanced the explanatory power of the theories by integrating it with the purchase intention in sharing services. The successful testing of the conceptual framework shows that social capital theory in conjunction with social cognitive theory can be used in studying concerning sharing behaviours. Previous studies have applied both theories in examining knowledge sharing behaviour in virtual communities (Chiu, Hsu and Wang, 2006), whereas the conceptual framework built in this study can be used to anticipate not only purchase intention but also the antecedents of social trust and self-efficacy. Thus, it can be concluded that this study has brought a new theoretical model that can be used in sharing related contexts.

Further, Nahapiet and Ghoshal (1998) stated that social capital has three dimensions, cognitive, relational and structural. While previous studies have applied various measures for each dimension, different contexts may require different dimensions. In crowdfunding platform, Eiteneyer, Bendig and Brettel (2019) used social interaction ties to measure the structural dimension, they found that the structural dimension has the smallest effect on users' involvement compared to relational and cognitive dimensions. Studies have also examined whether cognitive and structural dimensions can be used to signal relational dimension (e.g., Lu and Yang, 2011; Sun *et al.*, 2012). This study statistically proven that structural dimension and cognitive dimension can be applied as antecedents of relational dimension of social capital. In addition, by adding self-efficacy into the model, this study proved that social referral plays a significant role in establishing self-efficacy. In particular, social referral has a higher influence than shared goals on self-efficacy, showing the importance of social recognition and inclusion in determining a person's evaluation of one's own capability in utilising the CC platform to achieve the required tasks. To the extent of knowledge, there is no study investigating the direct relationship between social referral and self-efficacy.

Klarin and Suseno (2021), Yao, Baker and Lohrke (2022) and Moehlmann (2015) suggested that future studies investigating behavioural outcome in CC should include trust, computer related self-efficacy and system use. In car sharing, Zhu et al. (2017) confirmed self-efficacy as capability to complete the tasks. A recent example is done by Tóth *et al.* (2022) highlighting personal rating scores as being critical in building trust in lodging. This study included both trust and self-efficacy and testing their effect in driving CC purchase intention based on data collected from TaskRabbit, the study reveals that self-efficacy is the key driver that affects a users' evaluation of whether to purchase in the CC platform. Rather than focusing on one's self-efficacy on ride

sharing (Zhu et al., 2017), this study discusses self-efficacy on using the platform, thus providing a different dimension to understand how self-efficacy drives CC purchase intention, shedding new light to CC literature.

In line with Yao, Baker and Lohrke (2022), this study also discusses four important antecedents to social trust as well as self-efficacy in driving CC purchase intention. The findings illustrate that individuals' social trust could be increased by perceived shared goals, social referral, and system quality. These results are consistent with prior research in the e-marketplace, providing additional evidence that promoting social referral is an approach to leverage the existing social networks between individuals (Lai et al., 2017). Individuals acknowledged that recommendation and information from these people are trustworthy (Lee and Turban, 2001). In essence, social referral serves as a channel in delivering trustworthy recommendations and advice, which reinforces the classic aspects of social capital that are critical to the characteristics of CC.

6.4.2 Managerial Implications

In addition to the theoretical contributions, the research presented here also provide several practical implications and strategic management for CC platforms to aid their promotion. As the social trust and self-efficacy were confirmed to significantly affect purchase intention, suggesting that CC platforms need to focus on the development of these two factors by promoting the perception of their antecedents (system quality, social referral, and shared goals).

Firstly, CC platforms should illustrate and communicate the positive outcome of purchasing in CC to their current community members and prospective new users. Promoting the positive outcome increases the awareness of CC platforms and the benefits from participating. The less familiar a CC platform is and the less potential users are able to assure themselves of the benefits. This is especially important for skill-based exchange, since it is sharing the intangibles. Unlike services that sharing the tangibles, such as ridesharing where the car may remind customers of being part of the sharing community. However, the platforms may start with identifying which shared values are particular important and only achievable through the collaborative work between the sellers and buyers. Shared values is a key tool for creating the relationships between the users and fostering community feelings. It also offers many opportunities for the platform owners, such as creating customer-company relationships. The more users a platform has, the more diverse services the

platform can provide. As the study's results reveal that shared values is a very important antecedent for both social trust and self-efficacy, which lead to CC purchase intention.

