Consumer Trust in Food Labelling:

An Exploration of Certification Schemes for Vegetables in Vietnam

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Abstract

Food is one of the few purchased products that becomes part of our body, therefore consumers' trust in food is critical to their food purchases. In the increasingly distanced food supply chain, consumers have less control over their food and have to rely on other food chain actors such as food regulators, retailers, and producers to build trust in their food. They also often use food certification as a proxy for food quality and food safety to guide their food purchase behaviour. This thesis is comprised of three papers which study consumer perceptions of different food quality certification schemes in the larger context of the food chain system, and the roles of these perceptions in consumers' food choices. Data used in these papers were collected using in-depth interviews with 27 Vietnamese participants who were comparable in terms of their awareness of, their ability to afford, and their access to organic food.

The three papers are interrelated. Their connection lies in different dimensions of trust in food that influence consumers' food purchasing behaviour. The first paper focused on the macro view of trust in the entire food system as the main driver for food purchases. The second paper focuses on the elements that form the macro view, which are abstract trust in certification, and interpersonal trust in food chain actors. The third paper focuses on individual certifications to understand how food governance influences these elements of trust across three different certification schemes.

Specifically, the first paper explores consumers' motives and resistance of certified organic food through understanding perceived consumption values of three different buyer groups of organic food. An adaptive approach is used that draws on qualitative interview data and consumption value theory to allow the main findings to evolve from both a theoretical framework and from empirical evidence. The first paper advances research in organic food consumption by showing that trust and distrust in the food system, a much wider concept than trust in food labelling, is a determinant of consumption values of organic food, and therefore a determinant of organic food choice. It also makes a valuable contribution to the organic consumption values literature by showing a clear difference in the importance of perceived consumption values across regular buyers, occasional buyers, and non-buyers of organic food. Furthermore, the paper advances Sheth et al.'s (1991) theory of consumption values by providing a more nuanced understanding of how consumption values can be interrelated.

The second paper uses the insights from the first paper and becomes more focused on food certification, individual actors in the food chain, and trust. Specifically, it examines

consumers' perception of food certification and how this perception influences and is influenced by consumers' trust in food chain actors. In doing so, the second paper extend the literature on trust in food labelling through the inclusion of social-institutional factors in order to understand variations in trust in food. Using social trust theory as a theoretical framework, the paper shows organic food certification is perceived as a representation of the entire food system. Therefore, its trustworthiness is dependent on consumer perceptions of the food system's capacity to guarantee organic standards along the entire food chain, which is a manifestation of abstract trust. This paper contributes to the trust in food literature by showing that general mistrust and uncertainty in the system may cause mistrust in mechanisms, such as food labelling, that are designed to instil trust. It also extends trust theory by showing interpersonal trust in food actors, such as retailers or growers, can compensate for a lack of abstract trust in certification. Furthermore, the paper enhances our understanding of how abstract distrust in the food system can influence trusting social relationships between people. In this paper, a low level of abstract trust in a wider institutional system leads to distrust in the way the entire food system operates, which in turn, weakens the trusting relationship between consumers and food actors.

Lastly, the third paper further explores the differences and similarities of consumer trust in three certifications in relation to consumer trust in the food system and food actors. These schemes represent differences in type (community-based versus third-party) and origin (international versus domestic certification). The paper extends literature in consumer trust in certification by showing how consumers perceive international and domestic certifications, and third-party and community-based certification, differently. Importantly, these differences are significantly influenced by the perceived trustworthiness of food chain actors. It also makes a valuable contribution to the literature by suggesting that consumers utilise their personal relationships differently in purchasing certified vegetables under different certification schemes. Furthermore, the paper extends the food trust literature by providing evidence for the influence of food chain governance - the mechanisms linking growers to retailers - on consumer trust in certified food.

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Table 1

Research Outputs Based on This Thesis

No	Type	Name of Conference/Journal	Title	Status
1	Conference presentation	19th IUFoST World Congress of Food Science and Technology, Mumbai, India 2018	Exploring consumer perception of organic certification schemes	Accepted and presented
2	Conference presentation	33rd EFFoST European Congress of Food Science and Technology, Rotterdam, Netherlands 2019	The role of trust and risk perception in food purchase behaviour: consumer preferences for different types of certified organic and GAP vegetables in Vietnam	Accepted and presented
3	Conference presentation	ANZMAC Conference 2019 Wellington, New Zealand	Consumers trust retailers more than organic and Good Agriculture Practices (GAP) certifications	Accepted and presented
4	Journal article	*Appetite* (ABDC 'A' ranked)	Are trust and consumption values important for buyers of organic food? A comparison of regular buyers, occasional buyers, and non-buyers	Published
5	Journal article	*Food Quality and Preferences* (ABDC 'A' ranked)	Trust paradox in food labelling: An exploration of certified organic vegetables	Published
6	Journal article	*Appetite* (ABDC 'A' ranked)	When food governance matters to consumer food choice: Consumer perception of and preference for food quality certifications.	Forthcoming/Accepted to publish

I. INTRODUCTION

This chapter introduces the thesis by providing an overview of the research background, research objectives, the significance of this research, and the research design. The research context of vegetable consumption in Vietnam is justified, and the potential contributions to literature in food, trust, and consumption values are discussed. The structure of the thesis, including the research questions, is outlined at the end of this chapter.

1.1 Research background and objectives

Personal trust and direct commercial relationships between growers and consumers are fundamental to ensure the traditional food market's functioning (Guthman, 2002; Ochieng, Veettil, & Qaim, 2017; Tovar, Martin, Cruz, & Mutersbaugh, 2005). The modernisation of the global food system has significantly lengthened the spatial and social distance between consumers and the production of food, thus disconnecting consumers from food production. Therefore, consumers feel uncertain about food quality, because they have few insights into its production (M.-F. Chen, 2008; Meijboom, 2007; Sapp et al., 2009). Institutional trust is needed to assure the functioning of the market even without the existence of any prior personal trust between consumers and food actors. Institutional trust can be achieved formally through laws or certifications, or informally through the corporate reputation or community norms (Guthman, 2002; Ochieng et al., 2017; Tovar et al., 2005). As a result, food regulation on traceability, food labelling, and food certification has been introduced and implemented over the last decades as a communication tool to consumers (Golan, Kuchler, Mitchell, Greene, & Jessup, 2001; Janssen & Hamm, 2011; Thøgersen, Pedersen, & Aschemann-Witzel, 2019). Food certification is particularly critical in assuring the functioning of the organic food market (Albersmeier, Schulze, Jahn, & Spiller, 2009; Deaton, 2004; Jahn, Schramm, & Spiller, 2005),

because whether food is organic or not is a credence attribute that cannot be verified by consumers themselves (Caswell, Noelke, & Mojduszka, 2002; Grunert, 2002).

Despite government and industry efforts to promote organic food, the organic food sector remains a niche market (Willer & Lernoud, 2019), attracting consumers with a very specific profile (Hughner, McDonagh, Prothero, Shultz, & Stanton, 2007; Monier-Dilhan & Bergès, 2016; D. Pearson, Henryks, & Jones, 2011). One of the main barriers to greater adoption of organic food is the discrepancy between consumers' attitudes, intention, and their actual purchase behaveiour, the so-called *green gap* (Chekima, Chekima, & Chekima, 2019; Kushwah, Dhir, & Sagar, 2019b; Tandon, Dhir, Kaur, Kushwah, & Salo, 2020). It is important for policymakers, marketing practitioners, and academics to close the green gap through a better understanding of the determinants of actual organic food choice and how it is related to buyers' perceptions of organic food certification. Therefore, the overarching research objective of this thesis is to understand consumer perceptions of different food quality certification schemes in the larger context of the food chain system, and the roles these perceptions play in consumer food choice.

A number of studies have investigated determinants of organic food consumption (Pham, Nguyen, Phan, & Nguyen, 2019; Soler, Gil, & Sanchez, 2002; Teng & Lu, 2016; Wandel & Bugge, 1997; Zanoli et al., 2013), and trust in organic certification (Eden, 2011; Eden, Bear, & Walker, 2008b; Ha, Shakur, & Pham Do, 2019; Van Loo, Caputo, Nayga, Meullenet, & Ricke, 2011; Yu, Gao, & Zeng, 2014). Although these studies provide significant insights into organic food consumption, a number of important gaps remain. First, they were conducted using consumers behavioural intentions, rather than their actual food choices. The intended/stated behaviour approach is likely biased due to social desirability (Fisher & Katz, 2000; Hjelmar, 2011) and confusion about identifying organic food (Harper & Makatouni, 2002; Hughner et al., 2007). Second, the attitude-based approach is problematic because of the

well-documented attitude-behaviour gap in which positive attitudes do not necessarily translate to actual behaviour (A. Fischer & De Vries, 2008; Padel & Foster, 2005; Vermeir & Verbeke, 2006). To overcome these limitations, the present study uses qualitative data to investigate consumers actual purchase behaviour in general, and specifically within the following three groups: regular buyers, occasional buyers, and non-buyers of organic food. Including all three groups will provide a better understanding of the attitude-behaviour gap (Van Dam & Van Trijp, 2011). It also provides a wider range of insights for practitioners and policymakers about the motivation for purchasing organic food. Thus, the first research objective of the thesis is:

> ***RO 1.*** *To explore consumption values of three different buyer groups of organic foods (regular, occasional, and non-buyers) and the determinants of these values*

As most aspects of organic food qualities are credence characteristics, source credibility emerges as an important factor in communication to signal its quality (J. Hansen, Holm, Frewer, Robinson, & Sandøe, 2003). Therefore, certification agencies providing the necessary knowledge and credibility (Hatanaka, Bain, & Busch, 2005; Jahn et al., 2005) are shown to be a driver of trust in organic certification (Dekhili, Sirieix, & Cohen, 2011; Eden, Bear, & Walker, 2008c; Janssen & Hamm, 2012; Sirieix, Delanchy, Remaud, Zepeda, & Gurviez, 2013; Van Rijswijk & Frewer, 2012). Particularly, distrust in certifiers and controllers has resulted in distrust in organic labels in different countries (Grunert, Loose, Zhou, & Tinggaard, 2015; Thøgersen et al., 2019). These studies provide an important understanding of trust in food certification, yet focus on the physical presence of certification logos relating to a tangible product delivered by a single actor, i.e., certifying agencies. This leaves the two-way interaction between trust in food certification and trust in other actors along the food chain unexplored. This gap in the literature is surprising, given that food certification is an intangible

and complex process, involving multiple food chain actors. Therefore, consumers' perceptions of certification cannot be separated from their perceptions of other food chain actors in the food system. This thesis fills this gap by using the social theory of trust to explore consumers' trust in certified food, in conjunction with their trust in certification and trust in food chain actors, and how their trust affects their actual food choice. Thus, the second objective of this thesis is:

> ***RO 2.*** *To explore consumer perceptions of food certification, and how it influences and is influenced by trust in the food system and food chain actors*

Food certification is an explicit process to validate a product meets its certified standards (Starr & Brodie, 2016) through providing visible and salient information for an invisible process to gain credibility (Darnall, Ji, & Vázquez-Brust, 2018). Consequently, third-party certification of organic food has gained popularity in most developed economies for its objectiveness and independence (Darnall et al., 2018; Hatanaka et al., 2005). Unsurprisingly, most studies on consumer perspectives of food certification have typically focused on third-party certifications. This leaves other alternative certification schemes, such as community-based Participatory Guarantee System (PGS), largely unexplored (Sacchi, Caputo, & Nayga, 2015). Despite the fact that PGS has been promoted by the International Federation of Organic Agriculture Movements (IFOAM) to operate in more than 76 countries worldwide, our understanding is limited regarding (i) consumer perception and response to PGS certified products, and (ii) how consumer trust in different certifications operating in the same market may differ.

Within research on third-party certification, a number of studies find variations in consumer trust in international and domestic certifications, largely because of country-of-origin effects (Dekhili & Achabou, 2014; Hartmann, Hieke, Taper, & Siegrist, 2018; Kjærnes, Harvey, & Warde, 2007; Onozaka & McFadden, 2011; Schjøll, 2017; Thøgersen, Pedersen,

Paternoga, Schwendel, & Aschemann-Witzel, 2017; Xie, Gao, Swisher, & Zhao, 2016). What we do not know, however, is whether or not this effect applies to community-based certification such as PGS in the same market. The presence of a new certification type presents an interesting context to understand how consumers perceive and respond to different certifications. Therefore, the third objective of this thesis is:

> ***RO 3.*** *To explore similarities and differences of consumer trust in three different food certification schemes (international versus domestic, and third-party versus community-based)*

1.2 Research approach

Aligned with the exploratory nature of this paper, an interpretivist approach was utilised to understand the meanings in human behaviour and lived experience (Hudson & Ozanne, 1988) in relation to consumer trust in food. Specifically, this thesis adopts the social theory of trust, viewing trust as a social construction based on two dimensions which are cognitive/reflexive and affective/emotional (Berg, 2004; Johnson & Grayson, 2005; J. D. Lewis & Weigert, 1985; Luhmann, 1979; McAllister, 1995; Möllering, 2001). The adoption of the emergent thinking of trust shaped by a complex social process helps to explore (i) the interactions between trust in food labelling and trust in food chain actors, (ii) variations in trust in food, and (iii) the influence of trust in food on consumers' actual food choice.

