# THE AFFECTING FACTORS ON CONSUMER PURCHASE INTENTION IN C2C ELECTRONIC CLASSIFIED MARKETPLACES: A THAI PERSPECTIVE



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# THE AFFECTING FACTORS ON CONSUMER PURCHASE INTENTION IN C2C ELECTRONIC CLASSIFIED MARKETPLACES: A THAI PERSPECTIVE

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### **ABSTRACT**

**Title of Dissertation** THE AFFECTING FACTORS ON CONSUMER

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PERSPECTIVE

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C2C electronic classified marketplaces are blooming in Thailand because it can highly fulfill Thai consumer's habit and lifestyle. The consume enjoy using C2C electronic classified marketplaces as online seller will post and update their product and service via social media as Facebook, Instagram, and Line to catch consumer's attention, then target consumer who interested in a particular product and service will directly contact with seller on intermediary platform. Hence, consumers still feel reluctant to use online marketplaces because they do not trust the seller and providing platforms. So, this study proposed the nine antecedents as Familiarity (FAM), Experience and Habit (EXPHAB), Information Quality (IQ), Perceived Privacy Protection (PPP), Perceived Security Protection (PSP), Positive Reputation of Selling Party (RSP), Consumer Disposition to Trust (CDT), Hedonic Motivation (HM), Price Value (PV) and aim to see the influence that nine antecedents will affect to consumer's trust (TRUST), perceived risk (RISK), perceived benefit (BENEFIT), and purchase intention. Moreover, there is a scarcity of research in this type of market, and the concept of C2C electronic classified marketplaces is still not clear. This study aims to analyze consumer purchase intention in C2C electronic classified marketplace in Thailand using a holistic standpoint to understand the role of trust, risk and benefit perception based on the scope of five different categories of the antecedents grounding on Theory of Planned Behavior (TPB), Theory of Reasoned Action (TRA), and Extending Unified Theory of Acceptance and Use of Technology (UTAUT2).

A questionnaire survey is conducted by using both online and offline survey to confirm the relationship between all major constructs of the proposed model. Data analysis tested the conceptual model by establish the convergent and discriminant validity of variables and test proposed hypothesis by using statistic programming. Covariance Based Structure Equation Model (CB-SEM) applied to test the research model fit. The result shown most respondents used C2C electronic classified marketplaces based on social media as Line, Facebook, and Instagram. Consumer's trust will directly affect by a positive familiarity, experience and habit, a good quality of information, and consumer high disposition to trust. Accurate information will generate consumers' trust and security protection will reduce risk perception in online marketplaces. A Positive reputation of seller and intermediary platform leads to higher risk perception. High disposition to trust characteristic can easily generate consumer's trust and hedonic motivation influences to benefit perception and a particular perception leads to purchase intention. Price value influences on both consumer benefit perception and purchase intention. Trust and perceived benefit positively affect to consumer purchase intention, conversely high-risk perception leads to high purchase intention.



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# **CHAPTER 1**

# INTRODUCTION

# 1.1 Introduction

For centuries, people have traded things by completing transactions to exchange goods, currency, and services depending on the willingness of both buyer and seller (Ellison & Ellison, 2005). Fundamentally, a buyer is able to perceive and try things as needed until they feel satisfied with their goods. A physical marketplace is purely a face-to-face interaction where buyers and sellers are able to use all of their senses in a transaction. Over the years, we cannot deny that the Internet, as well as computer technology, has entered into people's lives, even during sleep. Due to the evolution and changing of technology (Kambil & Heck, 1998), the physical location of the marketplace has been changing into an electronic market system. This tremendously shifts the way people sell and buy things with each other. One of the important outcomes from the advent of the Internet is the convenience of remotely exchanging things. There is no need for a buyer to visit a seller's shop to engage in a transaction (Rao, Truong, Senecal, & Le, 2007). The electronic marketplace brings together a buyer who is searching and trying to acquire information of products and services, and sellers who are offering their products in forms of text and pictures to attract public attention. Buyers and sellers are able to select their best offering through a potential exchange partner, and reach a third party to deal with transactions or to inquire further about trading opportunities. Although a physical marketplace allows people to access goods or to meet a seller in reality, in an electronic one, the buyers and sellers are more assured about their products and transactions thanks to the advanced technology in terms of computer programming and security. With those advantages of electronic marketplace, it attracts people to come into this type of market more and more.

An electronic marketplace primarily uses computer-based media such as digital text and photos (L. H. Lee, Lee, & Bao, 2006), and is comprised of three main types; business to business (B2B), business to consumer (B2C), and consumer to consumer (C2C). In the past few years, electronic commerce has significantly increased. The current trend of e-commerce states that about 40 percent of worldwide internet users, about 1 billion online buyers, have bought online products and services via online devices. The majority of the electronic market is concentrated in B2B and B2C. However, C2C e-commerce has been playing a significant role in the world's marketplace for centuries. Without a currency system or money, how people in the old days exchanged goods with each other is one of the examples of C2C marketing. It is the process of matching two sides of a transaction at the highest satisfaction level. In this era, where the C2C market seems to be continuously adopted by several IT providers, a study of C2C e-commerce characteristics regarding business in Thailand would be beneficial in that we can understand how people think about it and how people are influenced by C2C business model. The leading international contenders of C2C e-commerce are eBay (H. Zhang & Li, 2006), Amazon, Taobao, Etsy, and Kickstarter respectively. Since 1995, eBay has become the chief of international C2C electronic marketplaces, its annual revenue was doubling from 2008 to 2013 (Statista, 2016). Normally, the transaction between seller and buyer is known as a dyadic transaction, one that involves two parties who trade products and services in exchange for money or something valuable. However, C2C electronic commerce is a triadic transaction because it not only involves two parties, but has an additional third-party intermediary who provides an online service platform, so called online marketplaces (Dan J. Kim et al., 2008). The marketplace is an innovative way to allow customers to interact with each other by using an intermediary to provide web interface, which allows demand to meet supply correctly. The intermediary gathers a large number of sellers which provide an adequately large and varied product classification (Ellison & Ellison, 2005) charging fees only to sellers. A pool of buyers and sellers are given the opportunities to market for both sides. Sellers have the ability to set an appropriate selling price which matches with buyers' willingness to buy as well (Matthew J.C. & David R., 2005). Instead of C2C electronic marketplaces solely, C2C has an emerging field of C2C structure known as Peer-to-Peer (P2P) system or C2C electronic

classified marketplaces, which is simply the underlying concept of consumer reciprocal interaction. The exchange of goods and services between consumers is being simplified on the Internet, and P2P systems are significantly altering the business landscape instead of traditional one. P2P exchanges have frequently been labeled as C2C exchanges (Plouffe, 2008). The category of C2C electronic commerce comprises of two main types; basically, there are online marketplaces like eBay, and classifieds marketplaces such as a P2P system. C2C electronic classifieds marketplaces like a P2P system have both an intermediary and a seller similar to C2C electronic marketplaces, whereas the intermediary in a P2P system is presumed to be transparent. Sellers and buyers contact each other via an intermediary platform, which is totally free of any charges. TechsuaceTeam (2016) indicates that the most suitable type of e-commerce that fulfills the lifestyle of Thai people is social commerce or C2C electronic classifieds marketplaces via P2P system. A majority of online sellers in Thailand create an account on Instagram, Facebook, and Line to show product features to their prospective consumers, where more than half of the buyers in Thailand usually contact the seller directly to ask for more product information.

Table 1: Electronic commerce market in Thailand report by Electronic Transaction Development Agency (2017b)



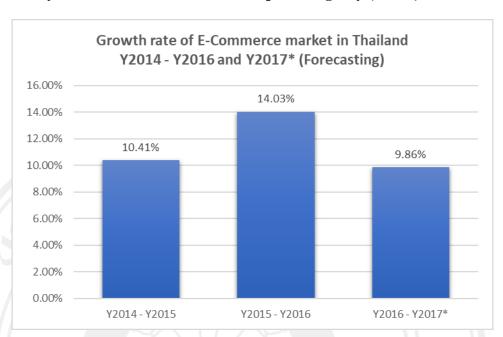


Table 2: Growth rate of electronic commerce market in Thailand report by Electronic Transaction Development Agency (2017b)

Recently, electronic commerce tries to provide advance technologies such as virtual reality (VR), augmented reality (AR), and virtual marketplaces (VMs) to compensate for obstacles in electronic commerce. In electronic commerce, consumers can only see an image or video presented the product, but it lacks the senses of touch and feel compared with a brick-and-mortar store. VR started to be applied to computer games in the 1990s, and Ford also began implementing VR for vehicle design and production in 1999 (S. Barnes, 2016). Virtual reality (VR) has been applied to electronic commerce to allow consumers to interact with seller through three-dimensional (3D) stores. Consumers will be able to walk and look around the store, even pick up a product from a shelf (Chittaro & Ration, 2000). Virtual reality brings consumer's experience closer to real world shopping. It can also respond to a consumer's reaction immediately by using camera to detect their feelings. Besides VR, Augmented Reality (AR) is another advanced technology that can be implemented for online transactions. AR is "an interactive technology that integrates computer-generated sensory information to a physical environment in real-time" (K. Y. Lee, 2012). AR allows online consumers to try on product by seeing two dimensional of product image on their body, of which monitor by motion capture camera. Prior scholar suggested that 3-D product visualization influence nonevaluative aspects such as attitude strength (K. Y. Lee, 2012). Klein (2003) determined "a virtual experience leads to stronger beliefs in product claims and more intense brand attitudes than 2-D internet ads". However, even though Petty, Haugtvedt, and Smith (1995) and Raden (1985) and Gabisch and Gwebu (2011) found virtual interactions have a significant lead to strong brand attitude, there has yet to be an empirical study in electronic literature that virtual experience is capable to predict and significant impact on consumer purchase intention directly. However, Sivunen and Nordbäck (2015) examined on quantitative and qualitative research in Second Lift (the virtual world), the study found that social presence generates a strong relationship between groups and subgroups. It also lead to psychological and physiological effects, of which "including affective, cognitive and behavioral effects" (Mennecke, Triplett, Hassall, Conde, & Heer, 2011). More broadly, "social presence has a strong link to consumer engagement in their examination of brands using social media" (Ashley & Tuten, 2015), and Lu, Fan, and Zhou (2016) posit that social presence significantly influences trusting beliefs, which will turn into consumer purchase intentions.

Hoppe, Lamy, and Cannarsi (2015) reported Southeast Asia is one of the regions where electronic commerce has been highly adopted. Due to the diversification of nationality, Southeast Asia's inhabitants have an important thing in common which is the eagerness to use technology. Statistically, Southeast Asia has more than 250 million of smartphone users, which also implies the attentiveness to try new things, and huge prospect for electronic marketplace especially the penetration of online retail. Concentration in Thailand, ETDA (2016) reported internet users among Thai population reach 38 million people approximately. Thailand's electronic marketplace is valued as 2,034 billion Baht and is expected to continuously increase 3.65% from 2015. Hoppe et al. (2015) reported Lazada, Kaidee, and PanTipMarket hold the highest market penetration of electronic marketplace in Thailand respectively. Customers can access the system from any platform to complete transactions in the electronic marketplace such renting cars (GrabTaxi, Uber) or houses (AirBnB), buying things (Weloveshopping, Lazada), or even selling their used products (Kaidee, PantipMarket, Facebook, Instragram, Line, WeChat, Bigo Live). As

Thailand has been awakened and concerned about the digital economy, one of the plans of the government has been to emphasize its national security. In January 2015, cyber security bill was approved by Prime Minister Prayuth Chan-ocha's cabinet and pending in National Legislative Assembly to officially be passed into law. This proposed bill gives power to the government to oversee people's communication. Especially important is Section 35 of the bill that addresses that committees are able to access information on any electronic devices such as cell phone, personal computer without any authorization by court.

Furthermore, Thai government restructured the Ministry of Information and Communication Technology (MICT) and also changing them to be the Ministry of Digital Economy and Society. They recently implemented the national electronic payment project: PromptPay, which the Ministry of Finance aims to update into the current payment system by using a national identity smart card and telephone number attached to a personal bank account. The Thai government also attempted to use PromptPay for oncoming tax refunding. There is the integration between government sectors, local bank, and British payment infrastructure company called VacaLink. Lately, Bank of Thailand and Thai Bankers' Association agreed to postpone the launching of PromptPay to the first quarter of 2017. So, PromptPay's system will be tested thoroughly to ensure about efficiency and stability. Therefore, Thai people are still reluctant to apply for PromptPay's service due to aforethought of their privacy concerned and cyber-attacks. Since the project's kick off in July 2016, only 14 million of total 40 million local bank accounts have signed up for the pre-registration (reporters, 2016).

In Thailand, electronic marketplaces are continuously growing and expanding in mobile device platform which reach more than 83.5 million mobile subscribers in 2015 (ETDA, 2016). There are few research papers that concentrate on C2C electronic classifieds marketplaces as P2P system in Thailand. Most mainly focus on B2B, B2C, and C2C electronic marketplaces. Even both public and private sectors omit the concentration of C2C e-commerce. As aforementioned, there are some huge opportunities in C2C electronic classifieds marketplaces as P2P systems in Thailand to grow. This study will define the involvement between buyers' perception towards seller and intermediary, based on its essential antecedences of trust and risk in C2C

electronic classifieds marketplaces via P2P system. As the customer's hesitation occurred habitually, a prerequisite of successful business is trust (Dan J., Yong I., Sviatoslav B., & H.Raghav, 2004; Gefen, 2002; Sirkka L. Jarvenpaa, Tractinsky, & Sarrinen, 1999; Urban, Sultan, & Qualls, 2000). Trust is even more considerable in electronic marketplaces than traditional because cyber transactions are borderless, blindfolded, and non-instantaneous unlike physical marketplace where both buyer and seller meet directly. Dan J. et al. (2004) suggested electronic marketplaces are mainly focused on process of transactions, in contradiction with brick-and-mortar stores, which focus on personal relationships. Trust is the essential aspect according to information technology acceptance, as it is needed to enlarge the prospect customer pool, and retain existing customers. It can be viewed as a multi-dimensional construct by combining specific beliefs and overall assessment of trust which influence behavioral intentions (Gefen, 2002). In addition, perceived risk has been considered as another major hindrance which influences consumer behavior (Bauer, 1960). Previous studies proved that perceived risk has a negative effect on the intention to adopt electronic commerce (Crespo, Bosque, & Sánchez, 2009; Featherman & Pavlou, 2003; Hernández, Jiménez, & Martín, 2010; Pavlou, 2003; Yong Hui & Jing Wen, 2009). The augmentation of internet frauds and scam will similarly arise risk avoidance behavior (K. Kim & Prabhakar, 2000).

According to significant factors that are related to Thai's C2C market, trust and risk in electronic marketplaces are major impediments of its expansion. The postponement of PromptPay shows anxiety of Thai people about security, privacy, and instability of system. People aware of their data privacy will be safe and use the system appropriately. Trust will lead to a user's perception to perceived risk directly. One of key success factors in e-commerce is to establish a trusted transaction process where a prospect consumer feels relaxed and has more confidence about such transactions. Prior researches define trust through dissimilarity dimensions as psychological, social, managerial, and technological. In electronic commerce context, the definition of trust tends to be more dislocated, and case-specification which concentrates on security, privacy, public key infrastructure, and authentication to access into systems (Benantar, 2001; Bhimani, 1996; Hsiung, Scheurich, & Ferrante, 2001; Dan J. Kim et al., 2008; Manchala, 2000). Previous studies focus on behavioral

and social constituent of trust in electronic commerce context, which concentrate on limited variable of trust antecedent and trust in seller. However, researchers have not developed a comprehensive understanding of all factors that affect a consumer's trust in C2C electronic classifieds marketplaces as P2P system in Thailand. Most of the prior research focus primarily on consumer trust in the salesperson. Plank, Reid, and Pullins (1999) suggested consumer trust could have multiple dimensions such as product, salesperson and intermediary. In the e-commerce context, trust is defined as a subjective belief and the willingness of individual to rely on involved parties. This study will focus on trust, risk, and its antecedents of buyer perception on seller and intermediary specifically.

# 1.2 Research objectives

- Aim to analyze consumer purchase intention in C2C electronic classified marketplace in Thailand in a holistic standpoint to understand role of trust, risk and benefit perception based on the scope of five different categories of the antecedents
- Examine the relationship between the five different categories of antecedents and trust, risk and benefit perception
- Confirm the relationship between all major constructs grounding on Theory of Planned Behavior (TPB), Theory of Reasoned Action (TRA), and Extending Unified Theory of Acceptance and Use of Technology (UTAUT2)
- Utilize the consequences of study to improve an involving function, and generate trust from customer and trying to prevent factors which will generate risk

# 1.3 Motivation for conducting research

This study aims to concentrate on the consumer's perception in C2C electronic classified marketplaces (C2C) in Thailand and understand behavior of buyer which

based on their trust, risk and benefit perception upon seller and intermediary in the market. As we all know that technology involving with every single movement of our live, especially mobile phone. For decades, people use mobile phones for voice communications only. Anyhow, technology of mobile phone has been fast developing and also continuing evolve (Townsend, DeMarie, & Hendrickson, 1998). Nowadays, mobile phones have the ability to fulfill human lifestyles like online socialization and shopping, searching for information which are capabilities far beyond the previous technology (J. Anderson & Rainie, 2012). Hoppe et al. (2015) shows there is an enormous number of mobile phones used in Southeast Asia, which shows an eagerness to adopt new technology. Thailand is one of the high potential markets for electronic commerce. Due to the wide spread availability of nationwide 4G telecommunication, (ETDA, 2016) reported Thailand is the largest user of social commerce, the new electronic commerce business model. Half of online purchases in Thailand were completed via mobile devices and 51% of online consumer had purchased directly via social media. The Thai consumer trend is to search for product information and purchase online through Facebook, Instagram, and Line which generated a new business model as social commerce or C2C electronic classified marketplaces. Those channels have more than 10,000 online stores whose numbers are continually growing. That consumers highly value brands that could interact with them as C2C electronic classified marketplaces in P2P platform. Nevertheless, C2C electronic classified marketplaces will create an opportunity for consumers to search for product information such as comments and recommendations from real users who have already purchased the product. It will also allow consumers to interrogate the seller about the product. The reason why C2C electronic classified marketplaces or social commerce are blooming in Thailand is because it highly fulfills Thai consumer's habits and lifestyle. Online sellers post their product via social media as Facebook, Instagram, and Line to catch a buyer's attention. Then target consumers who are interested in the product will directly contact the seller via P2P platform to interrogate about product's details and features. If the consumer is satisfied with these product features and price, then they will complete online transaction with seller. After online purchasing, the seller will be appeal to satisfied consumers to review their product, and to publicly notify relations via their social media friend lists. Once the seller can make the consumer satisfied with product, then these consumers will help to publicize and advertise the product for free charge. Recently, Facebook has recognized the fast blooming of Thai C2C electronic classified marketplaces, by launching Facebook marketplace. Likewise, Facebook tested their payment system in June 2016 and first launched new service in Thailand in August 2016.

Even then, successful business is apparently based on the number of selling amount, but only that number is not enough to guarantee ability of consumer to purchase certain product. To understand Thai consumer's habits and perception toward online purchasing behaviors, prior studies suggested consumer's major concentration normally based on their trust and perception of risk on product. Without trust, how can a consumer complete a transaction with an unknown seller and intermediary, they are not even able to see and touch product before buying. This research will study the relationship between the antecedents of trust and risk related to consumer's perception, of which affect the attitude toward online purchasing in dimension of buyer. To see how a consumer's online trust and risk perception were generated, this study will have categorized those antecedents into four different aspects (Dan J. Kim et al., 2008). Most of the prior studies pay attention to C2C electronic marketplace based upon auctions, which relatively places little attention on C2C electronic classified marketplaces via P2P platform. Especially in Thailand, there are few studies of this dimension even though Thailand is the most blooming country to emerge this electronic commerce model. The majority of research and statistical analysis in Thailand concentrated on B2B, B2C, and B2G. According to Thai consumer behavior purchase online product via social media, it creates a new electronic commerce trend, a so called social commerce as a subset of C2C electronic classified marketplaces Furthermore, this empirical study will have a great opportunity to explore and deeply understand this type of electronic commerce model.

### 1.4 Contributions

# 1.4.1 Theoretical contributions

This research endeavors to study consumers' conduct in C2C electronic classified marketplaces based upon the five different categories of antecedents to see

how trust, risk and benefit perception play a significant role on consumers' online purchase decision. This study will clarify concepts of C2C electronic classified marketplaces, wherease the prior studies merely concentrated upon C2C electronic marketplaces which use auctions to determine prices. Given the objectives of empirical research report in this dissertation, it will focus on non-auction based C2C electronic classified marketplaces. This electronic market type appraises a fixed price of product or negotiation mechanism instead. As perspective, in Thailand, consumers mostly involved in electronic commerce as ETDA (2016) reported a huge amount of online transactions. However, they are not recognized or even conceived that Thai consumers' conduct drives a trend of electronic commerce, so called 'Social commerce' (TechsuaceTeam, 2016). Besides, past studies show that essential role of trust, risk and benefit perception are basically behind the ultimate success in electronic commerce. So, this dissertation aims to gain an in-depth understanding by studying the relationship between trust, risk and benefit perception, and its antecedents toward consumer's purchase intention in C2C electronic classified marketplaces. More importantly, the study contributes to the extent of academic literature in the field of electronic commerce by expatiating a prior study about C2C electronic marketplaces, which is relatively scarce. Moreover, it will contribute to theory, which will be used to apply to marketing strategy. This study also applies to prior literature by examining the relationship between the five different categories of antecedents regarding trust, risk and benefit perception of consumer. Based upon Dan J. Kim et al. (2008), the prior study divided the antecedents of trust, risk and benefit perception into four different aspects: cognition, affect, experience, and personality for comprehensively understanding consumers' conduct to be more clear about related factors which effected to consumer purchase intention in online marketplaces. Furthermore, this study aims to examine the antecedents more deeply by adding another category as a calculative aspect. Grounding on Theory of Planned Behavior (TPB), Theory of Reasoned Action (TRA), and Extending Unified Theory of Acceptance and Use of Technology (UTAUT2), this study endeavors to prove all major constructs significantly affect consumer purchase intention, even though the time and circumstances have changed. And lastly, this study endeavors to confirm that

the idea concept that trust, risk and benefit perception are still the most influencial factors in online marketplaces.

### 1.4.2 Practical contributions

According to the above mentioned the important of trust, risk and benefit perception in C2C electronic classified marketplaces, the study shows trust, risk and benefit perception of consumer could possibly be administrated by an involving party (Mayer, Davis, & Schoorman, 1995). Both seller and intermediary could apply outcomes of this study to enhance the operation of their online platform and application in such market to fulfill consumers' satisfaction and impression. Those enhancing factors also suggest successful completion of online purchase transaction in C2C electronic classified marketplaces by providing an essential determinant of consumer trust, risk and benefit perception related to their intention to purchase. Involving parties could apply such result to attract potential consumers who would like to purchase online, still untrusted with seller, intermediary and system. The research findings support developments by examining insightful relationships between consumers' trust, risk and benefit perceptions regarding the five categories of antecedents. Likewise the consequence will provide details of how the antecedents will affect trust, risk and benefit perception of consumer and how does trust, risk and benefit perception will affect consumer purchase intention in C2C electronic classified marketplaces. Furthermore, this study also provides both direct and indirect effect of the antecedents to consumer purchase intention. The study indicates types of trust, risk and benefit perception, of which seller and intermediary could be prioritized in online purchase behavior.

More practically, the research finding may be applied any other fields apart from electronic commerce applied largely in research study, C2C may also be applied in other fields such as financial, applied science, or even education. C2C, in various purposes, may be replaced by a peer-to-peer system, and always be mentioned in related research about sharing economy. Sharing economy is an umbrella term which describes transactions that support resource sharing. This term was first mentioned in 2008 and signifies "collaborative consumption made by the activities of sharing, exchanging, and rental of resources without owning the goods" (Lessig, 2008). In the

economic transaction context, this refers to usage of an object that could be a physical good or service and the consumption is separated into single parts. Each part is collaboratively consumed in C2C coordinated network through online community services or through intermediaries in B2C electronic business models ( Hamari, Sjöklint, & Ukkonen, 2015). The Sharing Economy connects social network research as collective intelligence with an area of online social commerce, of which is established in C2C collaborations. Social commerce is a form of electronic commerce, mediated by social media to support online social interactions where users contribute by buying and selling products and services activities via social media (Liang & Turban, 2011). The ownership transfer of products and services is not the focus of the sharing economy, as bookings and payments are the domain of social commerce in C2C transaction (Puschmann & Alt, 2016).

In many research studies, the term peer-to-peer has been used instead of C2C; however, its meaning makes more sense in system or computer way than in marketing one. Economically, P2P has substantially reduced transaction costs and released a massive amount of resources by making those resources available to others, of which will enable the highest utilization through existing use patterns and sharing consumption. P2P usually engages with more convenient, social, varied, sustainable, anti-capitalistic, and inexpensive choice of consumption (Belk, 2007; Leismann, Schmitt, Rohn, & Baedeker, 2013; Matzner, Chasin, & Todenhöfer, 2015). Thereupon, stakeholders in C2C electronic classified marketplaces as P2P platform will obtain their preferable price that sellers are willing to sell, and buyers are willing to search and compare product's details and price as they needed.

# **CHAPTER 2**

# CONCEPTUAL DEVELOPMENT: RESEARCH MODEL AND HYPOTHESIS

This chapter provides a complete research model grounded in the technology acceptance research field, and related theories which influenced to the research model. This chapter will provide an overview of construct variables from prior studies related to the research development model, details on how each concept has been interpreted in previous literature whereby enable reader to understand the meaning of research construct. The theoretical discussion in this chapter will make a link between role of trust, risk and benefit perception and its antecedents, of which effect to consumer attitude toward purchasing intention in C2C electronic classifieds marketplaces in Thailand. Furthermore, the study indicates antecedents of trust and risk perception, and classifies them into four different types (Dan J. Kim et al., 2008). There will be an explanation of C2C electronic classifieds marketplaces and P2P system to clarify the concepts, and to gain a deep understanding between the two different types of C2C electronic commerce. Each construct will be thoroughly explained based upon literatures and describe relationship between them. Theoretical discussion in this chapter will explain the relationship between those construct variables and the impact of latter concepts on consumer attitude that will affect to their online purchasing behavior. Lastly, this study provides related theories which link to the modification of the research model.

# 2.1 Completed theories grounding on individual technology acceptance research field

All knowledge and research are required for the critical examination based upon previous studies. Generally, the research model testing has been examined by different research fields to confirm whether time and circumstance have changed, but the validity, reliability, and consistency of such completed theories have remained the same. The primary process of empirical study is the model validation testing by validated instrument of each construct in a current study because the research methodology approach might be changed (Sundaravej, 2010). The following completed theories are based on the technology acceptance research field, which show the determinants effect on perception with different dimensions individually.

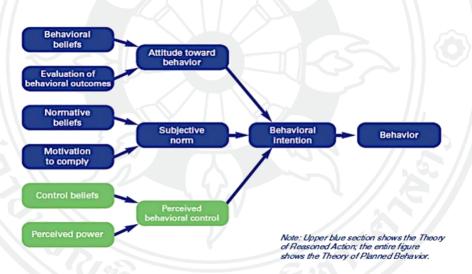


Figure 1: Theory of Reasoned Action (TRA) and Theory of Planned Behavior (TPB) by Martin Fishbein and Icek Ajzen

# 2.1.1 Theory of Reasoned Action (TRA)

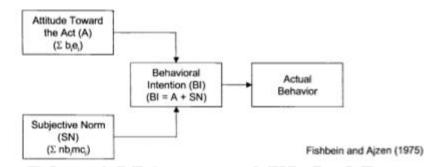


Figure 2: Theory of Reasoned Action (TRA) by Martin Fishbein and Icek Ajzen (1975)

Theory of Reasoned Action (TRA) was developed by Fishbein and Ajzen (1975) and Icek Ajzen and Fishbein (1980). The model determined that behavioral intention is the immediate antecedent for behavior grounded upon the concept that personal belief and attitude will affect performing such behavior intention, then an intention drives actual performance as Figure 1 and Figure 2. Fishbein and Ajzen (1975) separated antecedents of beliefs to behavior intention into two concept sets, behavioral and normative. TRA focuses on a person's intention to behave a certain way. An intention is a plan or a likelihood that someone will behave in a particular way in specific situations by looking at a person's attitude towards that behavior as well as the subjective norms of influential people, which could influence those attitudes. Theory of Reasoned Action suggests that a person's actual behavior is determined by attitude toward behavior and subjective norm, which leads to personal intention to perform their unique behavior. Intention is the finest predictor of each behavior as cognitive representation of a person's willingness to perform a given behavior, considered as immediate preceding factor in every behavior. Intention is defined by two things: attitude toward specific behavior, and subjective norms. So, the more favorable attitude and subjective norm is, the greater individual intention to perform a behavior.

TRA is as essential model to explaining attitudes of consumer towards an action throughout behavioral intention (Fishbein & Ajzen, 1975), which presumes two independent of behavioral intention to determinants as attitude towards behavior and subjective norm. Both concepts are related to consumers' behavioral and normative

beliefs. Figure 2 shows how the model will predict consumers' actual behavior. Attitude toward behavior posits that the degree of consumer's favorable or unfavorable reaction as appraisal and evaluation, toward such behavior. Normative beliefs are identified as the probability that necessary reference individuals or groups approve or not in a given behavior. Sheppard, Hartwick, and Warshaw (1988) suggested that there are plenty of studies have used Fishbein and Ajzen (1975) model in goal circumstances, even though the primary of model was created to deal with behaviors, not consequence of behavior. TRA model had proven a remarkably robust when it generalized beyond theoretical supports, and was widely applied in research different aspects, included an acceptance of new technology model (Fred D Davis, Bagozzi, & Warshaw, 1989; Scannell, 1999). TRA practically presumes that all constructs are indirectly influenced by behavior, by effect to social norm, attitude, and others related factors. Internally, TRA variables may use a common frame of reference to integrate future study.

# 2.1.2 Theory of Planned Behavior (TPB)

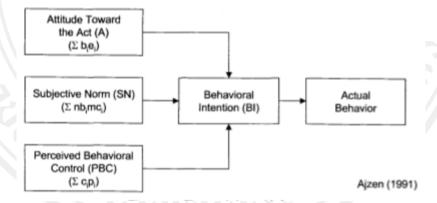


Figure 3: Theory of Planned Behavior (TPB) by Martin Fishbein and Icek Ajzen (1991)

In 1991, Theory of Planned Behavior or TPB was developed by Icek Ajzen, which was an extension of Theory of Reasoned Action or TRA. The TPB model begins with the TRA model, and then adds perceived behavioral control. An existing TRA is limited by dealing with incomplete control of a particular behavior. Based upon original model as TRA, TPB's main goal is to determine a personal intention which aims to perform a given behavior. Ajzen presumed that an individual's

intention is a motivated constituent would effect a behavior regarding the willingness to try and the effort to perform such thing. Generally, the more intention that individual would like to involve with a behavior, the more possibility that individual will perform in actual behavior. Therefore, TPB added the boundary condition of control including personal beliefs regarding the possession of essential resources individually and the opportunity to perform such behavior. When people recognize that they own more resources and have an opportunity to achieve or possess something, then the better individual will have perceived behavioral control over those behaviors. Icek Ajzen (1991) recommended that people's behavior would be influenced by their perception about how confident that they perceived they have ability to perform and control over such behavior, which is known as perceived behavioral control. Furthermore, prior studies explained self-efficacy belief as a factor that influences an individual's thinking pattern, emotional reaction, and performance (Bandura, 1982, 1991). In TPB concept, Icek Ajzen (1991) identified self-efficacy as a perceived behavioral control and places it into the original TRA model to explore the relationship among belief, attitude and intention.

TPB was developed to compensate for TRA's chief drawback which is a lack of consideration in control. As Figure 3 shows, TPB presumes three independents of behavioral intention to determinants as attitude toward behavior, subjective norm, and perceived behavioral. These three types of belief are related to behavioral, normative, and control. Attitude towards behavior and subjective norm are similar to the previously discussed TRA. Furthermore, perceived behavior is a key difference between TRA and TPB. Perceived behavioral control is defined as a consumers' perception of how easy or difficult it is to performing such behavior, depending on different circumstances and actions. Also, control beliefs are measured by resources and opportunities possessed by individuals, and consider with an anticipated hindrance. The more favorable the consumer's attitude of social norm is toward a behavior, the greater the consumer intention to perform a given behavior. Essentially, an association between attitude toward behavioral, subjective norm, and perceived behavioral control in a predicted intention is expected to transfer across behaviors and

circumstances. As a consequence, in some circumstances, probably only one or two constructs might be significant.

# 2.1.3 A Technology Acceptance Model (TAM)

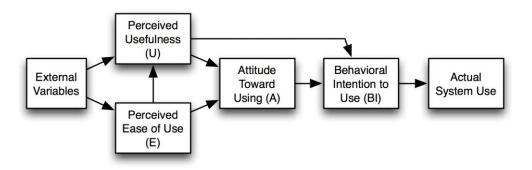


Figure 4: Technology Acceptance Model (TAM) by David (1989)

Technology Acceptance Model (TAM) was developed by Fred D. Davis (1989), is an essential model in information systems/information technology (IS/IT) acceptance used to examine individual intention to accept and use new technology. TAM was developed to describe a computer-usage behavior, of which is based on the theory of reasoned acting (TRA) (Fishbein & Ajzen, 1975). TRA posited that individual's beliefs influence their attitudes, which then turn into intentions, and then subsequently generate such behaviors (P. J. Hu, Chau, Sheng, & Tam, 1999). TAM applied TRA to an information technology acceptance model. TAM aimed to "provide an explanation of the determinants of computer acceptance that is general, capable of explaining, while at the same time being both parsimonious and theoretically justified" (Fred D Davis et al., 1989). Based upon an extension of the TRA model, TAM introduced the two concept of beliefs, perceived ease of use (PEOU) and perceived usefulness (PU) to represent usage's perceptions and experience about using such particular system based upon how easy and useful to use that system individually. Fred D. Davis (1989) determined perceived ease of use as "the degree to which a person believes that using a particular system would enhance his or her job performance" and perceived usefulness defined as "the degree to which a person believes that using a particular system would be free of effort". Prior studies suggested that TAM is an appropriate model to explain technology acceptance behavior of information system with different circumstance across different countries and levels of expertise (Gefen, Karahanna, & Straub, 2003a; Gefen, Karahanna, et al., 2003b; Rose, Khoo, & Straub, 1999). TAM has been examined in the context of work-related activity. Otherwise, TAM can be applied to a non-organizational setting (Agarwal & Karahanna, 2000; Fred D Davis et al., 1989; Fred D Davis, Bagozzi, & Warshaw, 1992; Mathieson, 1991; Szajna, 1994), also including electronic commerce (Gefen, Straub, & Boudreau, 2000; Gefen & Straub, 2000; Lederer, Maupin, Sena, & Zhuang, 2000; D. Lee, Park, & Ahn, 2001). Basically, TAM is representing voluntarily intentions to accept when to use a new technology. Gefen et al. (2000) applied TAM to electronic commerce with underlying logic that IT users will rationally react when they choose to use such technology. For a decade of using TAM in the electronic commerce field, prior scholars suggested that the model is properly applied into this kind of context.

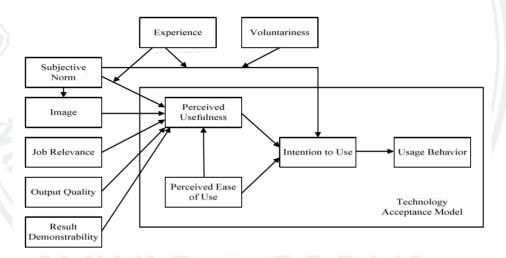


Figure 5: Extended Technology Acceptance Model (TAM 2) by Venkatesh and Davis (2000)

However, in 2000, Venkatesh and Davis (2000) developed Technology Acceptance Model 2 (TAM 2) based upon TAM, with the basis to fulfill drawbacks in the original one. The model integrated two additional processes: social influence processes (Subjective norm, image, voluntariness) and cognitive instrumental processes (perceived usefulness, job relevance, result demonstrability, output quality). Both of these processes were critical factors to the study of user acceptance. TAM was developed to explain why users accept or reject an innovation of information

system. Meanwhile, TRA was aimed to describe and predict individual behavior. TAM emphasized the influence derived from internal beliefs and external variables, which indicated that IT usage could be explained by perceived usefulness and perceived ease of use. TAM 2 extended an original TAM model to explain usage intentions and perceived usefulness in terms of cognitive instrumental processes and social influence. The difference between original TAM and TAM 2 model is the addition of three additional variables: "subjective norm", "voluntariness", and "image" (Venkatesh & Davis, 2000). In TAM2, subjective norm is defined as a social influence variable, which is more appropriate to the present study. Venkatesh and Davis (2000) determined that the social norm concept impacts an opportunity for individuals to adopt or reject a new system. People may choose to perform a behavior, even though it is not their favor towards those chosen behavior and consequences. Both TAM and TAM2 are widely used to study why consumers use or adopt new technology (Jen Her & Shu Ching, 2005; Kenneth CC, 2007). Fishbein and Ajzen (1975), Venkatesh and Davis (2000) determined subjective norm as an individual perception, where someone influences to them think that such behavior should or should not be performed. In TRA, subjective norm has a direct effect on behavior intention (Venkatesh & Davis, 2000). In addition, perceived usefulness (PU) is determined as "the degree to which a person believes that using a particular system would enhance his or her job performance" (Fred D. Davis, 1989). Whether people tend to use or not use a technology or application, is ground on their belief that a technology will help them to perform their job better. Perceived-ease-of-use (PEOU) is described as "the degree to which a person believes that using a particular system would be free from effort".

# 2.1.4 Diffusion of Innovation Theory (DOI) 2.5% Innovators Early Adopters 13.5% Early Majority 34% Late Majority 34% Late Majority 16%

Figure 6: Diffusion of Innovation Theory (DOI) by (E. Rogers, 1995)

Everett M. Rogers introduced Diffusion of Innovations Theory (DOI) in 1962 to explain how new technology extends through different cultures and perspectives, and an individual's willingness to adopt and use such technology until last stage of technology life cycle where there is an innovative technology coming to replace an existing one. The main concept of DOI theory is "the process by which an innovation is communicated through certain channels overtime among the members of a social system" (E. Rogers, 1995). E. M. Rogers (2004) identifies an innovation as "idea, practice, or object that is perceived as new by an individual or other unit of adoption". Basically, DOI theory determines that the adoption processes are comprised of four components as: innovation itself, time, communication channel, and individual's society. These four components promote or preclude a user to adopt an innovation (E. M. Rogers, 2004). Prior studies recommend DOI theory as one of the most influential theories in the marketing and communication fields. This theory is also related to four different theories on how to deal with innovation diffusion. The theories are grounding on individual innovativeness, innovation decision process, rate of perceived attributes and rate of adoption.

As Figure 6 shows, Diffusion of Innovation theory is explained by a bell-shaped curve to exemplify the percentage of individual to adopt innovative technology in different stages. Initially, innovators who account for 2.5% are the explorer and risk taker who would like to try new things without any hesitation. Secondly, the early adopters who comprise 13.5% are the group of people who are willing to try something new at an early stage and help to spread the word by mouth about such

technology to others. Next, the third and fourth groups at 34% each, are the early majority and the late majority. The early majority is the group who received feedback from innovators and early adopters, but the late majority will wait to see that adoption new technology is their best choice. Lastly, the laggards account for 16% of the adoption population. These are people who are highly opposed and skeptical of adopting new technology until it's necessary. This group will never adopt any innovation occasionally (E. Rogers, 1995).

# 2.1.5 Motivational Model (MM)

In psychology, motivation model (MM) was developed by (Fred D Davis et al., 1992), to explore and support that general motivation is an explanation for behavior. A user will desire to engage a behavior grounded on both intrinsic and extrinsic motivations. Intrinsic motivation is defined as someone who would like to perform an activity "for no apparent reinforcement other than the process of performing the activity per se" (Fred D Davis et al., 1992). Extrinsic motivation is defined as someone who would like to perform an activity "because it is perceived to be instrumental in achieving valued outcomes that are distinct from the activity itself, such as improved job performance, pay, or promotions" (Fred D Davis et al., 1992). This model has been applied to a variety of contexts such as couple happiness (Blais, Sabourin, Boucher, & Vallerand, 1990), children's behavior (Chandler & Connell, 1987), and weight loss (Williams, Grow, Freedman, Ryan, & Deci, 1996). Prior scholars also applied motivation theory for technology adoption. Extrinsic motivation is posited as perceived usefulness, "a person's expectation that using the computer will result in improved job performance" (Fred D Davis et al., 1992) and intrinsic motivation signifies enjoyment: "The extent to which the activity of using the computer is perceived to be enjoyable in its own right, apart from any performance consequences that may be anticipated" (Fred D Davis et al., 1992). Venkatesh (1999) researched on the role of intrinsic motivation in technology acceptance, and the result showed that intrinsic motivation is connected to perceived ease of use, which enhances behavior intention to use technology.