Secondly, since this study's finding confirms system quality as an important antecedent in driving social trust, it is recommended that the platform owners should provide constant investment to platform develop development, focusing on the ease of use so that users are more likely to want to use the platform. As the users' community feeling is strong in CC, poorly designed platforms may drive potential users away. On the other hand, a well-designed platform not only provides the users reliable matching mechanism, it also makes users feel that they are inclusive and welcoming. Thirdly, whilst the findings reveal social referral as a key antecedent in determining self-efficacy, CC platforms are also recommended to work on promoting referral programs amongst existing community members and encouraging them to share and invite their family and friends to join the CC platform. This is because social referrals from family and friends acts as a social recognition that enhances new users' self-efficacy, which subsequently increase their purchase intention. The platform owners may user referring channels strategically, such as social media, vouchers to encourage the existing users to share their experience of using the platform.

Following the results of IPMA, three management strategies that CC platforms could utilise. First strategy includes a combination of social referral and self-efficacy. One useful approach that relates to social referral is referral program, which attracts new members through existing customers' network. The platforms may also try to promote the perception of social recognition by demonstrating the positive values that CC can provide, and these positive values are only attainable when an individual become a member. As the study showed that social referral can affect self-efficacy which led to purchase intention. The second strategy focuses on the development of social trust among the members, which should be promoted with shared goals. And the third strategy involves the number of members and system quality. Since the suppliers in CC are the sellers, it is important to have a sufficient number of sellers available on the platforms. By expanding the number of sellers, can also expand the diversity and availability of the services and goods. Although the network stability (which concerned with the number of CC participants) did not have positive effect on social trust, the results from the matrix showed that network stability appeared to have the lowest score in performance, indicating the availability of services and goods is perceived as low. Whilst attracting more users is important, as discussed, system quality is also vital in driving individuals to use the CC service.

6.5 Limitations and Directions for Future Research

Although the work here provides several contributions, it has some limitations that should be acknowledged. First, this paper only examined limited constructs as the antecedents of social trust. Future research is therefore recommended to consider other variables such as cultural factors (e.g., language) and social participation (e.g., frequency of participating social activities) and see how these factors affect social trust. Social trust in virtual communities like CC is a socially complex concept that may involve a variety of elements with different effects. While expanding our framework, scholars can also view the antecedents of social trust from a different theoretical perspective, such as social bonding theory and social network theory. Likewise, this study only examined shared goals and social referral as the antecedents of self-efficacy. Future studies may consider other social capital constructs, such as users' identification and network configuration. In addition, future studies may also consider whether social trust can be a mediator between the antecedents and purchase intention.

Third, recent studies have realised the differences between sellers and buyers, studies that collect data from both sellers and buyers shown that they do not view CC platforms in the same way. This study did not question the participants whether they were sellers or buyers, therefore, the analysis is limited to studying the overall effects on purchase intention. Thus, in the observational and field setting, future study should consider collect the data separately which may unpack differential effects of various types of users. Fourth, the use of measurements for social referral in this study may raise an additional limitation. As recent studies shown that social referral channels do not limit to acquaintance or families. However, with the results of this study, it is evident that social referral is a strong construct for building social trust. It is therefore important to consider other social referral channels in the follow-up research, such as use of social media.

Furthermore, the research sample is relatively small and only focus on TaskRabbit’s purchase intention in the UK, where labour cost is relatively high, which raise questions regarding the generalisability of the findings to other sharing related platforms. Consumer behaviour may also display differently according to regions and nations. To address this concern, this study conducted a FIMIX-PLS with the characteristics of the data (e.g., gender, education, experience, income and age). Although the results confirm that the characteristics of the data do not affect the empirical results, future works are encouraged to access a larger number of

participants from different countries to see whether the purchase intention of TaskRabbit is affected by the geographic locations or market condition associated with labour cost. It is also suggested that future work may examine additional demographic characters, such as employment status and possibly include a different sharing platform to compare.

The results of this study are also limited by the available data, which did not track whether the participants are the service providers or the consumer. Recent studies have realised the differences between sellers and buyers, studies that collect data from both sellers and buyers shown that they do not view CC platforms in the same way. This study did not question the participants whether they were sellers or buyers, therefore, the analysis is limited to studying the overall effects on purchase intention. Thus, in the observational and field setting, future study should consider collect the data separately which may unpack differential effects of various types of users. Therefore, this study could only support some relevant evidence but not all theoretical arguments. Finally, this study utilised quota random survey method, which was deemed to be adequate. However, quota random survey method is deemed to increase the risk of research bias. In addition, the results obtained from quota sampling may be not reliable, since the randomness of selecting participants is lacking. Future works may consider using qualitative methods, such as experimental design. Using experimental design to test the proposed framework in this study may provide a more insightful knowledge of consumer behaviour in CC. Employing qualitative methods to test the framework may also assist in finding possible constructs that may also affect purchase intention.