The diverse definitions of trust across different disciplines reflect the complexity of trust. For example, economists view trust as a rational and calculative subjective probability (Williamson, 1993; Zuker, 1986), while social psychologists define trust as interpersonal relations (Deutsch, 1958; Holmes, 1991). From sociologists' perspectives, trust reflects social embedded attributes of relationships among people or institutions (Barber, 1983; Fukuyama, 1995; J. D. Lewis & Weigert, 1985). While there is no single definition of trust in the literature, Rousseau, Sitkin, Burt, and Camerer (1998) in their review of cross-disciplinary literature

suggest the widely accepted definition of trust as "a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviour of another" (p.395). There is also agreement on the conditions that must exist for trust to arise: risk as the perceived probability of loss, as interpreted by the decision-maker (Camerer, 1989; Chiles & McMackin, 1996) and interdependence, where interests of one party cannot be achieved without reliance upon another (Rousseau et al., 1998).

Studies of trust in food have changed from focusing on trust as an individual process of risk assessment, to understanding it as a more complex social process. The former research stream has studied trust as a cognitive, individual process of risk assessment, i.e., the ways in which individuals perceive, evaluate and act upon risks (Fife- Schaw & Rowe, 1996; Foster, 2000; Slovic, 1999; Sparks & Shepherd, 1994). In other words, consumers' willingness to trust is based on their assessment of food risk information as it is communicated on packaging through labelling or advertising. Therefore, the emphasis is on how to communicate risk to consumers effectively (Giannakas, 2002; Janssen & Hamm, 2012).

In contrast, the latter stream of research views trust as a social construct which is more complex and includes both cognitive and emotional bases. The shift from an individual process focus to a social process focus emphasises shared norms and expectations, the predictability of cooperation, and the constitution of everyday practices (Kjærnes et al., 2007). Trust is associated with how people normally relate to each other, how they interact in social networks, and how they develop their relationship with other actors and institutions in society. It is important to recognise the situation of purchase and the interaction between sellers and buyers as the social factors of food consumption. Consumption is deeply rooted in our daily lives, influenced by cultural norms and social status, the organisation of the labour market, and household structure (Kjærnes et al., 2007). Trust is treated as a presumption in social interaction under uncertainty (A. Fischer & De Vries, 2008; C. Fischer, Gonzalez, Henchion, & Leat,

2006). Therefore, consumer trust is an important factor influencing consumption behaviour (Bredahl, 2001) and public perceptions of risk assessment and management (Frewer & Salter, 2003). In a food consumption context, therefore, trust arises from embedded social relationships between consumers and food chain actors around routines of consumption (Kjaernes, 2006; Kjærnes et al., 2007). As a result, trust in the food system is shaped by a social process, rather than determined by individual risk assessment in isolation.

Two dimensions of trust, the cognitive and emotional dimensions, provide an important theoretical framework to examine consumer trust in food certification and food chain actors. Cognitive trust is based on reasoned assessments, knowledge and evidence of the characteristics of the actor to be trusted - also known as beliefs about trustworthiness (Johnson & Grayson, 2005). Meanwhile, affective/emotional trust is formed through the expression of genuine care and creating bonds among all parties in the relationships (J. D. Lewis & Weigert, 1985). This perspective emphasises that trust can be strengthened or weakened through social interaction. Trust at different social levels (system, organisations, individuals) is interrelated (Giddens, 1990). Trust in food depends on the functioning of complex interrelations and interdependence between public regulations, civil society, and public discourse (Kjaernes, 2006). As consumers interact directly with food provision, and indirectly with other food actors when they purchase food (Kjaernes, 2006), it is possible to examine trust in certifications through trust indicators of the food systems and its actors (growers, retailers, etc.). The consumption context for studying these complex interactions is shown in the following sections.

1.3 Research context

Most studies on organic food have taken place in developed countries (Kushwah, Dhir, Sagar, & Gupta, 2019; Tandon et al., 2020). More specifically, only a few studies about organic food have taken place in Vietnam (Pham et al., 2019; Tran & Goto, 2019). This lack of research

in developing countries in general, and in Vietnam in particular, is surprising considering that the majority of consumers in the world live in developing countries (United Nations, 2019). Therefore, Vietnam was selected as a representation of developing countries and emerging organic food market as the research context of this paper. The following section provides justification for choosing vegetable consumption in Vietnam as the research context.

First, Vietnam is a developing country in Asia, and the agricultural sector is the backbone of its economic development. Approximately 42% of total employment is in agriculture and related activities (Liu, Barrett, Pham, & Violette, 2020). Throughout the 1980s and 1990s, the Green Revolution brought significant increases in productivity of crop production worldwide. Following this trend, after the 'Doi Moi' policy introduced in the 1980s, Vietnam restructured its agriculture sector through de-collectivisation as a solution to obtain sufficient food for the population (Cervantes-Godoy & Dewbre, 2010). Since then, crop growing has been intensified using inappropriate applications of agrochemicals to improve production outputs (Van Hoi, Mol, & Oosterveer, 2009).

The second reason why Vietnam was chosen because vegetables are particularly prominent in the Vietnamese diet, and are preferably consumed at every meal. In 2013, Vietnam was amongst the top countries with the highest per capita vegetable consumption in the world (FAO, 2019). Third, Vietnamese consumers are particularly concerned about food safety due to the overuse of agro-chemicals in agricultural production which raises serious concern for food safety among Vietnamese people (Mergenthaler, Weinberger, & Qaim, 2009a; Nguyen, 2017; Van Hoi et al., 2009). Vietnamese Ministry of Health statistics indicate that over the 2011 to 2016 period, an average of 669,000 people per year were impacted by foodborne disease (National Assembly Supervision Delegation, 2017). Unsurprisingly, "Vietnam is likely the only country in the world where such a large number of citizens rank food safety the number one social concern" (World Bank, 2019, p. 61). Vietnamese consumers

are particularly perturbed by the lack of safety of vegetables because they are regarded as staples and prominent in the Vietnamese diet (Figuié, Bricas, Thanh, Truyen, & De L'Alimentation, 2004; Mergenthaler, Weinberger, & Qaim, 2009b). Despite high anxiety around food safety, consumers cannot measure food risks by themselves. They have to rely on authority figures, such as governmental agencies or expert organisations who can issue certifications. Certifications or labels, therefore, might work as a proxy for more complex information or food safety assurance (Eden, 2011).

Fourth, the diversity of food quality certifications in Vietnam presents an ideal context to study consumer trust in food certifications. The increasingly wealthier and urban consumers are driving an increasing demand for high quality and safe food (World Bank, 2019). Consequently, food quality certifications have been adopted by policymakers and the food industry to signal food quality to consumers. In Vietnamese domestic food markets, the two dominant vegetable certification standards are 1) organic certification and 2) Good Agriculture Practice (GAP) certification for organic standards, and GAP standards accordingly. Organic vegetables are mostly available under two contrasting schemes: 1) International third-party organic certification such as the United States Department of Agriculture's organic standards (USDA), or the European Union's organic standards (EU) and 2) the domestic, community-based Participatory Guarantee System (PGS). VietGAP is a domestic third-party certification. VietGAP certifies vegetables based on GAP standards and differentiates itself from organic (EU, USDA and PGS) by allowing the use of chemical inputs in production according to national standards. Vegetables can be certified by multiple schemes and certification agencies if growers choose to apply for multiple certifications.

Finally, the Vietnamese food market presents a dynamic market structure to study food purchase. The food marketing system in Vietnam has undergone a significant structural change with the coexistence of different food retailing and a diverse range of actors engaging in the

food system (Cadilhon, Fearne, Moustier, & Poole, 2003). Traditional open markets with stalls, street vendors, and small independent stores often consisting of growers and small traders have been a predominant retail channel for fresh produces (Moustier, Figuié, & Loc, 2009; USDA, 2017). Urbanisation has resulted in the emergence of a modern retail system, such as well-established convenience stores and supermarkets (Maruyama & Trung, 2007; USDA, 2017). Consequently, certified fresh produce once found only in margins of the food market, are becoming an increasingly visible element in these modern food retailers' offerings.

Despite the opportunity for growth of certified food thanks to increasing demand, certified foods only make up a small slice of the Vietnamese market compared with conventional food. About 95% of retail grocery sales nationwide and 85% of retail grocery sale in big cities i.e. Hanoi and Ho Chi Minh city, took place in traditional outlets which mainly sell conventional, uncertified fresh produce (Wertheim-Heck, Vellema, & Spaargaren, 2015; World Bank, 2019). These facts present policymakers and the food industry with a challenging issue: the supply of food certified as safe and organic failed to match the increasing demand for safe food among Vietnamese consumers. Literature has suggested three barriers to actual purchase behaviour (even when a positive attitude exists): lack of awareness and knowledge, lack of availability and the high price of organic food (Bryła, 2016; Hasimu, Marchesini, & Canavari, 2017; Janssen, 2018). These studies provide a useful but only partial understanding of food consumption, focusing on consumers in general. Little is known about the decision of a specific group of consumers who have demand for, and are capable of purchasing, certified food, but deliberately purchase or do not purchase organic food. The present study aims to overcome such limitations through the careful selection of participants. Specifically, this research purposely selected participants from comparable backgrounds in terms of awareness of, accessibility to, and affordability of, certified GAP and organic food across three different consumer group: regular buyers, occasional buyers, and non-buyers. Using the sample, this

research is able to explore what influences their perceptions of food certifications, and how these perceptions affect their actual food choice if direct barriers to consumption are not present. In doing so, this research extends the literature by identifying different social-institutional factors that influence positively and negatively consumer perception of food certification. The findings may assist policymakers and food industry actors in improving food certification scheme regulations and communication.

1.4 Overview of papers and contributions

The overarching research objective of this thesis is to understand consumer perceptions of different food quality certification schemes in the larger context of the food chain, and the roles of these perceptions in consumers' actual food choice. In doing so, this research extends the literature about trust in food labelling through the inclusion of social-institutional factors to understand variations in trust in food. The three research papers in this thesis are positioned to extend existing research in different ways: first, proposing the link between trust, consumption values, and food choice; second, broadening food certification as a direct message from the certifying agency's perspective to include food certification as a representation of a whole food chain perspective; third, empirically showing the 2-way interaction of abstract trust (trust in certification) and interpersonal trust (trust in food chain actors), and finally, providing an understanding of how food chain governance mechanisms can shape consumer trust in certification and the whole food chain system.

Given the exploratory nature of all three studies, an interpretivist approach was adopted to understand and interpret the meaning of human lived experience and their behaviour (Hudson & Ozanne, 1988; Klein & Myers, 1999; Walsham, 2006). Central to the process of interpretivist research is understanding consumers' experiences from their own perspectives within their social contexts. In-depth, semi-structured interviews were used for data collection

to understand participants' interpretation of their lived experience (Minichiello, Aroni, & Hays, 2008). As is typical with qualitative research which is more concerned about relevance than randomness and representativeness (Popay, Rogers, & Williams, 1998), the aim of this paper was not to obtain a representative sample of the population, but to find suitable participants to answer the research questions. The three papers used purposive sampling techniques to attract participants with knowledge of all three certification schemes examined, which means they are regarded as information rich (Patton, 2002; Sandelowski, 1995; Suri, 2011). Data was collected using focus groups, online surveys, and in-depth interviews in which the two former methods are used to inform the later - which is the main data analysed.

This thesis consists of five chapters: an introduction chapter; then Chapters 2, 3, and 4 are individual research papers (journal articles); and Chapter 5, the conclusion, shows the linkages between the three papers and discusses the overall contribution of this thesis and limitations and avenues for future research. The following section discusses the three journal articles (Chapters 2, 3, and 4) in greater detail. Specifically, the remainder of this section details how each paper's research objectives relate to specific research questions, which research design was used for each paper, and what the main contributions of each paper are. This detailed discussion is then summarised in Table 2.

1.4.1 Paper 1

The following section provides a summary of the first paper, its research objectives and contributions to the literature. The first paper examines how the consumption values of regular buyers of organic food differ from those of occasional buyers and non-buyers. This paper responds to the call for "more qualitative studies based in emerging nations, significant differences in motives and barriers based on consumer involvement" (Kushwah, Dhir, Sagar, et al., 2019, p. 10). The paper uses consumption values as a theoretical lens for classifying different motives for purchasing organic food.