### Affect Encouragement Computer by Others Self-efficacy Others' Use Outcome -Expectations Anxiety Performance Support Usage Outcome -Expectations Personal Source: Compeau & Higgins., (1995b)

# 2.1.6 Social Cognitive Theory (SCT)

Figure 7: Social Cognitive Theory (SCT) by D. R. Compeau and Higgins (1995b) based on Bandura (1986)

Social Cognitive Theory (SCT) was developed by Bandura (1986). It explains human behavior being influenced by the interaction of personal factors such as personal thoughts or cognitions, biological events, external environment, and behavior (Bandura, 1986). SCT is one of the most influential models involving human behavior. Bandura (1977) introduced the concept of self-efficacy. D. R. Compeau and Higgins (1995b) applied SCT to the study of computer utilization, which is comprised of five major constructs: computer self-efficacy (individual judgment to use technology to achieve a particular task), outcome expectations-performance (task-related consequences of behavior which relate to performance), outcome expectations-personal (consequences of personal behavior), affect (an individual favorable for such behavior) and, anxiety (a person's anxious or emotional reaction to ideas and the act of performing a particular behavior) (D. R. Compeau & Higgins, 1995b). The result of the study showed that computer self-efficacy directly affects actual computer use, affect, and personal expectation of the consequence of using computers (D. R. Compeau & Higgins, 1995b).

# Perceived Usefulness (PU) Attitude (ATT) Perceived Ease Of Use (PEOU) Subjective Norms (SN) Perceived Behavioral Control (PBC) TPB Model

# **Combined -TAM-TPB (C-TAM-TPB)**

Figure 8: Combined -TAM-TPB (C-TAM-TPB) by S. Taylor and Todd (1995)

Combined TAM and TPB (C-TAM-TPB) is a combination between TAM (Fred D. Davis, 1989; Fred D Davis et al., 1989) and TPB, of which developed by S. Taylor and Todd (1995). The model included inexperienced and experienced users together. Venkatesh, Morris, Davis, and Davis (2003) stated that attitude toward behavior, perceived usefulness, and perceived behavioral control are essential factors to increase a user's experience, otherwise subjective norm will have less influence to increase experience. To implement new or innovative technology, the explanation of user behavior whether to accept or not must always be considered. The combination between TAM and TPB was introduced to be a holistic understanding of an individual's technology acceptance. Subjective norm and perceived behavioral control in TAM are considerable factors in TPB as well. Thus, cognitive influences, which are indicated by TAM, may serve as an essential precedent of attitudinal beliefs in TPB. Reciprocally, this model enhances TAM's explanatory power via the potential to add other important dimensions to an individual's technology acceptance. Furthermore, C-TAM-TPB has a significant Goodness-of-Fit to explain a user's behavior in accepting and using new technology.

# Performance Expectancy **Effort** Expectancy Behavioral Use Intention Behavior Social Influence Facilitating Conditions Voluntariness Experience Gender Age of Use

# 2.1.7 Unified Theory of Acceptance and Use of Technology (UTAUT)

Figure 9: Unified Theory of Acceptance and Use of Technology (UTAUT) by

Venkatesh et al. (2003)

Unified Theory of Acceptance and Use of Technology (UTAUT) was developed by a group of technology acceptance researchers. They were Viswanath Venkatesh (who developed TAM2 associated with Fred Davis), Michael Morris, Gordon Davis and Fred Davis (who developed TAM and Motivation Model) to identified individual needs to explain the view of user to accept and use a particular technology (Venkatesh et al., 2003). Due to the comprehensive review of technology acceptance literature, Venkatesh et al. (2003) reviewed eight prominent models with thirty-two major constructs, which was developed and tested by prior researchers to discover factors that influenced an individual's decision of using a computer, where behavior intention is the key dependent variable. The eight related models are Theory of Reasoned Action (TRA) by Fishbein and Ajzen (1975), Theory of Planned Behavior (TPB) by, Technology Acceptance Model (TAM) by Fred D. Davis (1989) and Fred D Davis et al. (1989), Innovation Diffusion Theory (IDT) by E. Rogers (1995), Motivation Model (MM) by Fred D Davis et al. (1992), Combined TAM and TPB (C-TAM-TPB) by S. Taylor and Todd (1995), Model of PC Utilization (MPCU) by Thompson, Higgins, and Howell (1991) and Triandis (1977), and Social Cognitive Theory (Bandura, 1986), (D. R. Compeau & Higgins, 1995a), (D. R. Compeau & Higgins, 1995b), (D. Compeau, Higgins, & Huff, 1999).

UTAUT was developed based upon four major aspects of individual intention and usage. UTAUT use a particular technology as facilitation conditions, effort expectancy, social influence, and performance expectancy. Also, there are several key moderators such as age, gender, experience, and voluntariness of use (Venkatesh et al., 2003). Based upon previous technology acceptance model, UTAUT is presumed to be the most rigorous and comprehensive model development that could explain user behavior to adopt new technology. UTAUT model claims that this theory can explain variance between behavior and intention in the information technology aspect, of which can explain 69% of individual technology acceptance while other existing models are approximately explaining only 40% in this particular dimension (Venkatesh et al., 2003). The model is comprised of several constructs related to user intention to adopt and use IT. For performance expectancy (PE), Venkatesh et al. (2003) determined the degree that an individual perceived using such technology will help them to achieve job performance. The scholar integrated and included related concepts from any other model into the PE construct, such as extrinsic motivation (Fred D Davis et al., 1992), job fit (Thompson et al., 1991), perceived usefulness (Fred D. Davis, 1989), relative advantage (Moore & Benbasat, 1991), and outcome expectancy (D. Compeau et al., 1999). Effort expectancy (EE) is defined as how easy it is to use a technology. The main idea of this construct is the same as perceived ease of use concept in DOI, TAM, and MPCU theory.

Social influence (SI) is defined as the perception of how important it is that others' beliefs will influence an individual's intention both directly and indirectly. Venkatesh et al. (2003) had combined existing concepts of prior studies, such as subjective norm from TRA, TPB, TAM2, image from DOI theory, and social factor in MPCU underneath the concept of social influence in UTAUT. Facilitating conditions (FC) is defined as individual perception on how organizations will support them to use a technology. This construct is similar to the concept of perceived behavioral control (TBP and C-TAM-TPB), compatibility (DOI theory), and facilitating conditions (MPCU). Lastly, voluntariness of use (VO) is identified as the perception

on choices that individuals have the free will to use a technology or not (Venkatesh et al., 2003).

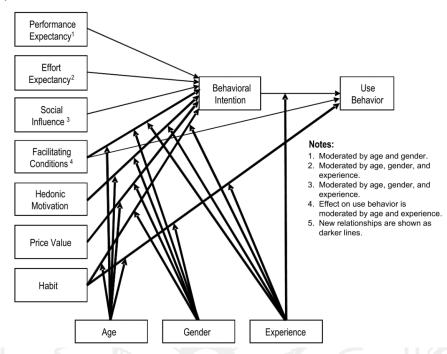


Figure 10: Extending Unified Theory of Acceptance and Use of Technology (UTAUT2) by Venkatesh et al. (2012)

In the past decade, UTAUT has been applied to a variety of technologies usage research, and has been validated as a robust model in both non-organizational and organizational settings. Due to an increasing of technology, the study has applied to concentrated on individual usage setting. UTAUT2 has been adjusted for a consumer use context by adding three constructs: price value, hedonic motivation, and habit (Venkatesh et al., 2012). An idea of UTAUT2 was outlined by Alvesson and Kärreman (2007) and Johns (2006) to extend an existing theory by leveraging a new context. The main objectives of UTAUT2 were to identify three major constructs based on UTAUT on both consumer adoption and use of technology and general adoption and use of technology. Secondly, the model aimed to alter an existing relationship in the original UTAUT. Lastly, it introduced a new relationship. Prior researches on consumer behavior and information system found that hedonic motivation is important in technology use and consumer products (S. A. Brown & Venkatesh, 2005; Holbrook & Hirschman, 1982; Nysveen, Pedersen, & Thorbjørnsen, 2005; Van der Heijden, 2004). Consumer context is significantly different from the

workplace context. Consumers are responsible for the cost, which is an essential factor and could dominate consumer adoption decisions (S. A. Brown & Venkatesh, 2005; Chan, Gong, Xu, & Thong, 2008; Coulter & Coulter, 2007; Dodds, Monroe, & Grewal, 1991). Lastly, habits are integrated into UTAUT to complete the theory's concentration on intentionality as a key driver of behavior and the coverage mechanism.

### 2.2 Theoretical foundations

## 2.2.1 C2C electronic classified marketplaces as P2P System

	Consumer or citizen	From: Supplier of content/service  Business (organisation)	Government
Business (organisation) Consumer or citizen	Consumer-to-Consumer (C2C)  • eBay  • Peer-to-Peer (Skype)  • Blogs and communities  • Product recommendations  • Social networks: MySpace, Bebo	Business-to-Consumer (B2C)  Transactional: Amazon Relationship-building: BP Brand-building: Unilever Media owner – News Corp Comparison intermediary: Kelkoo, Pricerunner	Rovernment-to-Consumer (G2C)     National government transactional: Tax – inland revenue     National government information     Local government services
Business (organisation)	Consumer-to-Business (C2B) Priceline Consumer-feedback, communities or campaigns	Business-to-Business (B2B) Transactional: Euroffice Relationship-building: BP Media Owned: Emap business publications B2B marketplaces: EC21	Government-to-Business (G2B)     Government services and transactions; tax     Legal regulations
Government	Consumer-to-Government (C2G)     Feedback to government through pressure group or individual sites	Business-to-Government (B2G)     Feedback to government businesses and non-governmental organisations	Government-to-Government (G2G)     Inter-government services     Exchange of information

Figure 11: Types of electronic commerce by Chaffey (2015)

According to figure 11, Chaffey (2015) posited that there were nine different types of electronic commerce based upon two major parameters, initiator or seller and targeted consumer. Electronic commerce is defined as "using electronic information technology to conduct business between trading partners, using or not using electronic data interchange (EDI), using or not using the Internet" (Newton, 1998). Since 1965, the practice of electronic commerce has been in use. For example, consumers could withdraw their money from Automatic Teller Machines (ATMs) and could make purchases via credit cards at point of sales terminals (Molla & Licker, 2001).

Fellenstein and Wood (2000) and Senn (2000) determined that the term of "electronic commerce" was practically synonymous with "electronic data interchange (EDI)". EDI is known as a standardized form of computer-to-computer communication. Vladimir (1996) identified electronic commerce as "the sharing of business information, maintaining business relationships and conducting business transactions by means of telecommunications networks".

However, there are four popularity types of electronic business model that prior research usually mentions. These are business-to-consumer (B2C), business-tobusiness (B2B), consumer-to-consumer (C2C), and consumer-to-business (C2B). B2C represents businesses or companies selling directly to the general consumer via shopping cart software. B2B represents companies doing business between each other. An example would be wholesalers selling to retailers, and manufacturers selling to distributors, where normally the selling price is based upon quantity and negotiable. C2B is a consumer's project with a limited budget, and companies that are interested in such consumers will review requirements and bid on their projects. Furthermore, there are other forms of electronic commerce involved with government. are consumer-to-government (C2G), government-to-consumer (G2C), business-to-government (B2G), government-to-business (G2B), and government-togovernment (G2G), which related to procurement of taxes filling of business registration to renew its licenses. This study concentrates on the C2C electronic business model. There are many different categories of C2C, like auctions, classifieds, and forums, where individuals are able to buy and sell products through online marketplaces (Khan, 2012).

Based on prior studies, C2C e-commerce is defined as an online location that allows and supports IT activities and services. The ones who provide the online location or platform where consumers meet and engage in transactions, are the intermediaries who specify the rules and procedures. C2C electronic commerce consists of two different types of market, electronic marketplaces and classifieds or P2P system. In general, prior scholars concentrated their studies on the auction-based aspect of C2C e-commerce. eBay is one of the most successful and famous C2C electronic auction-based in the world (H. Zhang & Li, 2006). Generally, C2C electronic marketplaces use auctions as their selling price mechanism, where a

minimum selling price is set into market, and the auction lets consumers bid for the price that they are willing to pay. The bidding process has a time limit, so the consumer who bids the highest price at the end, will be the one who wins in a particular transaction. However, there is another strategy to set a selling price in C2C online marketplaces, of which known as non-auction based. At the beginning of the diffusion period in C2C, auction based strategy was quite popular in electronic commerce. Using auctions dramatically increased eBay's revenue. But as time went by, consumers' behavior has changed, and non-auction based seems to be popular after all. In a non-auction based strategy, sellers set their selling price by using a fixed price mechanism. Consumers who want to buy the product will know exactly how much they need to pay; the price could be decreased depending on consumer bargaining power and sellers' judgment.

The difference between auction and non-auction based is not only in the selling price mechanism, but also in the rules and regulations. For an auction based transaction, the regulation is more strictly controlled, compared to a non-auction based transaction because its pricing mechanism is determined by a user bidding process, where false users may use fake accounts to increase price only for their enjoyment while they are not actually interested in a particular products and services (Chua, Wareham, & Robey, 2007). C2C electronic classifieds marketplaces is anticipated to grow in electronic marketplaces because the cost of using third parties is declining, and consumers have plenty of product choices to choose whatever they want at the highest satisfaction level. However, C2C electronic classifieds marketplaces have some major concerns, like lack of quality control or payment guarantees. Consumers feel that it is hard to trust credit card payment systems in C2C transaction. Thus, PayPal and other payment systems eliminated this problem by launching systems to guarantee payment (Plouffe, 2008).

Transaction of goods and services among individuals, located in online marketplaces and "peer-to-peer" (P2P) system is critical in shaping an existing online business landscape (Plouffe, 2008). A P2P exchange is usually identified as a form of "consumer-to-consumer" (C2C) exchange. So, P2P is an exchange that modified the way individuals have consumed products and services, affecting entire industries (Kessler, 2002; Roth, 2004; Shirky, 2001). Plouffe (2008) determined that P2P

systems work relatively straightforward and are exemplified by two parties. "Peer" is a term used to call an exchange that occurs between two parties. Both are considered as equal in any exchange. Each party accesses the internet via a personal device, and then enters through a service provider platform such as web-based or mobile application. They then search for information of their desired product, compare prices, and read user feedback in both positive and negative ways. Somewhat contradictory, many users get online from different places around the world and enter the same P2P system at same time. There is an area where both parties search and are matched by their product criteria. If other parties claim that he or she has a specific product and would like to sell, then consumer will be able to complete online transaction with a mouse click. Transactions can be completed within a short period of time. Both parties are not known to each other before, and they never have a chance to meet face-to-face. Peers gather together under the similar conditions, to find their needed products and services. As mentioned before, P2P will completely remove the original producer of exchanged product, also known as the intermediary from transaction (Denegri-Knott, Zwick, & Schroeder, 2006). By removing the original producer of products and services in transaction, P2P exchanges adapted a new form of consumption by removing the traditional components from value chain, including wholesalers, distributors, retailers, and even government (levying taxes). It represents an extensive challenge to traditional business and marketing practices in modern history (McGarvey, 2002; Parloff, 2003; Roth, 2004).

Prior studies on C2C electronic business model have focused on conceptual (Gummesson, 2006) or purely theoretical concepts (Gruen, Osmonbekov, & Czaplewski, 2005). Mostly, the applied C2C research concentrated on the auction-based aspect, which called C2C electronic marketplaces as eBay (Melnik & Alm, 2002; Standifird, 2001). Schoder and Fischbach (2003) defined P2P system as "two or more peers collaborating spontaneously in a network of equals (peers) by using appropriate information and communication systems without the necessity for central coordination". This definition is considered as a baseline for this study. Prior scholars testified that online consumers would be able to exchange goods and services with any other marketing channels as they needed, but that they will desire to go online because it will provide an advantages on many different levels (Kaikati, 1976).

Recently, Consumer-to-consumer (C2C) electronic commerce is rapidly growing in online transactions. As a critical term of Meta-analysis, C2C electronic commerce was only signified in field of online auction (K. Jones & Leonard, 2009). C2C transactions are generally involved with selling in new and used products and services based upon an auction or classified system. This business model facilitates an online environment where consumer can normally meet to trade or exchange things. Basically, C2C electronic commerce represents online market environments, where consumers purchase products and services from another consumer or seller by using an intermediary's platform. Third parties, or intermediaries, act transparently to facilitate transactions under their rules and regulations. Also, the sharing economy has been derived from C2C platform which does not include only second-hand economy as eBay, but also selling goods and services between consumers (Frenken, Meelen, Arets, & van de Glind, 2015). C2C platform will generates revenue from fees charge to seller as lists of product item, promotion features, payment systems, and delivering processes (Novak & Hoffman, 2001).

Per worldwide popularity, online auction based C2C seemed more prevalent than non-auction based C2C electronic classified marketplaces. eBay is the most common representative of C2C electronic marketplaces (auction based). Most of sellers on eBay are not official retailers, but are the ordinary consumer who needs to sell unwanted products in online marketplaces. In 2016 (Quarter 2), eBay has reached 164 million buyers worldwide, generated \$2.2 billion of revenue. 58% revenue came from the international sector. Surprisingly, eBay reported that mobile transactions generated \$9.5 billion sales volume on mobile devices (eBay, 2016). Based on prior studies, C2C electronic marketplaces were defined as as marketplaces located on the internet that enable and support an exchange of products and services by using an auction to determine the selling price. Procedures and are obtained from an intermediary who provide an online platform that gathers a pool of sellers and buyers (Bapna, Goes, Gupta, & Jin, 2004; Cheng, Chan, & Lin, 2006; Pavlou, 2002). There are some major differences between C2C electronic marketplaces and C2C electronic classified marketplaces. As stated before, the mechanism to determine prices are significantly different. C2C electronic marketplaces set minimum price at the start, then allow consumers to bid for the highest affordable price within a limited

time duration. Consumers who bid the last highest price will win the bidding competition. In contrast, seller in C2C electronic classified marketplaces will set a standard selling price, price could be adjusted or discounted by on seller themselves. Consumers know the exact price before making the decision in online purchase. In addition, rules and regulation of those two types of C2C business model are considerably different. The marketplaces model requires far more regulation than the classified model because C2C electronic marketplaces use an auction mechanism to determine selling price. The price increments are base upon consumers' offers, where fraudulent bidding behaviors can happen and adversely affect the whole bidding process. False consumers enter bids to drive up the prices even though they are not interested in buying the product and service in the end of auction (Chua et al., 2007). Intermediaries normally provide a formal control to manage and control online transaction environments properly, and also protect stakeholders by screening all parties before granting rights to make transactions. Intermadiaries monitor behavior of users on their website, offer assurances to compensate for both consumers and sellers while they have been cheated, and control website activities by enforcing both parties with strictly contracts and regulations (Ba & Pavlou, 2002; Pavlou, 2002; Pavlou & Gefen, 2004, 2005). In contrast, in C2C electronic classifieds marketplaces, the intermediary will provide less formal control because a product's price is already fixed, which could be adjust based upon seller's decision or intermediary promotion strategy. C2C electronic classified marketplaces are seen as an online form of traditional printing in newspapers and magazines (Meents, 2009). Consumers can go online window-shopping before deciding to buy products and intermediary will function as a hosting platform where consumer and seller and can meet.

In Southeast Asia which age between 16 and older, there are approximately 150 million (out of a total population of 400 million) digital consumers, ages 16 and older, that search for product online. From those searches, 24% are from clothing and footwear and 18% are in travelling categories that consumers used to purchase online. To become a successful online retail business in this country, seller and intermediary must have a clear understanding about the rapid shifting behavior of Southeast Asia online consumers. The business must try to generate the ecosystem as part of a cohesive operating strategy. It must also build a solid infrastructure. Primarily,

consumers access the digital platform though mobile phones. 85% of digital consumers in Thailand use mobile devices for online purchases, and not living in metropolitan hubs. Generally, consumers prefer to use search engines when looking for products rather than checking company websites. Social commerce is highly influencial in Southeast Asia, as more than 80% of online consumers widely use social media such as photo-sharing in Instagram and messaging applications such as Line to interact with sellers and research for product information (Hoppe et al., 2015).

Hajli (2015) defined social commerce as a subset of electronic commerce, which is categorized as C2C electronic classified marketplaces. Prior studies broadly defined it as a form of internet based "social media" that allow both buyers and sellers to participate in buying and selling products and services via online marketplaces and communities (Tedeschi, 2006). According to Thai's perspective, ETDA (2016) reported 49.7% of Thai internet usage had been purchased via social media. Females tend to purchase products and services more than males. Consumers tend to purchase clothing and footwear, bags, peripheral devices, and cosmetics respectively. Generally, 76% of online consumer made purchases via social media because it is easy and convenient to contact sellers. 45.7% received a good promotion that satisfied consumers. 34.7% consumers trusted sellers. Social media, which Thai consumer used to buy and sell products and services, are Facebook (92.1%), Line (85.1%), and Instagram (43.9%) respectively. There are 37 million Facebook users in 2015, and more than 10,515 online Facebook retailers. Meanwhile, online retail shops on Instagram reached 11,213 in 2015 (ETDA, 2016). The popularity of Thai electronic commerce has dramatically increased in C2C electronic classified marketplaces because consumers and sellers feel it is convenient to enter the platform, and also the ease of use, which they already feel familiar with these platforms.

On the other hand, the main obstacle in electronic commerce is that 97.5% consumers visit online shops and leave sites without purchasing any products or services. Thai digital consumers approximately spend average 7 hours per day using the Internet. There are some reasons that consumers do not purchase online; 57.6% are afraid of fraud transaction, 42.1% say because of lacking of touch and feel, and 32.2% say because there is no choice of product. A broad range of languages, ethnicity, regulations, and consumer preferences also prevent Thailand from the

expanding electronic commerce into the global market (ETDA, 2016). Consumers still do not fully trust electronic platforms because they are inherently concerned about lacking of touch and feel, lack of solid payment and logistic infrastructure in online purchases (Quader & Quader, 2008). Hoppe et al. (2015) suggested consumers are more focused on past experiences and product choices rather than price.

As aforementioned, trust and risk's perception of consumers are a major concern in electronic commerce. Other types of e-commerce model as B2G, B2B, and B2C, sellers already have a reputation to certify consumers' trust. But for C2C electronic classified marketplaces, sellers are unknown in the market, and consumers likely feel uncomfortable in completing online transactions with them. This kind of electronic marketplace supposedly has a higher risk perception and lower trust than other marketplaces. Trust has been a concern as a key success factor in online business (Gefen & Straub, 2004; Dan J Kim, Song, Braynov, & Rao, 2005; M. K. Lee & Turban, 2001). The proposed model in this study has originated from prior studies as Bilkey (1953), Bilkey (1955), Lewin (1943) and also a combination of Theory of Planned Behaviors (TPB), of which extended from Theory of Reasoned Action (TRA) (Icek Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) and an Extending Unified Theory of Acceptance and Use of Technology (UTAUT2) Venkatesh et al. (2012). As complex human behavior is difficult task to deal with, there are many different levels of concentration in the physiological processes. Social and personality psychologists tend to focus on behavioral dispositions, of which individuals' behavior is affected by biological and environmental factors. Personal traits and social attitudes play an important role to predict and explain an individual behavior (I Ajzen, 1988; Campbell, 1963; Sherman & Fazio, 1983). The theoretical framework is developed from Lewin (1943), Bilkey (1953), and Bilkey (1955) theories to explore consumers' purchase decisions based on intention to purchase. The basic theoretical framework is the underlying logic that a consumer's intention is affected by trust, risk and benefit perception toward selling entity as Figure 12.

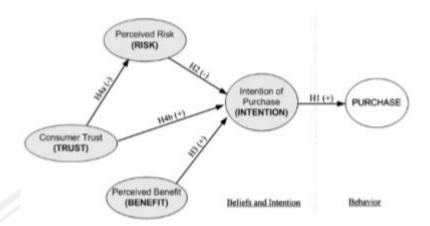


Figure 12: Basic theoretical framework by J. Paul Peter and Tarpey (1975),
Bauer (1960)

J. Paul Peter and Tarpey (1975) suggested that consumer decision-making models be labeled as "cognitive-rational", which concentrated on risk and utility of Their decision making is based upon goal direction, products and services. calculation, and prediction on knowledge of cost and benefit in all alternative choices that consumer have on hands. Mainly, there are three basic formulations. First, there is perceived risk (Bauer, 1960) presumed as consumer generally act to diminish or minimize an expected negative utility related to purchase behavior, conversely there would be less concern to an expected positive utility. As Dan J. Kim et al. ( 2008) suggested incomplete information would directly affect a consumer's perception of risk in buying decision. Secondly, there are perceived benefits based on positive evaluation of consumers' judgment that focus on benefits in return. Online consumer behaviors are always motivated by maximization of benefits and minimization of risk. Both are essentially describe an individual's online behaviors and predicting an intention to purchase such products and services. Alba et al. (1997), Hoffman, Novak, and Chatterjee (1995), Peterson, Balasubramanian, and Bronnenberg (1997) define online purchasing benefits as kinds of convenience, which are not available in traditional one. Consumers who perceive high risk associated with sellers, intermediaries, and platforms are unwilling to complete online transactions. Lastly, the valence concept which is established by Lewin (1943) and Bilkey (1955), Bilkey (1953) suggest that consumers will perceive products in both positive (desirable) and negative (undesirable) valence. By combining perceived benefit and

perceived risk, J. Paul Peter and Tarpey (1975) provided a framework which assumed consumers will perceive products both in positive and negative attributes, but they will make decisions depending on their satisfaction of negative or positive attributes of the decision. The basic framework shows that consumers will make purchasing decisions based their purchase intention, which is affected by trust, risk, and benefit perceptions toward decision making process. Trust and perceived benefit both positively influence purchase intention. Meaning, a consumer with highly trust and perceived positive benefits of product, will feel comfortable to purchase with seller and intermediary. Conversely, perceived risk has a negative affect to intention to purchase. Consumers are more likely to engage in online purchases with low perception of risks. Furthermore, trust towards the selling entity could indirectly affect intention to purchase by minimizing consumer risk perception (Dan J. Kim et al., 2008).

According to the study of Venkatesh et al. (2012), Gefen, Karahanna, et al. (2003b), and Dan J. Kim et al. (2008), this research further studies the extension of the basic framework (Figure 12) to ascertain the influenced of trust, perceived risk, and benefit on consumer's purchase decision by adding the antecedents into the research model. Based on five different categories, this study aims to create a holistic understanding of outcome from previous studies about purchasing intention in C2C electronic classifieds marketplaces. The model also examines both direct and indirect effect of trust and risk to attitude towards purchasing based on Theory of Reasoned Action (TRA) and Theory of Planned Behavior developed by Icek Ajzen (1991) and Extending Unified Theory of Acceptance and Use of Technology (UTAUT2) by Venkatesh et al. (2012). The antecedents of consumer trust and perceived risk will provide a holistic understanding of electronic marketplace with insights and tools to build on consumer trust (Belanger, Hiller, & Smith, 2002) and try to reduce perceived risk in consumers' experience. Similarly, in electronic marketplace, the trust building process in traditional commerce is affected by characteristics of consumer, seller, company, and interactions of involving parties (Burt & Knez, 1995; Patricia M. Doney & Cannon, 1997; D. L. Shapiro, Shappard, & Cheraskin, 1992; Swan, Bowers, & Richardson, 1999). There are five different categories of trust, risk, and benefit antecedents which influence consumer perception towards electronic commerce

entities; cognition-based (e.g., information quality, perceived privacy protection, perceived security protection), affect-based (e.g., positive reputation of selling party), experience-based (e.g., familiarity, experience and habit), personality-oriented (e.g., consumer disposition to trust, hedonic motivation) and calculative-based (e.g. price value) (Barney & Hansen, 1994; Chao C., Xiao Ping, & James R., 1998; Gefen, Karahanna, et al., 2003b; D. Harrison McKnight, Vivek Choudhury, & Charles Kacmar, 2002; Venkatesh et al., 2012; Walczuch, Seelen, & Lundgren, 2001; Zucker, 1986).

# 2.2.2 Antecedents of trust, perceived risk and perceived benefit

Chao C. et al. (1998) and McAllister (1995) associated cognition-based antecedents with consumers' perception and observation regarding the feature and characteristics of trustee identity. It was concerned about information quality, perceived privacy protection, and security protection. Lewis and Weigert (1985) proposed that trust between human relations is based upon cognition and affective foundations. Cognition-based is defined as "we choose whom we will trust in which respects and under what circumstances, and we base the choice on what we take to be 'good reasons,' constituting evidence of trustworthiness" (Lewis & Weigert, 1985). The amount of knowledge that is essential to generate trust is somewhere between total knowledge and ignorance (Simmel, 1964). Obtainable knowledge and good reasons serve as foundations of trust, which allow people to make leaps of faith, involved in trusting (Luhmann, 1979; Simmel, 1964).

Affect-based foundations consist of the emotional attachments between individuals (Lewis & Weigert, 1985). In trust relationship, people invest their emotions by expressing genuine care. They believe in the intrinsic virtue of human relationships, and believe that the sentiments will be reciprocating (Pennings & Woiceshyn, 1987; Rempel, Holmes, & Zanna, 1985). The emotion which bonds individual linkage will provide basis for trust. Chao C. et al. (1998) and McAllister (1995) suggested affect-based of trust antecedents are related to interactions between trustee and external factors that affect a trust decision. Even people for who are forced to behave in an assigned role, they eventually personally choose to act regarding their behavior. To develop affect-based trust, it is important to have a consolation among

people rather than self-interest. (Clark & Mills, 1979; Clark, Mills, & Powell, 1986; Clark & Waddell, 1985; Holmes, 1978; Kelley, 1979; Rempel et al., 1985). Affect-based trust is defined as an individual's attributions regarding motives for other's behavior. It could be measured by frequent interaction of social data to fulfill confident attributions (Lewis & Weigert, 1985).

Experience-based concentrates on the personal experience of a consumer, which involves a trust building process. People will rely on their prior experiences to inform their current and future decisions. The level of reliance depends on certain contexts. Thus, past experiences will be interrupted by unexpected incident which occurs in the relationship (Doorn & Verhoef, 2008). Personality-oriented trust is based on consumers' willingness, ability, and judgment individually. It depends on their dispositional characteristics and habits, which is based on the consumer's nature. Naturally, human behavior and belief are quite arduous to manage (Dan J. Kim et al., 2008). For calculative-based trust antecedents, an idea based on economic principles that a second type of trust building mechanism related to calculative process (Hosmer, 1995). Trust is determined as a rationalization of costs and benefits, of which another party will be able to cooperate with or cheat on such relationship (Buckley & Casson, 1987; Coleman, 1990; Dasgupta, 2000; Lewicki & Bunker, 1995; D. L. Shapiro et al., 1992; Williamson, 1993). With these point of views, trust is derived from economic analysis that occurs during such relationships, where it is worthwhile for both parties to engage an opportunistic behavior (Patricia M Doney, Cannon, & Mullen, 1998; Williamson, 1993). If the costs of being caught is more than the benefits of cheating, then trust is warranted because cheating is not the best choice of another party (Akerlof, 1970). Actually, people may not be necessarily good, but they are calculative, rational, and act in their own highest interest, which makes people avoid inflicting harm on themselves. D. L. Shapiro et al. (1992) posited that calculative trust is deterrence-based, where people will not be involved with opportunistic behavior, and be faced with the adverse consequences of being untrustworthy. In the electronic commerce context, consumer could be expected to trust the seller more, when they believe that seller has more lose by cheating or nothing to gain to break consumer's trust. This paper primarily focuses on consumer's trust, perceived risk, and perceived benefit by exploring the five aspects of its antecedent, which influences consumer purchase intention on both seller and intermediary in C2C electronic classifieds marketplaces.

Meents (2009) suggests the antecedents of online trust, which consist of seller and intermediary behavior and characteristics. Prior studies identified such behaviors and characteristics are trustee's perceived reputation (Ba & Pavlou, 2002; Koufaris & Hampton-Sosa, 2004; Pavlou & Dimoka, 2006), the degree of financial incentive or tangible reward in return to service provider (J. Cho, 2006), the way that seller and intermediary treat users' privacy (Bart, Shankar, Sultan, & Urban, 2005; X. Liu & Wei, 2003; Malhotra, Kim, & Agarwal, 2004; Suh & Han, 2003), perceived business ties between involving parties (Stewart, 2003), communication with trustor (J. Cho, 2006; Lancastre & Lages, 2006; Walczuch et al., 2001), trustee's organization size (Sirkka L. Jarvenpaa et al., 1999), degree of trustee favors trustors' website, performance of seller and intermediary core operations (J. Cho, 2006), responsive message (Ridings, Gefen, & Arinze, 2002), service quality (Harris & Goode, 2004), security practices and confidential communications among involving parties (Suh & Han, 2003). Nevertheless, there are some minor antecedents finding that influence to trust and risk, as communication between trustee and trustor (J. Cho, 2006; Walczuch et al., 2001), presence of offline counterpart (Stewart, 2003), authentication and confidentiality practices (Suh & Han, 2003).

Furthermore, there are some other antecedents, such as feedback rating and comments (Pavlou, 2002; Pavlou & Gefen, 2004), screening of involving party who granted to access into online marketplaces (Pavlou, 2002), certification guarantees by third parties (M. K. Lee & Turban, 2001), payment guarantees by credit card company (Pavlou & Gefen, 2004), perceived presence of a normal situation (Gefen, Karahanna, et al., 2003b; Walczuch et al., 2001), and contractual agreement (Pavlou, 2002). Some prior studies also investigated an impact of formal control mechanisms as perceived effectiveness of institutional structure (Pavlou & Gefen, 2005), and structural assurances (Gefen, Rao, & Tractinsky, 2003; D. Harrison McKnight et al., 2002). The characteristics of the service provider have been examined to be an influencing factor that affects trust and risk as well. Such characteristics consist of advice information that help users solve their problems (Bart et al., 2005), the degree of platform appealing in terms of enjoyment and utility (Koufaris & Hampton-Sosa,

2004), community features (Bart et al., 2005), content (De Wulf, Schillewaert, Muylle, & Rangarajan, 2006), website design (J. Cho, 2006), ease of use (Bart et al., 2005; Gefen, Rao, et al., 2003; Stewart, 2003), website graphics (Stewart, 2003), order fulfillment (Bart et al., 2005), website organization (De Wulf et al., 2006), website security (J. Cho, 2006; Koufaris & Hampton-Sosa, 2004; Suh & Han, 2003), website quality (D Harrison McKnight, Vivek Choudhury, & Charles Kacmar, 2002; D. Harrison McKnight et al., 2002), portal affiliation (K. H. Lim, Sia, Lee, & Benbasat, 2006), consumer endorsement which presence of testimonials from satisfied user (K. H. Lim et al., 2006), and website technology (De Wulf et al., 2006).

Antecedents of online trust could also be influenced by consumers' characteristic and behaviors, which are divided into the following four categories: (1) demographics, (2) personality, (3) experience, knowledge, familiarity, (4) other characteristics and behaviors. Scholars examine demographics such as age, gender (Malhotra et al., 2004; Stewart, 2003), income (Stewart, 2003), and education (Malhotra et al., 2004). Walczuch et al. (2001) have focused on personality such as consumer's neuroticism, agreeableness, extraversion, openness to new experience. Other scholars give their attention to the impact of knowledge, familiarity, experience concepts such as entertainment experience (Bart et al., 2005), information technology working experience (Stewart, 2003), experience in online shopping (Bart et al., 2005; Walczuch et al., 2001), past positive purchasing experience (Pavlou & Gefen, 2005), experience with seller, intermediary, and electronic marketplaces (Pavlou & Dimoka, 2006), internet experience (Bart et al., 2005; Malhotra et al., 2004; Stewart, 2003), experience with privacy violations (Malhotra et al., 2004), knowledge about general information practices, security technology (Walczuch et al., 2001), and familiarity with service provider (Bart et al., 2005; Bhattacherjee, 2002; Komiak & Benbasat, 2006). Lastly, categories of consumer's characteristics and behaviors are comprised of satisfactions (De Wulf et al., 2006; Walczuch et al., 2001), online media trust (V. Cho, 2006), web affect (Stewart, 2003), consumer's disposition to trust (D Harrison McKnight et al., 2002; Pavlou & Dimoka, 2006; Ridings et al., 2002), attitude towards computer, internet and shopping (Walczuch et al., 2001), privacy concerns (Malhotra et al., 2004), risk beliefs (Dinev & Hart, 2004), and identification misrepresentation (Malhotra et al., 2004).

#### 2.2.2.1 Experience-based antecedents

#### 1) Familiarity (FAM)

A familiarity (FAM) of consumers in e-commerce selling party describes "the degree of acquaintance with electronic selling entity". Familiarity is defined as a "precondition or prerequisite of trust" (Luhmann, 1979) included knowledge about selling party, understand relevant of selling procedures as search for product information and buying product through web interface (Taniar, 2008). Familiarity is "an understanding based on previous experiences, interactions, and learning of other parties' action". Familiarity and trust are distinctly different. Familiarity deals with an understanding of current actions by other people or objects, while trust deals with other people's beliefs about the future actions even though these beliefs are frequently based on familiarity (Luhmann, 1979). Even though both of them have different concepts and meaning, familiarity and trust are counterpart methods of complexityreduction. Luhmann (1979) described the way both construct reduce an uncertainty, familiarity will establish a structure. Thus trust will let people hold "relatively reliable expectations" of other people's pleasing future actions (Gulati, 1995; Luhmann, 1979). Familiarity is a significant antecedent of trust as the favorable behavioral and expectation. Trust is spontaneously context-dependent and understanding the given involved context which is familiarity (Gefen, 2000; Luhmann, 1979). Trust cannot be sufficiently held to specific favorable behaviors without familiarity with context. Familiarity originates from "the precondition for trust" (Luhmann, 1979). Nevertheless, familiarity creates a concrete concept of future expectation based on previous interactions (Blau, 1964; Gulati, 1995). Hence, a consumer's familiarity based upon prior good experience with products and services will generate favorable and concrete ideas for consumer to expect in future. Prior studies state that familiarity as user experience eliminates consumer's perception of risk, uncertainty, and complexity of user interface, also simplifies relationship between consumer and selling party (Gefen, 2000; Luhmann, 1979, 1988).

The formalization of familiarity will contribute to formalization of trust (Carter & Ghorbani, 2004). Similarly, value-systems between two individuals are called familiarity. Luhmann (1979) state that familiarity is a complex comprehending

based upon experiences, previous interactions, and learning of others. Frequently, experience is also conceptualized as familiarity. Söderlund and Gunnarsson (2000) have tested airline consumers' familiarity based upon the number of trips which a consumer has made with an airline. There are four aspects to consider in familiarity, such as prior experience, repeated exposure, level of the processing, and forgetting rate (J. Zhang, Ghorbani, & Cohen, 2007). Prior experience is defined as a familiarity of feeling, not only object, but also meaning and object that relates to a current object. It relies on past experience memory as familiarity arises when processing an object that is related to their past experience with such object or similar object (Yonelinas, 2002). Repeated exposure posits a method that will increase consumers' familiarity feeling (Moreland & Zajonc, 1982), of which represents the frequency that the same consumer will show (J. Zhang et al., 2007). Level of processing states that the amount of familiarity which could be gained from processing is related to the level of processing (Yonelinas, 2002). Intense processing may lead to an increase in familiarity compared to a simple one. Forgetting rate is defined as consumers' recognition. Both long term and immediate delays will apparently decrease familiarity (Yonelinas, 2002). Hence, it is hypothesized that:

Hypothesis 1a:

A consumer's familiarity (FAM) with seller and intermediary has positively affects to consumer's trust (TRUST).

Hypothesis 1b:

A consumer's familiarity (FAM) with seller and intermediary has negatively affects to consumer's perceived risk (RISK).