Appendix A: Means, Standard Deviations and Correlations of the Pilot Study

	1	2	3	4	5	6	7
1 Social Referral	1.00						
2 Network Stability	0.523**	1.00					
3 System Quality	0.561**	0.740**	1.00				
4 Social Trust	0.372**	0.363**	0.390**	1.00			
5 Shared Goals	0.427**	0.500**	0.516**	0.515**	1.00		
6 Self-efficacy	0.606**	0.534**	0.601**	0.383**	0.439**	1.00	
7 Purchase Intention	0.631**	0.588**	0.568**	0.459**	0.554**	0.602**	1.00
Mean	3.86	3.82	3.88	3.40	3.48	3.86	3.64
SD	0.77	0.80	0.75	0.96	0.82	0.78	0.88

*Notes: n=158. Significance levels: *p ≤0.05; ** p ≤0.01; *** p ≤0.001*

Scales ranging from 1 to 5; higher figures indicating stronger agreement with the items.

Appendix B: Measurement scales and items

Constructs	Items
Social Trust (ST)	**ST1.** I know people within collaborative consumption site are truthful in dealing with one another (Chiu et al. 2006)
	ST2. I can always trust the members from collaborative consumption site (Chow and Chan 2008).
	ST3. I can always rely on the members to get what I need to do (Chow and Chan 2008).
	ST4. Members in collaborative consumption site will not take advantage of others even when the opportunity arises (Chiu et al. 2006).
Shared Goals (SG)	**SG1.** The members in collaborative consumption site share the vision of helping others solve their problems (Chiu et al. 2006).
	SG2. The members and I will always share the same vision of values (Chow and Chan 2008).
	SG3. The members in collaborative consumption site are always enthusiastic about pursing the collective goals (Chow and Chan 2008).
	SG4. The members in collaborative consumption site share the same value that helping each other is pleasant (Chiu et al. 2006).
Network Stability (NS)	**NS1.** When I need it, I can always find a service provider on a collaborative consumption site (Inkpen and Tsang 2005).
	NS2. In general, it is easy to find a service provider from collaborative consumption site (Inkpen and Tsang 2005).
	NS3. There is always at least a service provider from collaborative consumption site that is available for me to book (Inkpen and Tsang 2005).
	NS4. It is not hard to find some service providers from collaborative consumption site (Inkpen and Tsang 2005).
System Quality (SQ)	**SQ1.** Collaborative consumption site quickly loads all the text and

	photos (Chiu et al. 2006).
	SQ2. It is easy to find what I am looking for on the collaborative consumption site (Montoya-Weiss et al. 2003).
	SQ3. It is easy to move around online using collaborative consumption site (Montoya-Weiss et al. 2003).
	SQ4. The collaborative consumption site offers a logical layout that is easy to follow (Montoya-Weiss et al. 2003).
Social Referral (SR)	**SR1.** I have heard from my friends, family and acquaintances that collaborative consumption is very useful. (Kim and Park 2013).
	SR2. I have heard from my friends, family and acquaintances that collaborative consumption is very easy to use (Kim and Park 2013).
	SR3. I have heard from my friends, family and acquaintances that collaborative consumption is very reliable (Kim and Park 2013).
	SR4. I have heard from my friends, family and acquaintances that this collaborative consumption is not worth the effort (Kim and Park 2013).
Self-efficacy (SE)	**SE1.** I am confident of using collaborative consumption site if I have only the online instructions for reference (Lee et al. 2011)
	SE2. I am confident of using collaborative consumption site even if there is no one around to show me how to do it (Lee et al. 2011).
	SE3. I am confident of using collaborative consumption site even if have never used such a system before (Lee et al. 2011).
	SE4. I feel confident finding information on collaboration consumption site (Hsu and Chiu 2004).
Purchase Intention (PI)	**PI1.** I am likely to purchase products/services on this collaborative consumption site (Kim and Park 2013).
	PI2. Given the opportunity, I would consider purchasing products on this collaborative consumption site in the future (Kim and Park 2013).
	PI3. It is likely that I will actually purchase products on this

collaborative consumption site in the near future (Kim and Park 2013).

PI4. Given the opportunity, I intend to purchase products/services on this collaborative consumption site (Kim and Park 2013).

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