Despite a large number of studies providing significant insight and knowledge on motives for organic food consumption (Nandi, Bokelmann, Gowdru, & Dias, 2016; Padilla, Cordts, Schulze, & Spiller, 2013; Pham et al., 2019; Soler et al., 2002; Thøgersen, de Barcellos, Perin, & Zhou, 2015; Zanoli et al., 2013), three important gaps in the literature are worth exploring. First, most studies used survey data of intended behaviour and attitudes towards organic food, which is likely biased due to social desirability (Fisher & Katz, 2000; Hjelmar, 2011) and confusion about identifying organic food (Harper & Makatouni, 2002; Hughner et al., 2007). Second, studies have typically focused on single groups of consumers without taking their involvement with food purchasing into account. While such studies provide important insights, they focus on one small segment of the market (Nasir & Karakaya, 2014). Third, most studies on motives of purchasing organic food have been conducted in developed countries, in which supply and demand for organic products have become much more prevalent, compared with fledgling organic farming systems in developing countries (Kushwah, Dhir, Sagar, et al., 2019). Therefore, the first paper is designed to fill these gaps by using the theory of consumption values to study the food choices of three different consumer groups: regular, occasional, and non-buyers of organic food in Vietnam, an emerging market for organic food. Considering all three groups will provide a deeper understanding of the different motives of different groups of buyers. The first paper specifically aims to answer the following questions:

RQ1: What are the perceived values of organic vegetables across three consumer groups (regular, occasional, and non-buyers)?

RQ2: What are the determinants of perceived values across three consumer groups?

The first paper provides four significant contributions. **First,** the paper advances research in organic food consumption by showing that trust and distrust in the food system, a much wider concept than trust in food labelling, is a determinant for consumption values of

organic food, and therefore a determinant of organic food choice. Although a large number of studies emphasise the role of trust in the intention to purchase organic food and actual purchase behaviour (Giampietri, Verneau, Del Giudice, Carfora, & Finco, 2018; Nuttavuthisit & Thøgersen, 2017; Olsen & Grunert, 2010; Sultan, Tarafder, Pearson, & Henryks, 2020), they focus on trust in food certification and communications (Sultan et al., 2020). The paper adds an important dimension to the trust puzzle - trust in the wider food system, including both conventional and organic food, is the main driver of food purchase behaviour. **Second,** this paper extends the literature on motives for organic food consumption by showing a clear difference in the importance of perceived consumption values across regular buyers, occasional buyers, and non-buyers of organic food. **Third**, this is the first paper to show that environmental motives, and local farming support are also important for consumers in developing countries, but only for regular buyers, rather than for all consumer groups as has been identified exclusively in developed countries (Janssen, 2018; Padel & Foster, 2005; Schrank & Running, 2018). **Fourth**, the paper has advanced Sheth et al. (1991)'s theory of consumption values by providing a more nuanced understanding of how consumption values are interrelated. These findings advance research in organic consumption by showing that what works in developed countries does not necessarily work where the vast majority of the world's population lives: in developing countries.

1.4.2 Paper 2

The second paper explores consumers' perceptions of food certification and how this perception influences and is influenced by consumers' trust in food chain actors. The findings from Paper 1 indicate that distrust in the food system and food chain actors is a powerful barrier for purchasing organic food, particularly for occasional buyers, and non-buyers. Therefore, the second paper further explores the dynamic interactions between trust in certifications and trust

in the food system and food chain actors, and the influences of these interactions on overall trust in food and consumer food choice.

As most aspects of organic food qualities, such as safe or organic, are credence attributes (Caswell et al., 2002; Grunert, 2002), food certifications are commonly used by policymakers and industry as a quality signal to establish trust in food (Gracia & de-Magistris, 2016; Onozaka & McFadden, 2011; Sønderskov & Daugbjerg, 2011). As consumers have to rely on certification agencies to form their judgement on food, most studies have focused on consumer perception of certifying agencies through the presence of certification logos on product labelling (Dekhili et al., 2011; Eden et al., 2008c; Janssen & Hamm, 2012; Sirieix et al., 2013; Van Rijswijk & Frewer, 2012). It remains unexplored if and how trust in food certification influence, and is influenced by, trust in other actors along the food chain. This gap in the literature limits our understanding about trust in food certification because certification is an intangible and complex process involving multiple food chain actors. Therefore, Chapter 3 fills this gap by using the social theory of trust to respond to the research questions:

> ***RQ1. What are consumers' perceptions of different certification schemes and how does their trust in certification interact with their trust in the food system?***
>
> ***RQ2. How does consumer trust in certification interact with other social trusting relationships in the food chain?***

Paper 2 provides four significant contributions. **First,** this paper indicates that trust in certification reflects abstract trust - a much wider perception of the whole food chain than the trustworthiness of certification agencies. The finding extends the food labelling literature by showing that general mistrust and uncertainty in the system cause mistrust in mechanisms, such as food labelling, that are designed to instil trust. **Second,** the paper illustrates the importance of interpersonal trust in food chain actors and how this compensates for lack of abstract trust. The finding stands in contrast to previous research (Nuttavuthisit & Thøgersen, 2017;

Thøgersen et al., 2019) which has shown that abstract trust plays a more important role in organic food choice than interpersonal trust. However, it is supported by recent literature that consumer trust in growers is enforced through local food production, rather than through food labelling, and that trust influences their purchase intention (Ditlevsen, Denver, Christensen, & Lassen, 2020; Giampietri et al., 2018). **Third,** the paper enhances our understanding of how abstract distrust in the food system can influence trusting social relationships between people. This provides important empirical support for Durkheim's (2014) views that erosion of trust in common institutions or the legitimacy of leaders and authority will shake trust in other persons in everyday life as well. **Fourth,** the results indicate that policymakers and food actors should not assume that certification will automatically result in trust, lowered risk perceptions and subsequent food purchase. Instead, they should encourage business practices to promote transparency, integrity, and competence to increase trust at various levels, starting from the wider institutional system, the food system, individual actors in the food system, and then food certification.

1.4.3 Paper 3

The third paper further explores the differences and similarities of consumer trust in three different certifications in relation to consumer trust in the food system and food actors. A number of studies explored consumers' thoughts of different organic logos (Eden, Bear, & Walker, 2008a; Gerrard, Janssen, Smith, Hamm, & Padel, 2013; Van Loo, Caputo, Nayga Jr, & Verbeke, 2014). Others have compared private and government certifications (Janssen & Hamm, 2014; Uysal et al., 2013), international and domestic certifications (Barrett, Browne, Harris, & Cadoret, 2002; Janssen & Hamm, 2011; Nuttavuthisit & Thøgersen, 2017; Thøgersen et al., 2019) to understand which type of certification is trusted more by consumers under which circumstances. These studies provide important foundations to explore the variation in

consumer perceptions of different certifications in the same market, and factors influencing that variation. Thus, Paper 3 answers the following research questions:

> ***RQ1. What is the level of consumer trust in three fundamentally different certification schemes (international versus domestic, third-party certification versus community-based) and what is their resulting consumption behaviour regarding these schemes?***
>
> ***RQ2. What factors influence consumers trust in the three certification schemes and their food choice?***

Paper 3 provides three significant academic contributions. **First,** this paper extends literature in consumer trust in certification by showing how consumers perceive trust differently between international and domestic, and between third-party and community-based certification. Importantly, these differences are significantly influenced by their perception of how the system works and coordinates with food actors (i.e., growers, retailers) along the food chain to deliver certified standards. **Second,** the paper makes a valuable contribution to literature by suggesting that people utilise their personal relationships differently in purchasing certified vegetables under different certification schemes. The paper extends the literature on trust in certifications by showing the dominant role of trust in retailers and growers in consumers' actual food choice. **Third,** the paper extends the food trust literature by providing evidence for the influence of food chain governance on consumer trust in certified food. Food chain governance refers to the way retailers and growers are collaborating to assure the functioning of food supply. When there is a lack of abstract trust in the entire food system, formal mechanisms such as certificate-based contracts can negatively influence consumer trust in the trustworthiness of food chain actors, while informal mechanisms such as technical training and support can build consumer trust.

Based on these findings, the paper proposes two food chain governance frameworks to increase perceived competence of the food system and food actors, and consequently, work towards increasing trust in food certification and food safety. The first framework focuses on retailers reconnecting consumers with the food production system through linkages with growers to increase consumers' perceived competence and honesty of the food chain. The second framework retains local network-based trust through PGS combined with a digital platform to help farmers, especially smallholder farmers, to directly sell vegetables to consumers.

Table 2 summarises each of the three papers.

Table 2

Research Framework of the Dissertation

Papers	Research objective	Research questions	Research design & theory	Contributions
Paper 1	To explore consumption values of three different buyer groups of organic food (regular, occasional, and non-buyers) and the determinants of these values	**RQ1:** What are the perceived values of organic vegetables across three consumer groups (regular, occasional, and non-buyers)? **RQ2:** What are the determinants of perceived values across three consumer groups?	• Exploratory research • Theory of consumption values (Sheth et al., 1991)	• Highlight the importance of trust in the food system as a major determinant of consumption values and food choice • Highlight the link between trust, consumption values, and food choice • Show a clear difference in the importance of perceived consumption values across regular buyers, occasional buyers, and non-buyers of organic food • Provide an understanding of how consumption values can be interrelated
Paper 2	To explore consumer perceptions of food certification and how it influences and is influenced by trust in the food system and food chain actors	**RQ1:** What are consumers' perceptions of different certification schemes, and how does their trust in certification interact with their trust in the food system? **RQ2:** How does consumer trust in certification interact with other social trusting relationships in the food chain?	• Exploratory research • Social theory of trust (Giddens, 1990; J. D. Lewis & Weigert, 1985; Luhmann, 1979)	• Trust in certification reflects abstract trust, therefore, general mistrust in the food system causes mistrust in mechanisms such as food certification that are designed to instil trust • Interpersonal trust in food chain actors, rather than abstract trust play a dominant role in organic consumption behaviour • Provide an understanding of a complex and two-way interaction of abstract trust (trust in certification) and interpersonal trust (trust in food chain factors). The influence can be negatively or positively co-dependent

Papers	Research objective	Research questions	Research design & theory	Contributions
Paper 3	To explore similarities and differences of consumer trust in three different food certification schemes (international versus domestic and third-party versus community-based)	**RQ1:** What is the level of consumer trust in three fundamentally different certification schemes (international versus domestic, third-party certification versus community-based) and their resulting consumption behaviour regarding these schemes? **RQ2:** What factors influence consumers trust in the three certification schemes and their food choice?	• Exploratory research • Social theory of trust (Giddens, 1990; J. D. Lewis & Weigert, 1985; Luhmann, 1979) • Dimensions of trust (Barber, 1983; Metlay, 1999)	• Consumers' perceptions of international and domestic, third-party, and community-based certification are distinct • Consumer food choice is guided by how the food system works to deliver safe food • People utilise their personal relationships differently in purchasing certified vegetables under different certification schemes • Informal food chain governance, such as retailers providing technical training to growers, rather than formal labelling mechanism, influence consumers' perception and food choice

II. PAPER 1: TRUST AND ORGANIC CONSUMPTION VALUES IN ORGANIC FOOD CONSUMPTION

This chapter presents the first paper which investigates the drivers of purchasing organic food by examining if and how consumers' consumption values influence the food choices of regular buyers, occasional buyers, and non-buyers of organic food. It provides a literature review on motives and barriers to organic food purchasing and trust in organic food, followed by the theoretical framework, methodology, and findings. The chapter ends with a discussion on the paper's contributions to theory and practice.

2.1 Introduction

Global organic agro-product sales reached $US 97 billion in 2017, approximately a 10% increase of sales in 2016 (Willer & Lernoud, 2019), largely driven by consumer demand (Rana & Paul, 2017). Despite this trend, organic food remains a niche market (Lockie, Lyons, Lawrence, & Grice, 2004; Willer & Lernoud, 2019), attracting consumers with a very specific profile (Hughner et al., 2007; Monier-Dilhan & Bergès, 2016; D. Pearson et al., 2011). One of the barriers to greater adoption of organic food is the discrepancy between consumers' attitudes, intentions, and their actual purchase behaviour, the so-called *green gap* (Chekima et al., 2019; Kushwah, Dhir, et al., 2019b; Tandon et al., 2020). A better understanding of organic consumers, particularly the motives and barriers of their actual purchase behaviour of organic food (Kushwah, Dhir, Sagar, et al., 2019) could help close the green gap and address environmental sustainability, social health, and animal welfare (Pugliese, 2001; Reddy, 2010; Willer & Lernoud, 2019). In other words, a greater understanding of the motives and barriers of purchasing organic food is in the interest of sustainability practitioners, policymakers, and other stakeholders of the organic food industry (Bryła, 2016; Oates, Cohen, & Braun, 2012).