### 2) Experience and Habit (EXPHAB)

Previous research on technology acceptance and use introduced two related constructs: experience and habit. Experience is defined as "an opportunity to use such technology and typically operationalized as the passing time from initial use of technology by individual" (S. S. Kim & Malhotra, 2005; Venkatesh et al., 2003). S. S. Kim, Malhotra, and Narasimhan (2005) suggest that periods of experience have five different categories. Thus, Venkatesh et al. (2003) states that operationalized

experience has three levels based upon passing time as "post training" (initial implement), 1 month later, and 3 months later. Habit determines the extent that an individual tends to behave automatically from their learning (Limayem, Hirt, & Cheung, 2007). Habit is functionalized in two aspects. Firstly, it is viewed as "a prior behavior" (S. S. Kim & Malhotra, 2005). And secondly, habit measures "the extent that individual believe such behavior to be automatic" (Limayem et al., 2007). As a consequence, there are two major distinctions between habit and experience. Experience is an essential element to generate habit, but it is not the only component for habit's formation process. Secondly, the passing time as experience could formulate different habit levels based on familiarity and interaction, which is developed by such technology. Icek Ajzen and Fishbein (2005) also suggests that "feedback from past experiences will affect to beliefs and consequently predict future behavior". The empirical findings show that the role of habit to describe different underlying processes of technology being used. With the operationalization of habit, "previous use was a strong predictor of future use" (S. S. Kim & Malhotra, 2005). On the other hand, Icek Ajzen (2002) and Limayem et al. (2007) defined that "habit has direct effect on technology use and also effect to intention", where the studies are based on perception-based approach to measure habit. Furthermore, it moderates the effect of intention on technology use, such as increasing habit, making intention become less important (Limayem et al., 2007). Therefore, this study posits the following hypothesis:

### Hypothesis 2a:

A consumer's experience and habit (EXPHAB) with seller and intermediary has positive effects to consumer's trust (TRUST).

#### *Hypothesis 2b:*

A consumer's experience and habit (EXPHAB) with seller and intermediary has negative effects to consumer's perceived risk (RISK).

#### *Hypothesis 2c:*

A consumer's experience and habit (EXPHAB) with seller and intermediary has positive influences on consumer's purchase intention (INT) in C2C electronic classified marketplaces as P2P system.

## 2.2.2.2 Cognition-based antecedents

#### 1) Information Quality (IQ)

The word "information" has been used in different aspects, things, and circumstances. The Oxford English Dictionary (OED) defines information as the "action of informing", "an item of information or intelligence". Machlup (1983) posited definitions of information as an "action of telling or the fact of being told something". Information quality is based upon users' judgment to select one piece of information over another, and also giving value to such object (R. S. Taylor, 1986). A user is continuously making judgments on value, while monitoring information systems to find valuable information. Values that represent quality are comprehensiveness, accuracy, currency, validity, and reliability (R. S. Taylor, 1986). Quality is related to the value concept as a user evaluates worthiness of interactions (Saracevic & Kantor, 1997). Information quality is defined as users' subjective judgment of usefulness and goodness of such information, in which that information is respectively used to their expectations. There are five aspects of information quality: importance, currency, accuracy, goodness, and usefulness (Rieh, 2002). Users commonly ask themselves whether they could trust such information or not, so they could at least take it seriously (Wilson, 1983).

Huizingh (2000) defines a well-known slogan, "Content is king". Information quality is the content issues in e-commerce. The basic goal of web sites is providing information (Bhatti, Bouch, & Kuchinsky, 2000). The decision of placing content on a website is extremely important because it will significantly affect to target audience that a company needs to attract to drive site content (Day, 1997; Iyer, 2001). Features and accurate information directly affect the level of consumers' acceptance (Lin & Lu, 2000). Perkowitz and Etzioni (2000) suggest that there are two major constructs in content; information accuracy and relevance. The quality of information will help a consumer make good purchasing decisions. A critical activity for a decision maker is the need to acquire and process high quality of information (Miranda & Saunders, 2003). A buyers' prospective website that presents quality information will be recognized as an active seller who continues to maintain the accuracy and prevalence of information provided to consumers. Consumers are more likely to have confidence

in sellers who provide quality information, and presume that the seller is reliable, and consequently perceive the selling entity as trustworthy. Information is considered a valuable asset of modern business. High quality information can prevent consumer's perception of risk and consumer's perception about uncertainty related to an ecommerce transaction. With high trust and low risk, both seller and intermediary will receive trustworthiness from a consumer, which drives intention to purchase in an online market. Online information starts from a content generated service provider, or seller, who would like to spread information through crowd-sourcing to communicate with others (C. Wang & Zhang, 2012). Information quality is considered one of major constructs that affects user satisfaction and system use (Molla & Licker, 2001; Vongsraluang & Bhatiasevi, 2016).

Prior studies in information systems literature define information quality in terms of objectivity, credibility, understandability, timeliness, and sufficiency (Bailey & Pearson, 1983; Mahmood & Medewitz, 1985; Negash, Ryan, & Igbaria, 2003). Arguably, marketing research on quality concentrates on effective persuasion, in which a strong message is information that is objective and easily to understand. This is more productive to a consumer than a weak one that is hard to understand (subjective and emotional) (Petty & Cacioppo, 1984; Petty, Cacioppo, & Schumann, 1983). Scope of online consumer reviews includes simple recommendations with an evaluation message until attribute-specific comments with factual messages. In contrast, believable, relevant, and understandable comments with sufficient support reasons provided by an online consumer experience and seller will influence potential consumers to make purchase decision (J. Lee, Park, & Han, 2008). Bailey and Pearson (1983), McKinney, Yoon, and Fatemeh Mariam (2002), Petty et al. (1983), Petty and Cacioppo (1984), and Petty, Harkins, and Williams (1980) posited that online consumers consider the quality of content that a seller and intermediary provide with respect to reliability, relevance, sufficiency, and understandability. Reliability refers to information trustworthiness (McKinney et al., 2002). Relevance is defined as the degree of harmony between information that a consumer needs to appraise a desired product, including information that is contained in reviews from other consumers with prior experience with such product. Understandability is defined as how easy information is understood in recommendations. Sufficiency is defined as a level of information detail. Thus, the following hypothesizes are proposed:

Hypothesis 3a:

A consumer's perceived information quality (IQ) on seller and intermediary has positive influences on their trust (TRUST).

*Hypothesis 3b:* 

A consumer's perceived information quality (IQ) on seller and intermediary has negative influences on their perceived risk (RISK).

### 2) Perceived Privacy Protection (PPP)

Consumer privacy is defined as the ability of a consumer to control when their personal information will be transmitted to a third party or for secondary use (Goodwin, 1991; Lanier & Saini, 2008; Milne & Culnan, 2004; Phelps, Nowak, & Ferrell, 2000; Westin, 1967; Youn, 2009). Information disclosure is not the only factor that affects consumers' perception, but also the degree of control in the collecting process and secondary use of their personal information (White, 2004). Disclosing of consumers' personal information in online transactions is considered extremely risky in electronic commerce context for several reasons. As key drivers of online trust, privacy level is normally associated with information risk, where personal information will be handed to third parties by service facilitators who can access personal details. Consumer's trust is vulnerable because they are unable to control the access of information beyond their original purpose (Dinev & Hart, 2004; Milne & Culnan, 2004; Nowak & Phelps, 1992, 1995). Privacy intrusion such as fraud, identity theft, loss of anonymity, fear of being monitor personally, commercial solicitation lead to consumers' negative experience (M. Brown & Muchira, 2004; L. T. Lee, 2000, 2002; Milne, 2003; Milne, Rohm, & Bahl, 2004; Miyazaki & Fernandez, 2000, 2001). Nowak and Phelps (1995) and Lanier and Saini (2008) suggested that the consumer is concerned more about privacy when they are uninformed about the process of collecting their personal information, such financial data. Such negative feeling may drive consumers to avert risk by avoiding to give personal information to the facilitator (Phelps et al., 2000). Perceived Privacy

Protection (PPP) is defined as a consumer's perception on how intermediary and seller present to a consumer that they have tried to protect their confidential information, which is collected during online transactions from the disclosure and unauthorized use. Nevertheless, there are some sellers who pass information to telemarketers, spammers, and direct mailers. The disclosure of consumer's personal information will harm consumers greatly, such as simple spamming of fraudulent credit card charges, and identity theft (Ratnasingham, 1998b). A prior study showed that 92% of survey respondents do not trust that seller and intermediary will keep their information private, even though they legally promised to do so (Light, 2001). Due to the increase of consumer concern, both intermediary and seller are forced to adopt privacy protection process to gain a consumer's trustworthiness and to encourage electronic transactions (Dan J. Kim et al., 2008).

Clearly, consumers are extremely concerned with the privacy of their personal information. Beyond, price, unsolicited market, and ease of use, privacy is the biggest hindrance that prevent consumers from using online transactions (Green, Yang, & Judge, 1998). Two-thirds of online consumers say that they are concerned about protecting their personal information on the internet (Branscum & Tanaka, 2000). Examples of privacy issues include spam, usage tracking, data collection, sharing personal information with third parties who are not an involving party (Belanger et al., 2002). A prior scholar indicated the importance of information control, where the consumer is significantly concerned about the secondary use of their personal information. Such control is important because once information is freely transmitted to online transaction, then there is nonexistent or diminished control over further sharing information with other parties. Previous studies based upon marketing and information systems suggested that information privacy is an essential issue in technology environment (Miyazaki & Fernandez, 2000, 2001; Stewart, 2003). Generally, the concept of privacy has been defined as an ability for a individual to control their personal information, which is acquired and used by involving party (Westin, 1967). Though other scholars argue that a consumer might be willing to reveal their personal information in exchange of apparent benefits in return (Milne & Culnan, 2004). Consumers are more likely to provide such information when they have control over it. Information requested has to have enough significant reason,

and create preference consequence. Privacy has been implicated in detail from both an individuals' point of view, and organizations' practices (Belanger et al., 2002; Culnan, 1995, 2000). Loss of privacy include: sharing information with third parties who were not involving with a particular transaction without consumer's permission and consent, and using consumer transaction details as demographic data for other purpose to create consumer profile without asking for their permission or announcement (Foxman & Kilcoyne, 1993; Goodwin, 1991). H. J. Smith, Milberg, and Burke (1996) identify four aspects of an individual's concern for their privacy. They are errors, collection, unauthorized access, and secondary use. In contrast, a seller and intermediary could employ "procedural fairness" to reduce consumers' privacy concerns that lead to a trust building process from the consumer (Culnan & Armstrong, 1999). Consumers' privacy concern is essentially controlled by environment and information secondary use of service provider and involving party (Hoffman, Novak, & Peralta, 1999).

Previous studies suggest that vendors should provide guidelines about personal information usage to consumers to increase perception of privacy protection. There are five principles to consider: notice, choice, integrity, access, and enforcement. Firstly, the disclosure notice informs consumers about how their personal information will be collected. Secondly, consumers should have a choice about how their information would be used, and which parties will be able to reach the information. Thirdly, consumers should have an opportunity to access and control information. Fourth, vendors should implement an adequate mechanism to protect consumer' personal information from unauthorized use. Lastly, there should be an effective authority to impose and enforce on sanctions for any violation. If venders could comply with these principles, then consumer would have less concerns about information privacy, and also be willing to complete online transactions with such a vendor (Hoffman et al., 1999; H. J. Smith et al., 1996). Some scholars argue that a consumer may hold subjective beliefs regarding to information provided during transaction, called perceived privacy of transaction. This is defined as "the subjective probability with which consumers believe that the collection and subsequent access, use, and disclosure of their private and personal information is consistent with their expectations" (Ramnath K Chellappa, 2008).

As opposed to an offline transaction, personal information is not only thing that venders acquired from consumer, but also browsing information and shopping preferences. Such information is categorized into three types: anonymous information, like standard information, gathered by page visits without any offensive technology. Such information includes IP address, browser type and version, domain type, browser language, operating system, and local time. Personal non-identifying is "information that, taken alone, cannot be used to identify or locate an individual", included date of birth, gender, age, education, occupation, income, ZIP code without full address, interest, and hobbies. This category often uses sophisticated tracking technology as clear gif, cookies which not identify consumer individually, but enable entity information collecting to sketch a potential consumer profile. Personal identifying information is information that can be used to locate and identify an individual. Examples include name, phone number, address, email address, citizen identification number, social security number, credit card number. Such information is gathered directly from the consumer when they register into service providers (Ramnath K. Chellappa, 2002). This study proposes the following hypothesizes:

## Hypothesis 4a:

A consumer's perceived privacy protection (PPP) on seller and intermediary has positive influences on their trust (TRUST).

### Hypothesis 4b:

A consumer's perceived privacy protection (PPP) on seller and intermediary has negative influences on their perceived risk (RISK).

### 3) Perceived Security Protection (PSP)

One of the main hindering factors in developing electronic commerce is the lack of an online security system as perceived by consumers (Chou, Yen, Lin, & Cheng, 1999; Furnell & Karweni, 1999; Shih Dong Her, Chiang Hsiu Sen, Chan Chun Yuan, & Lin, 2004). There is a possibility that personal financial data might be intercepted and put to fraudulent use (S. Jones, Wilikens, Morris, & Masera, 2000). Security indicates the consumer's perception of the reliability of the mechanisms of data transmission, payment methods, and storage, of which provide by intermediary

and seller during online transaction. Perceived security is defined as how an individual believes that their personal monetary and private information will not be viewed, operated, and stored by inappropriate parties (Flavian & Guinaliu, 2006; Kolsaker & Payne, 2002). In technical terms, a security system certifies the confidentiality, integrity, authentication, and non-recognition of electronic transactions. Confidentiality is concerned with data being seen by authorized individuals only. Authentication will allow only certain operations to be fulfilled after identification, in addition to any other identity guarantees of parties which the consumer is dealing with. The integrity of the information system alludes to the impossibility of stored or transmitted data being modified by third parties without the owner's permission. Non-repudiation represents the procedures which will prevent an individual or organization from denying that they had engaged in a certain operation and data transmitted process (Flavian & Guinaliu, 2006). A consumer's perception of security protection in an electronic transaction depends on the level of security measurement that is implemented by seller and intermediary (Friedman, Jr., & Howe, 2000). By providing security features (as security disclaimer, security policy) and protection mechanisms (as user authentication, encryption, secure sockets layer (SSL) on the seller or intermediary website, consumers will positively recognize the anxiousness of their personal information (Ramnath K. Chellappa, 2002). Dan J. Kim et al. (2008) recommends that a security system will represent the vender's commitment to receive a consumer's trust and diminish the risk perception in electronic transactions.

The consumers' perspective of perceived security protection in an online transaction described as "the subjective probability with which consumers believe that their personal information (private and monetary) will not be viewed, stored, and manipulated during transit and storage by inappropriate parties in a manner consistent with their confident expectations" (Ramnath K Chellappa & Pavlou, 2002). All relationships basically require an element of trust, especially such behavior in uncertain circumstances such as electronic commerce (Fung & Lee, 1999). Developing trust between consumers, seller and intermediary is significant for electronic commerce growth (Palmer, Bailey, & Faraj, 2000) because trust plays an important role to influence consumer behavior (Schurr & Ozanne, 1985). Trust in an

online transaction is defined as a consumer believing and expecting that an online transaction that occurs confidentially. These concepts are related to two different components, known as traditional view of trust in a particular identity, and the integrity and reliability of communications medium. An essential attitude towards a communications medium is related to the perceived trustworthiness or credibility (Shimp, 1993). Consumer individually form their trust perceptions based upon the ability of the medium to secure a transaction in an expected manner. Also, trust influences consumers' willingness to presume risk disclosure (Mayer et al., 1995). Trust can be represented as the degree of risk situation (Koller, 1988). Due to the theoretical nature of information security, perceived security is influenced by an indirect perception, when a consumer confronts an online transaction process. Security mechanisms depend on self-assessment of technological solutions such as authentication, encryption, verification, and protection (Ramnath K Chellappa & Pavlou, 2002).

Authentication is a process that a seller and intermediary can establish through a third party such as Verisign.com to guarantee that venders are indeed who claim to be. Essentially, consumers are introduced to this mechanism through the presence of authenticators' seal on website entities and exchange digital certificates when linking with encryption. Encryption is defined as an information translating process from an original form, such as plaintext, into an encoded form that is incomprehensible, called a cipher text. These mechanisms combine keys and complex mathematical algorithms together. An encryption is implemented through the use of browsers and servers, which are built with a technology called secure socket layer (SSL). Once implemented, consumers will use HTTPS protocol instead of traditional HTTP to communicate with server. Websites will include statements like "click here for a secure transaction" or a dialog box displayed in the browser that shows such a online transaction is secure. An image of a lock or unbroken key at the bottom of browser window also shows that the current transaction is encrypted.

The most significant difference between traditional and electronic transactions is the lack of implicit identity verification related to a transaction. The familiarity of brand logo is enough for consumer to make sure that there is an indeed actual store. There are several sites, of which have benefitted from typographical error (Sullivan,

2000). For example, a malicious operator can create a spurious website to deceive a consumer and steal his personal information. When a consumer is not aware of the exact domain name, they will depend on established portals to verify an accurate website name. Protection is defined as a process to protect a consumers' personal information and to assure that their information is safe. Protection is concerned with intrusion at the point of destination or storage. Policy is primarily oriented towards privacy protection, including assurance of the person who collects data, how the data will be stored, how hard it is to access into such data. Typically, the seller and intermediary employ sophisticated firewall technologies to protect data from intrusions and unauthorized attacks.

In addition, the electronic seller and intermediary assures a consumer's transaction by providing a third-party certifying body such as an accountant, bank, and consumer union to guarantee that the transaction is safe and that there will be someone to take responsibility in case something goes wrong. There are various types of trusted third-party seals to reduce consumer's risk perception in electronic commerce (Sivasailam, Kim, & Rao, 2002; H. Zhang, 2005). Furthermore, the purpose of providing trusted third-party seals is to provide assurance to consumers that the website reveals and follows the operating practices, practices such as security and reliability of payment system, company return policies, and privacy policies (Castelfranchi & Tan, 2002; Dan J. Kim, Sivasailam, & Rao, 2004; Koreto, 1997; S. P. Shapiro, 1987). For example, a third-party company that deals with electronic transactions is WebTrust (Sivasailam et al., 2002). WebTrust is a certification authorities program which was developed to increase the confidence of a consumer, and be a vehicle for conducting e-commerce in the application of Public Key Infrastructure technology (Authority, 2016). WebTrust adds its mark on websites to inform buyers that the website owner has openly agreed to reveal its process of information gathering, dissemination practice, and the disclosure of consumers' personal information, supported by credibility third-party assurances (Sivasailam et al., 2002). A third-party guarantor has coercive power on the seller and intermediary website through the announcement and enforcement of explicit rules (Fukuyama, 1995; H. Zhang, 2005), and seals issued by providing certificate authorities will help to eliminate the consumer perception of risk in an electronic transaction even though

the consumer does not have any previous direct experiences with the seller and intermediary website (Cheung & Lee, 2006). Moreover, the display of a third-party seal indicates a trustworthy effort of both seller and intermediary to uphold transactional obligations (Dan J. Kim et al., 2008). Therefore, this study poses the following hypothesis:

Hypothesis 5a:

A consumer's perceived security protection (PSP) on seller and intermediary has positive influences on their trust (TRUST).

Hypothesis 5b:

A consumer's perceived security protection (PSP) on seller and intermediary has negative influences on their perceived risk (RISK).

## 2.2.2.3 Affect-based antecedent

1) Positive Reputation of Selling Party (RSP)

Reputation of a selling party is defined as "the degree of appreciation in which public consumer hold on selling party". A positive reputation is considered as a key factor in creating trust in seller and intermediary in e-commerce (Sirkka L. Jarvenpaa et al., 1999). The reputation building process depends on past interactions whether that seller and intermediary was being honest with them or not (Zacharia & Maes, 2000). A positive reputation will provide information that a selling party has honored and met the obligations toward a consumer. Based on prior information of the selling party, a consumer will assume that the selling party is likely to continue the behavior. A positive reputation of selling party generates trust and a willingness to engage in electronic transaction (Taniar, 2008).

Reputation is an essential key indicator of trust (Yao Hua & Thoen, 2000), where a favorite site could help to build initial trust and reduce uncertainty of new users (D Harrison McKnight et al., 2002). Trust that happens during project collaboration has more influence on prospect buyer-supplier relationships, compared to reputation or reward (Wagner, Coley, & Lindemann, 2011). Prior scholars discovered have been trust through seller and intermediary reputation found on feedback from consumers (Cheema, 2008; Patricia M. Doney & Cannon, 1997). A

user's feedback is determined as a "credible reputation-creating devices" (Resnick, Kuwabara, Zeckhauser, & Friedman, 2000), which leads to credibility-based trust (Patricia M. Doney & Cannon, 1997). (Chiles & McMackin, 1996) suggests that a good reputation firm is unwilling to risk their reputation by any opportunistic behavior. A doubtful consumer might have a negative reaction, when they notice any additional charges from sellers and intermediaries (Schindler, Morrin, & Bechwati, 2005).

There are two dimensions of reputation that affect price. First is how well a consumer knows a seller and intermediary. Second is what a consumer knows is good or bad (Dewally & Ederington, 2006). A seller's reputation depends on his lifespan as the number of repeat purchases, and how loyal consumer are and the ability to survive negative online words and feedback. If consumers' curiosity about the product quality lead to excessive reputation-building costs, it will prevent such market from quality goods transactions (F. Allen & Faulhaber, 1988). Reputation is considered an essential factor in signaling unobservable unknown product quality to consumers, which influences a consumers' decision directly (Gregg & Walczak, 2008; Wann Yih, Po Ching, & Chen Su, 2011). Mostly, sellers and intermediaries implement a reputation mechanism that allow consumers to rate them and forward such feedback from consumer to represent seller and intermediary reputation. The information retrieved from this mechanism will help consumers to comprehend a prospect seller and intermediary's trustworthiness and improve a conviction in online transaction (Wann Yih et al., 2011). Melnik and Alm (2002) and McDonald and Slawson (2002) posited that seller and intermediary reputation could positively influence a consumers' willingness to purchase, decrease consumers' perceived risk, and increase the favorable attitude towards online transaction. Therefore, this study posits the following hypothesis:

### Hypothesis 6a:

The positive reputation of selling party (RSP) has positive influences on consumer's trust (TRUST).

## *Hypothesis 6b:*

The positive reputation of selling party (RSP) has negative influences on consumer's perceived risk (RISK).

## 2.2.2.4 Personality-oriented antecedents

#### 1) Consumer disposition to trust (CDT)

Disposition to trust is defined as "the extent to which a person displays a tendency to be willing to depend on others across a broad spectrum of situations and persons" (D. Harrison McKnight et al., 2002). A consumer's disposition to trust positively influences trust in a selling party website (D. Harrison McKnight, Charles J. Kacmar, & Vivek Choudhury, 2004). Gefen (2000) suggest that a consumer's disposition to trust is one of the primary keys of trust in interacting with a web-based selling party. D. Harrison McKnight et al. (2002) also supported that "disposition to trust is especially salient in e-commerce relationships because these relationships are characterized by social distance, which limits the amount of information a consumer has about the vendor". An individual's traits lead to expectation of trustworthiness, and are an antecedent of trust. Generally, "the disposition to trust display propensity of faith in humanity and trusting stance toward others" (Gefen, 2000). Due to the diversification of experiences, cultural background, personality types, consumer's propensity to trust is inherently different. The tendency of disposition to trust based on socialization and ongoing life experiences (Fukuyama, 1995; D. Harrison McKnight, Cummings, & Chervany, 1998; Rotter, 1971). For consumers who have a high tendency of disposition to trust others in general, there is positive influence trust in selling party (D. Harrison McKnight et al., 1998; Rotter, 1971).

Disposition to trust states that "a propensity to be willing to become vulnerable and depend on others" (Rotter, 1971), accompanied by a feeling of security, and an individual different determinant that affects interpersonal trust (D. Harrison McKnight et al., 1998). It may develop over an individual's lifetime as they are confronted with others in a different situation. From an early stage of life, a child seems to trust their caregiver who is respond to their needs (Erikson, 1994). Growing up, these trusting feelings and thoughts of others are applied to other relationships (Rotter, 1971). After a lifetime of dealing with others, individuals' dispositions to trust is still not entirely static (Mayer et al., 1995). Through a ton of experiences, dispositions to trust even more become negative or positive. As aforementioned, disposition of trust is identified as a product of lifetime's worth of experiences.

Frequently, individuals with negative interactions could eventually believe that there are no good people to trust (D Harrison McKnight, Charles J Kacmar, & Vivek Choudhury, 2004). The nuance between dispositions to trust is humanity faith and trusting stance. Humanity faith is an individuals' assumptions about others in general, while trusting stance is a private strategy which individual generally presumes that others have positive attributes (D. Harrison McKnight et al., 1998). Moreover, people may have faith in an individuals' class or hierarchy (Barber, 1983). Individuals who tend to have a high disposition to trust are more credulous, which will perceive low risk for an unfamiliar situation, compared to their counterparts (Ridings et al., 2002). Consequently, this study hypothesizes the following:

## Hypothesis 7:

A consumer's disposition to trust (CDT) has positive affects to a consumer's trust (TRUST).

#### 2) Hedonic Motivation (HM)

Hedonic motivation is defined as "the pleasure or fun derived from using a technology, of which play is an important role in defining technology acceptance and use" (S. A. Brown & Venkatesh, 2005). Hedonic motivation is also defined as "a perceived enjoyment which has found influence technology acceptance and use directly" (Thong, Hong, & Tam, 2006; Van der Heijden, 2004). In an online shopping context, prior research on consumer behavior employed TAM from information system literature (Childers, Carr, Peck, & Carson, 2002; Gefen, Karahanna, et al., 2003b; Koufaris, 2002). TAM specifies two important constructs for attitude and intention to use new technology, which are "ease of use and perceived usefulness" (Fred D. Davis, 1989). Subsequently, enjoyment determinant has been added to TAM model lately (Dabholkar & Bagozzi, 2002; Fred D Davis et al., 1992; Van der Heijden, 2004). In the TAM model, both hedonic and utilitarian aspects are considered to be related to the acceptance of online consumer (Childers et al., 2002; Perea y Monsuwé, Dellaert, & De Ruyter, 2004). Childers et al. (2002) proposes that there are two predictors of attitude in motivation contexts. These are the usefulness (utilitarian) and the enjoyment (hedonic) of online shopping. Past research has identified hedonic motivation as a desire for enjoyment and fun. Prior scholars posited that the "buyer's decisions were affected by hedonic need fulfillment" (Angst, Agarwal, & Kuruzovich, 2008). Wolfinbarger and Gilly (2001) discussed motivation of online shopping based upon focus group discussions, which reported that "an experience of shopping was associated to the consumer's need for surprise, uniqueness, and excitement, positive sociality, involvement of product class, and online deal searching". Such motivations listed above are involved with fun and enjoyment. Furthermore, there are some scholars who hypothesize that "there is a positive relationship between hedonic motivation and exploratory behavior or impulsive buying in either online or offline contexts" (Baumgartner, 2002; Holbrook & Hirschman, 1982; L. Zhou, Dai, & Zhang, 2007). Some scholars argue that a prior study reported the predictions of hedonic motivation based upon specific behavior in online shopping context, which was exclusively advised from a focus group that was using a qualitative method to gather information (Wolfinbarger & Gilly, 2001), or from the literature reviews only (Chang, Cheung, & Lai, 2005; Perea y Monsuwé et al., 2004; L. Zhou et al., 2007). Previous studies suggested that a consumer's personal tendency as "hedonic personality and utilitarian personality affects attitude toward online shopping" (Delafrooz, Paim, & Khatibi, 2010). On the other hand, other scholars advise that "there is a relationship between hedonic motivation and specific consumer behavior in offline shopping settings" (Babin, Darden, & Griffin, 1994; Hausman, 2000). The information search is an essential component that affects online behavior. Vazquez and Xu (2009) posit that "online shopping motivation as hedonic and utilitarian motives had significant effects on online information search", but the scholar did not identify the difference between each variable. The hedonic consumer is the one who enjoys shopping, and tries to discover websites that they are interested in a traditional shopping. They seek to discover different shopping motivations. This type of consumer is more likely to visit a shopping website longer, more frequently. Hedonic consumers are more likely to discover and willing to visit different shopping sites and seek information for their needed products and services regularly (Wolfinbarger & Gilly, 2001). "Information search task is motivated by a desire to fulfill experience of fun and pleasure, also curiosity" (Baumgartner & Steenkamp, 1996). Due to the positive relationship between exploratory information seeking and hedonic motivation, prior scholars have found that hedonic consumer tend to engage in impulse buying (Arnold & Reynolds, 2003; Babin et al., 1994; Hausman, 2000; Wolfinbarger & Gilly, 2001). An impulsive consumption is defined as a spontaneous or unplanned purchase, which engages a consumer's hedonic or affective values (Rook & Fisher, 1995). There is a positive correlation between a consumer's impulse buy and hedonic motivation (Hausman, 2000). A hedonic consumer might easily yield to an unplanned purchase in online shopping. An online shop is different from traditional one, like "store hours, product availability, physical locations". So, "the availability of such opportunities might lead to impulsive purchases" (LaRose, 2001).

Social is "one of the most important categories of hedonic shopping" (Arnold & Reynolds, 2003). Basically, social shopping involves friends or family, or communicating with a salesperson. Social shopping is defined as an enjoyment, which is gained by bonding and socializing with others while shopping. "Hedonic consumers tend to have positive sociality in online shopping context" (Wolfinbarger & Gilly, 2001). The online shopping environment provides a wide range of interactive channels such as consumer product review, online communities, and blogs to communicate with other consumers. Online communication and shopping might encourage and enhance pleasure, fun, and enjoyment of consumer. The interactive online shopping will reinforce both pre-and post-purchase in an online communication network. A hedonic consumer will gain enjoyment through bonding and socializing with another consumer. Prospective consumers are willing to acquire product information from existing consumers, and sharing their experience whether it's negative or positive to others for enjoyment and fun. "The motives to share product relevant experiences online is the need of enjoyment, as a positive selfenhancement" (S. Kim & Eastin, 2011). From the above logic, the following is hypothesized:

#### *Hypothesis* 8:

Hedonic motivation (HM) has positive influences on consumer's purchase intention (INT) in C2C electronic classified marketplaces as P2P system.

#### 2.2.2.5 Calculative-based antecedent

#### 1) Price Value (PV)

Grounded upon UTAUT, the main difference between an organizational use setting and a consumer use setting is that consumers are normally responsible for monetary cost of a particular use. On the other hand, employees do not have to take responsibility for any monetary cost from an organization. Mainly, cost and pricing have a significant effect on consumers' technology acceptance and use. Chan et al. (2008) indicates that "short messaging services (SMS) in China are popular because of low pricing relative to other types of mobile services". In the marketing research field, "cost and price is generally conceptualized together as the quality of products and services to define the perceived value of such products and services" (Zeithaml, 1988). Price value is defined as "consumers' cognitive tradeoff between the perceived benefits of the applications and the monetary cost for using them" (Dodds et al., 1991; Venkatesh et al., 2012). When the benefits of using technology is higher than monetary cost and price, then a consumer will perceive positive price value, and it will have a positive impact on consumers' behavioral intention (Venkatesh et al., 2012). In the online shopping context, this study defines price value as a predictor of consumers' attitude to see that consumers who shop via C2C electronic classified marketplace will obtain more benefits, such as a lower price, opportunities to compare selling price with another seller, and a variety of product categories. Thus, this study hypothesizes the following:

Hypothesis 9a:

Price value (PV) has positive influences on consumer's purchase intention (INT) in C2C electronic classified marketplaces as P2P system.

Hypothesis 9b:

Price value (PV) has positive influences on consumer's perceived benefit (BENEFIT) in C2C electronic classified marketplaces as P2P system.

### 2.2.3 Perceived risk (RISK)

The reluctance of completing online transactions is considered as a fundamental of online risks perception (Sirkka L. Jarvenpaa et al., 1999). Prior scholars posit that

perceived risk is a conspicuous barrier of consumer acceptance in electronic commerce environment (Cox, 1967; Dowling & Staelin, 1994). Perceived risk in general is defined as a combination of uncertainty factors with seriousness of involved outcome, which regards to all possible negative consequences of using and implementing product and service (Bauer, 1960; Cox, 1967), and expectation of losses from risk perception could determine as a prohibition of purchasing behavior (J Paul Peter & Ryan, 1976). Risk perception is involved with information systems adoption decisions, while these decision's environments create feelings of uncertainty, discomfort and anxiety (Dowling & Staelin, 1994), conflict (Bettman, 1973), concern (Featherman & Pavlou, 2003), psychological discomfort (Zaltman & Wallendorf, 1979), consumers' feeling uncertain (Engel, Blackwell, & Miniard, 1986), anxiety pain (J. W. Taylor, 1974), and cognitive dissonance (Festinger, 1957). Cox (1967) categorizes risk into two aspects which are psychosocial and performance. Besides, scholars deep down categorized performance into three types: economic, temporal, and effort, and also categorized psychosocial into two types: social and psychological. Cunningham (1967) posits that perceived risk has six different dimensions: financial, performance, opportunity or time, social, safety, and psychological loss.

Consumer's perception of risk is considered as a significant hindrance for an electronic selling party to complete a transaction. Perceived risk (RISK) is defined as a consumer's confidence about the possibility of negative consequence originating from an electronic transaction (Dan J. et al., 2004). Per prior studies, various ideas of perceived risk have been identified (Jacoby & Kaplan, 1972; J Paul Peter & Ryan, 1976; Zikmund & Scott, 1974). There are seven types of risk, which are physical, performance, financial, psychological, time, social, and opportunity cost risk (Jacoby & Kaplan, 1972). Particularly in electronic commerce, there are three predominant types of risk which are information risk (privacy and security), financial risk, and product risk (Bhatnagar, Misra, & Rao, 2000). Product risk is associated with the product itself as a defection. Financial risk includes opportunity cost and timing associated with an electronic marketing channel, such as from a duplicate electronic transaction triggered by an unintended double-click on a purchase button, or from a technical error. Information risk is related to the privacy and security of an electronic

transaction, such as a selling party security system to make sure that a consumer's personal information will be safe and stored secretly (Fram & Grady, 1997). Miyazaki and Fernandez (2001) suggest that credit card security risk and privacy risk are also associated with online purchasing behavior. (Chang et al., 2005) summarize that there are four significant types of perceived risk; uncertainty, product risk, credit card fault risk, and concern of system security.

Antony, Lin, and Xu (2006) explain that a consumer's perception of risk influences their electronic decision directly. Generally, an online consumer is usually reluctant to purchase and complete transaction because of the overwhelming senses of risk while comparing to traditional shopping. For brick-and-mortar, consumers are able to visit the store and can see, touch, feel, and even try a product before buying. This immediately, reduced the consumer's perception of risk and strengthen positive opinion of a traditional brick-and-mortar retail store. In contrast, for electronic commerce purchases, a consumer has to provide substantial and confidential personal information including their full name, phone number, address, and even credit card information. After providing personal information, consumers can only anticipate and hope that their online transaction will be processed accurately and completely. Essentially, consumers must wait until the product and service is delivered. A consumer's awareness of risk is directly influenced by their attitude to making purchases in electronic commerce. Due to the flourishing of electronic commerce, online shopping growth will depend on the potential risks and obstacles including security system of personal information, product dissatisfaction, and on-time delivery which does not meet consumer expectations (Liao, Chu, Chen, & Chang, 2012).

As mentioned before, an online environment is particularly dissimilar to physical one because it is difficult to appraise the utility of products and services online. There are no tangible or visual indications of quality of product, nor direct interaction with the seller (Hawes & Lumpkin, 1986; Laroche, Yang, McDougall, & Bergeron, 2005). When a consumer realizes that it's difficult to differentiate between vendors with different quality level of product, then they are faced with a problem, of which in agency theory is called "adverse selection" (Singh & Sirdeshmukh, 2000). A consumers' trust in a seller's website is one of the essential attributes to attract an electronic consumer, but it is difficult to create trust when consumers are afraid of

online purchasing. Learning about a consumer's risk perception might help venders to implement suitable strategies to achieve consumers' trust. Risk plays an important role in consumer behavior by explaining information search conduct and purchase decision (S. J. Barnes, Bauer, Neumann, & Huber, 2007; Corbitt, Thanasankit, & Yi, 2003; Mayer et al., 1995). Past studies show that perceived risk will reduce a consumers' willingness to make a purchase online (S. J. Barnes et al., 2007; Jiuan Tan, 1999). Gefen, Rao, et al. (2003) defines risk as a characteristic of consumer decision that reflects variance of possible results (Gefen, Rao, et al., 2003), including all negative consequences of online purchase which can not be predicted (Cunningham, 1967). There are two perspectives of risk. First is the concentration on a decision, and second is the concentration on cost and consequences of such decision (S. J. Barnes et al., 2007; Cunningham, 1967; Gefen, Rao, et al., 2003). There is a different between risk related to a place or channel, where the product is offered, and another is risk related to a product or seller (Gefen, Rao, et al., 2003; Lopez-Nicolas & Molina-Castillo, 2008). In the aspect of electronic commerce, a channel is presumed to be an online channel. Risk related to a channel is particularly greater than risk that is related to product or seller. Risk perception in an online transaction is associated with negative consequences, which is not found in a traditional transaction. Consequences like security and privacy concern (Doolin, Dillon, Thompson, & Corner, 2005; Salo & Karjaluoto, 2007), lacking of seller advice, and the inability to touch-and-see product (M. Zhou, Dresner, & Windle, 2008). Such factors enhance the adverse selection problem and consumer risk perception.

Previous studies suggest that the relationship between trust, risk, and purchasing behavior have been examined from three aspects (Gefen, Rao, et al., 2003; Mayer et al., 1995; Salo & Karjaluoto, 2007); a mediating variable as trust that reduces perceived risk, a moderating variable as trust that influences purchasing behavior depend upon level of risk perception, and lastly a "threshold" model as trust that is independently formed which consumer may perceive risk before or after trust is build. Perceived risk is an essential factor in mediating trust in website (R. E. Anderson & Srinivasan, 2003). It plays an important role in brand or website loyalty and loyalty transformation (H.-C. Wang, Pallister, & Foxall, 2006). Perceived risk might influence consumer attitudes toward online shopping only, but it will not affect a

consumer's intention to purchase (Sirrka L Jarvenpaa & Todd, 1996). Arguably, Vijayasarathy and Jones (2000) posits that perceived risk influences both of attitudes and intention to purchase in online shopping. Other scholars also find that perceived risk has negative affects on consumers' attitude and intention to purchase (X. Liu & Wei, 2003; Van der Heijden, Verhagen, & Creemers, 2003). There are several types of risk that are perceived in purchasing decisions, including security risk, privacy risk, and product risk. Product risk comprises of the risk of making an inappropriate purchase decision. Another aspect of product risk is making poor decisions through an inability to compare prices, not receiving paid product, and inability to get compensated for a defective one (Sirrka L Jarvenpaa & Todd, 1996; Vijayasarathy & Jones, 2000), such product might not function as expected (Bhatnagar et al., 2000; Sirrka L Jarvenpaa & Todd, 1996; Jiuan Tan, 1999; Vijayasarathy & Jones, 2000), and lacking opportunity of touch-and-feel product before purchase (Jiuan Tan, 1999). The possibility of online purchasing increases, in contradiction with an increasing of product risk (Bhatnagar et al., 2000). The platform or channel of online purchasing is considered as another aspect of perceived risk which related to consumers' belief and perception about the Internet as a trustworthy shopping platform (Bhatnagar et al., 2000; M. K. Lee & Turban, 2001; N. Lim, 2003). Due to the likelihood of credit card fraud, a common perception of consumers is that transferring credit card information over Internet is risky (Bhatnagar et al., 2000; Furnell & Karweni, 1999; George, 2002; Hoffman et al., 1999; Sirrka L Jarvenpaa & Todd, 1996; J. M. Jones & Vijayasarathy, 1998; Liebermann & Stashevsky, 2002). Security is one of the major factors that determines high or low intention to purchase online (Ranganathan & Ganapathy, 2002). Likewise, online trustworthiness is associated with consumers' concern about privacy, including unauthorized acquisition of personal information and provision of consumers' information that collected by seller and intermediary, and providing it to third parties like credit card companies (Furnell & Karweni, 1999; George, 2002; Hoffman et al., 1999; N. Lim, 2003; H. Wang, Lee, & Wang, 1998). Prior scholars report a large number of online consumers do not trust online sellers and intermediary platforms enough to transfer personal information to them (Hoffman et al., 1999; Liebermann & Stashevsky, 2002). Taking these issues into consideration, the study has formulated the following hypothesis:

#### Hypothesis 10:

A consumer's perceived risk (RISK) on seller and intermediary has negative influences on consumer's purchase intention (INT) in C2C electronic classified marketplaces as P2P system.

#### **2.2.4 Trust (TRUST)**

According to the proportion of prior studies in online trust based upon existing trust literature, the concept of trust in the online aspect has frequently been confused with usual trust (Gefen, Karahanna, et al., 2003b; D Harrison McKnight et al., 2002). Online trust is quite different from ordinary trust in aspects and processes of trust formation, trust in term of behavioral, and conceptual dimensions of trust (Meents, 2009). There are some conceptual discrepancies and exceptions between online trust and normal trust. Mostly, prior authors have concentrated on conceptualized trust and integrated theoretical insight (Gefen, Karahanna, et al., 2003b; Malhotra et al., 2004; Pavlou & Gefen, 2004; Stewart, 2003).