The motives for consuming organic food are manifold. They include environmental concerns and animal welfare (Soler et al., 2002; Wandel & Bugge, 1997; Zanoli et al., 2013), health concerns and food safety (Dowd & Burke, 2013; Pham et al., 2019; Teng & Lu, 2016), as well as higher quality, and better taste (Bryła, 2016). A recent review of organic food consumption also suggests that health concerns, taste, food safety and environmental benefits are key drivers of organic food purchasing (Hemmerling, Hamm, & Spiller, 2015). Organic food is a credence good which means its quality cannot be verified by consumers even after purchase and consumption (Caswell et al., 2002; P. Nelson, 1970). Therefore trust in organic food plays an important role in consumers' food choice (Giampietri et al., 2018; Nuttavuthisit & Thøgersen, 2017; Sultan et al., 2020; Zhang et al., 2018). A large number of studies suggest that consumers tend to be sceptical towards organic claims (Aarset et al., 2004; Janssen & Hamm, 2012; Vermeir & Verbeke, 2006). Particularly, distrust in certifiers and controllers has resulted in distrust in organic labels in different countries (Grunert et al., 2015; Thøgersen et al., 2019). Awareness and knowledge of organic certification logos appeared to influence consumers' organic food choice. For example, Janssen and Hamm (2012) found consumers' willingness to pay for organic food to be considerably different among six European countries, depending on how well known the organic logos were, and how strict their standards and control systems were perceived to be. Consumers' confidence in manufacturers and retailers' social performance also have large effects on purchasing behaviour (De Jonge, Van Trijp, Van Der Lans, Renes, & Frewer, 2008; Janssen & Hamm, 2011; Padel & Foster, 2005; Pivato, Misani, & Tencati, 2008). In short, consumers' response to organic food and their trust in it are not straightforward because of the complexity and ambiguity behind certification processes. The present paper aims to provide a greater understanding of organic consumption behaviour by exploring factors that influence consumer perception of consumption values and their food choice.

The present paper builds on previous studies in several important ways. First, while previous studies provide significant knowledge on motives of organic purchase and consumer profiles, most have used behavioural intentions as an outcome, rather than actual behaviour. This is problematic for a number of reasons. The intended/stated behaviour approach is likely biased due to social desirability (Fisher & Katz, 2000; Hjelmar, 2011), and confusion about identifying organic food (Harper & Makatouni, 2002; Hughner et al., 2007). Likewise, the attitude-based approach is problematic because of the well-documented attitude - behaviour gap in which positive attitudes not necessarily translate into actual behaviour (A. Fischer & De Vries, 2008; Padel & Foster, 2005; Vermeir & Verbeke, 2006). Only recently, studies have started to look at consumers' actual purchase behaviour by using household panel data and purposeful sampling (Janssen, 2018; Sultan et al., 2020). The present paper hopes to build on such studies by using qualitative data from consumers who deliberately purchase, or deliberately do not purchase, organic food. Using actual behaviour allows the present paper to add valuable insights into our understanding of motives and barriers to organic food purchasing.

Second, the relative importance of motives for or barriers against purchasing organic food has been inconsistent across studies (Kushwah, Dhir, Sagar, et al., 2019). For example, health and safety are found to be the most essential motives in some studies (Lillywhite, Al-Oun, & Simonsen, 2013), while sensory appeal is the most critical motive followed by health, natural content, and ethical concern in other studies (Renko, Vignali, & Żakowska- Biemans, 2011). Likewise, environmental concern is a motive of organic consumption in developed countries but appears much less important in developing countries (Ditlevsen, Sandøe, & Lassen, 2019; Essoussi & Zahaf, 2008; Henryks, Cooksey, & Wright, 2014). This research argues that these inconsistencies in the literature might be due to the focus on single groups of consumers, most commonly regular buyers of organic food, who only represent a small portion

of the total potential market (Nasir & Karakaya, 2014). Only three studies thus far have included occasional buyers of organic food (Hasimu et al., 2017; Henryks et al., 2014; Stolz, Stolze, Janssen, & Hamm, 2011), and non-buyers have rarely been used for investigating the motives for purchasing organic food (Kushwah, Dhir, Sagar, et al., 2019). One exception is a paper by Bryła (2016). The present paper hopes to reconcile these conflicting findings by showing that the importance of motives and barriers varies across different groups of consumers. The paper does this by including three distinct groups of consumers: regular buyers of organic food, occasional buyers of organic food, and non-buyers of organic food. Different groups of buyers have different perceptions of consumption values (Kushwah, Dhir, Sagar, et al., 2019). Therefore, the relative importance of motives to these groups of buyers' purchasing behaviour is likely to be different. Furthermore, considering all three groups will provide a better understanding of the attitude- behaviour gap (Van Dam & Van Trijp, 2011), and provide a wider range of insights for practitioners and policymakers about motivations for purchasing organic food. In doing so, this paper advances research on consumption values by showing that consumption values, their determinants, and their influence on food choice, can vary dramatically across groups of consumers, even within one product category.

In addition, the purpose of this research is to respond to the call for "more qualitative studies based in emerging nations, significant differences in motives and barriers based on consumer involvement" (Kushwah, Dhir, Sagar, et al., 2019, p. 10). Most of the studies on motives for purchasing organic food have been conducted in developed countries, in which supply and demand for organic products have become much more prevalent, compared with fledgling organic farming systems in developing countries (Kushwah, Dhir, Sagar, et al., 2019; Tandon et al., 2020). In addition, developing countries provide a large market for more than half of the world's customers, with a growing market of middle- class customers (United Nations, 2019). Therefore, understanding the determinants of these consumers' food choices is

of vital importance. The findings can provide a deeper understanding of the different motives of different groups of buyers, whilst considering the social context of their purchase decision, in this case food systems, and the operations of the food system and its actors from the perspectives of consumers in emerging markets. To do so, it explores the motives for purchasing or not purchasing organic vegetables of different buyer groups in Vietnam. Vietnam was chosen as a country for its emerging markets for organic food, increasing demand for higher quality food as a result of an emerging middle class (GSO, 2018), and dynamic food market structure from modernisation (Wertheim-Heck et al., 2015). Organic vegetables were chosen as a food category because vegetables are particularly prominent in the Vietnamese diet, and are preferably consumed at every meal. In 2013, Vietnam was amongst the top countries with the highest per capita vegetable consumption in the world (FAO, 2019). This paper purposely selected participants from comparable backgrounds in terms of awareness of organic vegetables, and the affordability and accessibility of organic vegetables. Using this sample, the paper is able to explore what influences their perceptions and their food choice if other constraints are relaxed. The paper used the theory of consumption values to explore the following research questions:

RQ1: What are the perceived values of organic vegetables across three consumer groups?

RQ2: What are the determinants of perceived values across three consumer groups?

The next section will provide an overview of the theory of consumption values and its adoption in the context of organic food consumption.

2.2 Theoretical framework: Theory of consumption values

The research focuses on exploring the factors that drive consumers' purchase behaviour across three consumer groups. Therefore, the theory of consumption values (Sheth et al., 1991)

is adopted as a guiding theoretical foundation. This theory identifies consumption values to explain consumers' behaviour of buying, or not buying, a particular brand, product, or service. It suggests that people have different perceived values toward a product and that this perception influences their motivation to buy it. This theory represents a radical departure from the traditional predominant product attribute-driven behaviour, to consumption values-driven behaviour (Finch, 2006). In contrast to the traditional paradigm, which is almost exclusively the study of functional values, Sheth et al.'s (1991) theory posits that purchasing behaviour is influenced by multiple consumption values. The theory of consumption values has previously been adopted to study the motives of choice behaviour in various domains, such as education (Pope, 2001; Stafford, 1994), sustainable consumption (Awuni & Du, 2016; Lee, Levy, & Yap, 2015), green products (Biswas & Roy, 2015; Lin & Huang, 2012; Mohd Suki & Mohd Suki, 2015), and organic food (Finch, 2006; Kushwah, Dhir, & Sagar, 2019a; Rahnama, 2017). This theory suggests that choice behaviour is influenced by five consumption values: functional value, social value, emotional value, conditional value, and epistemic value (Sheth et al., 1991). Each value has a different contribution to the final choice behaviour in a different choice situation. The following section will briefly describe each of these consumption values.

Sheth et al. (1991) defined *functional value* as the perceived utility generated by a product's salient attributes. Past research on organic food has aligned functional values to the biological characteristics of organic food products, or to product-centric attributes (Finch, 2006; Rahnama, 2017). These include sensory aspects (e.g., taste, appearance, freshness), food safety, nutrition, and health attributes of the organic food, such as being 'free of chemicals', or being 'healthier than conventional vegetables'. Extant research has suggested that functional value is the primary driver of organic food purchases (Kushwah, Dhir, Sagar, et al., 2019).

Social value refers to the perceived utility derived from the products regarding the social status to the buyer (Sheth et al., 1991). In an organic food context, social values

motivating the purchasing of organic food includes both consumers' self-image, such as social approval and self-identity (Puska, Kurki, Lähdesmäki, Siltaoja, & Luomala, 2018), as well as utilitarian motives, such as reducing environmental pressures, supporting local farmers, and animal welfare (Ditlevsen et al., 2020; Nandi et al., 2016; Soler et al., 2002).

Emotional value is defined as the perceived utility of a product's capacity to arouse positive or negative feelings (Sheth et al., 1991). Seminal literature in human decision making suggests that both emotional and rational thinking play equal roles in motivating choice behaviour (Kahneman, 2003). Emotional value plays a leading role in product experience; therefore, emotion may be positive, negative, or neutral depending on individual experiences and consumption situations. The role of emotional value in organic food purchasing only appears to be evident in two quantitative studies (Essoussi & Zahaf, 2009; Janssen, 2018) and is rarely shown in qualitative studies in organic food consumption (Kushwah, Dhir, Sagar, et al., 2019).

Conditional value is aligned with the choice of a product as the result of a specific set of circumstances facing the choice maker (Sheth et al., 1991). Literature suggests conditional value includes the time, place, and context that influence choice behaviour in a specific situation. Change in any of these conditional variables may result in change in choice behaviour (Laaksonen, 1993). In the context of organic food, conditional value includes convenience and/or availability of organic food (Aschemann- Witzel & Niebuhr Aagaard, 2014), having children (Lillywhite et al., 2013), the pressure to reduce carbon footprint, and personal health concerns (Orlando, 2018).

Epistemic value is defined as the perceived utility of a product's capacity to arouse curiosity, provide novelty, or satisfy a desire for knowledge (Sheth et al., 1991). Prior literature has suggested that consumers' knowledge plays an important role in the consumer purchasing decision-making process (Laroche, Bergeron, & Barbaro-Forleo, 2001; Lin & Huang, 2012).

In the context of organic food, epistemic values such as knowledge, familiarity, and nostalgia have shown effects on consumer choice behaviour (Kushwah, Dhir, Sagar, et al., 2019).

Table 3 provides a summary of attributes of consumption values in the organic food context.

Table 3

Attributes of Consumption Values

Functional values	Sensory aspect (taste, appearance, freshness), food safety, nutrition, and health attribute of the organic
Social values	Self-image, self-identity, support for the environment, animal welfare, and local farmers
Emotional values	Positive or negative feelings
Conditional values	Convenience (time, place), availability of organic food, personal health concerns, having children, media exposure, pressure to reduce the carbon footprint
Epistemic values	Knowledge, familiarity, nostalgia, seeking novelty, curiosity

2.3 Methods

2.3.1 Methodological approach

This paper used an interpretive, exploratory approach informed by adaptive theory (Layder, 1998). In this approach, extant literature is integrated as a lens to examine the emerging contextual understanding. In this way, both inductive and deductive reasoning is used to explore what is happening (deductive), while also seeking an understanding of why it is happening (inductive) (Layder, 1998). Proponents of adaptive theory argue that new theory is

generated, but not overly-relied upon, nor is new theory isolated from existing theory, rather data is examined through provisional and relevant theoretical concepts. Existing bodies of theoretical literature, in this case, the theory of consumption values, was used to form provisional concepts and to guide the research design.

2.3.2 Data collection

2.3.2.1 Pilot data collection

Data for this paper were collected in three stages. All communication was conducted in Vietnamese by the researcher for whom Vietnamese is their native language. Firstly, a pilot focus group was conducted to explore the complexity surrounding food choice in general (Rabiee, 2004). The focus group consisted of eight Vietnamese participants who were primary grocery buyers in their households. Participants were randomly recruited through an online Facebook advertisement. The participants discussed their current food choices, their impressions of food safety, and their general experience with purchasing vegetables. Thematic-based framework analysis was used to analyse the data (Krueger & Casey, 2014; Rabiee, 2004). Findings from the focus group were used to inform the main data collection.

2.3.2.2 Screening survey

Secondly, in Vietnam, an online screening survey was used to ascertain consumers' current food choices, their awareness of different labels of organic vegetables, and the accessibility and affordability of organic vegetables for them. Also, participants were screened for whether they were the main food shoppers in their families. Table 4 outlines the main questions from the screening survey. Participants were recruited in Vietnam through a Facebook advertisement. The survey link was also distributed through different organic food stores' Facebook pages. In addition, the first author contacted different organic food stores to

get access to their regular organic buyers through customer lists in order to send out invitations. Among 108 participants who completed the screening survey, 27 participants were invited for personal interviews, which are described next.

Table 4

Online Screening Survey Questions

Questions	Type	Response
Q1. Select types of vegetables that you have seen or heard about	Multiple choice	List different labels of organic vegetables and non-organic vegetables available in the market
Q2. Select types of vegetables that you have bought	Multiple choice	List different labels of organic vegetables and non-organic vegetables available in the market
Q3. Select types of vegetables that you often buy	Multiple choice	(i) conventional vegetables, (ii) safe vegetables*, (iii) organic vegetables, (iv) vegetables planted by someone you know
Q4. Select venues that you often shop	Multiple choice	(i) supermarkets, (ii) special/safe food stores, (iii) wet markets, (iv) others (open field)
Q5. Would the price of organic vegetables be affordable to you should you choose to buy?	Single choice	Yes/No/Maybe
Q6. Would organic vegetables be accessible to you should you choose to buy?	Single choice	Yes/No/Maybe
Q7. Are you the main shopper for vegetables in your family?	Single choice	Yes/No

*Safe vegetables follow Good Agriculture Practice (GAP) farming standards and are labelled at VietGAP.

2.3.2.3 Main data collection: Interviews

To select the most relevant participants for the interviews, participants had to satisfy four conditions from the screening survey: (i) they are the main grocery shoppers for their families, (ii) they are aware of at least one label of organic vegetables, (iii) organic vegetables are affordable to them, and (iv) organic vegetables are accessible to them. Participants' food choices (Q2 and Q3 from the screening survey) were used to sort participants into regular, occasional, and non-buyers of organic vegetables.

Next, the main data for this paper was collected through in-depth, face-to-face, semi-structured interviews. This is an appropriate way to collect data because the aim of this paper is to understand participants' interpretation of their lived experiences (Minichiello et al., 2008). Each participant received a grocery voucher with the equivalent value of approximately US$15.00 as a token of gratitude for their participation. Interviews typically lasted between 60 and 90 minutes and were loosely structured around the main topics of current vegetable purchasing, perceptions of organic vegetables, comparisons of organic and non-organic vegetables, and factors motivating and hindering organic vegetable purchases. Interview responses reconfirmed the frequency of purchasing and the classification of the groups (Table 5). Regular buyers are participants who always buy or mainly buy organic vegetables, occasional buyers sometimes buy organic vegetables, and non-buyers rarely or never buy organic vegetables. Most of the participants (25 out of 27) are female because of the cultural norm that women are the main grocery shoppers in Vietnam (Speece & Huong, 2002). Participants were between 22 and 58 years old with an average age of 35 years. Where appropriate, interviews took place at the respondents' homes. Some photos of food storage such as the fridge were taken with the participants' permission as supporting context.

Table 5

Interview Participants

Buyer group	No.	Participant	Age range (y)	Gender	Industry sector	Shopping venue for vegetables
Regular buyers	**1**	Han*	21–30	Female	Agriculture	Single store
	2	May	41–50	Female	Pharmacy	Single store
	3	Na*	31–40	Female	Health	Single online store
	4	Hanh	21–30	Female	Sustainable Development	Variety of stores
	5	Hoan	31–40	Female	Owned business	Variety of stores
	6	Hong	31–40	Female	Government	Variety of stores
	7	Anh*	31–40	Female	Government	Variety of stores
	8	Lan*	21–30	Male	Student	Single store
	9	Tan*	51–60	Female	Retired	Single store
	10	Ngan*	21–30	Female	Environment	Single online store
Occasional buyers	**11**	Viet	31–40	Female	Government	Variety of stores
	12	Hoang	21–30	Female	Agriculture	Variety of stores
	13	An	31–40	Female	Own business	Variety of stores
	14	Thoa	51–60	Female	Retired	Variety of stores
	15	Lananh	31–40	Female	Education	Variety of stores
	16	Thuyen	21–30	Female	Education	Variety of stores
	17	Tung	31–40	Male	Construction	Single store
	18	Thuy	31–40	Female	Education	Variety of stores
Non-buyers	**19**	Tran	31–40	Female	Government	Variety of stores
	20	Oanh	41–50	Female	Own business	Variety of stores
	21	Chien	31–40	Female	Government	Variety of stores
	22	Hien	31–40	Female	Health	Variety of stores
	23	Lien	31–40	Female	Government	Variety of stores
	24	Huong	31–40	Female	Own business	Single store
	25	Hang	21–30	Female	Retail	Single store
	26	Thuong	21–30	Female	Insurance	Single store
	27	Quynh	31–40	Female	Government	Variety of stores

*participants were recruited through organic food stores based on their regular purchase of organic vegetables

2.3.3 Data analysis

All interviews were audio-taped, transcribed, translated into English and analysed using NVivo 11, employing the thematic analysis approach (Spiggle, 1994). Data coding and categorisation were conducted in parallel with data collection to inform later stages of data gathering, making it an iterative process, engaging with data and theoretical concepts simultaneously. This allowed a refinement of the interview guide when new data were acquired and deepened the construction during the research (Kuper, Lingard, & Levinson, 2008; Ranney et al., 2015). Thematic analysis involves the identification and categorisation of main themes, sub-themes, and relationships between themes emerged from participants' responses. Thematic analysis also allowed the comparisons between qualitative data-driven themes and the existing classification patterns in the literature (Braun & Clarke, 2006; Taylor & Bogdan, 1984).

Each interview transcript was analysed and assigned content-related codes. Groups of similar codes were later categorised into themes. There was overall agreement on the coding and emerging themes among authors. Codes were derived from extant literature (deductive) and emerged from the data (inductive). In this way, empirical data were integrated with theory and emerging themes were used to structure the results. The thematic data analysis is an iterative and reflexive process (Spiggle, 1994). In this paper, the consumption value themes were influenced by the provisional theoretical framework (Table 3). The prominence of other themes, such as influences of trust in the food system on each category of consumption values across each different group of buyers, emerged from the data. The trustworthiness of this data analysis process to identify main themes is consistent with the adaptive methodological approach (Layder, 1998).

2.4 Findings

The findings are presented in two sections: first, how organic vegetables are perceived by the three consumer groups in order to understand the similarities and differences regarding motives among the three groups; second, the determinants of their perception, and the influence of perceived values, on each group's purchasing behaviour.

2.4.1 Perceived values of organic vegetables across three consumer groups

Table 6 outlines the similarities and differences in perceived values across the three groups and how these findings differ from the literature. Functional value is mentioned by both the regular and occasional groups, although its attributes are perceived differently by the two groups. Emotional value overrides other values to become the most important motive for regular buyers, while functional value is crucial for occasional buyers. Both occasional buyers and non-buyers question the existence of authentic organic vegetables in Vietnam. Therefore, consumption values cannot be formed for the non-buyer group, and only some attributes of consumption value are realised by occasional buyers. Social value and epistemic value are unique motives for regular buyers, which differentiates them from occasional buyers and non-buyers. Interestingly, the perceived price-quality ratio, not high price per se, is a purchase barrier for non-buyers, because they doubt the authenticity of organic vegetables. It is also noteworthy that there are different interactions between consumption values. The interaction can be positive, such as a positive feeling (emotion value), which can lead to perceptions of better taste, better quality, and safer vegetables (functional value). It can also be negative, such as the availability of organic vegetables (conditional value) triggering the negative feeling of 'sceptical' (emotion value) for non-buyers.

Table 6

Differences in Consumption Values Towards Organic Vegetables Across Three Consumer Groups

Perceived consumption values		Regular buyers	Occasional buyers	Non-buyers	Connection of themes with prior literature
The general perception of organic vegetables		All participants perceived 'authentic organic' must be *a process*, rather than *a product*			Prior literature does not distinguish between process attribute and product attribute in consumer perception of organic food.
		"1st priority is to buy organic vegetables", "chemical-free is important"	"Organic means no more than safe", "no pure organic"	"organic is hard to achieve", "organic does not exist in Vietnam", "organic must be rare"	
Functional value **Functional value is most important to occasional buyers, but not regular buyers*	Food safety	"chemical-free for whole process", "chemical-free is different from chemical residue-free",	"safe or chemical residue-free"	"organic must be whole or nothing, otherwise, complete food safety cannot be achieved"	The findings contradict with previous studies which suggest that functional value is the most significant motive regardless of buyers' process involvement (Kushwah, Dhir, Sagar, et al., 2019), and the sensory aspect has been found as the second most crucial motive among all consumers regardless of their

Perceived consumption values		Regular buyers	Occasional buyers	Non-buyers	Connection of themes with prior literature
* *Sensory is only important to some regular buyers*		"safer for health because of chemical-free"			purchasing frequency (Kushwah, Dhir, Sagar, et al., 2019).
	Food risks	The absence of chemicals/chemical residues is directly associated with the potential avoidance of disease such as cancer in the long term			
	Sensory	Better taste is crucial to some regular buyers			
		Perceived sensory (look/taste) for only certain types of vegetables but hardly perceived sensory difference in general			
	The authenticity of organic food	What about this group? Does not apply, no evidence?	Participants perceived that there are no 'authentic organic vegetables' due to the high standards of organic farming-referred to organic standards as a process		
Emotional value		Feel "comfortable, worry-free, safe,	"safe is good enough",	Feel "unassured, sceptical"	Although emotional value is rarely found as a motive for organic purchasing in most studies, the findings

Perceived consumption values	Regular buyers	Occasional buyers	Non-buyers	Connection of themes with prior literature
**Emotional value overrides other values to become the most important motive for regular buyers* **Emotional value positively affects functional value for regular buyers*	guaranteed, secured"	"feel comfortable"		suggest emotional value is the most important motive for regular buyers, which is in line with two other studies, both of them are in developed countries (Essoussi & Zahaf, 2009; Janssen, 2018) The interaction between emotional value and functional value has not been discussed in previous literature.
Social value **Social value is a unique motive for regular buyer*	"good for environment", "support farmers"			Previous studies suggest that social value is important for all consumer groups particularly in developed countries (Ditlevsen et al., 2019; Janssen, 2018; Padel & Foster, 2005). Also support for local farming was found as a unique attribute in developed countries (Essoussi & Zahaf, 2008; Nandi et al., 2016; Schrank & Running, 2018). This paper adds to these studies an important finding that social value is a unique motive for regular buyers in a developing country.
Epistemic value Knowledge	information and knowledge about			Epistemic value was tested through quantitative research only (Lillywhite et al., 2013; Rahnama,

Perceived consumption values		Regular buyers	Occasional buyers	Non-buyers	Connection of themes with prior literature
**Epistemic value-knowledge is a unique motive for regular buyers*		organic food are significant factors influencing regular buyers' food choice			2017); none has been discussed in qualitative (Kushwah, Dhir, Sagar, et al., 2019). Also, no unique epistemic motive found for any group through qualitative research (Kushwah, Dhir, Sagar, et al., 2019). The findings, therefore, extend literature by showing that epistemic value, in particular knowledge is a unique motive for regular buyers.
	Familiarity	Familiarity in taste drives some of participants' food choice			
Conditional values **Conditional value is less important for regular buyers compared with occasional buyers* **Conditional value negatively affects emotional values for non-buyers*	Availability/ Convenience	"presence of organic food store", "time and food store are convenient"		"must be rare", "not abundant to sell"	Personal health concerns largely affect consumers' purchase decisions in all groups (Kushwah, Dhir, Sagar, et al., 2019). The findings contradict studies that suggest high price is the main barrier for purchasing organic food (Kushwah, Dhir, Sagar, et al., 2019). The perceived price-quality ratio is the main barrier. The interaction between emotional value and conditional value has not been discussed in the literature.

Perceived consumption values	Regular buyers	Occasional buyers	Non-buyers	Connection of themes with prior literature
Price	The high price of organic vegetables is considered acceptable as a result of higher labour costs and certification costs			
			Question the perceived price-quality ratio due to doubt of the authenticity of organic vegetables	

2.4.1.1 Functional value

Extant literature has grouped all motives related to product-centric attributes of organic food, such as quality, devoid of harmful ingredients, food safety, health attribute, etc. as functional values (Bryła, 2018; González, 2009; Hashem, Migliore, Schifani, Schimmenti, & Padel, 2018; Orlando, 2018). This paper adds an important aspect related to *process-centric* attributes of organic food that is unique for regular buyers. All regular buyers mentioned that it is important for them to buy organic vegetables because the farming technique is chemical-free. These participants are particularly interested in 'chemical-free' as a *process*, instead of 'chemical residue-free' as a *product attribute*. For example, Hoan said,

> It is very important to me that organic vegetables are chemical-free for their whole lifetime, you know; other certified safe conventional vegetables, such as VietGAP, still use chemical inputs, but follow the techniques to make sure that there are no chemical residues in vegetables.

In contrast, occasional buyers actively seek food safety that they associate with chemical residue-free, a product attribute. These participants look for a sufficient level of safety in food. For example, Lananh said, “it’s not necessary to be organic. I doubt they can achieve such high standards of organic vegetables. Vegetables that follow preharvest interval accurately to assure no chemical residues, are good enough for me.”

The perception that organic food is “devoid of chemicals” by regular buyers and “devoid of chemical residues" by occasional buyers are both directly associated with health benefits. The findings are in line with other studies suggesting health concerns, or precaution for health in the future, as a driver of organic food consumption (Henryks et al., 2014; Schrank & Running, 2018). These participants do not perceive organic vegetables to be healthier, but rather that they pose a lesser risk of contributing to human diseases. They consider chemicals as the potential long-term cause for diseases such as cancer: “Cancer is popular nowadays as a

consequence of consuming food with chemicals such as fertiliser, pesticide residues, weight compound residues" (Tan).