Extensively, research studies have widely focused on business-to-consumer electronic commerce. Based on the conceptualization of online trust in previous studies, scholars have suggested the concepts are quite different about the degree that trust should be described in a behavioral context. Online trust has been defined as: "a consciousness, consisting of beliefs, confidence, expectations" (Gefen, Karahanna, et al., 2003b; Malhotra et al., 2004; Pavlou & Gefen, 2004; Stewart, 2003), "a willingness to rely on" (Koufaris & Hampton-Sosa, 2004; Van der Heijden et al., 2003), "a combination of these aforementioned components" (Jøsang, Ismail, & Boyd, 2007; D. Harrison McKnight et al., 2002; Ratnasingam, 2005).

Normally, people typically interact with a trustee, which refers to other people or organizations that such person can trust. A trustor will develop a certain level of trust to oppose trustworthiness to their target audiences (Shankar, Urban, & Sultan, 2002). A major discrepancy between online trust and normal trust is in the impersonal character. For online, individuals do not directly interact with other parties and use the same form of interaction as in a normal context. Their virtual interaction is mediating by information systems (Gefen, Karahanna, et al., 2003b; Jøsang et al., 2007; Pavlou, 2003) including software, hardware, and information provided on platforms. Three

different targets of trust have been recommended in the online aspect; trustee, formal control mechanisms as rule and procedure, regulations, contracts, and lastly, technological infrastructure as specific platform, system stability. The majority of previous studies solely concentrate on trust that an individual gives to their trustee (Gefen, Karahanna, et al., 2003b; Malhotra et al., 2004; Stewart, 2003; Torkzadeh & Dhillon, 2002). Yao Hua and Thoen (2000) and Tan and Thoen (2002) advise that trust in involving parties is not only constructed to concern in overall transaction, but also an involving party needs to trust in the formal control mechanisms of the service provider. Ratnasingam (2005) conceptualizes trust in two separated aspects, trust in another party and trust in technological infrastructure, referred to as technology trust. However, D Harrison McKnight and Chervany (2001) and Pavlou (2002) argue that trust is normally influenced by institution-based trust, or institutional trust. Institution-based trust is defined as trust in an online environment, which is establish by technological infrastructure and formal control mechanisms.

In contrast, there are two main challenges in based on the assumption. First, trust is an incident that could be noticed between individual and physical items. An action of someone, which intentionally or unintentionally may influence others. Also, an individual normally depends on material and non-material items to fulfill needs and goals, which they might vulnerable to such things (Shneiderman, 2000). Individuals may choose to trust because other people and organizations create and influence their trust, but they do not trust it because of themselves (Friedman et al., 2000; Rosenbloom, 2000; Shneiderman, 2000). Prior scholars do not suggest that an individual could not perceive or believe physical items, but rather they are concerned whether such perceptions or beliefs are appropriate or not. D Harrison McKnight and Chervany (2001) and Pavlou (2002) propose technological infrastructure and formal control mechanisms are appropriate targets in online trust, where the conceptualizations are based upon the influence on trust.

Prior studies have agreed that trust is an important construct in an online transaction field. Trust will play its natural role when individuals depend on others, and may be unfavorable and harmful. The happenstance risk flow from such behavior could lead to some complex interaction-related decisions. Trust is one of the most effective and efficient methods that an individual uses to eliminate complexity.

Internet-based interactions conduce three types of risk: risk of a criminal stealing personal information transmitted on internet, being impersonated via identity theft, losing money because of fraud (V. Cho, 2006; D Harrison McKnight & Chervany, 2001). These risks particularly occur in online transactions because of the requirement to exchange personal information and inherent of financial investment. Gefen, Karahanna, et al. (2003b) and Stewart (2003) advises that unfavorable behavior of seller and intermediary such as unfair pricing, misrepresenting product features, lacking of after sales service, refusing to compensate or exchange defect product, and unauthorized using consumers' private information will lead to aforementioned risks. In fact, such behaviors do not happen in online transaction only, but also all types of interaction between parties as well. However, Gefen, Karahanna, et al. (2003b) and Pavlou and Gefen (2004) merely advise that for online transactions, it is even easier for an individual to behave opportunistically compared with other aspects.

Due to the inherent nature of electronic shopping, consumers regularly experience some level of risk. Consumers are aware of future uncertainty and unpredictable actions of others such as innovation of technology, computer hackers, and potential trustworthiness of selling parties. While consumers can react to uncertain circumstances, trust frequently plays an important role as a solution for specific problems associated with risk (Luhmann, 1988). So, trust is considered a critical strategy for dealing with uncontrollable and uncertain future situations. Therefore, Gambetta (1988) suggests that trust is particularly related to circumstances of uncertainty or ignorance regarding unknowable actions of others. Prior studies in the information systems field prove that trust has influence on consumer behavior (Gefen, 2000; Sirkka L. Jarvenpaa et al., 1999; K. Kim & Prabhakar, 2000; Nöteberg, Christiaanse, & Wallage, 1999; Stewart, 1999). Mayer et al. (1995) define trust as an individual behavior based on the belief of other characteristics. According to Mayer et al. (1995), a model of dyadic trust in organizational relationships which characteristics of trustor and trustee is influenced by the construction of trust. It represents the trustor's perception of trustworthiness in three characteristics of trustee. These are ability, benevolence, and integrity. The logical model is based upon the perception of the trustor to gain trust on the trustees' ability. If level of trust in the selling party surpasses a threshold of perceiving risk, then the trustor will engage in a risky relationship with selling party. Whereas, trust is a key determining factor of action while consumers negatively perceives risk in circumstance (Luhmann, 1988).

Particularly, individuals are vulnerable to the reaction of others when they feel separated socially, geographically, and temporally (Zucker, 1986). Such detachment is typical for online (Brynjolfsson & Smith, 2000; Lancastre & Lages, 2006; D Harrison McKnight & Chervany, 2001), virtual, and impersonal environments, where the interactions between individuals are mediated by information systems. The system enables people from around the world to communicate, interact, and meet with one another, regardless of geographical location. Basically, individuals do not meet physically online, and the chaos is beyond complex to verify persons' identities (Ba, Whinston, & Zhang, 2003; Knights, Noble, Vurdubakis, & Willmott, 2001; Pavlou & Gefen, 2004). Since persons' identities can be faked with no simple way of verification, it is easy for individuals to behave freely. In reality, people are able to meet face to face and directly observe others' characteristics, habits, and intentions based upon their verbal and non-verbal interaction (X. Hu, Lin, Whinston, & Zhang, 2004; Pavlou & Gefen, 2004; Suh & Han, 2003). Nowadays, physical interaction is supplanted by virtual. Instead of being in contact with others directly, individuals interact through computer interfaces (Pavlou, 2002, 2003). The information, which is provided by a computer interface as mediator is useless in judging others' behavior and anticipating future conduct (Gefen, Karahanna, et al., 2003b; Jøsang et al., 2007). Online users who have high uncertainty avoidance will cautiously be concerned about these risks. Online sellers and intermediaries have to try to mitigate the risks by implementing an effective formal control mechanism using rules and regulations, certifications, which successfully build and maintain exchange interactions regardless of those risks (Zucker, 1986). But normally, online system lack effective formal control mechanisms (Antony et al., 2006; Ba, 2001; Stewart, 2003). Contracts and product or payment guarantees are particularly absent in online transactions, and furthermore, they are difficult to enforce on stakeholders (Ba & Pavlou, 2002; Gefen, Karahanna, et al., 2003b; Suh & Han, 2003).

Due to internet-based interactions, individuals exchange information via technological infrastructure in the form of data. Bhimani (1996) advises that the original online system was aimed to communicate between scientists, rather than

secure the exchange of information. Recently, authentication and encryption have significantly improved, although technology in not perfect (Suh & Han, 2003). Even if all stakeholders in online transactions abstained from behaving opportunistically, there would still be some harmful parties outside the interaction trying to abuse security systems through hacking and intercepting sensitive information (V. Cho, 2006; Pavlou, 2003). Risk of such behaviors are substantial in online transactions because the interactions involve personal information such as credit card numbers (M. K. Lee & Turban, 2001). Prior studies posit that individuals who do not trust online seller and intermediary will avoid doing business with other parties (Gefen, Karahanna, et al., 2003b; M. K. Lee & Turban, 2001; Shankar et al., 2002). Hence, trust is substantial in online interactions (Bart et al., 2005; Brynjolfsson & Smith, 2000; X. Hu et al., 2004), significantly more important than physical exchanges (Ba & Pavlou, 2002; Harris & Goode, 2004; Lynch, Kent, & Srinivasan, 2001). Electronic commerce will become successful, even if the public does not have sufficient trust in online venders in general (X. Hu et al., 2004; D. J. Kim et al., 2005; D Harrison McKnight et al., 2002). Yet, many consumers still lack trust in online venders (D. Kim & Benbasat, 2006; Koufaris & Hampton-Sosa, 2004). As a result, it will impede the adoption of electronic commerce (Belanger et al., 2002; Bhattacherjee, 2002; Pavlou, 2003)

Trust can be monitored as a factor to relieve the consequences of risk in online purchase decisions. First, trust is related to risk in conditions that a consumer will take risks, but is unable to control the consequence (Deutsch, 1960; Ratnasingham, 1998a; Rousseau, Sitkin, Burt, & Camerer, 1998). As trust increases, consumers are more likely to perceive less risk. The influence of trust will have mediated risk on a consumer's attitude towards purchasing. Secondly, prior studies have shown a direct relationship between trust and a consumer's attitude towards purchasing decisions (Bhattacherjee, 2002; Gefen, 2002; D. Harrison McKnight et al., 1998). Trust formation requires both information and mental efforts (Hawes, Strong, & Winick, 1996) to determine whether others can be trusted or not (Zucker, 1986). Generally, individuals' subconscious is based upon the judgment of trustees' trustworthiness on perception of other's behavior (Gefen, Karahanna, et al., 2003b; D. Harrison McKnight et al., 1998) and contextual factors (Friedman et al., 2000; Stewart, 2003).

Koufaris and Hampton-Sosa (2004) advise that the main sources of such powerful information such as website and content, represent online venders by creating an attractive virtual presence. In online interactions, consumers contact sellers and intermediaries via technological systems acting as mediator. Servers and networks, website contents, website interfaces, and security measures are the virtual representative of venders. Trustors with positively evaluated websites by trustees might have positive impacts on whether venders are trusted (D. Harrison McKnight et al., 2002). Furthermore, a security system is an essential component of technological infrastructure that can impact trust directly (Bart et al., 2005; Suh & Han, 2003). Even though an individual may securely keep away from fraud, the open nature of an online infrastructure is exposed to risks of information theft and privacy loss due to opportunistic behaviors of other parties from an online interaction (V. Cho, 2006; Pavlou, 2003). As a consequence, when a trustor perceives that a trustee has implemented online security system like data encryption and authentication, it will stimulate a positive attitude and increase the trust in this party (V. Cho, 2006).

Because computer-mediated transactions are fundamental to electronic commerce, where parties of exchange are separated(Lancastre & Lages, 2006; Pavlou, 2002; Pavlou & Dimoka, 2006), it is easier for all parties to behave opportunistically (Ba & Pavlou, 2002; X. Hu et al., 2004). Lack of trust is one the main reasons that all parties try to avoid when using electronic commerce (Hsiung et al., 2001; Kalvenes & Basu, 2006) and complete a transaction with a particular seller and intermediary on that platform (Pavlou & Gefen, 2005). Due to the increase of fraud cases in C2C electronic classified marketplaces (Antony et al., 2006; Ba et al., 2003; J. Zhang, 2006), a seller might behave deceitfully in several ways as agree to sell their product at the beginning and refusing later on (Pavlou & Gefen, 2005; Zacharia & Maes, 2000), and arbitrarily raise the selling price (Zacharia & Maes, 2000). Although both parties have accepted terms of payment method, once consumer has transferred their money to seller, that opportunistic seller whose received money will not actually provide product to consumer (Ba & Pavlou, 2002; Pinker, Seidmann, & Vakrat, 2003). Alternatively, after receiving payment, the seller might intentionally ship a product which is different from the one that was advertised, because seller purposefully provided swindling, incorrect, and incomplete information in their

advertisement (Pavlou & Gefen, 2005; Zacharia & Maes, 2000). Even a seller who ships an appropriate product to consumer may be tricky by delaying the shipment because they are not using a promised shipping method (Ba & Pavlou, 2002; Pavlou & Gefen, 2005), or charge a higher cost of shipping (Chua et al., 2007), or even not offering guarantees while product is returned (Pavlou & Gefen, 2005).

Such above behaviors are not observable only in C2C electronic classified marketplaces, but also in other online purchase methods. However, there are two attributes in C2C electronic classified marketplaces, which are even more disclosed than other business model. First, in these types of online purchases, consumers commonly engage in transactions with unknown sellers and unfamiliar platforms (Pavlou & Gefen, 2004, 2005), with no brand reputation (Ba & Pavlou, 2002; Pavlou & Dimoka, 2006). Secondly, the marketplaces of C2C electronic classified are commonly characterized by a huge number of sellers (Ba & Pavlou, 2002), where sellers' identities are easy to create and change, (Zacharia & Maes, 2000; J. Zhang, 2006) and can not be verified by the intermediary (X. Hu et al., 2004). Due to these issues, there is increased likelihood of fraudulent behavior, as it's difficult for consumers to discover the identity of other parties and their trustworthiness (Ba & Pavlou, 2002; J. Zhang, 2006). As consequence, trust is considered particularly significant in such electronic commerce as a potential method to eliminate dishonorable behavior and lessen consumers' decision complexity (Meents, 2009). The above findings have led to formulation of following hypothesis:

Hypothesis 11a.

A consumer's trust (TRUST) on seller and intermediary has positive influences on consumer's purchase intention (INT) in C2C electronic classified marketplaces as P2P system.

Hypothesis 11b.

A consumer's trust (TRUST) on seller and intermediary has negative influences on consumer's perceived risk (RISK) on seller and intermediary.

#### 2.2.5 Perceived benefits (BENEFIT)

Chandon, Wansink, and Laurent (2000) describe perceived benefits as the positive consequences associated with behaviors which respond to perception or substantial threat. Perceived benefit applies to a traditional trading system all along until now. An individual's perception of benefits is related to their satisfaction of a specific shopping action. Mainly, there are two related research dimensions of perceived benefits, a traditional retail and non-store behavior (M. T. Liu, Brock, Shi, Chu, & Tseng, 2013). Sheth (1981) presume that the personal determining factor of traditional shopping formats is broadly understood as influences by both functional and non-functional motives. Functional motive is related to practical function such as price, variety and quality of products, and convenience, specifically including features as one-stop shopping, availability of needed products, parking lots, and so-called intrinsic factors. Although non-functional or hedonic motives are related to emotional values, social acceptance, social needs for pleasant, and fascinating shopping experience which include novelty seeking, and storing image. These motives are extrinsic factors to the seller and intermediary (Bhatnagar & Ghose, 2004a, 2004b; Childers et al., 2002; Forsythe, Liu, & Shannon, 2006; Menon & Kahn, 2002).

There are several types of shopper. First, there is the convenience shopper, who selects a store to save time or money. These shoppers basically are influenced by functional motives. Second is the recreational shopper who is motivated by nonfunctional motives. They prefer a physical store for everyday shopping (Bellenger & Korgaonkar, 1980). Last is the convenience-economic shopper who prefer non-store shopping (Korgaonkar, 1984) also known as the online consumer. Former studies like Kauffman, Lai, and Ho (2010) discovered that there are three different perceptions of fairness in consumer participation in online transaction; quantity-based, time-based, and sequence-based. Forsythe et al. (2006) determined that there are four different types of benefits to perception in online shopping; product selection, ease/comfort of shopping, shopping convenience, and hedonic/enjoyment. Besides that, Li, Kuo, and Rusell (1999) suggested that there are three major benefits related with online purchasing behavior which are price benefit, convenience benefit, and recreational benefit. Precisely, perceived benefit (BENEFIT) is defined as a consumer's perception about gaining benefits from an associated selling party (Dan J.

Kim et al., 2008). Margherio, Henry, Cooke, and Montes (1998) reports that consumers complete online transactions because they perceive several benefits like variety of product selection, convenience, time and cost saving, comparing with tradition shopping mode (Margherio et al., 1998). Consequently, the more consumers perceive benefits associated with an online transaction with a certain selling party, the more likely they are willing to make online transactions.

In the online aspect, perceived benefits determine the degree in which consumers realize that an innovation is providing advantages and benefits over the original one (E. Rogers, 1995). Wu (2003) suggest that perceived benefits define as the aggregate of advantages that meet consumers' needs. Besides, it is a consumers' belief that they would be better off in online transaction with a particular seller and intermediary (Dan J. Kim et al., 2008). E. Rogers (1995) identifies the essential factors in an innovative adoption decision-making process comprised of economic profitability, advantage of innovation, and social prestige. Certainly, online shopping provides an opportunity for a consumer to purchase a product and service anywhere and anytime. Consumers can enjoy window shopping by seeking needed information, reviewing product features with positive and negative feedback from real users, and comparing prices between different sellers, for as long as they want without feeling the pressure and stress to purchase (Al-Debei, Akroush, & Ashouri, 2015). In addition, perceived benefits in online shopping is one of major factors that affect adoption decisions (Eastin, 2002; Dan J. Kim et al., 2008; Margherio et al., 1998; M. Zhou et al., 2008), also it significantly represent as consumers' encouragement, shape up favorable and positive attitude towards electronic shopping. Dan J. Kim et al. (2008) highlights that perceived benefits play a significant role in explaining the attitude of consumer. The more perceived benefits with a certain seller and intermediary, the more likely that consumers would have a positive attitude towards those online transactions (Al-Debei et al., 2015). Consequently, we hypothesize:

Hypothesis 12.

A consumer's perceived benefit (BENEFIT) on seller and intermediary has positive influences on consumer's purchase intention (INT) in C2C electronic classified marketplaces as P2P system.

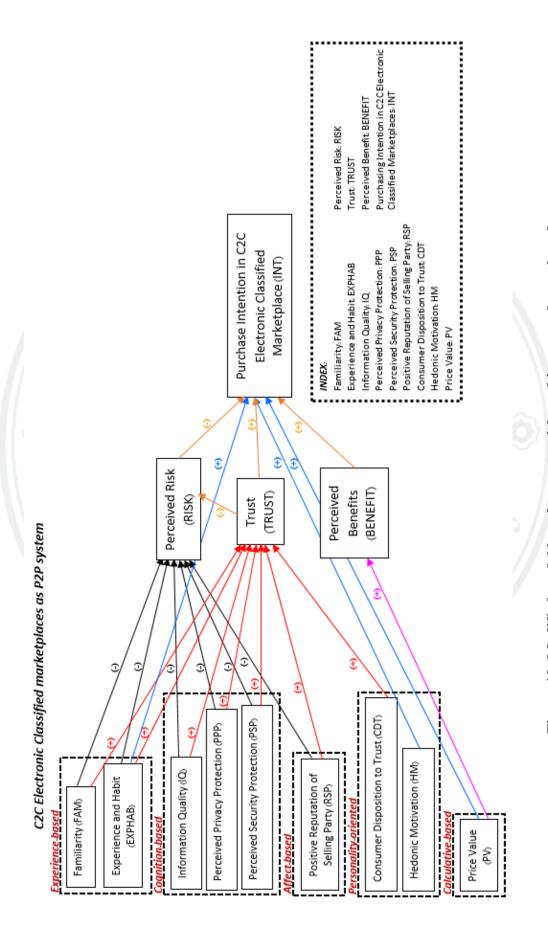
# 2.2.6 Purchase intentions (INT) in C2C electronic classified marketplaces as P2P System

According to the Theory of Reasoned Action (TRA) by Fishbein and Ajzen (1975), and Theory of Planned Behavior (TPB), and Technology Acceptance Model (TAM) by (Fred D. Davis, 1989) previous electronic commerce studies have shown that consumer intention is a significant predictor of online consumers' participation (Pavlou & Fygenson, 2006). Intentions represent the probabilities for individual behavioral responses (Fishbein & Ajzen, 1975). Intentions have been used throughout in the information system adoption field (Hess, McNab, & Basoglu, 2014). Previous studies have suggested that the relationship between attitude and purchase intention are based upon an assumption that humans struggle to make rational decisions based on the available information that they have. Individual intention to perform or not perform a particular behavior is an immediate determinant of actual behavior (Icek Ajzen & Fishbein, 1980). Fred D. Davis (1989) identifies an individual intention to perform such behavior, of which consequence from conscious decision-making attitude of individual determined as a tendency to respond in an action towards such object in which favorable or unfavorable way (Allport, 1935; Rosenberg, 1960). Commonly, attitude does not dominate over behavior, but a disposition is affected. TRA posits that an individuals' performance is defined by their own behavioral intentions, of which such intention is determined by individuals' attitudes and subjective norm (Icek Ajzen & Fishbein, 1980). Fred D. Davis (1989) developed TAM to describe an acceptance of information systems, which show users' attitude towards using technology systems. Prior scholars suggest that attitudinal belief is especially related to the context of consumer decision making (S. A. Brown & Venkatesh, 2005; Venkatesh & Brown, 2001). A consumer's favorable attitude is expected for easy online transactions, and eliminates barriers to adopt electronic commerce (Sirkka L. Jarvenpaa et al., 1999; Pavlou & Chai, 2002). When the adoption is voluntary, then the attitude correlates well with behavioral intention (Fred D Davis et al., 1989).

Arguably, Venkatesh et al. (2003) explains that attitude may not as essential in behavioral intentions predicting, as initially suggests by TAM and TRA. Antecedent studies that examined individuals introduced into new technologies found significant

positive influences on behavior intention (Jeong & Lambert, 2001; Korzaan, 2003; M. K. Lee, Cheung, & Chen, 2005; Pavlou & Fygenson, 2006; Shih Dong Her et al., 2004; Van der Heijden et al., 2003). Based on UTAUT, the integration of eight frameworks which are related to technology acceptance, Venkatesh et al. (2003) terminates three constructs, attitude toward using technology, anxiety, and self-efficacy, because those constructs have no strong impact on other factors. This study will concentrate on consumer purchase intention in C2C electronic classifieds marketplaces as P2P system and how it is influenced by consumer's trust, perceived risk, and perceived benefit grounding on TRA, TPB, and UTAUT2.





Dan J. Kim, Ferrin, and Rao (2008), Gefen, Karahanna, and Straub (2003b), and Venkatesh, Thong, and Xu (2012) Figure 13: Modified model based on trust, risk, and its antecedences based on

#### **CHAPTER 3**

## **METHODOLOGY**

This empirical study aims to investigate the perceptions of a Thai consumer in C2C electronic classified marketplaces as they decide whether to complete an online transaction, based upon major constructs such as trust, and the perception of risks and benefits. Furthermore, this study investigates deeper into the five different categories antecedent of trust, risk and benefit perception to discover factors which affect consumer perception in C2C electronic classifieds marketplaces as P2P system. As aforementioned, prior scholars suggest that trust and risk are the most essential influences to consumer purchase intention. However, there are still several factors that influence trust, risk and benefit perception. (Dan J. et al., 2004; Dan J. Kim et al., 2008).

# 3.1 Instrument development

A survey was conducted to test and confirm the foregoing hypothesis. An instrument to measure the variables was developed by adapting previous validated scales. The research instrument consists of a set of questions for each research construct to gather information from respondents. For the research's reliability, each of the constructs is operating with multiple items measured on a seven-point Likert's scale (1 = strongly disagree to 7 = strongly agree). This lets the participant answer the most proper answers that suit their perception. Rensis Likert developed the Likert scale as 'A Technique for the Measurement of Attitudes', personalities, opinions, emotions (Likert, 1932). The main purpose of Likert's scale is to measure the means of psychological attitudes in a scientific method. Quantitative researches generally apply a five-point or seven-point Likert's scale (Likert, 1932). Likert's scale endeavors to quantify the measuring constructs that cannot be measured directly. Often, the scholar applies "multiple-item scales and summated ratings to quantify the

construct(s) of interest" (Gliem & Gliem, 2003). Furthermore, McIver and Carmines (1981) defines the Likert scale as follows:

"A set of items, composed of approximately an equal number of favorable and unfavorable statements concerning the attitude object, is given to a group of subjects. They are asked to respond to each statement in terms of their own degree of agreement or disagreement. Typically, they are instructed to select one of five responses: strongly agree, agree, undecided, disagree, or strongly disagree. The specific responses to the items are combined so that individuals with the most favorable attitudes will have the highest scores while individuals with the least favorable (or unfavorable) attitudes will have the lowest scores. While not all summated scales are created according to Likert's specific procedures, all such scales share the basic logic associated with Likert scaling."

Mostly, the Likert scale considers using at least five response categories. Thus, the seven-point Likert-scale applies to reach the higher limit of scale reliability (I. E. Allen & Seaman, 2007). Likert (1932) also recommends that the research scholar can implement a higher rating scale as possible to get better results, if appropriate for such analysis. This study employs a seven-point scale instead of a five-point scale because there is a thoroughly better research result with more scale points.

Comprised of all the constructs, the research questionnaire will ask based upon the scope of Familiarity (FAM), Experience and Habit (EXPHAB), Information Quality (IQ), Perceived Privacy Protection (PPP), Perceived Security Protection (PSP), Positive Reputation of Selling Party (RSP), Consumer Disposition to Trust (CDT), Hedonic Motivation (HM), Price Value (PV), trust (TRUST), perceived risk (RISK), and perceived benefits (BENEFIT), and purchase intention (INT). Hence, some minor modifications to the former scale (Dan J. Kim et al., 2008; Meents, 2009; Plouffe, 2008) are made by included wording items to make all the questions applicable for this research context (See appendix A).

# 3.2 Content validity

The survey sample was written in Thai. All questionnaire items were originally in English and reviewed for content validity by language experts. A professional

translator translated the instruments into Thai. Then, the questionnaires were reversed translated into English to confirm translation equivalence. After a careful comparison and discussion of translation, the survey was pretested with 15 people before launch to test the instrument and correct any errors. All feedback from the pilot test was strictly obtained and adjusted.

#### 3.3 Control variables

Based upon previous studies, there are several factors other than those determined constructs in previous sections, of which could be expecting to influence consumers' trust, risk and benefits perception, and its antecedents in C2C electronic classified marketplaces. The effects of such factors are a concern in this study. Nevertheless, such effects are not specified in a formal hypothesis. These factors are control variables in this empirical study like consumers' age, gender, education level, income rate, product purchased, money spent on purchase, frequency of purchase, and experience with an online transaction through a marketplace.

#### 3.4 Data Collection and General Characteristics

A survey was conducted by a questionnaire survey to collect primary data. The questionnaire survey was held in Thailand to see a Thai's perspective towards C2C electronic classifieds marketplaces consumers as P2P system. The questionnaire was hosted on both online and offline survey. The survey was promoted by posting announcements to group members and friends of C2C electronic classified marketplaces such as Facebook, Instagram, Line, Kaidee.com, PanTipMarket. The respondents were asked to click on the provided URL in the posted message, which lead to an online survey. Furthermore, offline samples were collected using a convenient method in Thailand. Consumers who had engaged with C2C electronic classified marketplaces were invited to fill out printed questionnaires. The target respondent was a consumer who had a past purchasing experience with C2C electronic classified marketplaces. The respondent was asked to choose which C2C electronic classified marketplaces platform that they had experience with, such as

Facebook, Line, Instagram, Kaidee.com, and PanTipMarket. They were asked to fill out such target and also asked whether or not they had made purchases via C2C electronic classified marketplaces. The collecting period was held from June 2017 until August 2017.

# 3.5 Data Analysis

Data analysis was conducted by using IBM SPSS statistic 21 and IBM SPSS AMOS 21. Firstly, data analysis tested the conceptual model by establishing the convergent and discriminant validity of variables and tested all proposed hypothesis by using IBM SPSS. Secondly, Covariance Based Structure Equation Model (CB-SEM) was applied to test the model fit by using IBM SPSS AMOS. This study applied SPSS to test all proposed hypotheses to understand a comprehensive relationship between nine antecedents, three main predictors, a dependent variable, and control variables. The study aimed to see the complications between the predicted hypothesis and unpredicted relationship. For IBM SPSS AMOS or Covariance Based Structure Equation Model (CB-SEM), this research objective aimed to test and confirm Theory of Planned Behavior (TPB), Theory of Reasoned Action (TRA), and Extending Unified Theory of Acceptance and Use of Technology (UTAUT2), which applied into research model. Also, pilot testing reported that data distribution of this study was normally distributed, and all items of each construct were more than 3 items. So, AMOS was the most suitable program to perform structural equation model for this study (Hair, Black, Babin, Anderson, & Tatham, 1998).

# 3.6 Demographic characteristics of respondents

There were 427 respondents that participated in the questionnaire survey, for both online and offline surveys. There were 396 respondents counted as the target respondents in this research study. The questionnaire survey applied filler questions as "Have you used C2C electronic classified marketplaces (as Facebook, Line, Instagram, Kaidee.com, PantipMarket.com) to purchase online products before?" and

"What C2C electronic classified marketplaces platform in Thailand have you been using?", 24 respondents answered that they had no experience, 6 respondents did not answer this filter question, and 1 respondent had a missing value. These groups were counted as an error in a questionnaire survey, a total of 31 respondents (7.26 percent of total respondents, 427). For the offline survey, 200 sets of questionnaires were handed out, and 71 were returned. This counted as a 35.5 percent response rate from the total paper-based survey and 17.93 percent of total target respondents. The were 325 respondents who participated in the online-based survey; that is 82.07 percent of total respondents. 66.9 percent of participants were female and 33.1 percent were male, of which the average age of participants was 35.8 years old. Most respondents were living in the Bangkok metropolitan (76.3 percent), Central Plain (12.1 percent), North-Eastern (5.3 percent), Northern (3.3 percent), and Southern (3 percent) respectively. 51.3 percent of the total participants completed a bachelor's degree and 33.3 percent earned 15,000 - 30,000 THB revenues per month. According to selfrating scales, the respondents rated their own experience with online transaction as 4.22 out of 7 points. The top four ranking C2C electronic classified marketplaces platforms in Thailand used by the target respondents in this study are: Facebook (32.1 percent), Line (29.5 percent), Instagram (14.7 percent), and Kaidee.com (7.6 percent). For products purchased via online transaction, the top three products which consumers buy from online channel are: fashion products (Clothing, bag, shoes, and accessories), health & beauty products (cosmetic and skincare), and IT gadgets. The majority of respondents indicated that they used an online platform to purchased products and services 1 to 3 times per three months, of which each purchase cost from 500 to 1,000 Baht. Appendix B shows more details about the respondent demographics.

# 3.7 Construct validity and reliability assessment

Schwab (1980) defines construct validity as "representing the correspondence between a construct conceptual definition of a variable and the operational procedure to measure or manipulate that construct". It considers an essential process of construct validation to measure the sufficiency of a research construct. "Construct

validation is a necessary and major element in the research process" (Schwab, 1980). An empirical research aims to study the relationship between related constructs grounding upon theories. The more that a researcher can find proper and sufficient variables to measure the more ability there is to predict significant relationships between variables. Nunnally (1978) suggests that measure constructs that have more random errors will decrease the statistical outcome and persuade to false acceptance of null hypothesis. Commonly, the validity and reliability of components base on the degree of measurement error (O'Leary-Kelly & Vokurka, 1998). "All measures reflect not only the construct they are intended to measure, but also measurement error" (Carmines & Zeller, 1979; O'Leary-Kelly & Vokurka, 1998). An error could possibly be both a systematic error and a random error. Systematic errors are the negative consistent manner that are associated with validity. Basically, systematic errors are related to key-in-format bias. For random errors, they are considered as an unpredictable manner that generates random variances across repeated measures. Also, random errors pertain to the reliability of measurement, which may cause incorrect research results. "A random error can attenuate the results of statistical tests" (R. P. Bagozzi, Yi, & Phillips, 1991; K. Bollen, 1989; O'Leary-Kelly & Vokurka, 1998). However, prior studies posit that random errors were affected by parameter estimation and related to false indications of significant relationships among constructs (K. Bollen, 1989; O'Leary-Kelly & Vokurka, 1998).

The evaluation of the measurement model consists of the testing of convergent and discriminant validity for each construct validity and the estimation of internal consistency (K. Bollen, 1989; Chin & Todd, 1995). Based on prior studies, construct validity is basically comprised of three steps which are "content validity, construct validity and nomological validity" (R. Bagozzi, 1980; Venkatraman, 1989), or "substantive validity" (Schwab, 1980). Construct validity assessment requires the three components, that is comprised of "unidimensionality, reliability and validity" (O'Leary-Kelly & Vokurka, 1998). Unidimensionality is defined as "a set of empirical indicators relates to one and only one construct" (O'Leary-Kelly & Vokurka, 1998), "It is a matter of logical and empirical necessity that a variable be unidimensional" and "a multidimensional measure is comprised of indicators related to more than one construct cannot, by definition, be considered a variable and hence must not be treated

as such in one's theory' (R. Bagozzi, 1980). As a consequence, unidimensionality can lead an empirical research to false conclusions. "Unidimensionality refers to the existence of a single trait or construct underlying a set of measures or empirical indicators" (Gerbing & Anderson, 1988). Statistically, there are two methods to estimate unidimensionality, which are "exploratory factor analysis (EFA) and confirmatory factor analysis (CFA)" (Pedhazur & Schmelkin, 1991). For reliability, it is related to the stability or consistency of a measurement. Based upon random errors, a reliability test will measure the degree of random error that is contaminated with such construct. This empirical study implies that Cronbach's alpha coefficient tests the reliability of measuring construct (Carmines & Zeller, 1979; Pedhazur & Schmelkin, 1991). The range of Cronbach's alpha coefficient is from 0 to 1, of which prior scholars recommend that the higher the alpha is the higher the reliability, and also represents the true score (or systematic variance) of measuring construct (O'Leary-Kelly & Vokurka, 1998). Commonly, the Cronbach's alpha is grounded upon the correlations among constructs, so the high correlation among variables indicate higher alpha coefficients (Pedhazur & Schmelkin, 1991). In contrast, there is still not an accomplished agreement between researchers on a standard alpha coefficient that would be considered as an acceptable level of empirical study. Nunnally (1978) has posited that the Cronbach's alpha coefficients less than 0.7 are not acceptable in a research study. But, others recommend that coefficients are acceptable as low as 0.4 (Van de Ven & Ferry, 1980). The advantages of using Cronbach's alpha coefficient are, "it is based on the much less restrictive assumption that the indicators are  $\lambda$ -equivalent" (Pedhazur & Schmelkin, 1991) and there is no chance of "carry-over effects" (K. Bollen, 1989). For this research study, Cronbach's alpha coefficients of all constructs were above 0.8 (See Table 3). The research results exceeded an acceptable level of 0.7 (Gravetter & Forzano, 2012; Hair et al., 1998; Nunnally, 1978). Cronbach's alpha coefficient also recommends to eliminate some questionnaire items as INT9: If I want to purchase a product online, I would consider buying it from C2C electronic classified marketplaces, RISK1: My credit card number will be secure at C2C electronic classified marketplaces, RISK2: It is possible to judge quality of a product/service on C2C electronic classified marketplaces, RISK3:

My personal information will be kept private at C2C electronic classified marketplaces because SPSS suggests that the result of Cronbach's Alpha will be higher if such items are deleted.

Table 3: Cronbach's Alpha Coefficient of Measuring Construct

Construct	Abbreviation	Number of items	α
Purchase intention	INT	9	0.956
Perceived risk	RISK	3	0.862
Trust	TRUST	7	0.945
Perceived benefit	BENEFIT	5	0.812
Familiarity	FAM	4	0.960
Experience and habits	EXPHAB	4	0.940
Information quality	IQ	8	0.963
Perceived privacy protection	PPP	6	0.913
Perceived security protection	PSP	11	0.939
Positive reputation of selling party	RSP	4	0.926
Consumer disposition to trust	CDT	4	0.922
Hedonic motivation	HM	7	0.970
Price value	PV	7	0.950

According to Gerbing and Anderson (1988), "unidimensionality refers to the existence of a single trait or construct underlying a set of measures (or empirical indicators)". There are two certain conditions that establish unidimensionality. Firstly, "an empirical indicator must be significantly associated with an underlying latent variable" and secondly, "it can be associated with one and only one latent variable" (J. C. Anderson & Gerbing, 1982; Junior, Joseph, Anderson, & Tatham, 1992; O'Leary-Kelly & Vokurka, 1998; Phillips & Bagozzi, 1986). Both conditions are required in such measurement to be considered unidimensional. Generally, there are two methods to estimate the unidimensionality of measurement, such as exploratory factor analysis and confirmatory factor analysis (Pedhazur & Schmelkin, 1991). These two methods

are commonly examined in "the linear association among empirical indicators as they relate to the underlying latent variable(s) (J.-O. Kim & Mueller, 1978).

The measurement model for this study was tested by using both exploratory factor analysis method (EFA) and confirmatory factor analysis method (CFA). First of all, this research model used EFA as "an analytic method used to condense a group of empirical indicators into a smaller set of composite factors (latent variables) with a minimum loss of information" (Hair et al., 1998). Normally, EFA is using an exploratory research to probe such data in unidimensional latent variables searching (O'Leary-Kelly & Vokurka, 1998). EFA allows all variables to correlate. Anyhow, there are some EFA techniques that are not granted to correlate as orthogonal techniques, while there are other techniques where all constructs are correlated freely as oblique techniques (K. Bollen, 1989). The purpose of using EFA in this study is to show that empirical research constructs are strongly related to such particular latent variables, of which "the strength of the 'link' is determined by the size of the factor loading" (O'Leary-Kelly & Vokurka, 1998). The prior studies from Schwab (1980) and Ward, Duray, Leong, and Sum (1995) use EFA to prove that a group of constructs are unidimensional regarding a predefined latent variable of prior studies. Theoretically, the measuring constructs are correlated to different latent variables, of which EFA will certify a precedence and unidimensionality.

Still, there is no exact number of factor loading to be considered as significant. Anyhow, prior scholars determined a "rule of thumb" for judging a significant number of factor loading. Junior et al. (1992) recommends that 0.30 is the smallest factor loading that would be considered as significant and acceptable in a research study. Some others recommend that the rule of thumb depends on various factors such as unique variance, sample size, and the order that such a latent variable is extracted. Factor loading could be higher or lower than 0.30 based upon above factors and subjective thought. However, "a minimum factor loading of 0.30 seems to be the agreed upon rule of thumb" (Carmines & Zeller, 1979; Junior et al., 1992; Kerlinger, 1986; Pedhazur & Schmelkin, 1991).

Due to Table 4, the Maximum-Likelihood (ML) method with Promax rotation was applied to test the validity of measuring the constructs of the study. The Maximum Likelihood method is one of factor analysis extraction method thats

"produces parameter estimates that are most likely to have produced the observed correlation matrix if the sample is from a multivariate normal distribution" (IBM Knowledge Center). "The correlations of measuring constructs are weighted by "the inverse of the uniqueness of the variables, and an iterative algorithm is employed" (IBM Knowledge Center). The Maximum-Likelihood method is considered as the most suitable choice of rotation method. According to Fabrigar, Wegener, MacCallum, and Strahan (1999), "it allows for the computation of a wide range of indexes of the goodness of fit of the model and permits statistical significance testing of factor loadings and correlations among factors and the computation of confidence intervals". But, the Maximum-Likelihood method can apply to the measuring process only if the analysis data is normally distributed.

This study was separated into two data sets to test factor analysis. The first group is comprised of nine antecedents of trust, risk and benefits perception as familiarity (FAM), experience and habit (EXPHAB), information quality (IQ), perceived privacy protection (PPP), perceived security protection (PSP), positive reputation of selling party (RSP), consumer disposition to trust (CDT), hedonic motivation (HM), price value (PV) to test the exploratory factor analysis method (EFA). For KMO and Bartlett's test, all measuring samples met the thresholds of sampling adequacy (Measure of Sampling Adequacy: 0.969) and were significant at the 0.001 level. EFA recommends that there are eight factors to explain the 74.705 percent of variance, each measuring construct loaded higher than 0.5 on their own factor (Lusch, 1976). Hence, EFA suggests that familiarity (FAM) and experience and habit (EXPHAB) are the same factor, and that the factor loading of both constructs are higher than 0.5. After combined FAM and EXPHAB together, Cronbach's alpha coefficient of a new particular construct is 0.968, which is above the acceptable level of 0.7 (See Table 5). EFA also recommends to eliminate some questionnaire items as PSP6: In general, providing credit card information through seller and intermediary platform in C2C electronic classified is riskier than providing it over the phone to an offline store, and PV6: Considering the risk involved in online shopping by using C2C electronic classified marketplaces, this online shopping channel is of value because the factor loading is lower than 0.5.