The process-centric attribute of organic food is an important factor that explains the lack of trust in the authenticity of organic food for both occasional buyers and non-buyers. Both occasional and non-buyers are sceptical about organic farming practices given their concerns over the use of chemicals in conventional farming for a long time in Vietnam. Therefore, the high standards required in organic farming were perceived to be unrealistic:

> There is no such thing as purely organic. As far as I know, to become an organic farm, the land and surrounding area must qualify many conditions of soil and water in years. I don't think there are any lands in Vietnam would qualify that (Lien).

As a result, the functional value of organic food cannot be formed for non-buyers and can be only partly formed as 'chemical residue' free for occasional buyers. Nearly all non-buyers emphasised the functional value of organic vegetables if they are "authentic organic": "organic vegetables, if authentic, should be safer than safe conventional vegetables because they do not use any chemicals" (Chien).

Most of the regular buyers and occasional buyers associated chemical-free farming with the sensory appeal of vegetables such as being "uglier", "blemished", "smaller size", and "better taste" as a result of using no chemicals. Other studies suggest that sensory differences are an important motive for organic food consumption (Chekima, Igau, Wafa, & Chekima, 2017; Renko et al., 2011). The paper's results build on these findings by showing that sensory differences are not always clear to occasional buyers and that they only apply to certain types of vegetables: "It's hard to differentiate through looks or taste except for some fruits and vegetables, such as tomatoes or carrots, I feel it is easier to recognise" (Anh).

Regular buyers, on the other hand, view the difference in taste and higher nutrition content as key drivers of their purchase decision. The perceived better taste is a signal of 'being organic'. For example, May said, "they taste completely different, leaves are smaller, the smell is stronger and tastier. I would not buy them if there was no difference in taste." Similarly, participants linked organic farming to the nutritional content of organic vegetables: "Organic vegetables may be more nutritious. The strict process and higher standard of the planting environment make it higher in nutrition" (Anh). These findings integrate well with the literature, which has shown that taste is perceived as a crucial motive for regular buyers (Bryła, 2016; Ditlevsen et al., 2019).

2.4.1.2 Emotional value

Emotional value has rarely been shown to be a motive for organic food purchasing (Kushwah, Dhir, Sagar, et al., 2019), with the exception of two studies in developed countries (Essoussi & Zahaf, 2009; Janssen, 2018). However, in the present paper, regular buyers emphasised a variety of positive feelings, such as being "comfortable", "safe", or "worry-free" when consuming organic vegetables: "If we are worry-free of food safety when we consume organic vegetables or we feel safer, then it is psychologically healthy, which is more important to me than physically healthy because it helps to reduce stress" (Ngan).

Two-thirds of participants indicated that their feelings override and influence other values in their food choice decision making, for example, "feeling good" results in better taste and quality: "When you do not have to worry about chemicals or search for proper washing methods to get rid of chemicals, taste just becomes better" (Hanh).

Similarly, most of the occasional buyers shared that avoiding chemical residues in vegetables by consuming organic vegetables makes them feel safe and comfortable. Viet said: "It is about the effects of emotion, the safe feeling when I eat safe and organic food, that makes

me feel like I have good health condition." Organic vegetables are perceived as equivalent to safe conventional vegetables by these occasional buyers.

In contrast, non-buyers underlined their feeling of being "sceptical" or feeling "unassured" about organic vegetables because they questioned the existence of authentic organic farming in Vietnam. Interestingly, their negative feelings are triggered by the availability of organic vegetables, which was normally seen as a positive attribute in conditional value. For example, "many stores claim to sell organic vegetables. I feel unassured because organic cannot be that abundant" (Tran) or "I doubt that they follow organic standards strictly in Vietnam. Seeing many stores selling organic vegetables, I feel sceptical" (Huong). This shows that negative emotions are triggered by the conditional value or the high availability of organic vegetables.

2.4.1.3 Social value

Literature suggests social value is important for all consumer groups, particularly in developed countries (Ditlevsen et al., 2019; Janssen, 2018; Padel & Foster, 2005). Particularly environmental concern and support for local farming were found exclusively in developed countries (Essoussi & Zahaf, 2008; Nandi et al., 2016; Schrank & Running, 2018). This paper adds an important finding that environmental benefits and local farming support are also important for consumers in developing countries, but only for regular buyers. Half of them mentioned that they buy organic vegetables to benefit the environment. For example, Na said, "chemical pesticides used in farming cause a harmful impact on the environment, therefore I think choosing organic vegetables supports environmental benefits. I always prefer environment-friendly products." Another motivation is to support local farmers: "I want to support farmers. I used to do organic farming, so I know how hard it is. I understand the downhearted feeling when you cannot sell your vegetables" (May).

While a review of the topic finds that there is no unique social value found for any consumer group (Kushwah, Dhir, Sagar, et al., 2019), the findings suggest that social value is a unique motive for regular buyers which differentiates them from other groups. Occasional buyers and non-buyers rarely mentioned social values. Only one occasional buyer had visited an organic vegetable farm and did express social value: "I want to support farmers after knowing them" (Hoang). Likewise, only one non-buyer mentioned the environmental benefit of organic farming: "As farming methods are different, they should have different environmental impacts. Organic farming is better for the environment" (Oanh).

2.4.1.4 Epistemic value

Information and knowledge about organic food were seen as a significant and unique factor in regular buyers' food choice. The findings are in line with a few studies that found knowledge as an important motive for organic food purchase (Renko et al., 2011; Smith & Paladino, 2010). Searching for information to gain more knowledge about organic vegetables was not mentioned by occasional and non-buyers. In contrast, all regular buyers spent their time and efforts actively searching for information on the whole process for assurance that it was 'chemical-free', such as farm monitoring and inspection, suppliers' information, etc. before making a purchase decision:

> I often check information on how they supervise farms and get the certificates. I read news and search on social media. I also went on field trips. I can check the genuineness of the information. For example, a different agent will have a different procedure to inspect and issue USDA certification, like CERES will be different from Control Union. I will check if that agent is reliable. (Hanh)

Familiarity was also mentioned by several regular participants. Lan said, "organic vegetables smell more naturally. My dad said he felt like he was eating potato from the year of

1940." Two occasional buyers highlighted familiarity with the taste of organic vegetables to be more important than being organic: "I don't choose organic vegetables for their organic label but their looks and taste similar to vegetables from my hometown. That makes me comfortable" (Lananh). In the food context, familiarity can be classified as an epistemic value (Kushwah, Dhir, et al., 2019a), and is a motive to buy organic food for regular buyers.

2.4.1.5 Conditional value

Compared with other consumption values, conditional value was less reported by regular buyers. The literature suggests that personal health concerns such as an illness or an allergy are critical drivers of organic food consumption (Padel & Foster, 2005; Shin, Im, Jung, & Severt, 2019). This present paper's results contrast with these findings because, in this paper, only one participant switched to organic vegetables because of her personal health concerns: "Since I got sick, it's kind of a congenital disease, there are some kinds of food and vegetables I have to keep abstaining from. I mean to avoid chemicals completely" (Hong).

Convenience has a more significant impact on occasional buyers' food choice. The purchasing of organic vegetables is dependent on convenience in terms of time and place for occasional buyers, as Lananh shared: "If it's inconvenient, I'm not going to buy them even if they are organic. As I said, safe conventional vegetables are good enough."

Regarding price, all participants regardless of consumer groups considered the price of organic vegetables as "high but acceptable" because of it is "being organic." For example, Quynh, a non-buyer, shared: "Organic products, I mean if they are real, must be expensive. It is costly to produce organic vegetables, and farmers have to pay for the certification cost as well." However, the perceived inconsistency between high price and the lack of authenticity of organic vegetables restrains non-buyers from buying organic vegetables. Tran said: "I doubt that the quality of the product is as worthy as the money that I would have to pay," and Oanh

considered that "organic is no more than a label." Although the higher price is found to be the most crucial reason for consumer resistance toward organic food (Bryła, 2016; González, 2009; Lillywhite et al., 2013), the high price is not a significant barrier for non-buyers in this paper, because they are willing to pay this price as long as there is trust: "I'm willing to pay a high price for genuinely organic vegetables" (Lien). The main reason is lack of trust in authenticity of organic food that leads to the perceived inconsistency between high price and quality.

2.4.2 Determinants of perceived values across consumer groups: Trust/distrust in the food system

While participants have different perspectives on the consumption values of organic vegetables, they commonly perceived 'organic' as a whole process, including farming control, inspection, and market management. Therefore, it comes down to the issue of their trust in the system's capacity to deliver organic vegetables. All participants expressed their concerns over the way food safety is controlled along the food chain. No specific actors of the food chain were clearly mentioned, rather they referred to the overall management responsibility of the government, the remark "our management is weak and lax" reflects the sentiment of most participants. Participants consistently perceive food safety as outside of their control, and hold strong uncertainty around it. For example, Chien said, "there is no way to know whether food is safe or not" and Thuy said, "I feel very confused…no way to verify."

Participants considered the implementation of organic standards as loose and weak according to the observations of lack of integrity in the bureaucracy and administration of certification regulations (Kjærnes et al., 2007). The lack of trust in the food system was excessively demonstrated when participants discussed organic certifications as a tool to differentiate organic from non-organic food. They expressed doubt in the integrity of the system that issues the certificates. "There are things like certificates, that can be easily obtained

by money in Vietnam, so that they can get more profit from selling certified foods" (Hien). Other participants linked their knowledge or experience working with the agencies on obtaining certification to doubt all food certifications. For example Quynh said:

> I work in the food processing industry myself and we must obtain certain types of certificates for our products. Certificates are paperwork that you pay for. Many companies can pay to get it quickly, you know, through 'shortcuts'[1].

The perceived absence of rigorous food certification has restrained participants' trust in the functioning of food labelling and the entire food system (Hobbs & Goddard, 2015). Most participants were not only concerned about mis-issuing certifications, but also about counterfeit certifications as well. Remarks such as "anything can be counterfeit in Vietnam" or "labels/certificates can be made fraudulently" were repeatedly mentioned by most participants. They perceived that there is a lack of control over counterfeiting because of insufficient management competence in the organisations that issue certifications:

> Many organisations do not obtain the certificate, but still put that certificate on their label. As far as I know, no agency controls this problem strictly. There is a lack of capacity to control vegetables that are incorrectly labelled safe and organic. (Viet)

Thus, the insufficient enforcement of certification regulation has failed to foster consumer trust in food (Berg, 2004; Kjærnes et al., 2007).

2.4.3 Strategies used by buyer groups (regular and occasional)

Different strategies were used across consumer groups to cope with their lack of trust in the food system. As mentioned above, regular buyers choose organic vegetables as an alternative for conventional vegetables due to their concern about the use of chemicals in

[1] Vietnamese slang for obtaining certificates without proper procedure

conventional farming. They perceived the 'chemical-free' functional values of organic vegetables as a process; therefore, they actively seek information about the way organic standards are managed along the food chain.

Regular buyers of organic vegetables that are certified with international standards such as the United States Department of Agriculture (USDA), formed trust in the process because of their perception toward the country of origin – the United States. "USDA is hard to get because organic standards are higher and stricter when it comes to the United States. Our domestic level of safe food would not be accepted in their market" (Anh). The international certification is perceived to be better because it is associated with higher organic standards and more stringent levels of what is deemed to be 'safe'. USDA is also perceived to have better enforcement of certification regulation rules: "I saw posts listing those organisations that were not qualified any longer in their websites. Such information increases their credibility" (Lan). This finding is in line with other studies suggesting that country-of-origin could influence trust in organic food (Dekhili & Achabou, 2014; Onozaka & McFadden, 2011; Schjøll, 2017; Thøgersen et al., 2017; Xie et al., 2016).

Regular buyers are also active in searching for reliable retailers who sell these organic vegetables, and they form a certain level of trust in these retailers. Most of the participants emphasised that their trust in other actors, such as growers and retailers, plays very important roles in their food choice. Consumers' perceived trustworthiness of these actors is mainly based on perceived competence involving their knowledge and expertise of food production (Peters, Covello, & McCallum, 1997; Yee & Yeung, 2002). "I knew that he (store owner) is very knowledgeable about organic farming. He had much experience working with farmers to produce safe food" (May). Two-thirds of participants considered their trust in growers or retailers to be more critical than certificates. For example, Ngan said: "It is useless to show me

tons of certificates, they are no more than papers. I bought PGS because I visited the farm, talked to farmers, and understood better how they manage to plant organic vegetables."

Compared with regular buyers, occasional buyers tend to rely more on sellers' reputations to make food choice decision. The extant literature has emphasised the importance of reputation to be a proxy for assurance of product quality (Ambler, 1997; Rao & Monroe, 1989) and to facilitate initial trust (McKnight, Cummings, & Chervany, 1998). Occasional buyers often linked 'big brand names' with the capacity to inspect farms and quality control and signal quality. They choose stores to achieve what they value the most – a sufficient level of safety in food. Members of this group are motivated to buy organic vegetables for food safety reasons. Therefore, organic and 'safe' conventional vegetables deliver the same consumption values to this group of buyers. They form trust in retailers based on their perception of the level of involvement retailers have in farm management, fraudulence control, and store management.