Table 4: Factor analysis; Exploratory factor analysis method (EFA)

				Factor	s			
Items	PSP	FAM/EXPHAB	HM	IQ	PPP	PV	RSP	CDT
PSP7	0.989							
PSP8	0.879							
PSP9	0.871							
PSP4	0.858							
PSP10	0.828							
PSP5	0.756							
PSP11	0.731							
PSP3	0.684							
PSP2	0.671							
PSP1	0.546							
FAM1		1.043						
FAM2		0.954						
FAM4		0.882						
FAM3		0.821						
EXPHAB1		0.789						
EXPHAB2		0.760						
EXPHAB4		0.741						
EXPHAB3		0.646						
HM3		0.0.0	1.026					
HM2			0.975					
HM5			0.968					
HM1			0.888					
HM4			0.790					
HM6			0.761					
HM7			0.743					
IQ4			0.7.15	0.932				
IQ2				0.887				
IQ5				0.868				
IQ8				0.833				
IQ3				0.803				
IQ1				0.778				
IQ6				0.746				
IQ7				0.691				
PPP3				0.07.2	0.916			
PPP2					0.863			
PPP6					0.851			
PPP4					0.750			
PPP5					0.727			
PPP1					0.686			
PV4						0.938		
PV2						0.873		
PV3						0.853		
PV5						0.767		
PV1						0.751		
PV7						0.727		
RSP2						0.727	0.946	
RSP1							0.894	
RSP3							0.794	
RSP4							0.649	
CDT3							0.047	0.811
CDT1								0.801
CDT4								0.765
CDT2								0.753

Extraction Method: Maximum Likelihood.
Rotation Method: Promax with Kaiser Normalization.
Rotation converged in 8 iterations.

Table 5: Cronbach's Alpha Coefficient of Measuring Construct: Combining Familiality, Experience and Habit (FAMEXPHAB)

Construct	Abbreviation	Number of items	α
Purchase intention	INT	9	0.956
Perceived risk	RISK	3	0.862
Trust	TRUST	7	0.945
Perceived benefit	BENEFIT	5	0.812
Familiarity	FAM	4	0.960
Experience and habits	EXPHAB	4	0.940
Information quality	IQ	8	0.963
Perceived privacy protection	PPP	6	0.913
Perceived security protection	PSP	11	0.939
Positive reputation of selling party	RSP	4	0.926
Consumer disposition to trust	CDT	4	0.922
Hedonic motivation	HM	7	0.970
Price value	PV	7	0.950
Familiality, Experience and habits	FAMEXPHAB	8	0.968

Afterwards, all measuring constructs were tested using confirmatory factor analysis method (CFA) to confirm that the measuring constructs were grouped into same factor. Nevertheless, Gerbing and Anderson (1988) suggest that CFA is quite different from EFA because CFA includes inferential statistics which "allow for hypothesis testing regarding the unidimensionality of a set of measures". CFA is a stricter, more objective interpretation than EFA, and indicates different conclusions about unidimensionality of measurement (Gerbing & Anderson, 1988). CFA also requires the scholar to identify the complete research model to identify relationship and association between all measuring constructs, of which are called "latent variables" (O'Leary-Kelly & Vokurka, 1998). In CFA, the linkage of latent variables in an empirical study strictly requires the theoretical justification to assess unidimensionality and process of construct validation. Consequently, all variables

were tested using a maximum likelihood factor analysis. The promax rotated factor solution yielded eight factors with the Eigenvalues greater than 1.0. For KMO and Bartlett's test, all measuring samples met the thresholds of sampling adequacy (Measure of Sampling Adequacy: 0.968) and were significant at the 0.001 level. The factor analysis recommended the eight factors explained 75.839 percent of total variance, each measuring construct loaded higher than 0.5 on their own factor (Lusch, 1976) (See Table 6).



Table 6: Factor analysis; Confirmatory factor analysis method (CFA)

**Factors** PSP FAMEXPHAB PPP PV RSP CDT Items HM IQ PSP7 0.989 PSP8 0.879 PSP9 0.871 PSP4 0.858 PSP10 0.828 PSP5 0.756 PSP11 0.731 PSP3 0.684 PSP2 0.671 PSP1 0.546 FAMEXPHAB1 1.043 FAMEXPHAB2 0.954 FAMEXPHAB3 0.882 FAMEXPHAB4 0.821 FAMEXPHAB5 0.789 FAMEXPHAB6 0.760 FAMEXPHAB7 0.741 FAMEXPHAB8 0.646 HM3 1.026 HM2 0.975 HM5 0.968 HM1 0.888 HM4 0.790 HM6 0.761 HM7 0.743 0.932 IQ4 0.887 IQ2 IQ5 0.868 IQ8 0.833 IQ3 0.803 IQ1 0.778 0.746 IQ6 0.691 IQ7 PPP3 0.916 PPP2 0.863PPP6 0.851 PPP4 0.750 PPP5 0.727 PPP1 0.686 PV4 0.938 PV2 0.873 PV3 0.853 PV5 0.767 PV1 0.751 PV7 0.727 RSP2 0.946 RSP1 0.894 RSP3 0.794 RSP4 0.649 CDT3 0.811 CDT1 0.801 CDT4 0.765 0.753

CDT2

Extraction Method: Maximum Likelihood.

Rotation Method: Promax with Kaiser Normalization.

Rotation converged in 8 iterations.

The second group of this study is comprised of the following measuring constructs: perceived risk (RISK), trust (TRUST), and perceived benefit (BENEFIT) to test the confirmatory factor analysis method (CFA). For KMO and Bartlett's test, all measuring samples met the thresholds of sampling adequacy (Measure of Sampling Adequacy: 0.913) and were significant at the 0.001 level. CFA recommends that there are three factors to explain the 66.152 percent of variance, each measuring construct loaded higher than 0.5 on their own factor (Lusch, 1976), except BENEFIT 2 = 0.479, BENEFIT5 = 0.453, and BENEFIT4 = 0.321 (See Table 7).

Furthermore, this study applies to test reliability and convergent validity by using Average Variance Extracted (AVE) and Composite Reliability (CR) to measure correlation level of different items between a similar measuring construct (See Table 8 & 9). Fornell and Larcker (1981) and Junior et al. (1992) defines the interpretation of composite reliability result similarly to Cronbach's alpha, where the acceptable level in research study is higher than 0.7. Composite reliability in this study was above 0.7. For average variance extracted, a value higher than 0.5 could be interpreted as "adequate for convergent validity" (Fornell & Larcker, 1981; Junior et al., 1992). The average variance extracted for all measuring determinants in this study were higher than 0.5, except Perceived Benefit (BENEFIT) was 0.352.

Table 7: Factor analysis; Confirmatory factor analysis method (CFA)

	<b>!</b>	<b>Factors</b>	N //
Items	TRUST	RISK	BENEFIT
TRUST4	0.977		
TRUST5	0.959		
TRUST6	0.900		
TRUST7	0.849		
TRUST1	0.800		
TRUST2	0.726		
TRUST3	0.549		
RISK5		0.951	
RISK4		0.822	
RISK6		0.726	
BENEFIT3			0.918
BENEFIT1			0.618
BENEFIT2			0.479
BENEFIT5			0.453
BENEFIT4			0.321

Extraction Method: Maximum Likelihood.

Rotation Method: Promax with Kaiser Normalization.

Table 8: Summary of reliability and convergent validity (Eight antecedents)

Construct	Item Lebel	EFA	CFA	a	Average Variance Extracted (AVE)	Composite Reliability (CR)
	FAMEXPHAB1	1.043	1.043		, ,	Ì
	FAMEXPHAB2	0.954	0.954			
	FAMEXPHAB3	0.882	0.882			
amiliarity, Experience and	FAMEXPHAB4	0.821	0.821	0.069	0.702	0.040
Habit	FAMEXPHAB5	0.789	0.789	0.968	0.702	0.949
	FAMEXPHAB6	0.760	0.760			
	FAMEXPHAB7	0.741	0.741			
	FAMEXPHAB8	0.646	0.646			
	IQ4	0.932	0.932			
	IQ2	0.887	0.887			
	IQ5	0.868	0.868			
* 6 6 **:	IQ8	0.833	0.833	0.052	0.672	0.042
Information Quality	IQ3	0.803	0.803	0.963	0.673	0.942
	IQ1	0.778	0.778			
	IQ6	0.746	0.746			
	IQ7	0.691	0.691			
77 July 1977	PPP3	0.916	0.916			
	PPP2	0.863	0.863			
Perceived Privacy	PPP6	0.851	0.851			
Protection	PPP4	0.750	0.750	0.913	0.645	0.915
rocccion	PPP5	0.727	0.727			
	PPP1	0.686	0.686			
	PSP7	0.989	0.989	-		- 11
	PSP8	0.879	0.879			
	PSP9	0.871	0.871			
	PSP4	0.858	0.858			
Perceived Security	PSP10	0.828	0.828			
Protection	PSP5	0.756	0.756	0.939	0.625	0.942
Trotection	PSP11	0.731	0.731			
	PSP3	0.684	0.684			
	PSP2	0.671	0.671			
	PSP1	0.546	0.546			
	RSP2	0.946	0.946	_		
Positive Reputation of	RSP 1	0.894	0.894			
Selling Party	RSP3	0.794	0.794	0.926	0.686	0.896
Sennig I arry	RSP4	0.649	0.649			
	CDT3	0.811	0.811	+e	<del>-//-</del> i	<del>- 7 / / -</del>
Consumer Disposition to	CDT 1	0.801	0.801			
Trust	CDT 1 CDT 4	0.765	0.765	0.922	0.613	0.864
Trust	CDT 2	0.753	0.753			
	HM3	1.026	1.026			//-
	HM3 HM2	0.975				
	HM2 HM5		0.975			
Hadania Matienties		0.968	0.968	0.070	0.792	0.061
Hedonic Motivation	HM1	0.888	0.888	0.970	0.783	0.961
	HM4	0.790	0.790			
	HM6	0.761	0.761			
	HM7	0.743	0.743			
	PV4	0.938	0.938			
	PV2	0.873	0.873			
Price Value	PV3	0.853	0.853	0.950	0.675	0.925
	PV5	0.767	0.767	,.	2.0.0	,
	PV1	0.751	0.751			
	PV7	0.727	0.727			

Table 9: Summary of reliability and convergent validity (Three main predictors)

Construct	Item Lebel	EFA	CFA	а	Average Variance Extracted (AVE)	Composite Reliability (CR)
	RISK5	-	0.951			
Perceived Risk	RISK4	-	0.822	0.862	0.702	0.875
	RISK6	-	0.726			
	TRUST4	-	0.977			
	TRUST 5	-	0.959			
	TRUST 6	_	0.900			
Trust	TRUST7	-	0.849	0.945	0.696	0.940
	TRUST1	45744	0.800			
	TRUST2	11-61	0.726			
	TRUST3		0.549			
	BENEFIT3		0.918			
	BENEFIT 1	-	0.618			
Perceived Benefit	BENEFIT 2		0.479	0.812	0.352	0.706
	BENEFIT 5	- /)	0.453			
	BENEFIT4	-/(	0.321			
// // // //	INT 1	41 \	-			
	INT 2	_ /t) _ ``	-			
	INT3	15/	1			
Purchase Intention	INT4	4 - 7 7	-	0.056		
Purchase Intention	INT5	<b>-</b>	-	0.956	11	7 //
	INT 6	-	- T			
	INT7	-				
	INT8	->-/	A /-			

The correlation coefficient matrix displays the relationship between measuring variables on how related they are to each other, of which the correlation coefficient range is in between -1.000 to 1.000. Table 10 reveals the correlation coefficients range are in between 0.100 to 1.000, and are significant at 0.01 level. The highest correlation coefficient is familiarity, experience and habit (FAMEXPHAB) and purchase intention (INT) in the range of 0.837 at 0.01 significant level. Information quality (IQ) and trust (TRUST) are the second highest correlation coefficient in the range of 0.808 at 0.01 significant level and trust (TRUST) and purchase intention (INT) was the third highest at 0.800 with 0.01 significant level.

In contrast, perceived security protection (PSP) and perceived privacy protection (PPP) have the lowest correlation coefficient at 0.137, and information quality (IQ) and perceived risk (RISK) (Correlation = 0.159 at 0.01 significant level), perceived privacy protection (PPP) and information quality (IQ) (Correlation = 0.168 at 0.01 significant level) respectively. Some variables are totally not correlated with each other, such as perceived security protection (PSP) and perceived risk (RISK), consumer disposition to trust (CDT) and perceived privacy protection (PPP). The full analysis of correlation coefficient matrix is shown in table 10.

Table 10: Analysis of correlation coefficient matrix

	INT	RISK	TRUST	TRUST BENEFIT PAMEXPHAB	FAMEXPHAB	õ	PPP	PSP	RSP	CDT	HM	PV
INI	1.000											
RISK	0.296**	1.000										
TRUST	0.800**	0.800** 0.169**	1.000									
BENEFIT	0.648**	0.648** 0.322**	0.662**	1.000								
FAMEXPHAB	0.837** 0.277**	0.277**	0.722**	**969.0	1.000							
0	**669.0	0.699** 0.159**	**808.0	0.746**	0.746**	1.000						
PPP	0.259**	0.413**	0.164**	0.249**	0.237**	0.168**	1.000					
PSP	0.513**	0.089	0.642**	0.550**	0.582**	0.694**	0.137**	1.000				
RSP	0.506**	0.506** 0.359**	0.520**	0.553**	0.604**	0.542**	0.252**	0.531**	1.000			
CDT	0.520**	0.146**	0.611**	0.519**	0.581**	0.626**	1700	0.664**	0.500**	1.000		
HM	0.637**	0.637** 0.211**	0.616**	0.619**	**/69.0	0.650**	0.650** 0.179**	0.601**	0.579**	0.655**	1.000	
PV	0.665**	0.665** 0.235**	**069.0	**60/.0	0.740**	0.740**	0.250**	0.599**	0.598**	0.661**	0.701**	1.000
**. Correlation is significant at the 0.01 level (2-tailed).	significant	at the 0.011	level (2-tails	ed).								

#### **CHAPTER 4**

## MODEL AND HYPOTHESIS TESTING RESULTS

For hypothesis testing, the study applied multiple linear regression analysis by using IBM SPSS statistic 21 and the model relationships were tested by using IBM SPSS AMOS 21. These programs are suitable for hypothesis testing, path analysis, structural equation modeling (SEM), and factor analysis, which is based upon maximum likelihood estimation to be developed for covariance structure models. Covariance structure analysis is a "set of techniques for theory testing with correlational data" (Bentler & Bonett, 1980). Such theoretical testing will describe the influences in both unidirectional and bidirectional to measuring variables. A covariance structure model is based on "a simultaneous set of structural linear regressions of particular variables on other variables" (Bentler & Bonett, 1980). Basically, covariance structure analysis studies the level of correlation and covariance. The estimation of one or several parameters in the research model and evaluating the goodness of fit are major statistical problems. Covariance structure analysis includes path analysis, exploratory and confirmatory factor analysis, structural equation modeling and simultaneous equation. Prior scholars who introduced these estimation methods are Bentler (1978), Bentler (1980), Bielby and Hauser (1977), K. Joreskog and Sorbom (1978), Kenny (1979), Aigner and Goldberger (1977). In the basic elementary form, the statistical theory normally is involved with covariance structure analysis. The analysis associated with only a large sample that is based upon multinormally distributed variables (T. W. Anderson & Rubin, 1956; Lawley, 1940). Subsequently, K. Joreskog and Sorbom (1978), Jöreskog (1967), Jöreskog (1969), Jöreskog (1978), K. G. Joreskog, Sorbom, and Magidson (1979) establishes the maximun likelihood that estimation is applied to different covariance structure models. The scholar states that such complex models are able to be estimated by applying maximum likelihood methods based on the standard covariance structure approach (Bentler & Bonett, 1980). Also, there are some other

general alternative estimations in covariance structure models, of which are founded by Browne (1974). The estimation method was based upon the work of K. G. Joreskog and Goldberger (1971) and T. Anderson (1973), with so called generalized least squares estimators. Both estimation methods are asymptotically equal (Bentler & Bonett, 1980).

Structure equation modeling (SEM) is a model "to fit the observed data to the extent that the model-implied covariance matrix is equivalent to the empirical covariance matrix" (Schermelleh-Engel, Moosbrugger, & Müller, 2003). SEM has different parameter estimation methods, and each estimation method has different distributional assumptions and discrepancy functions that need to be minimized. "Model fit determines the degree to which the structural equation model fits the sample data" (Schermelleh-Engel et al., 2003). There is no exact benchmark to indicate whether it is a good model fit. Prior scholars suggest that "all parameter estimates are within the range of permissible values, and that the standard errors of the parameter estimates have reasonable size" (Marsh & Grayson, 1995). It is difficult to determine the appropriate structure equation models because different model fit scales lead to various conclusions where the estimation method perfectly matches with observed variables. There are several software programs that implement structure equation model such as AMOS (Arbuckle & Wothke, 1999), EQS (Bentler, 1995), LISREL (Jöreskog & Sörbom, 1996), Mplus (Muthén & Muthén, 1998), RAMONA (Browne & Mels, 1992), and SEPATH (J. Steiger, 1995), each software program uses different model fit indices for evaluation.

This study applies maximum likelihood as the method for parameter estimation. Maximum Likelihood (ML) is considered as the most widely used of model fitting method for structure equation model. Basically, most of the structure equation model software programs apply maximum likelihood as default estimator (Schermelleh-Engel et al., 2003). The maximum likelihood estimation method presumes that all variables in the model are multivariate normal distribution and that the matrices are nonsingular (K. Bollen, 1989). A major advantage of maximum likelihood is that it allows "a formal statistical test of overall model fit for overidentified models" (Schermelleh-Engel et al., 2003). Also, K. Bollen (1989) suggests that these estimation methods are estimated in a "general scale invariant and

scale free". Values of the model fit function do not rely on covariance or correlation matrices. Anyhow, the robustness of the maximum likelihood estimation requires a relatively large sample size, at a minimum of 400 samples (Boomsma & Hoogland, 2001) to 2,000 sample (Yang-Wallentin & Jöreskog, 2001).

Table 11: Recommendations for Model Evaluation: Some Rules of Thumb by Schermelleh-Engel et al. (2003)

Fit Measure	Good Fit	Acceptable Fit
χ²	$0 \le \chi^2 \le 2df$	$2df < \chi^2 \le 3df$
p value	$.05$	$.01 \le p \le .05$
$\chi^2/df$	$0 \le \chi^2/df \le 2$	$2 < \chi^2/df \le 3$
RMSEA	$0 \le RMSEA \le .05$	$.05 < RMSEA \le .08$
p value for test of close fit $(RMSEA < .05)$	$.10$	$.05 \le p \le .10$
Confidence interval (CI)	close to $RMSEA$ , left boundary of $CI = .00$	close to $RMSEA$
SRMR	$0 \le SRMR \le .05$	$.05 < SRMR \leq .10$
NFI	.95 ≤ NFI ≤ 1.00°	$.90 \le NFI < .95$
NNFI	$.97 \le NNFI \le 1.00^{6}$	$.95 \le NNFI < .97^{\circ}$
CFI	$.97 \le \mathit{CFI} \le 1.00$	$.95 \le CFI < .97^{\circ}$
GFI	$.95 \le GFI \le 1.00$	$.90 \le GFI < .95$
AGFI	$.90 \le A GFI \le 1.00$ , close to $GFI$	.85 ≤ AGFI < .90, close to GFI
AIC	smaller than $AIC$ for	comparison model
CAIC	smaller than CAIC for	comparison model
ECVI	smaller than $ECVI$ for	comparison model

Note. AGFI = Adjusted Goodness-of-Fit-Index, AIC = Akaike Information Criterion, CAIC = Consistent AIC, CFI = Comparative Fit Index, ECVI = Expected Cross Validation Index, GFI = Goodness-of-Fit Index, NFI = Normed Fit Index, NNFI = Nonnormed Fit Index, RMSEA = Root Mean Square Error of Approximation, SRMR = Standardized Root Mean Square Residual.

Previous studies recommend there is a consensus for researchers to avoid reporting all model fit indices, but there is no exact agreement on which fit indices are strongly recommended for model evaluation.  $\chi^2$  should not be considered as the only index to judge a whole model fit because it is highly sensitive to the sample size and the infraction of multivariate normality assumption (Curran, West, & Finch, 1996; L.

<sup>&</sup>lt;sup>a</sup>NFI may not reach 1.0 even if the specified model is correct, especially in smaller samples (Bentler, 1990). <sup>b</sup>As NNFI is not normed, values can sometimes be outside the 0-1 range. <sup>o</sup>NNFI and CFI values of .97 seem to be more realistic than the often reported outoff criterion of .95 for a good model fit.

Hu, Bentler, & Kano, 1992; West, Finch, & Curran, 1995). Several indices are represented and explain different goodness-of-fit criteria (K. A. Bollen; Mueller, 1999). Therefore, the following criteria are frequently selected by the researcher to present in publication: " $\chi^2$  and its associated p value,  $\chi^2$ /df, RMSEA and its associated confidence interval, SRMR, NNFI, and CFI" (Fan, Thompson, & Wang, 1999; L. Hu & Bentler, 1998; Rigdon, 1996; Schermelleh-Engel et al., 2003). Also, GFI and AGFI are the most published indices to report, but it tends to miscalculate the fit on a complex model (J. H. Steiger, 1989). Nevertheless, it is difficult to indicate when a research model has a goodness-of-fit on not, because each index points to a conflicting conclusion. Table 11 represents an overview of some criteria for goodness-of-fit indices.

Table 12: Value of the proposed research model based on rules of thumb by Schermelleh-Engel et al. (2003)

Fit index	J	Value
X <sup>2</sup> /Degree of freedom (X <sup>2</sup> /DF)	9.236	Poor fit
Goodness-of-fit index (GFI)	0.940	Poor fit
Adjusted goodness-of-fit index (AGFI)	0.755	Poor fit
Comparative fit index (CFI)	0.956	Poor fit
Root mean square residual (RMR)	0.075	Poor fit
Root mean square error of approximation (RMSEA)	0.144	Poor fit
ρ-value for test of close fit (PCLOSE)	0.000	Poor fit

There are several model fit criteria displayed in Table 12 to evaluate research model's goodness-of-fit, of which such criteria is based on rules of thumb by Schermelleh-Engel et al. (2003). X²/DF = 9.236; GFI = 0.940; AGFI = 0.755; CFI = 0.956; RMR = 0.075; RMSEA = 0.144; PCLOSE = 0.000, all measured values are significant at the 0.001 level, Chi-square = 175.491, Degree of freedom = 19. According to fit indexes, the research model indicates poor fit with the collected data. The estimated part coefficients are shown in Figure 14. The data shows that Familiarity, Experience and Habit (FAMEXPHAB) have a standardized path coefficient (S.P.C.) on Perceived Risk (RISK) = 0.16; Information Quality (IQ) on Perceived Risk (RISK) = -0.07; Perceived Privacy Protection (PPP) on Perceived Risk (RISK) = 0.33; Perceived Security Protection (PSP) on Perceived Risk (RISK) =

-0.17; Positive Reputation of Selling Party (RSP) on Perceived Risk (RISK) = 0.30, and that all mentioned factors are counted as 27 percent of variance in Perceived Risk  $(R^2 = 0.27)$ . A standardized path coefficient (S.P.C.) of Familiarity, Experience and Habit (FAMEXPHAB) on Trust (TRUST) = 0.23; Information Quality (IQ) on Trust (TRUST) = 0.51; Perceived Privacy Protection (PPP) on Trust (TRUST) = 0.00; Perceived Security Protection on Trust (TRUST) = 0.08; Positive Reputation of Selling Party (RSP) on Trust (TRUST) = 0.01; Consumer Disposition to Trust (CDT) on Trust (TRUST) = 0.10, and all mentioned factors are counted as 70 percent of variance in Trust ( $R^2 = 0.70$ ). An impact of Price Value (PV) on Perceived Benefit (S.P.C = 0.71;  $R^2 = 0.50$ ) was also detected in analysis. Trust (TRUST) had a standardized path coefficient (S.P.C. = 0.00) on Perceived Risk (RISK). Finally, a standardized path coefficient (S.P.C.) of Familiarity, Experience and Habit (FAMEXPHAB) on Purchase Intention (INT) = 0.55; Hedonic Motivation (HM) on Purchase Intention (INT) = 0.03; Price Value (PV) on Purchase Intention (INT) = -0.05; Perceived Risk (RISK) on Purchase Intention (INT) = 0.09; Trust (TRUST) on Purchase Intention (INT) = 0.40; Perceived Benefit on Purchase Intention (INT) = -0.01, and all mentioned factors are counted as 78 percent of variance in Purchase Intention in C2C electronic classified marketplaces ( $R^2 = 0.78$ ).

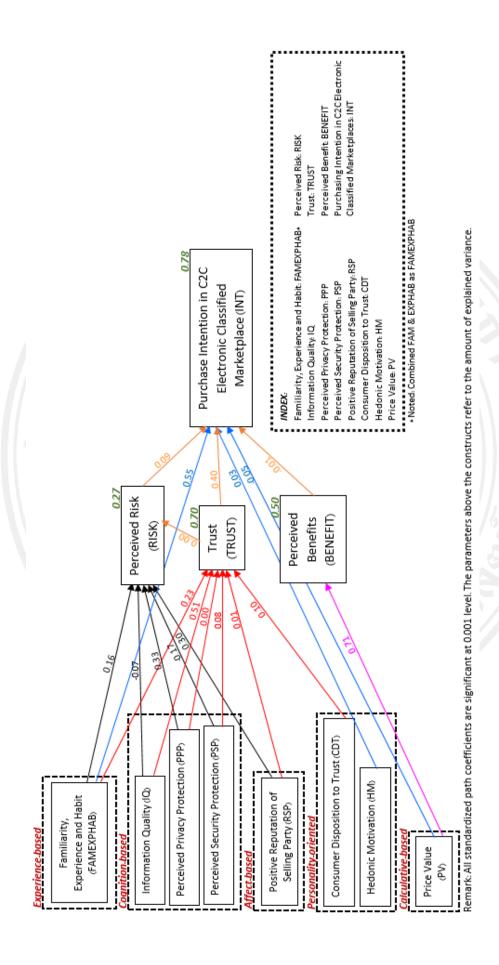


Figure 14: Structure Equation Modeling Result

According to the data that indicated poor fit of proposed model, AMOS suggested some modification indices in such output. There are ten regression paths added into the model by following the indices. These are Familiarity, Experience and Habit (FAMEXPHAB), Information Quality (IQ), Perceived Privacy Protection (PPP), Perceived Security Protection (PSP), Positive Reputation of Selling Party (RSP) on Perceived Benefit (BENEFIT); Perceived Security Protection (PSP), Consumer Disposition to Trust (CDT) on Purchase Intention (INT), Hedonic Motivation (HM) on Perceived Benefit (BENEFIT); and finally, a regression path from Perceived Benefit (BENEFIT) to Trust (TRUST) and Perceived Benefit (BENEFIT) to Perceived Risk (RISK) (See Figure 15). The model fit criteria that is displayed in Table 13 to evaluate the research model's goodness-of-fit. Such criteria are based on rules of thumb by Schermelleh-Engel et al. (2003).  $X^2/DF = 1.419$ ; GFI = 0.996; AGFI = 0.954; CFI = 0.999; RMR = 0.011; RMSEA = 0.033; PCLOSE = 0.702, Probability level = 0.193, Chi-square = 9.931, Degree of freedom = 7. According to fit indices, the research model indicates good fit with the collected data. The estimated part coefficients are demonstrated in Figure 15. The data shows that Familiarity, Experience and Habit (FAMEXPHAB) have a standardized path coefficient (S.P.C.) on Perceived Risk (RISK) = 0.16; Information Quality (IQ) on Perceived Risk (RISK) = -0.08; Perceived Privacy Protection (PPP) on Perceived Risk (RISK) = 0.33; Perceived Security Protection (PSP) on Perceived Risk (RISK) = -0.16; Positive Reputation of Selling Party (RSP) on Perceived Risk (RISK) = 0.30, and that all mentioned factors are counted as 27 percent of variance in Perceived Risk  $(R^2 = 0.27)$ . A standardized path coefficient (S.P.C.) of Familiarity, Experience and Habit (FAMEXPHAB) on Trust (TRUST) = 0.21; Information Quality (IQ) on Trust (TRUST) = 0.49; Perceived Privacy Protection (PPP) on Trust (TRUST) = 0.01; Perceived Security Protection (PSP) on Trust (TRUST) = 0.08; Positive Reputation of Selling Party (RSP) on Trust (TRUST) = 0.02; Consumer Disposition to Trust (CDT) on Trust (TRUST) = 0.09; Perceived Benefit (BENEFIT) on Trust (TRUST) = 0.05, and all mentioned factors are counted as 70 percent of variance in Trust ( $R^2 = 0.70$ ). An impact of Price Value (PV) on Perceived Benefit (BENEFIT) = 0.21 was also detected in analysis. Moreover, there are some regression paths that suggest that the modification indices as a standardized path coefficient (S.P.C.) of Familiarity,

Experience and Habit (FAMEXPHAB) on Perceived Benefit (BENEFIT) = 0.15; Information Quality (IQ) on Perceived Benefit (BENEFIT) = 0.41; Perceived Privacy Protection (PPP) on Perceived Benefit (BENEFIT) = 0.07; Perceived Security Protection (PSP) on Perceived Benefit (BENEFIT) = -0.04; Positive Reputation of Selling Party (RSP) on Perceived Benefit (BENEFIT) = 0.08; Hedonic Motivation (HM) on Perceived Benefit (BENEFIT) = 0.07, and all mentioned factors are counted as 64 percent of variance in Perceived Benefit ( $R^2 = 0.64$ ). Trust (TRUST) had a standardized path coefficient (S.P.C. = -0.01) on Perceived Risk (RISK). Also, a standardized path coefficient (S.P.C.) of Familiarity, Experience and Habit (FAMEXPHAB) on Purchase Intention (INT) = 0.61; Perceived Security Protection (PSP) on Purchase Intention (INT) = -0.06; Consumer Disposition to Trust (CDT) on Purchase Intention (INT) = -0.06; Hedinic Motivation (HM) on Purchase Intention (INT) = 0.08; Price Value (PV) on Purchase Intention (INT) = 0.00; Perceived Risk (RISK) on Purchase Intention (INT) = 0.07; Trust (TRUST) on Purchase Intention (INT) = 0.29; Perceived Benefit on Purchase Intention (INT) = 0.03, and all mentioned factors are counted as 78 percent of variance in Purchase Intention in C2C electronic classified marketplaces ( $R^2 = 0.78$ ).

Table 13: Modification of the proposed research model based on rules of thumb by Schermelleh-Engel et al. (2003)

Model modification

Fit index	1	<sup>7</sup> alue
$X^2/\text{Degree of freedom}(X^2/\text{DF})$	1.419	Good Fit
Goodness-of-fit index (GFI)	0.996	Good Fit
Adjusted goodness-of-fit index (AGFI)	0.954	Good Fit
Comparative fit index (CFI)	0.999	Good Fit
Root mean square residual (RMR)	0.011	Good Fit
Root mean square error of approximation (RMSEA)	0.033	Good Fit
$\rho$ -value for test of close fit ( <b>PCLOSE</b> )	0.702	Good Fit

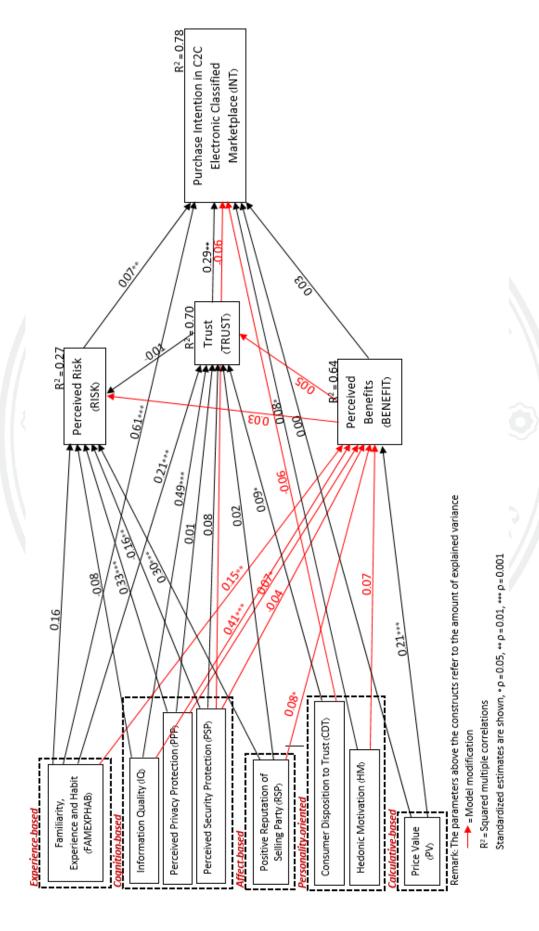


Figure 15: Model Modification Result

Table 14: The Multiple Linear Regression Analysis in SPSS (Dependent variable: Perceived Risk (RISK))

Regression model	R Square	β	Std. Error	Sig.	Number of items	α
Perceived risk (RISK)	0.275	1.906	0.527	0.000	3	0.862
Familiarity, Experience and habits (FAMEXPHAB)	-	0.042	0.076	0.588	8	0.968
Information quality (IQ)	-	-0.035	0.082	0.675	8	0.963
Perceived privacy protection (PPP)	-	0.377	0.049	0.000	6	0.913
Perceived security protection (PSP)	-	-0.156	0.072	0.031	11	0.939
Positive reputation of selling party (RSP)	-	0.315	0.062	0.000	4	0.926
Age	-	-0.007	0.006	0.243	1	-
Gender	-	0.188	0.120	0.118	1	-
Place of living	-	0.005	0.045	0.904	1	-
Education level	-	0.015	0.069	0.829	1	-
Income level	-	-0.001	0.032	0.966	1	-
Experience with online transaction	-	0.033	0.042	0.432	1	-
Frequency of online purchase	-	0.049	0.055	0.379	1	-
Money spent	-	0.066	0.046	0.149	1	-

This study applies multiple linear regression analysis by using IBM SPSS statistic 21 to test the twelve hypotheses. Table 14 shows that the multiple linear regression, Perceived Risk (RISK) are presumed to be dependent variables. It also shows that Familiarity, experience and habits (FAMEXPHAB), Information quality (IQ), Perceived privacy protection (PPP), Perceived security protection (PSP), Positive reputation of selling party (RSP) are independent variables. To test the anticipated hypothesis, age, gender, place of living, education level, income level, experience with online transaction, frequency of online purchase, and money spent are set as control variables in the analysis. Consequently, PPP, PSP, RSP can explain about 27.5 percent of consumer's perceived risk, of which 72.5 percent could be explained by other factors beyond the above-mentioned factors. From Table 14, the proposed hypothesis can be explained by following;

**H1b:** A consumer's familiarity, experience and habits (FAMEXPHAB) is found to have a positive  $\beta$  of 0.042 associated with consumer's perceived risk, but it is not statistically significant ( $\rho = 0.588$ ). Hence, H1b is rejected.

**H3b:** A consumer's perceived information quality (IQ) is found to have a negative  $\beta$  of 0.035 associated with consumer's perceived risk, but it is not statistically significant ( $\rho = 0.675$ ). Hence, H3b is rejected.

**H4b:** A consumer's perceived privacy protection (PPP) is found to have a positive  $\beta$  of 0.377 associated with consumer's perceived risk, and significant at the 0.001 level ( $\rho = 0.000$ ), but the anticipated effect of these hypothesis expects a negative  $\beta$  on consumer perceived risk. Hence, H4b is rejected.

**H5b:** A consumer's perceived security protection (PSP) is found to have a negative  $\beta$  of 0.156 associated with consumer's perceived risk, and significant at the 0.05 level ( $\rho$  = 0.031). Hence, H5b is accepted.

**H6b:** The positive reputation of selling party (RSP) is found to have a positive  $\beta$  of 0.315 associated with consumer's perceived risk, and significant at the 0.001 level ( $\rho = 0.000$ ), but the anticipated effect of these hypothesis expects a negative  $\beta$  on consumer perceived risk. Hence, H6b is rejected.

Table 15: The Multiple Linear Regression Analysis in SPSS (Dependent variable: Trust (TRUST))

Regression model	R Square	β	Std. Error	Sig.	Number of items	α
Trust (TRUST)	0.709	0.569	0.308	0.065	7	0.945
Familiarity, Experience and habits	-	0.185	0.045	0.000	8	0.968
Information quality (IQ)	-	0.500	0.049	0.000	8	0.963
Perceived privacy protection (PPP)	-	0.001	0.029	0.965	6	0.913
Perceived security protection (PSP)	-	0.077	0.044	0.082	11	0.939
Positive reputation of selling party (RSP)	-	0.005	0.036	0.890	4	0.926
Consumer disposition to trust (CDT)	-	0.080	0.034	0.020	4	0.922
Age	-	0.007	0.003	0.048	1	-
Gender	-	0.098	0.070	0.163	1	-
Place of living	-	-0.050	0.026	0.058	1	-
Education level	-	-0.042	0.040	0.297	1	-
Income level	-	-0.033	0.018	0.069	1	-
Experience with online transaction	-	0.014	0.024	0.555	1	-
Frequency of online purchase	-	0.016	0.032	0.613	1	-
Money spent	-	-0.012	0.027	0.648	1	-

Table 15 reported multiple linear regression, Trust (TRUST) is presumed to be a dependent variable and Familiarity, experience and habits (FAMEXPHAB), Information quality (IQ), Perceived privacy protection (PPP), Perceived security protection (PSP), Positive reputation of selling party (RSP), and Consumer disposition to trust (CDT) are independent variables. To test the anticipated hypothesis, age, gender, place of living, education level, income level, experience with online transaction, frequency of online purchase, and money spent are set as control variables in the analysis. Consequently, FAMEXPHAB, IQ, CDT, and age can explain about 70.9 percent of consumer's trust, of which 29.1 percent could be

explained by other factors beyond the above-mentioned factors. From Table 15, the proposed hypothesis can be explained by following;

**H1a:** A consumer's familiarity, experience and habits (FAMEXPHAB) is found to have a positive  $\beta$  of 0.185 associated with consumer's trust, and significant at the 0.001 level ( $\rho = 0.000$ ). Hence, H1a is accepted.

**H3a:** A consumer's perceived information quality (IQ) is found to have a positive  $\beta$  of 0.500 associated with consumer's trust, and significant at the 0.001 level ( $\rho$  = 0.000). Hence, H3a is accepted.

**H4a:** A consumer's perceived privacy protection (PPP) is found to have a positive  $\beta$  of 0.001 associated with consumer's trust, but it is not statistically significant ( $\rho = 0.965$ ). Hence, H4a is rejected.

**H5a:** A consumer's perceived security protection (PSP) is found to have a positive  $\beta$  of 0.077 associated with consumer's trust, but it is not statistically significant ( $\rho = 0.082$ ). Hence, H5a is rejected.

**H6a:** The positive reputation of selling party (RSP) is found to have a positive  $\beta$  of 0.005 associated with consumer's trust, but it is not statistically significant ( $\rho = 0.890$ ). Hence, H6a is rejected.

**H7:** A consumer's disposition to trust (CDT) is found to have a positive  $\beta$  of 0.080 associated with consumer's trust, and significant at the 0.05 level ( $\rho$  = 0.020). Hence, H7 is accepted.

Table 16: The Multiple Linear Regression Analysis in SPSS (Dependent variable: Perceived Benefit (BENEFIT))

Regression model	R Square	β	Std. Error	Sig.	Number of items	α
Perceived benefit (BENEFIT)	0.532	1.497	0.334	0.000	5	0.812
Price value (PV)	-	0.619	0.038	0.000	7	0.950
Age	-	0.012	0.004	0.002	1	-
Gender	-	-0.103	0.084	0.220	1	-
Place of living	-	-0.001	0.032	0.979	1	-
Education level	-	-0.014	0.048	0.767	1	-
Income level	-	0.008	0.022	0.723	1	-
Experience with online transaction	-	0.084	0.026	0.002	1	-
Frequency of online purchase	-	0.017	0.039	0.655	1	-
Money spent	-	-0.034	0.032	0.281	1	-

From Table 16, perceived benefit (BENEFIT) is presumed to be a dependent variable and Price value (PV) is an independent variable. To test the anticipated hypothesis, age, gender, place of living, education level, income level, experience with online transaction, frequency of online purchase, and money spent are set as control variables in the analysis. Consequently, PV, age, and experience with online transaction can explain about 53.2 percent of consumer's perceived benefit, of which there are 46.8 percent could be explain by other factors beyond the above-mentioned factors. From Table 16, the proposed hypothesis can be explained by following;

**H9b:** Price value (PV) is found to have a positive  $\beta$  of 0.619 associated with consumer's perceived benefit, and significant at the 0.001 level ( $\rho$  = 0.000). Hence, H9b is accepted.

Table 17: The Multiple Linear Regression Analysis in SPSS (Dependent variable: Purchase Intention (INT))

Regression model	R Square	β	Std. Error	Sig.	Number of items	α
Purchase intention (INT)	0.730	0.845	0.296	0.005	9	0.956
Familiarity, Experience and habits (FAMEXPHAB)	-	0.662	0.046	0.000	8	0.968
Hedonic motivation (HM)	-	0.054	0.038	0.156	7	0.970
Price value (PV)	-	0.077	0.049	0.120	7	0.950
Age	-	0.012	0.004	0.001	1	-
Gender	-	0.043	0.075	0.565	1	-
Place of living	-	0.004	0.028	0.899	1	-
Education level	-	-0.063	0.043	0.142	1	-
Income level	-	-0.063	0.020	0.002	1	-
Experience with online transaction	-	0.027	0.026	0.300	1	-
Frequency of online purchase	-	0.082	0.035	0.019	1	-
Money spent	-	-0.002	0.028	0.948	1	-

From Table 17, Purchase intention (INT) is presumed to be a dependent variable and Familiarity, experience and habits (FAMEXPHAB), Hedonic motivation (HM), and Price value (PV) are independent variables. To test the anticipated hypothesis, age, gender, place of living, education level, income level, experience with online transaction, frequency of online purchase, and money spent are sett as control variables in the analysis. Consequently, FAMEXPHAB, age, income level, and frequency of online purchase can explain about 73 percent of purchase intention in C2C electronic classified marketplaces (INT), of which 27 percent could still be explained by other factors beyond the above-mentioned factors. From Table 17, the proposed hypothesis can be explained by following;

**H2c:** A consumer's familiarity, experience and habits (FAMEXPHAB) is found to have a positive  $\beta$  of 0.662 associated with consumer's purchase intention, and significant at the 0.001 level ( $\rho$  = 0.000). Hence, H2c is accepted.

**H8:** Hedonic motivation (HM) is found to have a positive  $\beta$  of 0.054 associated with consumer's purchase intention, but it is not statistically significant ( $\rho = 0.156$ ). Hence, H8 is rejected.

**H9a:** Price value (PV) is found to have a positive  $\beta$  of 0.077 associated with consumer's purchase intention, but it is not statistically significant ( $\rho$  = 0.120). Hence, H9a is rejected.

Table 18: The Multiple Linear Regression Analysis in SPSS (Dependent variable: Purchase Intention (INT))

Regression model	R Square	β	Std. Error	Sig.	Number of items	α
Purchase intention (INT)	0.720	-0.420	0.323	0.194	9	0.956
Perceived risk (RISK)	-	0.099	0.030	0.001	3	0.862
Trust (TRUST)	-	0.628	0.043	0.000	7	0.945
Perceived benefit (BENEFIT)	-	0.177	0.045	0.000	5	0.812
Age	-	0.000	0.004	0.943	1	-
Gender	-	0.120	0.076	0.116	1	-
Place of living	-	0.032	0.029	0.267	1	-
Education level	-	0.008	0.044	0.861	1	-
Income level	-	-0.036	0.020	0.080	1	-
Experience with online transaction	-	0.122	0.024	0.000	1	-
Frequency of online purchase	-	0.110	0.035	0.002	1	-
Money spent	-	0.051	0.029	0.075	1	-

Table 18 reports a multiple linear regression, where Purchase intention (INT) is presumed to be a dependent variable and Perceived risk (RISK), Trust (TRUST), Perceived benefit (BENEFIT) are independent variables. To test the anticipated hypothesis, age, gender, place of living, education level, income level, experience with online transaction, frequency of online purchase, and money spent are set as control variables in the analysis. Consequently, RISK, TRUST, BENEFIT, experience with online transaction, frequency of online purchase can explain about 72 percent of

purchase intention in C2C electronic classified marketplaces (INT), of which 28 percent can be explained by other factors beyond the above-mentioned factors. From Table 18, the proposed hypothesis can be explained by following;

**H11a:** A consumer's trust is found to have a positive  $\beta$  of 0.628 associated with purchase intention, and significant at the 0.001 level ( $\rho$  = 0.000). Hence, H11a is accepted.

**H10:** A consumer's perceived risk is found to have a positive  $\beta$  of 0.099 associated with purchase intention, and significant at the 0.001 level ( $\rho$  = 0.001), but the anticipated effect of these hypothesis expects a negative  $\beta$  on consumer purchase intention. Hence, H10 is rejected.

**H12:** A consumer's perceived benefit is found to have a positive  $\beta$  of 0.177 associated with purchase intention, and significant at the 0.001 level ( $\rho$  = 0.000). Hence, H12 is accepted.

Table 19: The Multiple Linear Regression Analysis in SPSS (Dependent variable: Perceived Risk (RISK))

Regression model	R Square	β	Std. Error	Sig.	Number of items	α
Perceived risk (RISK)	0.070	3.537	0.536	0.000	3	0.862
Trust (TRUST)	-	0.091	0.062	0.140	7	0.945
Age	-	-0.004	0.006	0.528	1	-
Gender	-	0.177	0.133	0.183	1	-
Place of living	-	0.008	0.051	0.874	1	-
Education level	-	0.084	0.077	0.272	1	-
Income level	-	0.015	0.036	0.665	1	-
Experience with online transaction	-	0.087	0.042	0.041	1	-
Frequency of online purchase	-	0.084	0.062	0.175	1	-
Money spent	-	0.024	0.051	0.638	1	-

Table 19 displayed, perceived risk (RISK) is presumed to be a dependent variable and Trust (TRUST) is an independent variable. To test the anticipated hypothesis, age, gender, place of living, education level, income level, experience with online transaction, frequency of online purchase, and money spent are set as control variables in the analysis. Consequently, age only can explain about 7 percent of consumer perceived risk, of which 93 percent could be explained by other factors beyond the above-mentioned factors. From Table 19, the proposed hypothesis can be explained by following;

**H11b:** A consumer's trust is found to have a positive  $\beta$  of 0.091 associated with consumer's perceived risk, but it is not statistically significant ( $\rho$  = 0.140). Hence, H11b is rejected.

Table 20: Summary of proposed hypothesis testing

	Hypothesis	Anticipated effect	В	Sig.	Result
H1a*	A consumer's familiarity (FAM) with seller and intermediary has positively affects to consumer's trust (TRUST).	+	0.185	0.000	Accepted
H1b*	A consumer's familiarity (FAM) with seller and intermediary has negatively affects to consumer's perceived risk (RISK).	,	0.042	0.588	Rejected
H2a*	H2a* A consumer's experience and habit (EXPHAB) with seller and intermediary has positively affects to consumer's trust (TRUST).	+			
H2b*	H2b* A consumer's experience and habit (EXPHAB) with seller and intermediary has negatively affects to consumer's perceived risk (RISK).	,			
H2c*	A consumer's experience and habit (EXPHAB) with seller and H2c* intermediary has positively influences on consumer's purchase intention (INT) in C2C electronic classified marketplaces as P2P system.	+	0.662	0.000	Accepted
НЗа	A consumer's perceived information quality (IQ) on seller and intermediary has positively influences on their trust (TRUST).	+	0.500	0.000	Accepted
H3b	A consumer's perceived information quality (IQ) on seller and intermediary has negatively influences on their perceived risk (RISK).		-0.035	0.675	Rejected
H4a	A consumer's perceived privacy protection (PPP) on seller and intermediary has positively influences on their trust (TRUST).	+	0.001	0.965	Rejected
H4b	A consumer's perceived privacy protection (PPP) on seller and intermediary has negatively influences on their perceived risk (RISK).		0.377	0.000	Rejected
Н5а	A consumer's perceived security protection (PSP) on seller and intermediary has positively influences on their trust (TRUST).	+	7.00.0	0.082	Rejected
H5b	A consumer's perceived security protection (PSP) on seller and intermediary has negatively influences on their perceived risk (RISK).		-0.156	0.031	Accepted
* Maked	* Maked - Combined DAM & DVDUAD as DAMEVDUAR				

\* Noted: Combined FAM & EXPHAB as FAMEXPHAB

	Hypothesis	Anticipated effect	в	Sig.	Result
Нба	The positive reputation of selling party (RSP) has positively influences on consumer's trust (TRUST).	+	0.005	0.890	Rejected
<i>49H</i>	The positive reputation of selling party (RSP) has negatively influences on consumer's perceived risk (RISK).	•	0.315	0.000	Rejected
Н7	A consumer's disposition to trust (CDT) has positively affects to consumer's trust (TRUST).	+	0.080	0.020	Accepted
H8	Hedonic motivation (HM) has positively influences on consumer's purchase intention (INT) in C2C electronic classified marketplaces as pyp system.	+	0.054	0.156	Rejected
H9a	Price value (PV) has positively influences on consumer's purchase intention (INT) in C2C electronic classified marketplaces as P2P system.	+	7.0.0	0.120	Rejected
H9b	Price value (PV) has positively influences on consumer's perceived benefit (BENEFIT) in C2C electronic classified marketplaces as P2P	+	0.619	0.000	Accepted
H10	system. A consumer's perceived risk (RISK) on seller and intermediary has negatively influences on consumer's purchase intention (INT) in C2C		0.099	0.001	Rejected
Н11а	electronic classified marketplaces as P2P system. A consumer's trust (TRUST) on seller and intermediary has positively influences on consumer's purchase intention (INT) in C2C electronic	+	0.628	0.000	Accepted
H11b	classified marketplaces as P2P system. A consumer's trust (TRUST) on seller and intermediary has negatively influences on consumer's perceived risk (RISK) on seller and		0.091	0.140	Rejected
H12	intermediary.  A consumer's perceived benefit (BENEFIT) on seller and intermediary has positively influences on consumer's purchase intention (INT) in C2C electronic classified marketplaces as P2P system.	+	0.177	0.000	Accepted
* ***	The second secon				

\* Noted: Combined FAM & EXPHAB as FAMEXPHAB

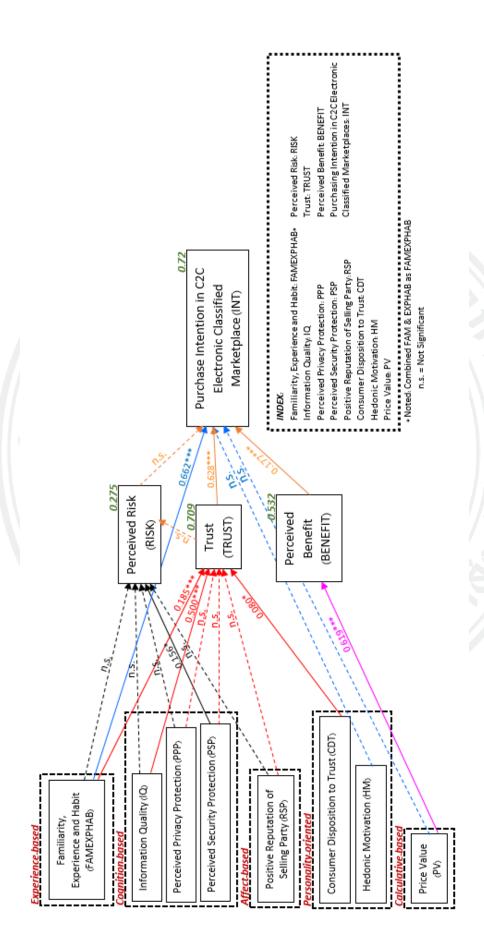


Figure 16: Hypothesis testing Result

According to the AMOS suggestion, there are some modification indices in the output. The study added ten regression paths to the research model (See Figure 15). The consequence showed that the research model has a good fit. So, this study applied multiple linear regression analysis by using IBM SPSS statistic 21 to test all additional regression paths, to see whether there is a significant relationship between measured variables.

Table 21: The Multiple Linear Regression Analysis in SPSS (Dependent variable: Purchase Intention (INT))

Regression model	R Square	β	Std. Error	Sig.	Number of items	α
Purchase intention (INT)	0.733	0.928	0.309	0.003	9	0.956
Familiarity, Experience and habits (FAMEXPHAB)	-	0.658	0.046	0.000	8	0.968
Perceived security protection (PSP)	-	-0.015	0.042	0.711	11	0.939
Consumer disposition to trust (CDT)	-	-0.046	0.039	0.247	4	0.922
Hedonic motivation (HM)	-	0.066	0.040	0.095	7	0.970
Price value (PV)	-	0.120	0.050	0.018	7	0.950
Age	-	0.012	0.004	0.001	1	-
Gender	-	0.044	0.075	0.560	1	-
Place of living	-	0.001	0.028	0.984	1	-
Education level	-	-0.075	0.043	0.083	1	-
Income level	-	-0.063	0.020	0.001	1	-
Experience with online transaction	-	0.029	0.026	0.258	1	-
Frequency of online purchase	-	0.082	0.035	0.019	1	-
Money spent	-	-0.003	0.028	0.911	1	-

From Table 21, Purchase intention (INT) is presumed to be a dependent variable and Familiarity, experience and habits (FAMEXPHAB), Perceived security protection (PSP), Consumer disposition to trust (CDT), Hedonic motivation (HM), and Price value (PV) are independent variables. To test the relationship, age, gender, place of living, education level, income level, experience with online transaction,

frequency of online purchase, and money spent are set as control variables in the analysis. Consequently, FAMEXPHAB, PV, age, income level, income level, and frequency of online purchase can explain about 73.3 percent of purchase intention in C2C electronic classified marketplaces (INT), of which 26.7 percent could still be explained by other factors beyond the above-mentioned factors. Comparing Table 21 with Table 17, the study added Perceived security protection (PSP), Consumer disposition to trust (CDT) to see whether there are some changes in purchase intention in C2C electronic classified marketplaces (INT). Formerly, the hypothesis H9a was rejected, but after adding two variables into the regression path, the proposed hypothesis can be explained by following;

**H9a:** Price value (PV) is found to have a positive  $\beta$  of 0.120 associated with consumer's purchase intention, and significant at the 0.05 level ( $\rho$  = 0.018). Hence, H9a is accepted.

Table 22: The Multiple Linear Regression Analysis in SPSS (Dependent variable: Trust (TRUST))

Regression model	R Square	β	Std. Error	Sig.	Number of items	α
Trust (TRUST)	0.503	1.221	0.362	0.001	7	0.945
Perceived benefit (BENEFIT)	-	0.590	0.042	0.000	5	0.812
Age	-	0.004	0.004	0.324	1	-
Gender	-	0.097	0.089	0.279	1	-
Place of living	-	-0.051	0.034	0.133	1	-
Education level	-	-0.088	0.051	0.086	1	-
Income level	-	-0.046	0.024	0.054	1	-
Experience with online transaction	-	0.131	0.028	0.000	1	-
Frequency of online purchase	-	0.057	0.041	0.170	1	-
Money spent	-	-0.001	0.034	0.965	1	-

Table 22 shows a multiple linear regression, where Trust (TRUST) is presumed to be a dependent variable and Perceived benefit (BENEFIT) is an independent variable. To test the anticipated relationship, age, gender, place of living, education level, income level, experience with online transaction, frequency of online purchase, and money spent are set as control variables in the analysis. Consequently, BENEFIT and experience with online transaction can explain about 50.3 percent of consumer's trust, of which 49.7 percent could be explain by other factors beyond the above-mentioned factors. The study added Perceived Benefit (BENEFIT) to see whether there is some change to consumer's trust (TRUST). The outcome discovered a significant relationship, which was unpredicted in the research model and hypothesis.

Consumer's perceived benefit (BENEFIT) is found to have a positive  $\beta$  of 0.590 associated with consumer's trust (TRUST), and significant at the 0.001 level ( $\rho = 0.000$ ).

Table 23: The Multiple Linear Regression Analysis in SPSS (Dependent variable: Perceived Benefit (BENEFIT))

Regression model	R Square	β	Std. Error	Sig.	Number of items	α
Perceived benefit (BENEFIT)	0.648	0.811	0.327	0.013	5	0.812
Familiarity, Experience and habits (FAMEXPHAB)	-	0.160	0.050	0.002	8	0.968
Information quality (IQ)	-	0.338	0.054	0.000	8	0.963
Perceived privacy protection (PPP)	-	0.052	0.031	0.089	6	0.913
Perceived security protection (PSP)	-	-0.017	0.042	0.694	11	0.939
Positive reputation of selling party (RSP)	-	0.070	0.040	0.079	4	0.926
Hedonic motivation (HM)	-	0.079	0.039	0.043	7	0.970
Price value (PV)	-	0.179	0.051	0.000	7	0.950
Age	-	0.008	0.004	0.021	1	-
Gender	-	-0.123	0.075	0.103	1	-
Place of living	-	0.005	0.028	0.854	1	-
Education level	-	0.016	0.043	0.702	1	-
Income level	-	0.012	0.020	0.549	1	-
Experience with online transaction	-	-0.004	0.026	0.886	1	-
Frequency of online purchase	-	-0.020	0.034	0.567	1	-
Money spent	-	-0.022	0.028	0.433	1	-

From Table 23, Perceived benefit (BENEFIT) is presumed to be a dependent variable and Familiarity, experience and habits (FAMEXPHAB), Information quality (IQ), Perceived privacy protection (PPP), Perceived security protection (PSP), Positive reputation of selling party (RSP), Hedonic motivation (HM), Price value (PV) are independent variables. To test the relationship, age, gender, place of living, education level, income level, experience with online transaction, frequency of online purchase, and money spent are set as control variables in the analysis. Consequently, FAMEXPHAB, IQ, HM, PV, and age can explain about 64.8 percent of consumer's perceived benefit, of which 35.2 percent could be explained by other factors beyond the above-mentioned factors. Comparing Table 23 with Table 16, the study added

Familiarity, experience and habits (FAMEXPHAB), Information quality (IQ), Perceived privacy protection (PPP), Perceived security protection (PSP), Positive reputation of selling party (RSP), and Hedonic motivation (HM) to see whether there are some changing on consumer's trust (TRUST). The outcome discovered three significant relationships, which were unpredicted in research model and hypothesis.

- Familiarity, experience and habits (FAMEXPHAB) is found to have a positive  $\beta$  of 0.160 associated with consumer's perceived benefit (BENEFIT), and significant at the 0.01 level ( $\rho$  = 0.002).
- Information quality (IQ) is found to have a positive  $\beta$  of 0.338 associated with consumer's perceived benefit (BENEFIT), and significant at the 0.001 level ( $\rho$  = 0.000).
- Hedonic motivation (HM) is found to have a positive  $\beta$  of 0.079 associated with consumer's perceived benefit (BENEFIT), and significant at the 0.05 level ( $\rho$  = 0.043).

Table 24: The Multiple Linear Regression Analysis in SPSS (Dependent variable: Perceived Risk (RISK))

Regression model	R Square	β	Std. Error	Sig.	Number of items	α
Perceived risk (RISK)	0.139	2.916	0.528	0.000	3	0.862
Trust (TRUST)	-	-0.148	0.073	0.044	7	0.945
Perceived benefit (BENEFII)	-	0.411	0.074	0.000	5	0.812
Age	-	-0.006	0.006	0.331	1	-
Gender	-	0.259	0.129	0.045	1	-
Place of living	-	-0.012	0.049	0.805	1	-
Education level	-	0.051	0.074	0.488	1	-
Income level	-	0.001	0.034	0.966	1	-
Experience with online transaction	-	0.049	0.041	0.234	1	-
Frequency of online purchase	-	0.081	0.060	0.177	1	-
Money spent	-	0.032	0.049	0.514	1	-

Table 24 displays Perceived risk (RISK) as a dependent variable and Trust (TRUST), Perceived benefit (BENEFIT) as independent variables. To test the relationship, age, gender, place of living, education level, income level, experience with online transaction, frequency of online purchase, and money spent are set as control variables in the analysis. Consequently, TRUST, BENEFIT, and gender can explain about 13.9 percent of consumer perceived risk, of which 86.1 percent could be explained by other factors beyond the above-mentioned factors. Comparing Table 24 with Table 19, the study added Perceived benefit (BENEFIT) to see whether there is some changing on consumer perceived risk in C2C electronic classified marketplaces. Formerly, the hypothesis H11b was rejected, but after adding the variable into regression path, the proposed hypothesis can be explained by following;

**H11b:** A consumer's trust is found to have a negative  $\beta$  of -0.148 associated with consumer's perceived risk, and significant at the 0.05 level ( $\rho$  = 0.044). Hence, H1b is accepted.

Also, the outcome discovered a significant relationship, of which unpredicted in research model and hypothesis.

- Perceived benefit (BENEFIT) is found to have a positive  $\beta$  of 0.411 associated with consumer's perceived risk (RISK), and significant at the 0.001 level ( $\rho$  = 0.000).



Table 25: Summary of proposed hypothesis testing (Model modification)

	Hypothesis	Anticipated effect	В	Sig.	Result
H1a*	A consumer's familiarity (FAM) with seller and intermediary has positively affects to consumer's trust (TRUST).	+	0.185	0.000	Accepted
H1b*	A consumer's familiarity (FAM) with seller and intermediary has negatively affects to consumer's perceived risk (RISK).		0.042	0.588	Rejected
H2a*		+			
H2b*	A consumer's experience and habit (EXPHAB) with seller and intermediary has negatively affects to consumer's perceived risk (RISK).				
H2c*	A consumer's experience and habit (EXPHAB) with seller and H2c* intermediary has positively influences on consumer's purchase intention (INT) in C2C electronic classified marketplaces as P2P system. (BS)	+	0.658	0.000	Accepted
НЗа	A consumer's perceived information quality (IQ) on seller and intermediary has positively influences on their trust (TRUST).	+	0.500	0.000	Accepted
H3b	A consumer's perceived information quality (IQ) on seller and intermediary has negatively influences on their perceived risk (RISK).		-0.035	0.675	Rejected
H4a	A consumer's perceived privacy protection (PPP) on seller and intermediary has positively influences on their trust (TRUST).	+	0.001	0.965	Rejected
H4b	A consumer's perceived privacy protection (PPP) on seller and intermediary has negatively influences on their perceived risk (RISK).		0.377	0.000	Rejected
Н5а	A consumer's perceived security protection (PSP) on seller and intermediary has positively influences on their trust (TRUST).	+	0.077	0.082	Rejected
H5b	A consumer's perceived security protection (PSP) on seller and intermediary has negatively influences on their perceived risk (RISK).	•	-0.156	0.031	Accepted
* Noted	* Noted : Combined FAM & EXPHAB as FAMEXPHAB				

<sup>(</sup>BS) = Changing  $\beta$  and Significant level (RE) = Changing result

	Hypothesis	Anticipated effect	В	Sig.	Result
Нба	The positive reputation of selling party (RSP) has positively influences on consumer's trust (TRUST).	+	0.005	0.890	Rejected
<b>H6</b> b	The positive reputation of selling party (RSP) has negatively influences on consumer's perceived risk (RISK).	•	0.315	0.000	Rejected
H7	A consumer's disposition to trust (CDT) has positively affects to consumer's trust (TRUST).	+	0.080	0.020	Accepted
H8	Hedonic motivation (HM) has positively influences on consumer's purchase intention (INT) in C2C electronic classified marketplaces as P2P system (RS)	+	990.0	0.095	Rejected
H9a	Price value (PV) has positively influences on consumer's purchase intention (INT) in C2C electronic classified marketplaces as P2P system. (RE)	+	0.120	0.001	Accepted
H9b	Price value (PV) has positively influences on consumer's perceived benefit (BENEFIT) in C2C electronic classified marketplaces as P2P system. (BS)	+	0.179	0.000	Accepted
H10	A consumer's perceived risk (RISK) on seller and intermediary has negatively influences on consumer's purchase intention (INT) in C2C electronic classified marketplaces as P2P system.		0.099	0.001	Rejected
H11a	A consumer's trust (TRUST) on seller and intermediary has positively influences on consumer's purchase intention (INT) in C2C electronic classified marketplaces as P2P system.	+	0.628	0.000	Accepted
H11b			-0.148	0.044	Accepted
H12	A consumer's perceived benefit (BENEFIT) on seller and intermediary has positively influences on consumer's purchase intention (INT) in C2C electronic classified marketplaces as P2P system.	+	0.177	0.000	Accepted

\* Noted : Combined FAM & EXPHAB as FAMEXPHAB

(BS) = Changing B and Significant level

(RE) = Changing result

Table 26: Summary of unpredicted relationship (Model modification)

	Finding relationship	β	Sig.
BENEFIT → TRUST	A consumer's perceived benefit (BENEFIT) on seller and intermediary has positively influences on a consumer's trust (TRUST) in C2C electronic classified marketplaces as P2P system.	0.590	0.000
FAMEXPHAB → BENEFIT	A consumer's familianity, experience and habit (FAMEXPHAB) with seller and intermediary has positively affects on a consumer's perceived benefit (BENEFIT) in C2C electronic classified marketplaces as P2P system.	0.160	0.002
IQ → BENEFIT	A consumer's perceived information quality (IQ) on seller and intermediary has positively affects on a consumer's perceived benefit (BENEFIT) in C2C electronic classified marketplaces as P2P system.	0.338	0.000
HM → BENEFIT	Hedonic motivation (HM) has positively affects on a consumer's perceived benefit (BENEFIT) in C2C electronic classified marketplaces as P2P system.	0.079	0.043
BENEFIT → RISK	A consumer's perceived benefit (BENEFIT) on seller and intermediary has positively influences on a consumer's perceived risk (RISK) in C2C electronic classified marketplaces as P2P system.	0.500	0.000

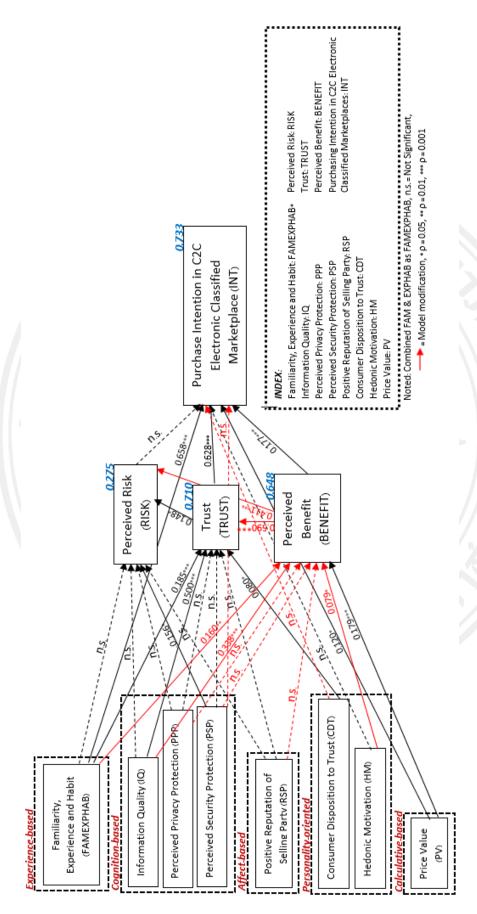


Figure 17: Model modification testing result

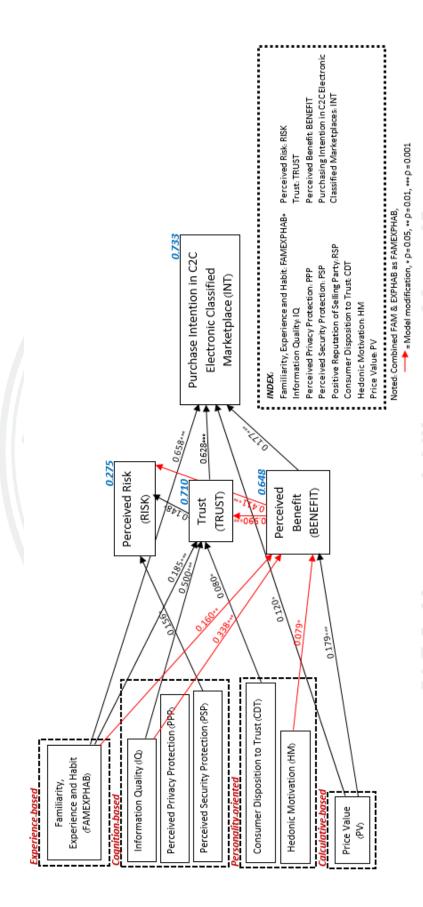


Figure 17: Final research model

## **CHAPTER 5**

## DISCUSSION AND CONCLUSION

## 5.1 Main research findings

The study proposes and tests the research conceptual model and hypothesis based on the models of Dan J. Kim et al. (2008), Meents (2009) and Venkatesh et al. (2012), which concentrate on how influencing factors affect a consumer's trust, risk and benefit perception, and then, to see how these three factors affect purchase intention in C2C electronic marketplaces, in the context of Thailand. Nevertheless, the research result was quite different from the predicted hypothesis. Nearly half of the hypothesis relationships between measuring constructs were rejected. However, the research study found some interesting research results to mention. The results show that most respondents used C2C electronic classified marketplaces based on social media such as Line, Facebook, and Instagram. It also confirmed that a majority of Thai consumers preferr to use C2C electronic classified marketplaces based on social media as Line, Facebook, and Instagram than web-based. As Electronic Transaction Development Agency (2017b) reported on Thailand internet user profile 2017 that the top four online platforms used by Thai online consumer, are YouTube, Facebook, Line, and Instagram respectively. For this study, YouTube is not included as C2C electronic classified marketplaces because Youtube is a network video sharing platform (Davidson et al., 2010), which does not provide content to sell product and service with consumer directly. YouTube gathers entertaining video content and collects money from advertisements played on a popular video and channel. The platform allows their users to view, comment, and post on the video on their site (A. N. Smith, Fischer, & Yongjian, 2012). Thai consumers normally use YouTube to watch series and shows on television in case that they miss their favorite series on the regular schedule (Electronic Transaction Development Agency, 2017b).

The demographic information from this study shows that more experience with online transaction and frequency of online purchase leads to a higher consumer purchase intention. The research findings also indicate that age affects a consumer's trust. An older consumer will trust an online seller and intermediary platform more than a younger consumer. The research results could explain that older consumers become more familiar to online marketplaces more than younger consumers because older consumers might have more experience with online sellers and intermediary platforms. They would know which seller and platform could be trusted. Also, an experience with online transaction affects a consumer's benefit perception. Consumers who have a positive prior experience with C2C electronic classified marketplaces will perceive that online purchasing will generate benefit to them, compared to one that has never been used C2C electronic classified marketplaces. Interestingly, the research study also shows that an older consumer with lower income level and frequently uses online purchasing tend to have higher purchase intention. From the model modification, this study found females perceive higher risk on seller and intermediary platform than males. Prior studies determined female perceived greater risk perception in a variety of area including environmental, financial, and medical (Brody, 1984; Garbarino & Strahilevitz, 2004; Gutteling & Wiegman, 1993; Gwartney-Gibbs & Lach, 1991; Steger & Witt, 1989; Stern, Dietz, & Kalof, 1993). In the context of risk perception in gender differences, studies prove that females show more concern about risks involved with technology more than males (Brody, 1984; Greenberg & Schneider, 1995; Karpowicz-Lazreg & Mullet, 1993; Pilisuk & Acredolo, 1988; Siegrist, 1998, 2000; Sparks, Shepherd, & Frewer, 1994; Stallen & Tomas, 1988; Vleeming, 1985).

According to the five categories of the antecedents, experience-based category comprised of familiarity (FAM) and experience and habit (EXPHAB). The research results show familiarity (FAM) and experience and habit (EXPHAB) are considered as the same variable in Thai consumer perception. Prior scholars posit that a consumer's familiarity based upon prior good experience with selling party will generate favorable and concrete ideas for the consumer to expect in future (Gefen, 2000; Luhmann, 1979, 1988). Luhmann (1979) states that familiarity is a complex comprehension based upon experiences, previous interactions, and learning of others. Frequently, experience is also conceptualized as familiarity. Also, Limayem et al. (2007) indicates that the passing time as experience could formulate different habit

levels based on familiarity and interaction. Furthermore, prior scholars like Bhattacherjee (2002) posit that "familiarity is a predictor for trust in online firms and for the consumer's willingness to undertake a transaction". From the research findings, the results harmonized with previous studies that familiarity, experience and habit have a positive effect on consumer's trust, and also have a positive effect on purchase intention in C2C electronic classified marketplaces. For the result interpretation, online consumers who have prior experience with C2C electronic classified marketplaces, such sellers and platforms that they have been buying products and services, will become more familiar to them. The more familiarity and experience that a consumer perceives on a particular seller and intermediary platform, the more the consumer can trust the seller and service provider. Anyhow, such experience which consumer perceived on seller is supposed to be the positive one, and familiarity and prior experience will play a significant role on consumer trust. Moreover, the study reports that familiarity, experience and habit have a strong relationship with the path coefficient on consumer purchase intention. Consumers, who are familiar and have a positive experience with seller and intermediary platform, have their purchase intention affected directly. The finding is consistent with the Bellman, Lohse, and Johnson (1999) study, that states that prior experience and familiarity is the most important factor for predicting online purchase intention.

However, familiarity, experience and habit show no significant impact on consumer risk perception. The study of Dan J. Kim et al. (2008) explains that familiarity, experience and habit are naturally deals with uncertainty and complexity related to product or service reflect seller and intermediary's ability and promise, not the presence of risk. This could possibly explain that even though a consumer is familiar or has a good prior experience with seller and intermediary platform, it will not help to subside their risk perception that happens presently. Apart from the predicted hypothesis, the study investigated more on how familiarity, experience, and habit affects consumer perceived benefit. The findings indicate that more familiarity and prior experience with online transaction will lead to more benefits that the consumer perceived, emphasizing on positive one. Luhmann (1979) determined that familiarity deals with an understanding of current actions by other people or objects, while trust deals with other people's beliefs about future actions even though these

beliefs are frequently based on familiarity. A familiarity is a complex comprehension based upon experiences, previous interactions, and learning of others. Consumers who perceive a good prior experience will trust and believe in such seller and intermediary platform. They will believe that the seller and intermediary will provide some benefits for them. Moreover, the study also finds that the age of the consumer is a matter to their familiarity, experience and habit, and how they will have perceive benefits, because a consumer who is older has more experience than younger people.

The cognition-based is composed of information quality (IQ), perceived privacy protection (PPP), and perceived security protection (PSP). A previous study posits that C2C electronic classified marketplaces is primarily involved with computerbased media as digital text and photo (L. H. Lee et al., 2006). Online information presented by a seller and intermediary platform will be recognized as their online representative. Features and accurate information directly affect the level of consumers' acceptance (Lin & Lu, 2000). Based on the measuring antecedences, information quality has the highest path coefficient relationship that affects trust. Seller and intermediary platforms that present high quality information on their sites will be perceived as reliable sellers and intermediaries. The finding conforms to the J. C. Anderson and Narus (1990) and Etgar (1979) study that high quality information will generate consumer trust by resolving ambiguity, and also align consumer perception and expectation about the seller. The prior scholars had staged information quality as an antecedent of trust by measuring in terms of completeness, relevance, and authenticity (J. C. Anderson & Narus, 1990; Mukherjee & Nath, 2007). However, information quality shows no significant effect on perceived risk in C2C electronic classified marketplaces. The Electronic Transaction Development Agency (2017b) reports issues that Thai internet users considered as problems are the disturbing online advertising (66.6 percent), the delay of internet utility (63.1 percent), and problems with internet connection (43.7 percent). There are only 11.9 percent of users who consider if online information can be trusted or not. So, the quality of online information influences a consumer's trust, but it has no effect on their risk perception (Electronic Transaction Development Agency, 2017a, 2017b). To explain, Thai consumers mainly focus on infrastructure and the stability of a system over the quality of information that the seller and intermediary platform provide to them.

The previous literature determined that trust and perceived risk is essential to manage uncertainty in information exchange (Nicolaou & McKnight, 2006). The scholars recommend that trust and perceived risk should be mediate the effect of information quality because the combined effects lead to stronger outcomes (Mayer et al., 1995; Morgan & Hunt, 1994). Trust is considered a central mental variable in relationship, and perceived risk has a strong effect in the existing uncertainty in an online transaction (Nicolaou & McKnight, 2006). Based on prior studies, trust and perceived risk are not solely key predictors, but also defined as a complement of each other. Trust is defined as personal characteristics, whereas perceived risk is defined as a consumer perception about information exchange. Trust is determined as a positive attribute of such person, and perceived risk refers to a negative attribute that based on the feeling of suspicion and uncertainty (Nicolaou & McKnight, 2006). Even though there is no relationship between information quality and perceived risk, it might still be possible to have an effect on each other as a mediator as prior scholars have suggested. This can be investigated in a further study.

Considering other measure constructs in the cognition-based category, perceived privacy protection shows no impact on consumer trust, and perceived benefit. As the study is based in the Thailand context, Thai online consumers essentially focus on the online infrastructure and utility, which may lead the research results against the previous study (Dan J. Kim et al., 2008). Major considerations of Thai online users are disturbing advertisements, a slow network, and internet troubleshooting respectively (Electronic Transaction Development Agency, 2017b). Anyhow, there is an interesting point that shows 34.2 percent mentioned about. When online problems happened, they did not know what government agency would take the responsibility for electronic commerce. As scholars defined "customers frequently do not trust internet technology for three reasons: security of the system, distrust of service providers, and worries about the reliability of internet service" (M. K. Lee & Turban, 2001; Min & Galle, 1999; Paul, 1996; Ratnasingham, 1998a). The study of Rotchanakitumnuai and Speece (2003) identified that Thai consumers consider privacy for their personal information, but not as much as security protection. Consumers believe that service providers have always used their personal information without any consent and permission. Even though online service providers have a

statement about consumer privacy protection, consumer still believe that their information uploaded online has never been safe (Rotchanakitumnuai & Speece, 2003). Consistent with the finding is that a significant positive relationship of consumer perceived privacy protection on consumer perceived risk is shown. Nowadays, Thailand is at the stage of developing rules and regulations of electronic commerce and takes these issues as a serious concern. The Thai government has restructured the Ministry of Information and Communication Technology (MICT), changing it to be the Ministry of Digital Economy and Society to harmonize with the government's policy called "Thailand 4.0". However, online consumers believe the country still lacks the ability to protect them, and is unable to trace online evidence to resolve cases fairly (Electronic Transaction Development Agency, 2017a, 2017b; Rotchanakitumnuai & Speece, 2003). In a Thai perspective, no matter how the seller and intermediary platform provide privacy protection, it still does not influence the consumer's trust, and benefit perception. It is possible to explain that an increase of rules and regulations implemented by the Thai government would lead to higher risk perception of Thai online consumer. The consumer might think that electronic marketplaces are risky, so that is a reason that the Thai government would try to strictly implement rules and regulations in online marketplaces.

Therefore, Thailand internet user profiles show that Thai consumers are thinking more about information disclosure (64.1 percent) (Electronic Transaction Development Agency, 2017b), compared with the preceding year. It is a good sign for online consumers in Thailand because they are more aware that their personal information will be used for other purposes without permission, and will be awakened to protect their privacy. So, the government agency that is involved with electronic commerce should communicate and publicize their responsibility and will tell consumers what to do when they have an online problem. Also, the government agency should educate and set up campaigns for cyber crime, like fraud and identity theft, and educate the online consumer about how to use electronic commerce to achieve high benefits and make sure that their personal information will be collected and stored properly. For years to come, perceived privacy protection could possibly be the key predictor of trust and perceived benefit in Thai online marketplaces.

The findings show that perceived security protection has a significant impact on consumer risk perception. To explain, when a consumer is concerned about their personal information on an online seller and intermediary platform, the platform tries to provide security protection for their information and keep it confidential, the consumer will perceive that such seller and intermediary platform has lower risk than others. Based on the report of Electronic Transaction Development Agency (2017b), consumers trusted online service providers when those companies provided the security protections on their platforms, such as user authentication. The finding harmonizes with the studies of Ramnath K Chellappa and Pavlou (2002), which posit that providing security features (as security disclaimer, security policy) and protection mechanisms (as user authentication, encryption, secure sockets layer (SSL) in seller or intermediary website, will make consumers positively recognize the anxiousness of their personal information. Dan J. Kim et al. (2008) also recommends that a security system will represent a vender's commitment to diminish risk perception in an electronic transaction. When an online consumer perceives that a seller and intermediary platform provides the security protection to protect their personal information and identity, it decreases the consumer's risk perception on the seller and intermediary platform. Based on the cultural dimensions theory by Hofstede (1983), a majority of Thai feel threatened from unknown and ambiguous situations, and try to create beliefs and institutions to avoid uncertainty. Naturally, Thai characteristics would prefer a situation where they are able to foresee and predict a consequence as their regular routine, and to try to avoid an unexpected situation. Thus, an online transaction is borderless, blindfolded, and non-instantaneous unlike a physical marketplace, where both buyer and seller are meet directly. So, consumers might feel that they are losing their sense of control, which generates their risk perception about online transactions. Providing security protection in a seller and intermediary platform may directly show a consumer that the seller and intermediary platform care about them, and at least they can still be sure that their personal information is safe on the internet.