> I believe that Vinmart supermarket has enough human resources and capacity to manage and control their vegetable supply as they are the biggest supermarket, you know, their financial position is always on top. They should be more professional in inspecting farms. (Thoa)

Also, the retailer's reputation plays a vital role in shaping participants' perceptions of how retailers deal with food frauds. Reputation can motivate retailers to do the right thing through social control mechanisms. As Hoang said, "they spend money and effort on their brand. If they violate any standard, it would affect their reputation badly."

2.4.4 Strategies used by non-buyers

Compared with regular buyers and occasional buyers, non-buyers place very little or no trust in the capacity of the food system to deliver safe food. Distrust in the food system

significantly influences their perceived consumption values of organic vegetables. Unlike regular buyers of organic food, non-buyers never consider organic vegetables as an alternative for conventional vegetables, but understand that both are delivered by the same food system. For example, Tran said:

> I don't trust our weak and lax authority management. They cannot control the whole system, not only vegetables but also meat, fish and other food are not safe. I don't really care about certification or labels, they don't make any difference.

Feeling the absence of proper food safety management in conventional production results in a spillover of distrust in organic production. Although some studies have noted spillover effects of distrust at an industry and nation-wide level (Y. H. Chen, Wen, & Luo, 2016; Gao, Zhang, Zhang, & Knight, 2015), the negative attitude of conventional vegetables transferring to organic vegetables has not been found in previous literature.

As a result, participants have no trust in anyone other than themselves to differentiate safe from non-safe vegetables, based on their own knowledge and experience, or perceived knowledge sufficiency. Perceived knowledge sufficiency refers to whether people have attained enough knowledge and information to take control over their behaviour (Ajzen, 1991; Casagrande, LeJeune, Belury, & Medeiros, 2011). For example, Chien said: "Basically, I trust my senses. There is no guarantee that those organic labels are genuine. I can recognise if the farmers overused nitrogen fertiliser in vegetables based on my personal experience." Similar to some occasional buyers, seasonality and specific types of vegetables are used to tell if farmers overuse chemicals in farming. The remark "seasonal vegetables contain fewer chemicals due to favourable climate conditions" was consistently repeated. Also, "tubers and root vegetables and those vegetables that grow above ground, contain less risk of chemicals

compared with leafy vegetables that were directly sprayed with pesticide" (An), was shared by most of participants. As a result, they rarely buy out-of-season vegetables and leafy vegetables.

Familiarity and emotional bond in a relationship can provide a sense of security and prevent trust violation (J. D. Lewis & Weigert, 1985). As shown in this paper, non-buyers are willing to rely on someone they know very well who can act on their behalf, manage the whole process from planting to delivering, and therefore can guarantee that the vegetables are truly authentic. In a trust transference process, trust in a product can be transferred from a trusted person to another person who has little knowledge of a product (Doney, Cannon, & Mullen, 1998; Stewart, 2003; Strub & Priest, 1976), so that non-buyer participants build trust in the safety of the vegetables which are grown or sold by a trusted person. The 'direct' vegetable transaction – from farms to stores emphasised by these participants reflects the 'complete control' of the source of vegetables.

> I trust and buy the vegetables from her own farm even though her vegetables are not certified, but I trust that she plants safe vegetables, meaning no chemicals. But I do not trust those vegetables from other suppliers sold in her store because my friend herself is not completely sure if those vegetables are safe. I trust vegetables from her farm more than any certified vegetables. (Thuong)

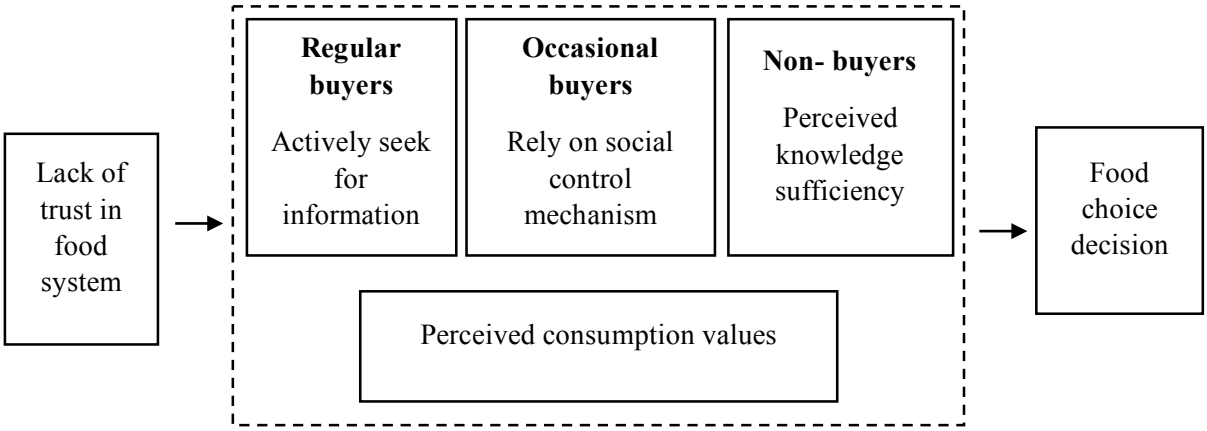
Non-buyers occasionally buy vegetables from retailers with 'big names' when they face time constraints. Similar to occasional buyers, non-buyers perceive retailers' reputation to act as a social control mechanism to guarantee a minimum level of food safety.

Figure 1 summarises the different strategies used by regular buyers, occasional buyers, and non-buyers to cope with their lack of trust in the food system. The proposed model suggests that there is a direct link between perceived consumption values, trust in the whole food system

and food choice decision. Lack of trust in food significantly restrained the translation of perceived values to actual organic food purchase.

Figure 1

Strategies to Cope with Distrust in the Food System Across Consumer Groups



2.5 Discussion

This paper utilised the theory of consumption values to study the actual food choices of three groups of consumers: regular, occasional, and non-buyers of organic food. Using qualitative data from consumers who deliberately purchase or do not purchase organic food, the paper aims to provide new insights into the literature of motives and resistance of organic food purchasing. Because of the focus on consumption values, this paper purposely selected participants with similar levels of awareness of organic vegetables, the ability to afford, and to access organic vegetables. The following section discusses the key contributions arising from this paper, followed by implications for policymakers and marketers.

This paper makes four contributions to literature and theory. First, the main contribution of this paper is that it has highlighted the importance of trust in the food system as a major determinant of consumption values and purchase of organic food. Distrust in the food system and its actors is found to be a powerful barrier to purchasing organic food, particularly for

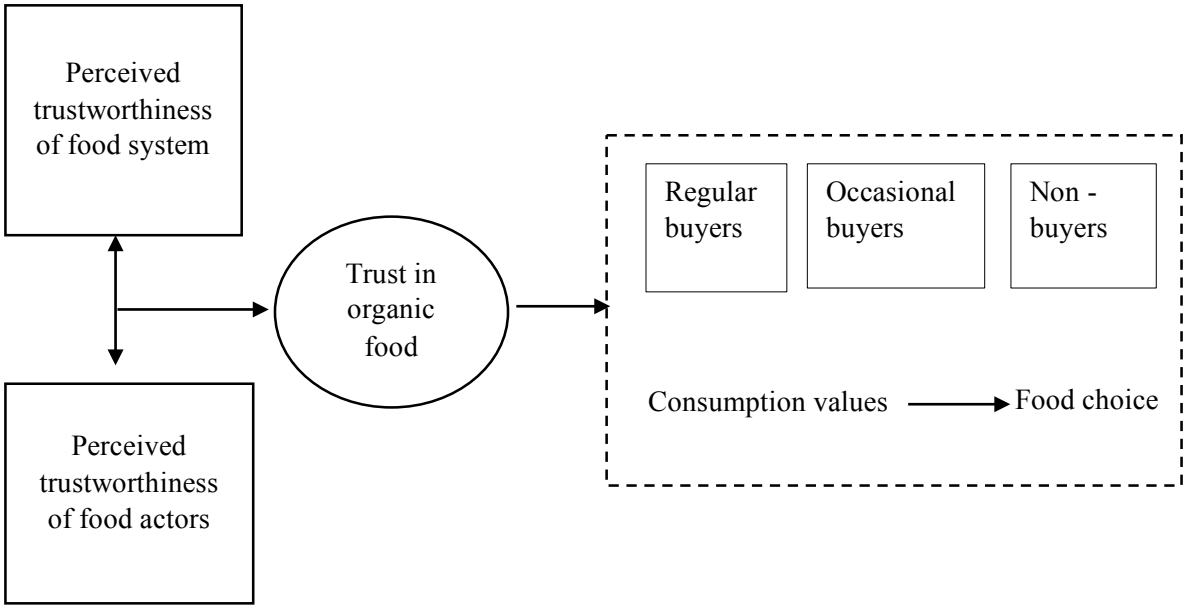
occasional buyers, and non-buyers. Although a large number of studies emphasise the role of trust in the intention to purchase organic food and actual purchase behaviour (Giampietri et al., 2018; Nuttavuthisit & Thøgersen, 2017; Olsen & Grunert, 2010; Sultan et al., 2020), they focus on trust in food certification and communications (Sultan et al., 2020). Organic food is a credence good, therefore, consumers have to rely on trustworthiness and the credibility of certification agencies as proxies for their decisions (Janssen & Hamm, 2012; Sultan & Wong, 2019). Particularly, distrust in certifiers and controllers has resulted in distrust in organic labels in different countries (Grunert et al., 2015; Thøgersen et al., 2019). This paper adds an important dimension of trust - trust in the entire food system which includes both conventional and organic food, is the main driver of organic food purchase behaviour. The existence of organic farming is questioned in the same way as the existence of 'safe food' delivered by the entire food system. Organic and non-organic food are both perceived as products delivered by the food system with the participation of different actors including authorities, agencies, retailers, farmers, etc. Trust is not domain-specific. A lack of trust in the safety of the conventional food system may lead to a lack of trust in the safety of organic food as well. It is noteworthy that distrust in the food system found in this paper reflects a much wider anxiety than the lack of trust in organic labelling or certification reported in the extant literature (Botonaki, Polymeros, Tsakiridou, & Mattas, 2006; Sondhi, 2014). This finding is novel for the organic food consumption literature, and likely to be different from findings in other, typically developed countries, given that general trust in the food system varies across countries with different institutional conditions (Berg et al., 2005; Glitsch, 2000). More research on trust in the food system in emerging nations could explore further its effect on consumers' perceived values of organic food.

Furthermore, trust in the food system plays a key role in forming consumption values of organic vegetable, and translating these values into actual food choice. Barriers to organic

food purchase typically include lack of availability, high price, and lack of awareness (Bryła, 2016; Hasimu et al., 2017; Janssen, 2018). This paper is novel because it shows that participants who knew about organic vegetables, have access to them, and can afford to buy them, still do not purchase them because of their distrust in the food system and its actors. This paper responds to the call for focusing on determinants of actual choice behaviour, not surrogates of choice (Ham, Pap, & Stanic, 2018; Prakash, Singh, & Yadav, 2018; Yadav & Pathak, 2016). The integration of trust in the perceived consumption values– actual food choice relationship (Figure 2) can serve as valuable inputs for future research in this important area.

Figure 2

The Linkages of Trust, Perceived Values, Food Choice



Distrust in the food system can be well reflected through the way consumer groups make their purchase decisions. Physical certification labelling is not seen as a legitimate signal to differentiate organic from non-organic vegetables regardless of consumer groups. Regular buyers pay more attention to the process, thus, actively spend time and effort searching for information on standards and inspection processes, visiting organic farms, talking to farmers,

asking for recommendations and feedback from their networks, and purchase directly from farmers. In contrast, occasional buyers are willing to enter into a process of negotiation, and choose convenience to buy any 'safe' vegetables regardless of whether they are organic or non-organic, in stores they consider to be reliable, which are mostly big, branded supermarkets. Similarly, non-buyers share the same distrust in the capacity and integrity of the food system, but at an even more extreme level. Non-buyers hardly trust any actor in the food chain, except themselves through perceived knowledge sufficiency (Ajzen, 1991; Casagrande et al., 2011), or someone they know well though trust transference process (Doney et al., 1998; Stewart, 2003; Strub & Priest, 1976). Although occasional buyers and non-buyers have positive attitudes toward what they called "authentic organic", their distrust in the food system leads to their doubt of organic food existence. In this case, distrust in the food system helps to explain the discrepancy between their attitude and their behaviour (Padel & Foster, 2005; Vermeir & Verbeke, 2006).