Regarding positive reputation of selling party, the measuring construct belongs to the affect-based category which shows no significant effect on consumer's trust, perceived risk and perceived benefit in predicted hypothesis. But it is reported to have

a positive significant impact on consumer risk perception, which is unpredicted in the hypothesis. The positive effect on perceived risk in this research finding might contradict the study of Dan J. Kim et al. (2008). To explain, the finding indicates that the more positive reputation of selling party has, the more consumer risk perception will increase. Currently, there are plenty of blogs, review websites, online influencers and claquer, of which receive money for reviewing online products and services. Though, the quality of such product and service is totally not as good as they review. Seller and intermediary platforms pay money to the reviewer to deceive online consumers to purchase their products and services. The consumer is extremely aware of products and services that are too highly recommended in online platforms. This could explain why seller and intermediary platforms with high reputation increase a consumer's risk perception. Recently, the reliable sources that online consumers actually trust and believe are with word-of-mouth from their family and friends, and feedback and recommendations from real users. As such, online consumers must research for more information about the products and services that they want to purchase, and the propaganda about such product and service simply leads to higher consumer risk perception. If the consumer is suspicious of whether the product and service is as good as the advertisement, why would seller and intermediary platform need to invest their money for advertisements? This could possibly explain why a higher positive reputation of selling party leads to higher risk perception. Nonetheless, a positive reputation of selling party shows no impact on consumer trust and benefit perception, it could mean that trust and perceived benefit partially mediates relationship between positive reputation of selling party and purchase intention (See Appendix C and D).

The personality-oriented category consists of consumer disposition to trust (CDT) and hedonic motivation (HM), which is based upon consumers' willingness, ability, and individual judgment. Consumer disposition to trust also has a significant impact on consumer trust, but has no direct effect on purchase intention in C2C electronic classified marketplaces. The finding is consistent with prior studies, which define that a consumer's disposition to trust positively influences trust in a seller and intermediary platform (D. Harrison McKnight et al., 2004). Gefen (2000) suggest that a consumer's disposition to trust is one of the primary keys of trust in interacting with

a selling party. D. Harrison McKnight et al. (2002) also supports that "disposition to trust is especially salient in e-commerce relationships because these relationships are characterized by social distance, which limits the amount of information a consumer has about the vendor". Also, when a consumer has a high tendency of disposition to trust others in general, there is a positive influence of trust in the selling party (D. Harrison McKnight et al., 1998; Rotter, 1971). To explain, a consumer's disposition to trust is likely to be personal characteristic. A consumer who is optimistic and easily trusts tends to trust a seller and intermediary platform. D. Harrison McKnight et al. (1998) describes an individual disposition to trust had two elements. These are a trusting stance where an individual presumes that they will achieve a better consequence by dealing with others, and faith in humanity where an individual presumes others as honest, trustworthy, and well-meaning. Hence, a consumer who has a high disposition to trust will easily trust an online seller and intermediary platform because they presume that online selling party and platform provider will be honest with them. The consumer will perceive that online seller and intermediary platform is trustworthiness and will feel comfortable making an online purchase. On the other hand, consumers with low disposition to trust will perceive that online purchasing is risky because they presume that the online seller and intermediary platform will try to defraud them, like providing false propaganda. An untrustworthy and fraudulent selling party collects their money without delivering a product and service as promised, and advertises deceptive information about a product and service on the platform. Moreover, the additional mediating effect test result (See Appendix C) shows that trust fully mediates the relationship between consumer disposition to trust and purchase intention. It could possibly explain the research finding that consumer disposition to trust has no direct impact on purchase intention, but it requires trust to be a mediator to influence to purchase intention in C2C electronic classified marketplaces.

Nonetheless, hedonic motivation shows a positive relationship on perceived benefit, but no significant impact on purchase intention. The research result might oppose to the study of Venkatesh et al. (2012), which identifies hedonic motivation as "a perceived enjoyment which has found influence technology acceptance and use directly" (Thong et al., 2006; Van der Heijden, 2004). In the online context, hedonic

motivation is defined as "the pleasure or fun derived from using such technology, of which play an important role in defining technology acceptance and use" (S. A. Brown & Venkatesh, 2005). Hedonic motivation is how a consumer perceives enjoyment and fun in online shopping. Rowley (2002) defines the process of window shopping and browsing as important in online shopping environment. This process has significant impact on a consumer's motivation to purchase via an online channel because the consumer views window shopping and browsing as a fast, convenient, interesting, entertaining and enjoyable way to collect information about product and service which they might consider to purchasing in either immediate or long time future (Rowley, 2002). Window shopping and browsing allows online consumers to take pleasure and fun in items which they are viewing and experiencing in online store and platform (Falk & Campbell, 1997; Miller, 1997; Rowley, 2002). Also, window shopping is becoming one of Thai consumer's enjoyment, even if sometimes they do not intend to make a real purchase. Consumers enter a shopping site and application, perhaps to keep updated on fashion trends only, or to see what is a social influencer is wearing and eating, then they will follow them. So, consumers feel motivated by the enjoyment and fun that is derived from window-shopping, which will make them perceive the benefits by keeping them up-to-date and relieved from stress (Arnold & Reynolds, 2003; Babin et al., 1994; Jarboe & McDaniel, 1987). Anyhow, the finding reports that hedonic motivation has no direct effect to purchase intention in Thai online marketplaces context, but perceived benefit could possibly represent as the mediator between hedonic motivation and purchase intention. Based on the additional research result (See Appendix D), hedonic motivation has a positive influence on perceived benefit, and then perceived benefit will drive consumer purchase intention. Perceived benefit partially mediates the relationship between hedonic motivation and purchase intention in C2C electronic classified marketplaces.

The last antecedent of trust, perceived risk and perceived benefit belongs to the calculative-based category, price value based on a calculative process to determine a rationale of costs and benefits, of which another party will be able to cooperate with or cheat on a particular relationship (Buckley & Casson, 1987; Coleman, 1990; Dasgupta, 2000; Lewicki & Bunker, 1995; D. L. Shapiro et al., 1992; Williamson, 1993). The measuring construct shows a direct positive impact on perceived benefit

and purchase intention in C2C electronic classified marketplace. The finding agrees with Dan J. Kim et al. (2008) and Venkatesh et al. (2012) studies. The monetary cost seems to be a major factor that affects consumer purchase intention. As the prior scholar defined, "cost and price is generally conceptualized together as the quality of products and services to define the perceived value of such products and services" (Zeithaml, 1988). Price value is determined as "consumers' cognitive tradeoff between the perceived benefits of the applications and the monetary cost for using them" (Dodds et al., 1991; Venkatesh et al., 2012). When the benefits of using technology is higher than monetary cost and price, then the consumer will perceive a positive price value, and it will have a positive impact on consumers' behavioral intention (Venkatesh et al., 2012). Consumers perceive that online shopping via C2C electronic classified marketplace will obtain more benefits to them, such as finding a lower price, an opportunity to compare selling price with another seller, and seeing a variety of product categories. When online shopping reduces the selling price enough, it will drive the consumer to make a purchase. Still, the consumer might believe that online shopping is risky, but if it makes them gain enough benefit, then online shopping is worth a try (Bhatnagar et al., 2000).

For the main predictors such as perceived risk, trust, and perceived benefit on purchase intention in C2C electronic classified marketplace, the findings reveal that two of measured variables; trust and perceived benefit had a significant impact on purchase intention as predicted. However, perceived risk had a positive impact on purchase intention, which was unexpected in the proposed hypothesis. First, the research findings could be explained that consumers, who trust and perceive high benefits of seller and intermediary platform, will also increase their consumer purchase intention in C2C electronic classified marketplace. The research findings are consistent with previous studies that show that trust is a key success factor in online business (Gefen & Straub, 2004; D. J. Kim et al., 2005; M. K. Lee & Turban, 2001). It also confirms the theoretical framework developed by Lewin (1943), Bilkey (1953), and Bilkey (1955). The purchase intention of consumers can be explained by trust, perceived risk and benefit. Based upon Theory of Reasoned Action (TRA) by Fishbein and Ajzen (1975), and Theory of Planned Behavior (TPB), and Technology Acceptance Model (TAM) by Fred D. Davis (1989), consumer intention is a

significant predictor of online consumers' participation. Intention is represented as the probabilities for individual behavioral responses (Fishbein & Ajzen, 1975). Due to the positive relationship between trust and purchase intention, the finding agrees with Dan J. Kim et al. (2008); Meents (2009); Luhmann (1988); Gefen (2000); Sirkka L. Jarvenpaa et al. (1999); K. Kim and Prabhakar (2000); Nöteberg et al. (1999); Stewart (1999) state that trust is one of the most effective and efficient methods that an individual uses to eliminate complexity, and to influence on consumer behavior directly. When an uncertain circumstance occurs, trust frequently plays an important role as a solution for specific problems associated with risk (Luhmann, 1988). Bart et al. (2005); Brynjolfsson and Smith (2000); X. Hu et al. (2004) support that trust is an essential component in online purchase. Furthermore, the findings reveal the negative impact that trust has on consumer perceived risk. To explain, a consumer's trust can mitigate risk perception that a consumer has on seller and intermediary platform. The result conforms with the Luhmann (1988) study, that when a consumer negatively perceives risk on seller, trust is a key factor to diminishing all the complexity. Besides, trust affects risk in conditions where the consumer is willing to take risks but unavailable to control over the consequence (Deutsch, 1960; Ratnasingham, 1998a; Rousseau et al., 1998). The trust that a consumer has on a seller and intermediary platform can come from prior experiences and positive reputation, of which will help to diminish consumer risk perception in online transactions, and will help to increase purchase intention.

Generally, prior studies define perceived risk as the reluctance of complete online transactions (Sirkka L. Jarvenpaa et al., 1999). Perceived risk is a conspicuous barrier of consumer acceptance in electronic commerce environment (Cox, 1967; Dowling & Staelin, 1994). It is a combination of uncertainty factors regarding all possibilities of negative consequences involving online products and services (Bauer, 1960; Cox, 1967), and the expectation of losses from risk perception that could be determined as a prohibition of purchasing behavior (J Paul Peter & Ryan, 1976). Electronic commerce is unlike the traditional store in that a consumer will be able to visit the store and have the ability to see, touch, feel, and even try a product until satisfied before wanting to make a real purchase. Antony et al. (2006) posits that consumer's perception of risk will influence to their electronic decision directly. The

research findings report that perceived risk has a positive impact on purchase intention. Conversely, it is unreasonable to claim that the more risk a consumer perceives in C2C electronic classified marketplaces, the higher the purchase intention. Due to the significant relationship between perceived risk and purchase intention, the finding is consistent with prior scholar such as S. J. Barnes et al. (2007); Corbitt et al. (2003); Mayer et al. (1995), who state that perceived risk plays an essential role in consumer behavior and purchase decision. Thus, the finding may contrast with prior studies that determine that perceived risk is a factor that reduce consumers' willingness to purchase in online transaction (S. J. Barnes et al., 2007; Gefen, Rao, et al., 2003; Jiuan Tan, 1999). This study tries to figure out a possible reason to support the adverse significant relationship on perceived risk and purchase intention by adding some regression paths like the AMOS suggestions. Interestingly, the finding shows that perceived benefit also plays a significant role on perceived risk. To explain, the more a consumer perceives that online purchasing has high benefits, the higher the risk perception. Because Thai characteristics are based on the cultural dimensions theory by Hofstede (1983), the Thai consumer has high uncertainty avoidance, meaning they try to avoid uncertainty and unexpected situations. Even though online purchasing will give them more benefits than brick-and-mortar store, consumers feel insecure about the increased benefits that they will receiving from a seller and intermediary platform, regardless of whether the seller is being deciving or not. Increased benefits that a consumer receives from an online transaction will lead to a higher risk perception. And in turn, this leads to high purchase intention in C2C electronic classified marketplaces as well. The finding complies with the Bauer (1960) study, which postulates that a consumer would be less concerned about risk when they perceive a particular purchase has a benefitted them. This is indicated by the finding that perceived risk has positive impacts on purchase intention. Consumers perceive benefits in online shopping based on the positive evaluation of their judgment which focusing on benefit in return (Dan J. Kim et al., 2008). Alba et al. (1997), Hoffman et al. (1995), Peterson et al. (1997) determine that the benefits from online purchases is convenience, which is better than a brick-and-mortar store. So, the finding possibly concludes that Thai consumers perceive that purchasing from C2C electronic classified marketplaces will make them get benefits such as lower price, a variety of products, comparing product quality and price before purchasing, convenience, saving transportation cost, better online promotion, and saving time. Meanwhile, they are still aware of the getting defrauded by deceptive seller and intermediary platforms, such as a receiving product with lower quality than expected, selling party will not deliver product on time, receiving a product that is different from the information provided on seller and intermediary platform, or the selling party does not deliver a purchasing product as promised.

Finally, the final measuring construct of this study is perceived benefit. Perceived benefit is defined as the positive consequences associated with behavior as a response to perception or substantial threat (Chandon et al., 2000). Precisely, perceived benefit is determined as a consumer's perception about gaining benefits from an associated selling party (Dan J. Kim et al., 2008). Consumers complete online transactions because they see that there are many benefits like a variety of product selection, convenience, time and cost saving, compared with tradition shopping (Margherio et al., 1998). The research finding reports the positive impact of perceived benefit has on purchase intention and consumer trust. The finding can explain that a consumer who perceives benefits like convenience, lower price than a traditional store, return and refund policy, product availability from C2C electronic classified marketplaces, will lead to a higher purchase intention in online shopping. Furthermore, the more that consumers perceive the benefit, perhaps from their prior experiences with C2C electronic classified marketplaces, the more consumers trust seller and intermediary platforms. The finding agrees with previous studies such as Al-Debei et al. (2015); Eastin (2002); Dan J. Kim et al. (2008); Margherio et al. (1998); M. Zhou et al. (2008), that define perceived benefit as an essential factor affecting purchase decision in the online shopping context. It also significantly represents a consumers' encouragement, shaping favorable and positive purchase intentions towards online shopping. Certainly, online shopping provides an opportunity for a consumer to purchase product and service in anywhere and anytime. Consumer can enjoy window shopping by looking for needed information, reviewing product features with positive and negative feedback from real users, comparing prices between different sellers for as long as they want without feeling the pressure and stress to make a purchase (Al-Debei et al., 2015).

#### **5.2** Theoretical contributions

This research studies consumer conduct in C2C electronic classified marketplaces, based upon the five different categories of antecedents to see how trust, risk and benefit perception play a significant role on consumers' purchase intention. More importantly, this study contributes to the extent of academic literature in field of electronic commerce by expatiating research about C2C electronic marketplaces, which is relatively scarce in Thailand. There are few research studies that concentrate in C2C electronic classifieds marketplaces in Thailand. Most studies focus on the research fields of Business-to-Business (B2B), Business-to-Consumer (B2C), and Consumer-to-Consumer (C2C) electronic marketplace (Auction-based). Even both public and private sectors omit the concentration of C2C electronic commerce. This study recognizes a huge opportunity in C2C electronic classifieds marketplaces in Thailand, and fills the gap of this research study field. It aims to analyze consumer purchase intention in C2C electronic classified marketplaces in Thailand from a holistic standpoint, and to comprehensively understand the role of trust, risk and benefit perception based on the scope of five different categories of antecedent. The research model examines both the effect of trust, risk and benefit perception towards purchase intention based on Theory of Reasoned Action (TRA) and Theory of Planned Behavior (TPB) developed by Icek Ajzen (1991) and Extending Unified Theory of Acceptance and Use of Technology (UTAUT2) by Venkatesh et al. (2012). The proposed model is based upon the study of Dan J. Kim et al. (2008), who introduced four different categories of the antecedent of trust, risk and benefit perception, which are experience-based, cognition-based, affect-based, personalityoriented. These four categories comprise of several factors that affect trust and risk perception. The study of Meents (2009) explore several factors that affect trust and risk perception on seller and intermediary, and also trust and risk respectively affect to purchase intention. The four categories of antecedents that affect trust, risk and benefit perception comprise of cognition-based (e.g., information quality, perceived privacy protection, perceived security protection), affect-based (e.g., positive reputation of selling party), experience-based (e.g., familiarity), personality-oriented (e.g., consumer disposition to trust) (Barney & Hansen, 1994; Chao C. et al., 1998;

Gefen, Karahanna, et al., 2003b; D. Harrison McKnight et al., 2002; Venkatesh et al., 2012; Walczuch et al., 2001; Zucker, 1986). Additionally, this study is combined with the study of Venkatesh et al. (2012) by adding three antecedents into the proposed research model. Venkatesh et al. (2012) introduced an extension to the unified theory of acceptance and use of technology (UTAUT2) by added hedonic motivation, price value, experience and habit as a predictor in UTAUT. Based on motivation theory, the scholars posit that these three factors are a key predictor to consumer behavioral intention, in the field of technology acceptance and use. Building upon prior literature studies, the study modifies the research conceptual model, which has five different categories of the antecedent of trust, risk and benefit perception (See figure 13), and adds calculative-based. Also, the study applies an extension to the model of unified theory of acceptance and use of technology (UTAUT2) by Venkatesh et al. (2012) into Dan J. Kim et al. (2008). Experience and habit is applied to experience-based. Hedonic motivation is applied to personality-oriented. And lastly, price value appears in the calculative-based category. This study proposes a comprehensive theoretical model, which extends the Dan J. Kim et al. (2008) model to apply to C2C electronic classified marketplaces. Initially, trust and perceived risk are the main predictors of the antecedents in the proposed model, but the findings show that AMOS is a poor fit in the structural equation model. Furthermore, it recommends adding ten regression paths into the model. The result indicates a good fit and also integrates perceived benefit as the key predictor of the research model. Moreover, there has been insufficient empirical study on C2C electronic classified marketplaces, and this study fills the gap by conducting research from C2C electronic classified marketplaces to validate Theory of Reasoned Action (TRA) and Theory of Planned Behavior (TPB) developed by Icek Ajzen (1991) and Extending Unified Theory of Acceptance and Use of Technology (UTAUT2) by Venkatesh et al. (2012).

#### **5.3** Practical contributions

This study not only provides theoretical contributions, but also generates practical contributions as well. The study, conducted in C2C electronic classified marketplaces, in Thailand context based on prior research study models, aims to see

how the antecedent factors affect consumer trust, perceived risks and benefits. The hope is that sellers and intermediary platform providers in Thailand will use the research findings to improve their products and services. Most studies on electronic commerce in Thailand concentrate on the Business-to-Consumer (B2C) context. There are few studies that focus on Consumer-to-Consumer (C2C), even though there have been a dramatic increase in C2C electronic classified marketplaces. There is an opportunity for the parties involved in such electronic marketplaces to apply these research results to attract potential consumers who would like to make purchases online, especially consumers who still distrust the seller and intermediary platform.

### 5.3.1 Prior experience of consumer will affect to their trust

Experience-based categories consist of Familiarity, Experience and Habit, of which the findings indicate that Thai consumers perceive familiarity, experience and habit as the same factor. This category is based on the prior experience of consumers that involve a trust building process. Normally, consumers rely on their prior experience to appraise current and future decisions. Such experience are interrupted by unexpected incidents which occur in the relationship (Doorn & Verhoef, 2008). This finding shows that a consumer's trust is directly affected by a positive familiarity, experience and habit, a good quality of information, and consumer disposition to trust. A positive prior experience of seller and intermediary platform will positively influence consumer trust. Consumer recognition of prior experiences has a large impact on their trusting process and decision. Familiarity, experience and habit not only generate consumer trust, but also generate consumer perceived benefit as well. Because consumers remember that using C2C electronic classified marketplaces provides benefits for them, prior experience will directly drive their benefit perception in online purchasing. The consumer will position and recall about seller and intermediary from their prior experience. Specifically, a consumer perceives a good and trustworthy seller when the seller provides correct information about the product and service, delivers the product and service on-time, and guarantees a purchase with a return policy. When consumer visits a website and application to see an online product and service, their purchasing decision is based on

pictures and descriptions that the seller provides. Normally, a consumer expects to receive a product and service that matches the online pictures and description, or at least similar to what they expected. If they receive a product and service that is below their expectation, then the consumer will conclude that such a seller and intermediary platform is untrustworthy. Just one negative previous experience of seller and intermediary platform is enough to generate a negative familiarity, experience and habit on consumer perception, and decreases the consumer's trust. Lastly, the negative experience will affect the consumer's purchase intention and decision. For a seller and intermediary platform in C2C electronic classified marketplaces, one way to generate a positive consumer's experience is to show quick interviews with previous online consumers who have had a good experience, such as getting high quality products and services, working with a courteous staff, receiving after sales service, receiving product and service on time, and getting a cheap price. Chiefly, the seller and intermediary platform should be able to accomplish their basic objective of selling product and service because the consumer approaches the seller to get at least what they need to purchase. A positive familiarity, experience and habit of consumer is straightforward to generate, but it can be hard to maintain the standard and increase to a more positive level.

### 5.3.2 Accurate information will generate consumers, trust and security protection will reduce risk perception in online marketplaces

Chao C. et al. (1998) and McAllister (1995) defines cognition-based category as the perception regarding characteristic of consumer that consider about information quality, perceived privacy protection, and perceived security protection. Cognition-based is defined as "we choose whom we will trust in which respects and under what circumstances, and we base the choice on what we take to be 'good reasons,' constituting evidence of trustworthiness" (Lewis & Weigert, 1985). Online information presented by seller and intermediary platform is recognized as their representative. The more features and accurate information that a seller provides to a consumer, the more a consumer perceives that such seller and intermediary platform is paying attention and being honest with them. Information is an online

representative of seller and intermediary platform in C2C electronic classified marketplaces. Accuracy and high quality information will be perceived as a reliable source. From rough interviews with respondents, this study found that consumers define quality information about a product and service as information that is up-todate, sufficient, correct, and useful. When a consumer visits a seller website, application, and platform, they would like to see reliable information about their product and service of interest. For example, if a consumer would like to buy a piece of clothing where the bust width must be lager that 33 inches, then they will look at a provided information from seller about their needed product and decide to purchase. After the product is delivered, if a consumer finds that their purchased product has a bust width smaller than 33 inches, then they will perceive that such a seller provided unreliable information to the consumer. In contrast, if the product received matches the provided information from the seller website and application, then the consumer will perceive this seller and intermediary platform to be a trustworthy seller. Once a consumer perceive a seller and intermediary platform to be reliable, then it is easy to generate consumer's trust. So, seller and intermediary platforms should be honest with their presented information on their website and application, because using propaganda will fool a consumer once, but the following negative word-of-mouth will last a long time in the consumer's mind.

To find a possible way to generate consumer trust, seller and intermediary platform must find a convincing strategy that changes the consumer's mind, such as providing security protection to make them feel safe about the system or providing high benefits for them until they consider risk less often. The study finds that providing security protection through a seller and intermediary platform is essential because the security system reduces consumer risk perception of a seller and intermediary platform. It makes consumers feel secure about their personal information. Nowadays, Thai online consumers are more concerned about protecting their privacy. Thailand is still in the stage of developing rules and regulations for electronic commerce, and treats these issues as a serious concern. The consumer believes that the country lacks the ability to protect them, and is unable to trace online evidence to resolve cases fairly. Mostly, the consumer believes that their personal information has been used for other purposes without their granted permission. So, a

seller and intermediary platform must provide security features like a security disclaimer, a security policy, and protection mechanisms like user authentication, encryption, and secure sockets layer (SSL) to show consumers that they certainly care about a consumer's personal information. Furthermore, a seller and intermediary platform should provide a third-party to guarantee electronic transactions, such as a consumer union, a bank, and/or an accountant. In case something goes wrong in an online transaction, there will be a person to take responsibility for the situation. A third-party seal provides the assurance to a consumer that the seller and intermediary platform follows the operating practices regarding security and reliable payment system, privacy policy, and return policy (Castelfranchi & Tan, 2002; Dan J. Kim et al., 2004; Koreto, 1997; S. P. Shapiro, 1987).

Thus, Thai consumers seem to be less concerned about that their personal information than online infrastructure because the majority of consumers are not aware of how information disclosure and privacy intrusion, such as fraud, identity theft, loss of anonymity, fear of being monitor personally, and commercial solicitation, would adversely affect them. Due to increasing lawsuits about information disclosure and privacy intrusion in Thailand, consumers will be more concerned about their information privacy, while they are uninformed about the process of collecting their personal information as financial data. To make them feel safe, a seller and intermediary platform in C2C electronic classified marketplaces should adopt a privacy protection process and security protections to gain consumer trust and to encourage them to use online purchasing (Dan J. Kim et al., 2008).

### 5.3.3 A Positive reputation of seller and intermediary platform leads to higher risk perception

Lewis and Weigert (1985) define affect-based category as an emotional attachment between individuals. Consumers invest their emotion by expressing genuine care, believe in intrinsic virtue of human relationships, and believe that their sentiments will be reciprocated (Pennings & Woiceshyn, 1987; Rempel et al., 1985). Chao C. et al. (1998) and McAllister (1995) suggest that the affect-based category is related to interactions between a consumer and external factors related to trust decision. Even though consumers are forced to behave in a certain way when they

have been assigned a role, they eventually choose to act with their personal behavior. The finding indicates that a consumer distrusts a fake positive reputation of selling party. Currently, bloggers, reviewers, and online influencers receive money for advertising online products and services with fake reviews. An online reviewer will prepare and set up an online product and service to make sound better than its true quality. For the food and bistro industry in Thailand, the shop will hire online reviewers to post stories and ratings onto their Facebook page, Instagram, Pantip.com, and Wongnai. So, the followers of such a reviewer will take the news and information about the restaurant and make it go viral. Recently, online consumers are extremely aware of information shared on the internet. Seller and intermediary platforms should take this research finding seriously and be honest with the consumer to gain the consumer's trust about their products and services. A deceptive seller could possibly cheat on consumer one time, then such consumer might spread negative word of mouth on them, and it will directly affect the seller and intermediary platform in the future. Furthermore, negative word-of-mouth leads to a negative familiarity, experience and habit of consumer. Negative recognition of consumer is the hardest thing to diminish. Recently, online consumers do more research on feedback for products and services that they will be purchasing before making any decision. So, it is not worth it for online sellers and intermediary platforms to pay for false online reviews. If a consumer finds out such information is not true, then it will directly affect to their purchase decision.

# 5.3.4 High disposition to trust characteristic can easily generate consumer's trust and hedonic motivation influences to benefit perception and a particular perception leads to purchase intention

Personality-oriented category is based on consumers' willingness, ability, and individual judgment. It depends on their dispositional characteristics and habits, which are affected by the consumer's nature. Based on this study, consumer's benefit perception and trust might not only come from solely the product and service. It may come from the consumer's inner feelings, such as hedonic motivation, and their personal characteristics, such as consumer disposition to trust. Due to a consumer's

personal characteristics, it is hard to control consumer disposition because the optimistic consumer seems to be more trusting than the pessimistic consumer. However, a seller and intermediary platform should research and figure out their consumer's behavior based on their online behavior patterns. For example, they can identify a favourite product and service that has been frequently purchased, and importantly concentrate on consumer feedback and figure out what are they going to say exactly. For example, when a seller and intermediary platform recognizes that a consumer feels insecure about their payment method, then they should implement a reliable method such as PayPal, cooperate with Thai commercial bank to use an online credit card payment system, PromptPay, mobile banking, instead of directly transferring money into seller bank account, or provide third-party guarantees for their online payment system to make consumers feel more secure about them.

The findings show that the consumer perceives enjoyment when using C2C electronic classified marketplaces even though they do not intend make an actual purchase. Window shopping is becoming a favourite behavior of Thai consumers in online marketplaces. Consumers enjoy entering online shops and seeing products sold on C2C electronic marketplaces without making a purchase. Based on rough interviews with respondents, this study finds that Thai consumers use social media, such as Facebook, Instagram, and Twitter, to share their feelings and status, give updates about news, popular trends and information. Sometimes, consumers visit online shops to see the current online social trends, and still not making any purchase decisions at that time. After a consumer is satisfied with searching for information from online shop, they will eventually want to purchase a product or service. The study finds that online window shopping and browsing derives enjoyment and fun, which is called hedonic motivation for consumer. Hence, hedonic motivation will not influence consumer purchase intention directly, but it will affect a consumer's benefit perception and such perception will influence to the intention later. Seller and intermediary platforms that would like to generate consumers hedonic motivation will have to closely monitor a popular hashtags, trends, and news that Thai consumers are focusing on in social media. When a consumer visits a seller and intermediary platform, they derive enjoyment and fun from such platform, and that will lead to an increase in their benefit perception. This study indicates that hedonic motivation itself might not influence to consumer's purchase intention directly, though the motivation will generate a consumer's benefit perception on such seller and intermediary platform. Then later on, a positive benefit perception will lead to consumer's purchase intention later.

### 5.3.5 Price value influences on both consumer benefit perception and purchase intention

Calculative-based category is based on a mechanism of economic principles of trust building related to a calculative process (Hosmer, 1995). Consumers calculate whether it is worth it or not to take a risk to use a seller and intermediary platform. Beyond the prior experiences of the consumer, high quality information presented by seller and intermediary platform, security protection, positive reputation, and consumer's characteristics, price value is an undeniable factor that significantly impacts both the consumer's perceived benefit and purchase intention. When a consumer perceives that purchasing online will benefit them in both intrinsic and extrinsic factor than purchasing from the traditional store, then it will generate consumer benefit perception on such seller and intermediary platform. Intrinsic factors consist of price, variety and quality of products, and convenience, availability of needed products. Extrinsic factors consist of social acceptance, emotional values, social needs for pleasant, and shopping experience, which includes novelty seeking. Exceeding the price value could also affect to consumer purchase intention directly. Due to information disclosure, privacy intrusion, and fraudulent, Thai consumers feel insecure about using online platforms because they believe that Thailand still lacks the ability to protect online consumers and are unable to trace online evidence to resolve cases fairly. If consumers perceive that purchasing from C2C electronic classified marketplaces has a high price value, then the benefit will mitigate consumer risk perception of online purchasing. As the main research finding of this study reports that although consumers perceive high risk in online purchasing, online purchasing will still increase consumer purchase intention as well. To explain, Thai consumers feel insecure in online purchasing as always, but they know exactly what benefits that they will receive from taking these risks. So, they are willing to take that risk in exchange for receiving satisfying benefits. The seller and intermediary

platforms should provide more benefits, which are not available in traditional store such as free shipping, cash on delivery, a return policy within 7 days what if consumer do not satisfy with the product, and lower prices than purchasing at traditional store. Importantly, online consumers always perceive that using C2C electronic classified marketplaces will be more convenience than the traditional one. So, sellers and intermediary platforms should take this opportunity and maintain their strength by offering consumer aforementioned benefits to increase consumers benefit perception and purchase intention.

## 5.3.6 Trust and perceived benefit positively affect to consumer purchase intention, conversely high risk perception leads to high purchase intention

Trust, perceived risk, and perceived benefit are considered essential factors in C2C electronic classified marketplaces. These three major factors not only affect purchase intention directly, but also affect each other as well. Trust not only increases purchase intention, but also is able to reduce consumer risk perception. The more a consumer trusts a seller and intermediary platform, the less that they will perceive such seller and intermediary platform as risky. This study indicates that the antecedents that influence trust are familiarity, experience and habit, information quality, and consumer disposition to trust. These antecedents affect trust, and then trust diminishes the consumer's risk perception. To explain further, a seller and intermediary platform should provide accurate and high quality of information on their platform to make a consumer perceive that a particular seller and intermediary platform is a reliable source. When a consumer feels that they can rely on such seller, then it will directly gain a consumer's trust. A consumer perceives low risk on a seller and intermediary platform when they already presume the seller to be trustworthy. Additionally, this study suggests that the consumer perceived benefit both generates consumer trust and conversely creates consumer perceived risk. Basically, a consumer who perceives benefit from an online purchase will trust such a seller and intermediary platform. Instead of the antecedents as a positive experience of consumer, high quality of information, and consumer characteristic, the seller and intermediary platform should make a consumer feel that they will gain some benefit

from using their online shopping platform such as convenience, lower price, on time shipping, free shipping. It will easily generate consumer trust on that seller and intermediary platform because they will recognize that using that channel will make them gain something. In contrast, Thai consumers perceive that purchasing from C2C electronic classified marketplaces will make them gain the benefits. Meanwhile, they are still aware of getting deceitful benefits from seller and intermediary platform. Mostly, the dishonest seller and intermediary platform will be deceiving online consumer by overstating advertisements about their product and service to get public attention. Recently, the Thai government tried to strictly control seller and intermediary platforms in C2C electronic classified marketplaces to protect online consumers from such deceptive sellers. So, seller and intermediary platforms should concentrate on the information that they share in their platform with morals and honesty. As mentioned previously, the deceptive seller and intermediary platforms might be able to deceive consumer once, but with negative word of mouth, word will spread widely, and will be hard to dissolve in the consumer's mind.

### 5.4 Policy recommendation

In Thailand, UNCITRAL Model Law on Electronic Commerce 1996 regulates electronic commerce, which includes Electronic Transaction Law, Electronic Signature Law, Electronic Financial Transaction Law, Electronic Commerce Criminal Code. UNCITRAL Model Law on Electronic Commerce 1996 was rectified to the second issue in 2008 because the exclusion and obsolescence of existing Model Law on Electronic Commerce 1996 (Issue 1) did not fully include electronic documents, electronic signatures, and law enforcement. Lately, the Thai government submitted a draft of UNCITRAL Model Law on Electronic Commerce 1996 (Issue 3) to the Council of Ministers on January 6<sup>th</sup>, 2015. The Council of Ministers agreed to marking up the bill of UNCITRAL Model Law on Electronic Commerce 1996 (Issue 3) (Electronic Transaction Development Agency). This research finding would like to provide some suggestions to the Thai government to promote and support electronic commerce based on the research findings and the Electronic Transaction Development Agency (2017a) report. This study indicates that Thai consumers are

concerned more about their privacy protection recently, but law and regulation about electronic commerce is still in the stage of development. So, consumers believe that the country lacks the ability to protect them, and is unable to trace online evidence to resolve cases fairly. They believe that their personal information has been always used for other purposes without their granted permission, and that they cannot do anything to protect their personal information. Consequently, the research finding has led to the formulation of following suggestions:

- The government should revise and update Thai electronic commerce law based on the increase of online intrusions such as fraud, identity theft, loss of anonymity, fear of being monitored personally, and commercial solicitation. Thai consumers barely believe that the enforcement of electronic commerce in Thailand is effective. In their perspective, UNCITRAL Model Law on Electronic Commerce 1996 cannot fully protect online victims because of the limitations of an obsolescent law.
- The government, public and private sector should strictly investigate and research how fraudulent acts affect a consumer and online business to figure the best solution for those sectors involved.
- The government should implement an appropriate and effective law and regulation to prevent and solve such problems promptly and certify that online victims will be fully protected and compensated.
- Law and regulation about electronic commerce should strictly and equally enforce both the seller and intermediary with no exception.
- The government should specially control and regulate products that harm consumers, such as, alcohol and liquor, pharmaceutical and medical product include drug and diet pill, and illegal products. These types of products are conspicuously sold on the internet without control.
- The government agency should educate and set up campaigns to fight cyber crime such as fraudulent and identity theft, to protect them from criminals.
- The government agency should educate consumers on how to properly use electronic commerce, so they can make sure that their personal information will be collected and stored properly, and so that seller and intermediary

- platforms cannot use a consumer's personal information without a consent letter.
- The government should pass the laws to control online sellers and intermediary platforms and strictly enforce technology laws on selling consumer personal information to third parties and secondary use.
- The government agency should arrange training sessions for online sellers, intermediaries, and involved parties to guide them on online business and how to wisely use online transactions for their highest benefit.
- The government should support and promote the National Payment Gateway via electronic payment system, such as PromptPay, to reduce transaction costs between commercial banks, and create online consumer trust in payment systems. Usually, the payments in C2C electronic classified marketplaces are completed by transferring money directly into a seller bank account. There are some dishonest sellers who receive money from consumers and do not deliver selling product as promised. So, the government should concentrate on C2C electronic classified marketplaces payment methods to control fraudulent activity by sellers and intermediary platforms. This can be achieved by forcing online sellers to implement a reliable payment method like PromptPay. If a particular seller deceives a consumer, then a consumer will have be able to trace the evidence through the seller's identity on PromptPay.
- The Ministry of Commerce and the Ministry of Digital Economy and Society should enforce online seller in C2C electronic classified marketplaces to register with the Ministry of Commerce. Sellers in C2C electronic classified marketplaces do not have to register or enroll with the Ministry of Commerce. So currently, anyone can create an online account on social media platforms like Facebook, Instagram, or Line to sell their products without any law and regulation control.
- The Ministry of Digital Economy and Society and the government agency, which is in charge of electronic commerce, should communicate and publicize their role and responsibility, and educate consumers on what they should do when they have online issues.

• The EU Parliament approved the regulation EU General Data Protection Regulation (GDPR) on April 14<sup>th</sup>, 2016, and date of enforcement was May 25<sup>th</sup>, 2018. GDPR aims to protect data privacy and data breaches of EU citizens, which penalize any offending organization up to 4% of their annual turnover. For data subject rights, GDPR will strictly enforce the right to access, the right to be forgotten, breach notification, data protection officers, data portability, and privacy by design. The Ministry of Digital Economy and Society should research and implement rules and regulations based on GDPR to protect consumer data privacy in electronic marketplaces in Thailand. Thai consumer can then be assured that their personal information will be collected and stored properly. For any secondary use and selling consumer personal information to third parties, the seller and intermediary should face heavy fines as per GDPR conditions.

### 5.5 Limitations and directions for further study

Further study will be needed to evaluate the generalizability of this study. While the research respondents reflect actual and potential C2C electronic classified marketplaces consumer, they may not represent of all consumers in C2C electronic classified marketplaces. This study uses convenient methods for data collection. The finding indicates that consumers who are above 60 years old might be less comfortable with electronic commerce according to their unfamiliarity of using computers and the internet. This group of respondents may be affected by lower trust and higher risk perception than younger respondents. So, other methods of data collection might be more suitable to select target respondents than the convenience method. The study was conducted in Thailand only, where uncertainly avoidance is high. The research finding might differ from other countries. To gain a deeper understanding of C2C electronic classified marketplaces, a further study should be conducted across countries or regions to see the difference in consumer's perception and behavioral intention. In addition, the five-cultural dimensions of Hofstede (1983) might be a key predictor in a consumer's perception to explain their characteristics,

value, and norm. For further study, qualitative research should be applied to the research, to gain a comprehensive understanding on the antecedents, trust, and risk and benefit perception, which leads to purchase intention.

Even though this research model receives an empirical support, there might be some other possible alternative models that give a deeper understanding about the relationship between the examined constructs in this study. For instance, the Dan J. Kim et al. (2008) study examines the role of trust functioning as a mediator among the antecedents and purchase intention. The studies of D. Harrison McKnight et al. (1998) and D Harrison McKnight and Chervany (2001) determine that the antecedents factors might affect consumer purchase intention directly, rather than indirectly affect trust, perceived risk and benefits. Furthermore, Mayer et al. (1995) positions trust as the moderator between consumer perceived risk and purchase intention. When a consumer perceives a risky online transaction, trust is the only influence on purchase intention. The data collection was collected at a single point of time, and not a longitudinal study. Due to the early developmental stage electronic commerce in Thailand, the consumer and electronic market has yet to grow. So, the research findings can indicate different results if the data is collected in different times. From the beginning of research study on the topic of the affecting factors on consumer purchase intention in C2C electronic classified marketplaces: a Thai perspective, this study aims to test the theoretical framework of study, not to advocate one particular framework over another. Hence, further research might examine other alternative models that find relationships between trust, risk and benefit perception, purchase intention, and the antecedents, some of which might supplement or contradict to each other. Under different circumstances, the proposed models may or may not hold up in the same way as this study.

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# Appendix

# Appendix A : An overview of prior studies

Author	Related theory and dimension of study	Data collection	Concepts	Research conte
Meents (2009)	Theory of Reasoned Action (TRA)	Netherlands	Attitude towards purchasing - Seller trust (+) - Intermediary trust (+) - Seller risk (-) - Intermediary risk (-)	C2C electronic auction marketplaces
Kim et al. (2008)	Technology Acceptance Model (TAM), Theory of Reasoned Action (TRA), and Theory of Planned Behavior (TPB)	United States	Purchase Intention to purchase (+) Perceived risk (-) Consumer trust (+) Perceived benefit (+) Experience-based; - Familiarity Cognition-based; - Information quality - Perceived privacy protection - Perceived security protection Affect-based; - Presence of a third party seal - Positive reputation Personality-oriented; - Consumer disposition to trust	B2C electronic marketplaces
Venkatesh et al. (2012)	The Unified Theory of Acceptance and Use of Technology (UTAUT)	Hong Kong	Use behavior  Behavioral intention Performance expectancy Effort expectancy Social influence Facilitating conditions Hedonic motivation Price value Habit Age Gender Experience	Mobile internet technology
Bhattacherjee (2002)	Trust conceptualization	United States	Familiarity Trust Willingness to transact	B2C electronic marketplaces

Author	Related theory and dimension of study	Data collection	Concepts	Research context
Ba and Pavlou (2002)	Trust formation and feedback machanisms	eBay users and seller	Feedback profile; Positive rating Negative rating Trust in seller Product price Price premiums	C2C electronic auction marketplaces
Gefen (2000)	Theory of Trust and Power	United States	Disposition to trust Familiarity Trust Intended inquiry Intended purchase	B2C electronic marketplaces
Gefen et al. (2003)	Technology Acceptance Model (TAM) and Trust- based antecedents	United States	Institution-based situational normality Knowledge-based familiarity Calculative-based beliefs Institution-based structural assurances Trust Perceived ease of use Perceived usefulness Intended use	B2C electronic marketplaces
Jarvenpaa et al. (1999)	Exchange Theory, Balance Theory, Theory of Reasoned Action (TRA), and Theory of Planned Behavior (TPB)	Australia	Perceived size Perceived reputation Trust in store Attitude Risk perception Willingness to buy	B2C electronic marketplaces

## $\label{eq:Appendix B} \textbf{Appendix B: Questionnaire items}$

#### Purchase intention (INT):

Construct	Measurement items	Adapted from
INT1	I intend to continue using C2C electronic classified marketplaces for online purchasing in the future.	Venkatesh, Thong, and Xu (2012)
INT2	I will always use C2C electronic classified marketplaces as a channel for online purchasing in my daily life.	Venkatesh et al. (2012)
INT3	I plan to continue to use C2C electronic classified marketplaces frequently.	Venkatesh et al. (2012)
INT4	I am likely to purchase the products(s) online from C2C electronic classified marketplaces.	Gefen (2000)
INT5	I am likely to recommend C2C electronic classified marketplaces for online purchasing to my friends.	Jarvenpaa, Tractinsky, and Sarrinen (1999)
INT6	I am likely to make another online purchase from C2C electronic classified marketplaces if I need the products that I will buy.	Jarvenpaa et al. (1999)
INT7	My willingness to purchase a product from C2C electronic classified marketplaces is high.	Dodds, Monroe, and Grewal (1991)
INT8	The probability that I would consider online purchasing from C2C electronic classified marketplaces is high.	Dodds et al. (1991)
INT9	If I want to purchase product online, I would consider buying it from C2C electronic classified marketplaces.	Dodds et al. (1991)
INT10	The likelihood of my purchasing online from C2C electronic classified marketplaces is high.	Dodds et al. (1991)
rust (TRUST	"):	

#### Trust (TRUST):

Construct	Measurement items	Adapted from
TRUST1	Seller and intermediary platform in C2C electronic classified marketplaces is trustworthy.	Gefen (2000) and Jarvenpaa et al. (1999)
TRUST2	Seller and intermediary platform in C2C electronic classified marketplaces gives the impression that they keep promises and commitments.	Jarvenpaa et al. (1999)
TRUST3	I believe that seller and intermediary platform in ${\rm C2C}$ electronic classified marketplaces has my best interests in mind.	Jarvenpaa et al. (1999)
TRUST4	Seller and intermediary platform in C2C electronic classified marketplaces is integrity.	K. Kim and Kim (2011)
TRUST5	Seller and intermediary platform in C2C electronic classified marketplaces is reliable.	K. Kim and Kim (2011)
TRUST6	Seller and intermediary platform in C2C electronic classified marketplaces is capable of doing their job.	Grazioli and Jarvenpaa (2000)
TRUST7	Seller and intermediary platform in C2C electronic classified marketplaces cares about their customers.	Grazioli and Jarvenpaa (2000)

#### Perceived Risk (RISK):

Construct	Measurement items	Adapted from
RISK1	My credit card number will be secure at C2C electronic classified marketplaces.	J. Kim and Lennon (2013)
RISK2	It is possible to judge quality of a product/service on C2C electronic classified marketplaces.	J. Kim and Lennon (2013)
RISK3	My personal information will be kept private at C2C electronic classified marketplaces.	J. Kim and Lennon (2013)
RISK4	Purchasing from C2C electronic classified marketplaces would involve more product risk (i.e. not working, defective product) when compared with more traditional ways of shopping (Brickand-mortar).	Jarvenpaa et al. (1999)
RISK5	Purchasing from C2C electronic classified marketplaces would involve more financial risk (i.e. fraud, hard to return) when compared with more traditional ways of shopping (Brick-and-mortar).	D. J. Kim, Ferrin, and Rao (2008)
RISK6	An overall perception of risk from C2C electronic classified marketplaces is high.	Kohli (1989)

#### Perceived Benefits (BENEFIT):

4	Construct	Measurement items	Adapted from
_	BENEFIT1	I think using C2C electronic classified marketplaces is convenient.	Swaminathan, Lepkowska White, and Rao (1999)
	BENEFIT2	I can save money by using C2C electronic classified marketplaces.	D. J. Kim et al. (2008)
	BENEFIT3	I can save time by using C2C electronic classified marketplaces.	D. J. Kim et al. (2008)
	BENEFIT4	Using C2C electronic classified marketplaces enables me to accomplish a shopping task more quickly than using traditional stores.	D. J. Kim et al. (2008)
	BENEFIT5	Using C2C electronic classified marketplaces increases my productivity in shopping (e.g., make purchase decisions or find product information within the shortest time frame).	Davis (1989) and Moore and Benbasat (1991)

#### Familiarity (FAM):

Construct	Measurement items	Adapted from
FAM1	I am familiar with purchasing products from C2C electronic classified marketplaces.	Gefen (2000)
FAM2	I am familiar with searching for items on C2C electronic classified marketplaces.	Gefen (2000)
FAM3	I am familiar with the process of purchasing from C2C electronic classified marketplaces.	Gefen (2000)
FAM4	Overall, I am familiar with C2C electronic classified marketplaces.	Gefen (2000)

#### Experience and Habit (EXPHAB):

Construct	Measurement items	Adapted from
EXPHAB1	Using C2C electronic classified marketplaces for online purchasing has become a habit for me.	Venkatesh et al. (2012)
EXPHAB2	I am addicted to using C2C electronic classified marketplaces to purchase products online.	Venkatesh et al. (2012)
EXPHAB3	I must use C2C electronic classified marketplaces for online purchasing.	Venkatesh et al. (2012)
EXPHAB4	Using C2C electronic classified marketplaces to purchase products online has become natural to me.	Venkatesh et al. (2012)

#### Information Quality (IQ):

Construct	Measurement items	Adapted from
IQ1	Seller and intermediary platform in C2C electronic classified provides correct information about the item that I want to purchase.	Doll and Torkzadeh (1988)
IQ2	Overall, I think seller and intermediary platform in C2C electronic classified provides useful information.	D. J. Kim et al. (2008)
IQ3	Seller and intermediary platform in C2C electronic classified provides up-to-date information on the item.	Doll and Torkzadeh (1988)
IQ4	Seller and intermediary platform in C2C electronic classified provides reliable information.	D. J. Kim et al. (2008)
IQ5	Seller and intermediary platform in C2C electronic classified provides sufficient information when I try to make a transaction.	Doll and Torkzadeh (1988)
IQ6	I am satisfied with the information that seller and intermediary platform in C2C electronic classified provides.	Doll and Torkzadeh (1988)
IQ7	Seller and intermediary platform in C2C electronic classified provides enough depth of information about its products.	Kuan, Bock, and Vathanophas (2008)
IQ8	Overall, the information that seller and intermediary platform in C2C electronic classified provides is of high quality.	D. J. Kim et al. (2008)

#### Perceived Privacy Protection (PPP):

Construct	Measurement items	Adapted from
	I am concerned that seller and intermediary platform in C2C	
PPP1	electronic classified is collecting too much personal information	Chen, Han, and Yu (1996)
	from me.	
	Seller and intermediary platform in C2C electronic classified will	
PPP2	use my personal information for other purposes without my authorization.	Chen et al. (1996)
	Seller and intermediary platform in C2C electronic classified will	
PPP3	share my personal information with other entities without my authorization.	Chen et al. (1996)
PPP4	Unauthorized persons (i.e. hackers) have access to my personal information.	D. J. Kim et al. (2008)
PPP5	I am concerned about the privacy of my personal information during a transaction.	Chen et al. (1996)
PPP6	Seller and intermediary platform in C2C electronic classified will sell my personal information to others without my permission.	Chen et al. (1996)



## Perceived Security Protection (PSP):

Construct	Measurement items	Adapted from
PSP1	Seller and intermediary platform in C2C electronic classified implements security measures to protect their consumers.	Chen et al. (1996)
PSP2	Seller and intermediary platform in C2C electronic classified usually ensures that transactional information is protected from accidentally being altered or destroyed during a transmission on the internet.	Chen et al. (1996)
PSP3	I feel secure about the electronic payment system of seller and intermediary platform in C2C electronic classified.	Chen et al. (1996)
PSP4	I am willing to use my credit card on seller and intermediary platform in C2C electronic classified to make a purchase.	Gefen (2000)
PSP5	I feel safe in making transactions on seller and intermediary platform in C2C electronic classified.	Gefen (2000)
PSP6	In general, providing credit card information through seller and intermediary platform in C2C electronic classified is riskier than providing it over the phone to an offline store.	Swaminathan et al. (1999)
PSP7	I feel safe providing personal information to seller and intermediary platform in C2C electronic classified marketplaces.	Deb and Lomo-David (2014), Devi Juwaheer, Pudaruth, and Ramdin (2012), Mann and Sahni (2012) Deb and Lomo-David
PSP8	I'm not worried to use C2C electronic classified marketplaces as I know my transactions will be secured and safe.	
PSP9	Seller and intermediary platform in C2C electronic classified marketplaces will not expose my personal information to third party.	Deb and Lomo-David (2014), Devi Juwaheer et al. (2012), Mann and Sahni (2012)
PSP10	Seller and intermediary platform in C2C electronic classified marketplaces provides enough security information about how to protect account from fraudsters.	Deb and Lomo-David (2014), Devi Juwaheer et al. (2012), Mann and Sahni (2012)
PSP11	Overall, I believe that purchasing online product from C2C electronic classified marketplaces is secured.	Deb and Lomo-David (2014), Devi Juwaheer et al. (2012), Mann and Sahni (2012)

## Consumer Disposition to Trust (CDT):

Construct	Measurement items	Adapted from
CDT1	I generally trust other people.	Gefen (2000)
CDT2	I generally have faith in humanity.	Gefen (2000)
CDT3	I feel that people are generally reliable.	Gefen (2000)
CDT4	I generally trust other people unless they give me reasons not to.	Gefen (2000)

#### Hedonic Motivation (HM):

Construct	Measurement items	Adapted from		
HM1	Using C2C electronic classified marketplaces is fun.	Venkatesh et al. (2012)		
HM2	Using C2C electronic classified marketplaces is enjoyable.	Venkatesh et al. (2012)		
HM3	Using C2C electronic classified marketplaces is very entertaining.	Venkatesh et al. (2012)		
HM4	Purchasing product online by using C2C electronic classified marketplaces often stimulate my curiosity.	Moon and Kim (2001), Pikkarainen, Pikkarainen, Karjaluoto, and Pahnila (2004), and Venkatesh et al. (2012)		
HM5	I derive a lot of fun while using C2C electronic classified marketplaces channel.	Moon and Kim (2001), Pikkarainen et al. (2004), and Venkatesh et al. (2012)		
HM6	My imagination is always aroused while using $C2C$ electronic classified marketplaces.	Moon and Kim (2001), Pikkarainen et al. (2004), and Venkatesh et al. (2012)		
HM7	Overall, I enjoy using C2C electronic classified marketplaces.	Moon and Kim (2001), Pikkarainen et al. (2004), and Venkatesh et al. (2012)		

## Price Value (PV):

Construct	Measurement items	Adapted from
PV1	Purchasing product online by using C2C electronic classified marketplaces is reasonably priced.	Venkatesh et al. (2012)
PV2	Purchasing product online by using C2C electronic classified marketplaces is a good value for the money.	Venkatesh et al. (2012)
PV3	Purchasing product online by using C2C electronic classified marketplaces provides a good value.	Venkatesh et al. (2012)
PV4	Considering the money I pay to purchase product online by using C2C electronic classified marketplaces, this online shopping channel is a good deal.	H. W. Kim, Xu, and Gupta (2012)
PV5	Considering the effort I make in online shopping by using C2C electronic classified marketplaces, this online shopping channel is worthwhile.	H. W. Kim et al. (2012)
PV6	Considering the risk involved in online shopping by using C2C electronic classified marketplaces, this online shopping channel is of value.	H. W. Kim et al. (2012)
PV7	Overall, online shopping by using C2C electronic classified marketplaces delivers me a good value.	H. W. Kim et al. (2012)

# ${\bf Appendix} \; {\bf C} : {\bf Demographic} \; {\bf Characteristics} \; {\bf of} \; {\bf Respondents}$

Appendix C : Demographic Characteristics of Respondents

Characteristics(i)	Frequency	Percentage(ii)	Mean	S.D.
Age	-	-	35.8	10.833
Gender:				
Male	131	33.1		
Female	254	66.9	-	-
Place of living:				
Bangkok Metropolitan Region	302	76.3		
Northern Region	13	3.3		
North-Eastern Region	21	5.3	-	-
Central Plain Region	48	12.1		
Southern Region	12	3.0		
Education level (Highest level of education completed):				
Below high school	-	- 1		
High school	7	1.8		
Vocational certificate	5	1.3		
High vocational certificate	16	4.0	الساء (	11
Bachelor's degree	203	51.3		
Master's degree	145	36.6		
Doctoral degree	20	5.1		
Income level (Per month):				
Below 15,000 THB	48	12.1		
15,000 – 30,000 THB	132	33.3		
30,001 – 45,000 THB	86	21.7		
45,001 – 60,000 THB	57	14.4		
60,001 – 75,000 THB	16	4.0	-  -	- 1
75,001 – 90,000 THB	16	4.0		
90,001 – 105,000 THB	10	2.5		
105,001 THB and above	31	7.8		
Experience with online transaction (1 = Beginner & 7 = Expert)	I LR	-	4.22	1.848
Experience with C2C electronic classified marketplaces:			, ,	
Yes	396	100.0		
No	-	1.00.0		/// -
C2C electronic classified marketplaces platforms in Thailand:				
Facebook	305	32.1		
Line	281	29.5		
Instagram	140	14.7		
Kaidee.com	72	7.6		
PantipMarket.com	20	2.1		
TaradPlaza	5	0.5		
C.M. Club	101	0.1		
NovaBizz		-	_	_
Hipflat	1	0.1		
One2car.com	20	2.1		
TaladROD	19	2.0		
THINKofLIVING	3	0.3		
ThaiSecondhand.com	10	1.1		
Craigs list	4	0.4		
Others	70	7.4		

<sup>(</sup>i) All characteristics are self-reported.

<sup>(</sup>ii) n = 396

Appendix C: Demographic Characteristics of Respondents (Cont.)

Appendix C: Demographic Characteristics of Respondents (Cont.)						
Characteristics (i)	Frequency	Percentage(ii)	Mean	S.D.		
Product purchased via online:						
Fashion; Clothing, bag, shoes, and accessories	293	24.9				
IT Gadgets	151	12.9				
Health & Beauty product; Cosmetic and skincare	187	15.9				
Food	98	8.3				
Traveling; Accommodation and touring	98	8.3				
Sporting	67	5.7				
Electronics	84	7.1	-	-		
Books	70	6.0				
Housewares	55	4.7				
Pet supplies	25	2.1				
Mom & kids product	29	2.5				
Others	18	1.5				
Frequency of online purchase per quarter:						
Less than 1 time per quarter	25	6.3				
1 - 3 times	268	67.7				
4 - 6 times	58	14.6				
7 - 9 times	17	4.3	67/ //	-		
10 - 12 times	5	1.3				
More than 12 times	23	5.8				
Money spent in online purchase per time :						
Less than 500 THB	50	12.6				
500 – 1,500 THB	198	50.0				
1,501 – 2,500 THB	68	17.2				
2,501 – 3,500 THB	40	10.1	11 ~	- 11		
3,501- 4,500 THB	12	3.0				
4,501 THB and above	28	7.1		211		

<sup>(</sup>i) All characteristics are self-reported.

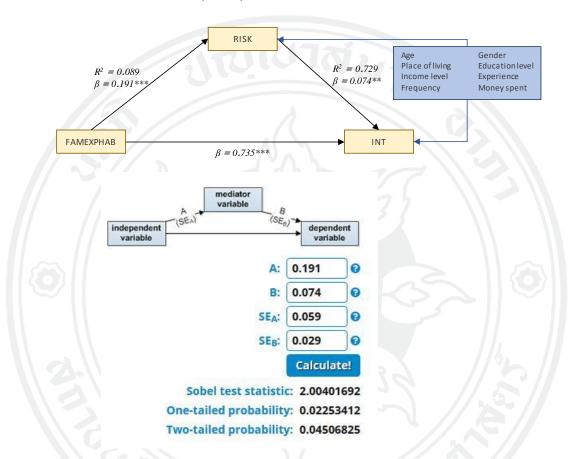
<sup>(</sup>ii) n = 396

#### Appendix D: Additional mediating effect testing results

Independent variable: Familiarity, Experience and Habit (FAMEXPHAB)

Dependent variable: Purchase Intention (INT)

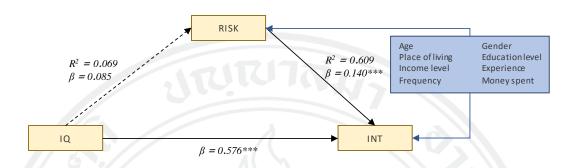
Mediator: Perceived Risk (RISK)



- Perceived Risk (RISK) <u>partially mediates</u> the relationship between Familiarity, Experience and Habit (FAMEXPHAB) and Purchase Intention (INT). Independent variable: Information Quality (IQ)

Dependent variable: Purchase Intention (INT)

Mediator: Perceived Risk (RISK)



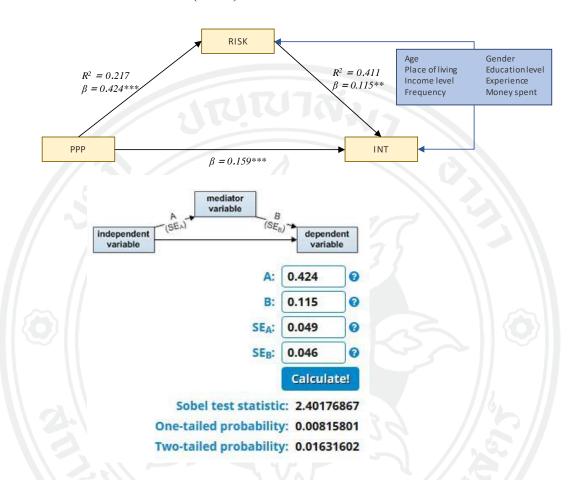
- Mediating effect does not exist.



Independent variable: Perceived Privacy Protection (PPP)

Dependent variable: Purchase Intention (INT)

Mediator: Perceived Risk (RISK)

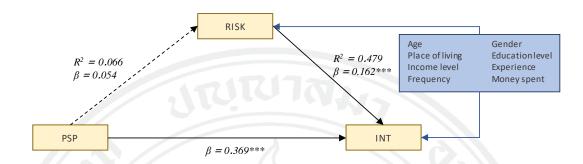


- Perceived Risk (RISK) <u>partially mediates</u> the relationship between Perceived Privacy Protection (PPP) and Purchase Intention (INT).

Independent variable: Perceived Security Protection (PSP)

Dependent variable: Purchase Intention (INT)

Mediator: Perceived Risk (RISK)



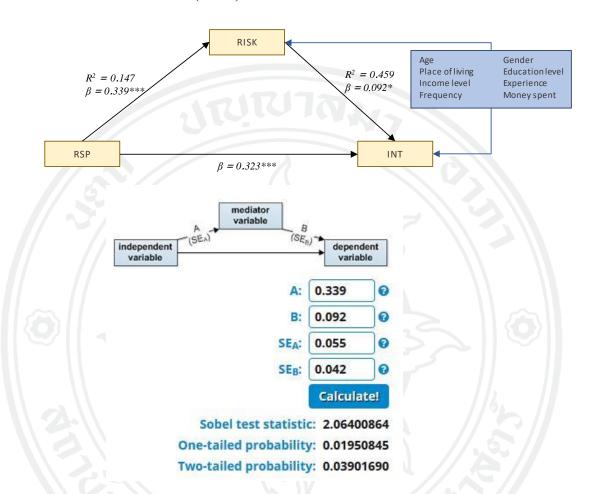
- Mediating effect does not exist.



Independent variable: Positive Reputation of Selling Party (RSP)

Dependent variable: Purchase Intention (INT)

Mediator: Perceived Risk (RISK)

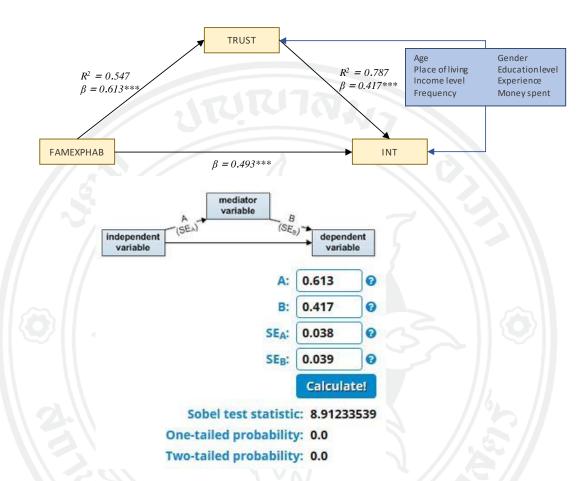


- Perceived Risk (RISK) <u>partially mediates</u> the relationship between Positive Reputation of Selling Party (RSP) and Purchase Intention (INT).

Independent variable: Familiarity, Experience and Habit (FAMEXPHAB)

Dependent variable: Purchase Intention (INT)

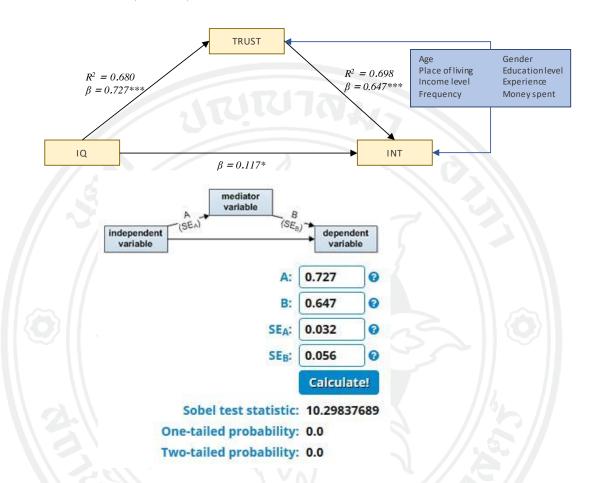
Mediator: Trust (TRUST)



- Trust (TRUST) <u>partially mediates</u> the relationship between Familiarity, Experience and Habit (FAMEXPHAB) and Purchase Intention (INT). Independent variable: Information Quality (IQ)

Dependent variable: Purchase Intention (INT)

Mediator: Trust (TRUST)

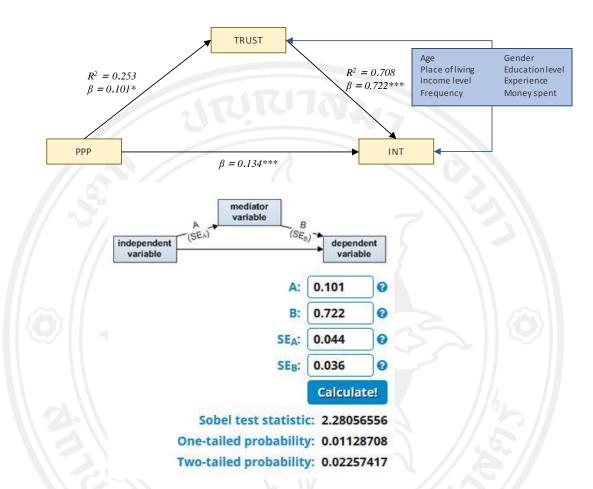


- Trust (TRUST) <u>partially mediates</u> the relationship between Information Quality (IQ) and Purchase Intention (INT).

Independent variable: Perceived Privacy Protection (PPP)

Dependent variable: Purchase Intention (INT)

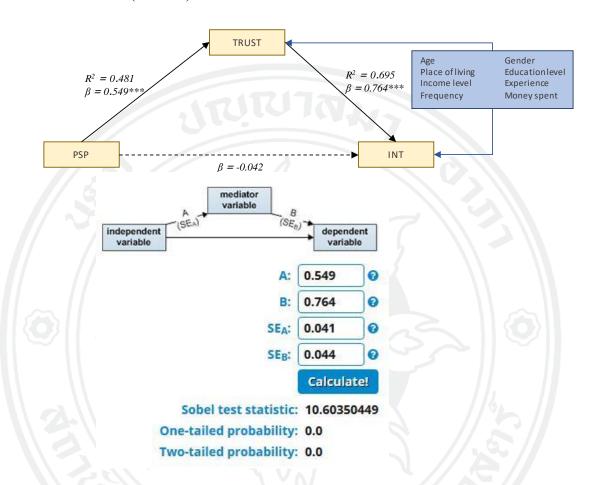
Mediator: Trust (TRUST)



- Trust (TRUST) <u>partially mediates</u> the relationship between Perceived Privacy Protection (PPP) and Purchase Intention (INT). Independent variable: Perceived Security Protection (PSP)

Dependent variable: Purchase Intention (INT)

Mediator: Trust (TRUST)

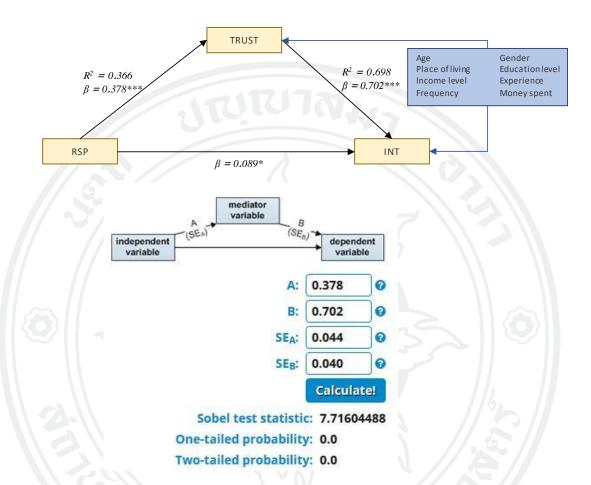


- Trust (TRUST) <u>fully mediates</u> the relationship between Perceived Security Protection (PSP) and Purchase Intention (INT).

Independent variable: Positive Reputation of Selling Party (RSP)

Dependent variable: Purchase Intention (INT)

Mediator: Trust (TRUST)

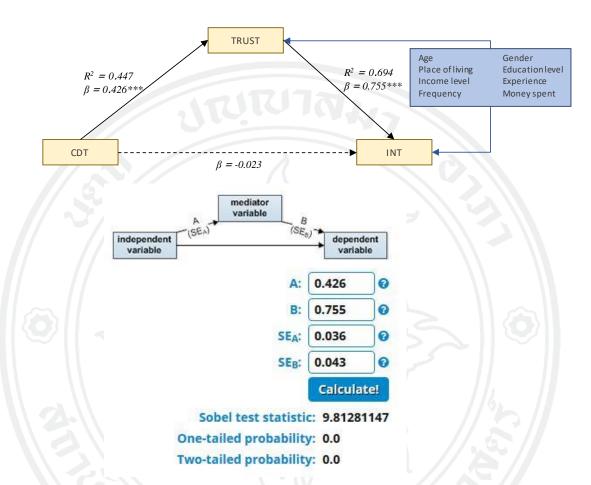


- Trust (TRUST) <u>partially mediates</u> the relationship between Positive Reputation of Selling Party (RSP) and Purchase Intention (INT).

Independent variable: Consumer Disposition to Trust (CDT)

Dependent variable: Purchase Intention (INT)

Mediator: Trust (TRUST)

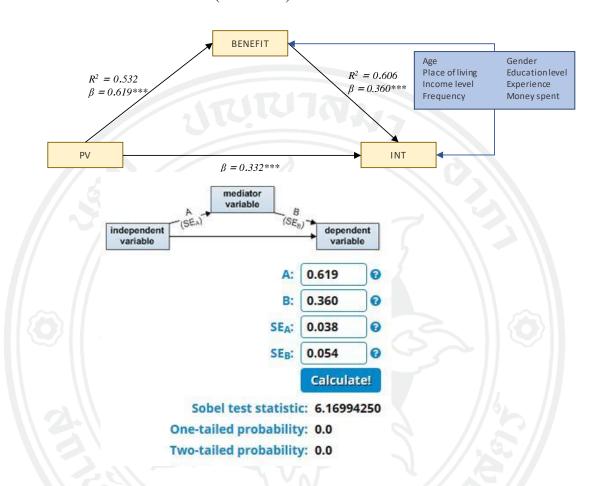


- Trust (TRUST) <u>fully mediates</u> the relationship between Consumer Disposition to Trust (CDT) and Purchase Intention (INT).

Independent variable: Price Value (PV)

Dependent variable: Purchase Intention (INT)

Mediator: Perceived Benefit (BENEFIT)

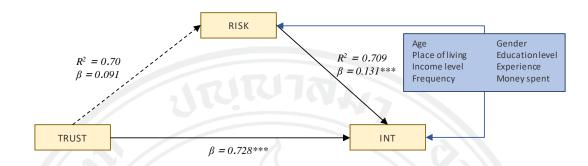


- Perceived Benefit (BENEFIT) <u>partially mediates</u> the relationship between Price Value (PV) and Purchase Intention (INT).

Independent variable: Trust (TRUST)

Dependent variable: Purchase Intention (INT)

Mediator: Perceived Risk (RISK)



- Mediating effect does not exist.

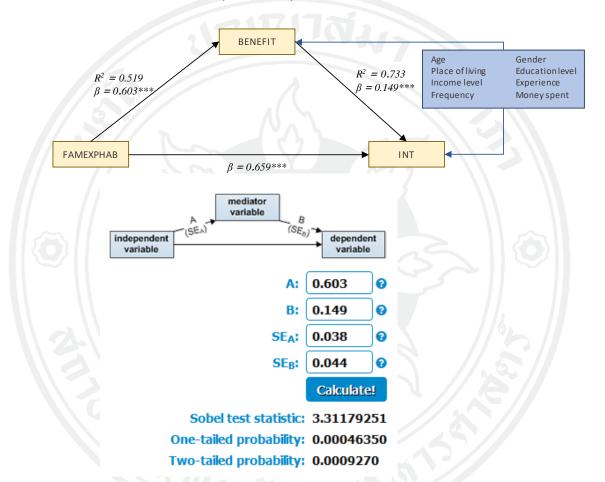


# Appendix E: Additional mediating effect testing results (Additional ten regression paths)

Independent variable: Familiarity, Experience and Habit (FAMEXPHAB)

Dependent variable: Purchase Intention (INT)

Mediator: Perceived Benefit (BENEFIT)

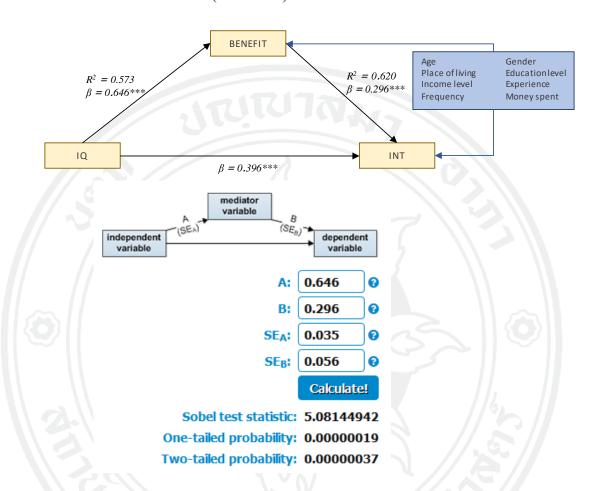


- Perceived Benefit (BENEFIT) <u>partially mediates</u> the relationship between Familiarity, Experience and Habit (FAMEXPHAB) and Purchase Intention (INT).

Independent variable: Information Quality (IQ)

Dependent variable: Purchase Intention (INT)

Mediator: Perceived Benefit (BENEFIT)

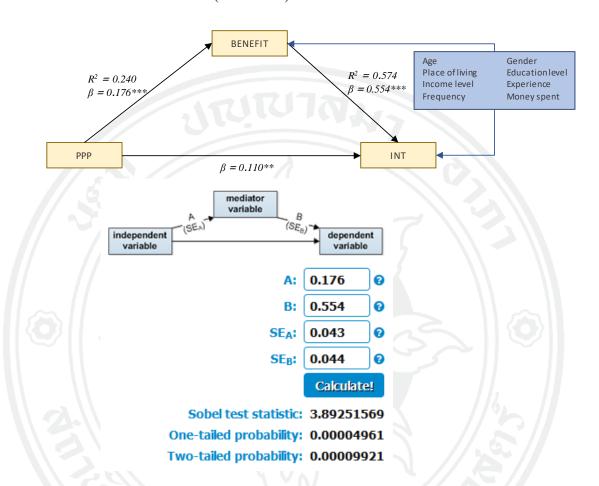


- Perceived Benefit (BENEFIT) <u>partially mediates</u> the relationship between Information Quality (IQ) and Purchase Intention (INT).

Independent variable: Perceived Privacy Protection (PPP)

Dependent variable: Purchase Intention (INT)

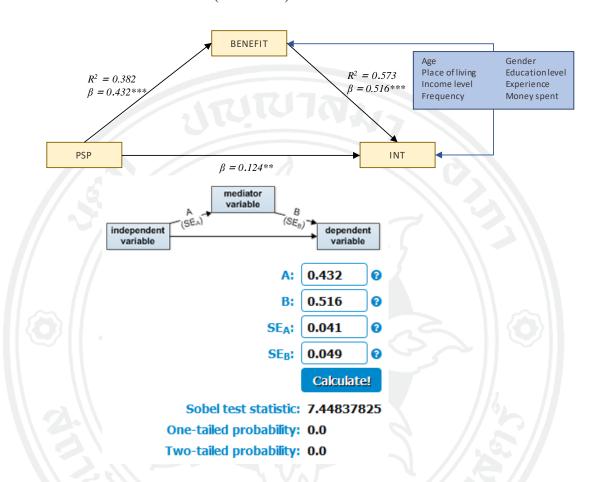
Mediator: Perceived Benefit (BENEFIT)



- Perceived Benefit (BENEFIT) <u>partially mediates</u> the relationship between Perceived Privacy Protection (PPP) and Purchase Intention (INT). Independent variable: Perceived Security Protection (PSP)

Dependent variable: Purchase Intention (INT)

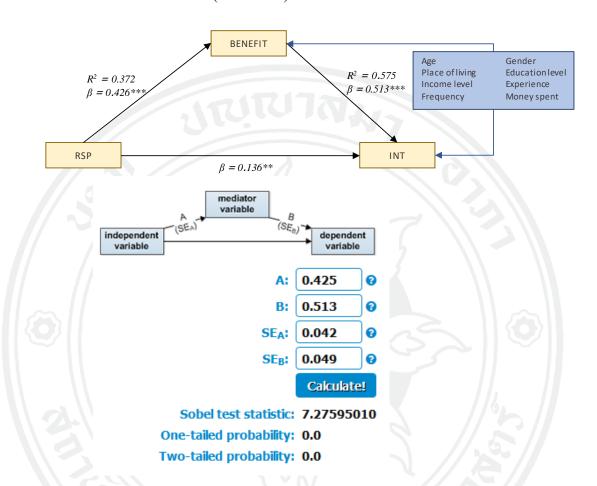
Mediator: Perceived Benefit (BENEFIT)



- Perceived Benefit (BENEFIT) <u>partially mediates</u> the relationship between Perceived Security Protection (PSP) and Purchase Intention (INT). Independent variable: Positive Reputation of Selling Party (RSP)

Dependent variable: Purchase Intention (INT)

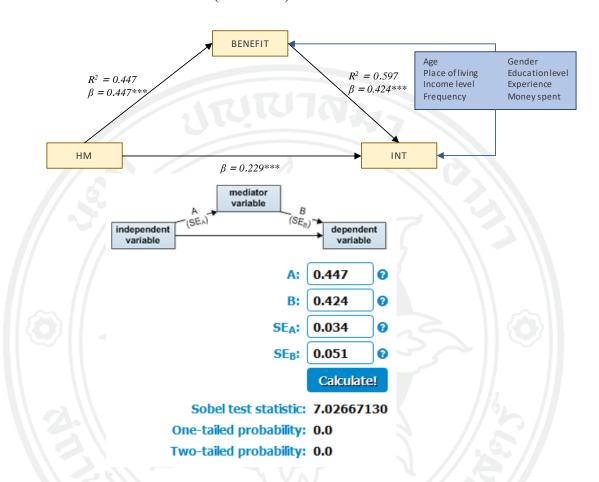
Mediator: Perceived Benefit (BENEFIT)



- Perceived Benefit (BENEFIT) <u>partially mediates</u> the relationship between Positive Reputation of Selling Party (RSP) and Purchase Intention (INT). Independent variable: Hedonic Motivation (HM)

Dependent variable: Purchase Intention (INT)

Mediator: Perceived Benefit (BENEFIT)

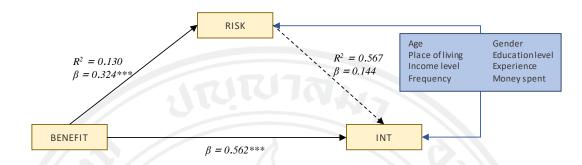


- Perceived Benefit (BENEFIT) <u>partially mediates</u> the relationship between Hedonic Motivation (HM) and Purchase Intention (INT).

Independent variable: Perceived Benefit (BENEFIT)

Dependent variable: Purchase Intention (INT)

Mediator: Perceived Risk (RISK)



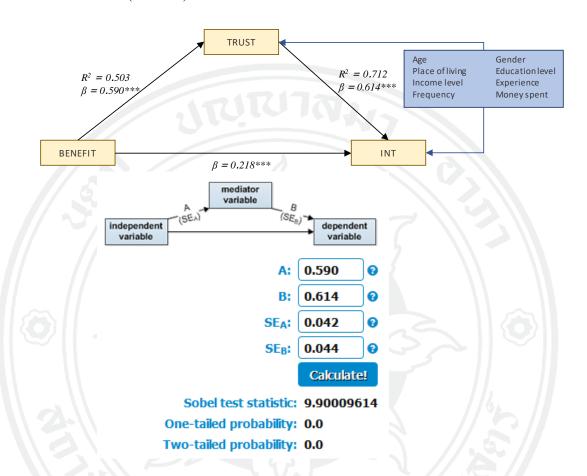
- Mediating effect does not exist.



Independent variable: Perceived Benefit (BENEFIT)

Dependent variable: Purchase Intention (INT)

Mediator: Trust (TRUST)



- Trust (TRUST) <u>partially mediates</u> the relationship between Perceived Benefit (BENEFIT) and Purchase Intention (INT).

#### **BIOGRAPHY**

NAME ACADEMIC BACKGROUND Pirunrat Meksopavankul 2009 - 2011 : University of Wollongong, Master of International Business (MIB), Sydney Business School, Class of 2011

Assumption University (ABAC), Master of Business Administration (MBA), School of Management, Class of 2011

2005 - 2009 : Assumption University (ABAC), Bachelor of Business Administration (BBA), School of Management, Majoring in Marketing

1999 - 2005 : Secondary School, Bodindecha (Sing Singhaseanee) School, Majoring in Science - Math

**EXPERIENCES**