Second, this paper extends the literature on motives for organic food consumption by showing a clear difference in the importance of perceived consumption values across regular buyers, occasional buyers, and non-buyers of organic food. Previous studies suggest that functional values, particularly being "free of harmful ingredients" and "sensory aspects", are common among consumer groups and are the most significant motives regardless of different consumer groups (Kushwah, Dhir, Sagar, et al., 2019). In contrast, the present paper shows that emotional value plays the most crucial role for regular buyers, while both functional value and emotional value are important motivators for occasional buyers. In other words, participants in this paper highlighted that they are highly influenced by their emotions. This finding is distinct from studies in developed countries where more rational considerations such as functional attributes and personal health concerns influence consumers' purchase decisions (Ditlevsen et al., 2020; Essoussi & Zahaf, 2009; T. Hansen, Sørensen, & Eriksen, 2018).

The present paper also introduces a novel barrier to purchasing organic food. Previous studies show that organic foods may not be bought because they are more expensive, yet they look very similar to conventional food, and may also lack other meaningful sensory differences (Botonaki et al., 2006; J. Chen, Lobo, & Rajendran, 2014; Lim, Yong, & Suryadi, 2014; Misra & Singh, 2016). Other studies also suggest that the higher price of organic foods is a major barrier to their purchase (Hughner et al., 2007; Kushwah, Dhir, et al., 2019b). In contrast, non-buyers in this paper agreed that they are willing to pay a high price for authentic organic food as long as there is trust. The perceived inconsistency between high price and lack of authenticity, rather than high price itself, is the main barrier for buying organic food.

Third, this paper provides empirical evidence that social value (environment and local farmer support), and epistemic value (knowledge and familiarity), are identified as unique motives for regular buyers. Prior literature has yet to examine epistemic values and social values in any qualitative investigation (Kushwah, Dhir, Sagar, et al., 2019), and suggests that social values are predominantly unique attributes in developed countries in comparison to emerging nations. This is the first paper to show that environmental motives, and local farming support, are also important for consumers in developing countries, but only for regular buyers, rather than for all consumer groups, as has been identified exclusively in developed countries (Janssen, 2018; Padel & Foster, 2005; Schrank & Running, 2018). These findings could only be found by involving different consumer groups in the paper. This supports the advocacy of recent literature for the need for inclusion of different groups of consumers in studying their motives and food choice.

Fourth, the paper has advanced Sheth et al.,'s (1991) theory of consumption values by providing a more nuanced understanding of how consumption values can be interrelated. In this paper, regular buyers clearly demonstrate that their 'assured' feeling from purchasing organic food or emotional value positively influences perceived functional values, such as good

taste, better quality, and being healthier. However, this influence can also be negative. For example, in the case of non-buyers, the highly commercial availability of organic food triggers their negative feelings and scepticism because of their lack of trust in the entire food system. In other words, conditional values can negatively influence emotional value in a distrust context. In addition, the temporal dimension could be helpful in explaining how emotional value overrides functional value, particularly with respect to health attributes. In an emerging economy such as Vietnam, where food safety risks are perceived to be high, emotional values, such as feeling worry-free, assured, or comfortable are seen as immediate, or present benefits, without uncertainties, while health attributes, such as being devoid of cancer in the long term are viewed as an uncertain future benefit. This finding is well supported by present-bias preference literature (O'Donoghue & Rabin, 1999), which suggests people value present benefits higher than future benefits. These findings provide initial empirical evidence for the interactions among consumption values in an organic food context, which has not been explored in extant literature. It appears that consumption values are influenced by each other, both positively and negatively. Further research is needed to explore this interaction in order to better understand the formation of perceived consumption values.

The current paper has three implications for practitioners. First, the findings show that lack of trust in the food system is a key factor that hinders the consumption values of organic food. The core of distrust judgments expressed by participants was the lack of integrity in issuing certificates (at farm level), and the lack of competence in managing food mislabeling (at market level). Therefore, policymakers promoting organic farming and sustainable developments should develop strategies to increase trust among people about the process of producing and distributing food, such as increasing transparency and increasing the involvement of retailers and producers in farming control. Building trust can occur through a myriad of activities, such as farm tours for consumers, retailers or members of the media,

providing digital transparency on which organisations are certified, how long for, what the certification entailed, and who was responsible for awarding the certification. Importantly, to establish trust, negative cases also need to be communicated, e.g., which organisations have lapsed in their certification, or breached conditions of their certification. The promotion of organic food is difficult to achieve when people are still searching for a minimum level of food safety.

Second, the findings about the key consumption values of different consumer groups (Table 6) can be used by practitioners to design communication strategies for each segment. For example, they can increase communication on supporting local farmers and the environment for regular buyers, and highlight the differences between organic and safe conventional vegetables for occasional buyers. Finally, retailers' trustworthiness plays an important role in consumers' food choice, particularly when there is a lack of trust in the entire food system. Therefore, retailers can take this opportunity to increase trust through increasing their engagement with, and providing production information for consumers, and actively getting involved in farm management to guarantee food quality and thus build consumer trust.

2.6 Conclusion

This qualitative paper aimed to provide insights into how consumption values influence consumers' food choices. This paper affords novel insights into the importance of trust in relation to the food system. Trust is as a major determinant of consumption values and the purchase of organic food. The findings show that organic food is not necessarily seen as an alternative to conventional food because of distrust in the entire food system. Contrary to previous findings, particularly from developed countries, distrust found in this paper reflects a much wider anxiety about the entire food system, rather than a lack of trust in just organic labelling or certification. Therefore, efforts that focus on food labelling alone are not sufficient

to establish consumers' confidence in food safety. These findings advance research in organic consumption by showing that what works in developed countries does not necessarily work in developing countries. In addition, the inclusion of three different groups of buyers makes a valuable contribution to show a clear difference in the importance of perceived consumption values across groups, and unique consumption values for each group.

The importance of consumption values appears to vary between product categories. Therefore, future research is needed to investigate different consumer segments. For example, future research utilising a large-scale survey could investigate the relative importance of each value for regular buyers, occasional buyers, and non-buyers. In addition, food actors, such as retailers, can provide information about organic food, together with the food system's official tools, such as food labelling, which may influence consumer decision making in different ways. Therefore, another fruitful avenue for research is to examine how tactics by various actors of the food system interact and affect consumers' decisions.

III. PAPER 2: TRUST PARADOX IN FOOD CERTIFICATION

This chapter presents Paper 2 which employs the social theory of trust to study consumers' perception of food certification and how this perception influences and is influenced by consumers' trust in food chain actors. It starts with comprehensive literature reviews on trust in food and food certifications, followed by theoretical framework, methodology and findings. The last section discusses the paper's contribution to theory and literature as well as its implication.

3.1 Introduction

Modern food systems often consist of long supply chains, resulting in a large separation between consumers and growers which reduces consumers' knowledge of, and involvement with, food production (Eden, 2011; Kjærnes, 2012; Meyer, Coveney, Henderson, Ward, & Taylor, 2012). This increases consumers' uncertainty about food risks (Brom, 2000; Meyer et al., 2012). As consumers cannot directly measure risks in food themselves, trust in food becomes an important determinant of food choice (Kennedy, 1989; Kjærnes et al., 2007). Consumer trust in food helps to reduce the complexity of food purchase decision making under risk and uncertainty (Roosen et al., 2015) and assures consumers of the correct functioning of the entire food chain (Gambetta, 2000; Luhmann, 1979). Empirical studies have shown that consumer trust is an important driver of consumer food choice (Huang, Bai, Zhang, & Gong, 2019; Siegrist, Shi, Giusto, & Hartmann, 2015; Truong, Lang, & Conroy, 2021). Therefore, it is essential to develop an understanding of the determinants of consumers' trust in food.

Studies of trust in food have changed from focusing on trust as an individual process of risk assessment to understanding it as a more complex social process. Research studying trust as a rational assessment of risk places emphasis on how to communicate risk to consumers effectively (Giannakas, 2002; Janssen & Hamm, 2012). The former research stream

emphasises the cognitively based risk assessment — an individual process of risk evaluation — i.e., consumers' willingness to trust based on their assessment of food risk information as it is communicated on packaging, through labelling, advertising, etc. (Konuk, 2018; Verneau, Griffith, Porral, & Levy-Mangin, 2016). In contrast, studies exploring trust as a social construct adopt the social theory of trust in which trust arises from embedded social relationships between consumers and food chain actors, around routines of consumption (Kjaernes, 2006). Trust as a social concept is more complex, and includes both cognitive and emotional bases (J. D. Lewis & Weigert, 1985). In a consumption context, trust is a critical condition for social exchange because markets cannot work without minimum conditions of trust between buyers and sellers (Mayer, Davis, & Schoorman, 1995). Studies in food consumption empirically show that trust in food supply chain actors influences overall trust in food. For example, consumers' trust in food manufacturers enhances their trust and confidence in food safety (De Jonge et al., 2008), trust in wine retailers likely leads to organic wine purchase (Bonn, Cronin Jr, & Cho, 2016), and within the supply chain, trust toward farmers is the most important antecedents of organic purchase (Carfora et al., 2019). Similarly, consumers' trust in the competence and fiduciary responsibility of system actors is a key determinant of their trust in the food system (Sapp et al., 2009). Thus, trust in the food system is not just a property of isolated individuals (J. D. Lewis & Weigert, 1985). In other words, it is determined by consumers' trust in food chain actors, which is based on the interaction between consumers and such actors. As a result, trust in the food system is shaped by a social process, rather than determined by individual risk assessment in isolation.

Policymakers and industry commonly use food labelling in an attempt to reduce information asymmetry about food quality (Carfora et al., 2019; Cavallo, Caracciolo, Cicia, & Del Giudice, 2018). Food certification, such as organic certification, has more complicated effects on food choice than other food labels such as nutritional indicators, because of the

complexity and ambiguity of certification processes (Essoussi & Zahaf, 2009; Janssen & Hamm, 2012; Noblet & Teisl, 2015; Tonkin, Wilson, Coveney, Webb, & Meyer, 2015). Whether food is organic or not is a credence attribute (Caswell et al., 2002; Grunert, 2002) that cannot be verified by consumers themselves. Therefore, trust in organic certification plays a crucial role in consumers' food choice (Janssen & Hamm, 2014; Nuttavuthisit & Thøgersen, 2017) and consumers have to rely on certification agencies who can provide the necessary knowledge and credibility (Hatanaka et al., 2005; Jahn et al., 2005). As a result, trust in food certification largely depends on trust in the certification agencies, or overseeing organisations (Dekhili et al., 2011; Eden et al., 2008b; Janssen & Hamm, 2012; Sirieix et al., 2013; Van Rijswijk & Frewer, 2012). Particularly, distrust in certifiers and controllers has resulted in distrust in organic labels in different countries (Grunert et al., 2015; Thøgersen et al., 2019). A few studies suggest trust in labelling can influence trust in labelers, typically growers or manufacturers of the product (Garretson & Burton, 2000; Van Rijswijk & Frewer, 2012). These findings provide useful and important insights into trust in food certification.

The present study builds on extant literature in several important ways. First, most studies focus the physical presence of logos relating to a tangible product delivered by a single actor, i.e., certifying agencies, leaving two-way interaction between trust in food certification and trust in other actors along food chain, unexplored. A limited number of studies have considered labelling more broadly than just a message or logo, such as it forms judgement of food chain actors (Tonkin, Webb, Coveney, Meyer, & Wilson, 2016), or provides an impression of the food system (Van Rijswijk, Frewer, Menozzi, & Faioli, 2008). However, even these studies are limited because they investigate the impact of food labelling on food actors, but not the other way around i.e. the impact of food chain actors on food labelling. This gap in the literature is surprising given that food certification is an intangible and complex process, involving multiple food chain actors and, therefore, consumers' perception of

certification cannot be separated from their perceptions of other food chain actors in the food system. Second, most studies on trust and certification were conducted using behavioural intention (Eden, 2011; Eden et al., 2008b; Ha et al., 2019; Van Loo et al., 2011; Yu et al., 2014), rather than actual food choice. Only a few recent studies have started to look at consumers' actual purchase behaviour by using household panel data and purposeful sampling (Janssen, 2018; Sultan et al., 2020). The present study builds on such studies by using qualitative data from consumers who deliberately purchase, or deliberately do not purchase, certified food. Using consumers actual behaviour and the theoretical lens of social trust theory, allows this paper to add valuable insights to our understanding of consumer trust in certification in conjunction with their trust in food chain actors.

Third, the present paper responds to the recent call for insights that qualitative research can provide on the subject of trust, an unmeasurable entity (Arnott, 2007; Kushwah, Dhir, Sagar, et al., 2019). The majority of extant work on trust often adopted a positivist approach and used data from general heterogeneous group of consumers who differed in their awareness of organic certified food, the availability of such foods to them, and their ability to afford such foods (Eden, 2011; Ha et al., 2019; Van Loo et al., 2011). Because the focus is the influence of trust in certification on their actual purchase behaviour, the present study purposely selected participants who are comparable on these three dimensions (awareness, availability, affordability) but choose to purchase differently (certified vs non-certified) with different level of involvement (regular, occasional and non-buyers). This allows for an understanding of if and how trust in organic food certification influence their purchase behaviour when these barriers to food purchasing are relaxed. This participant selection is not intended to be representative, but was chosen to explore if and how consumers from similar backgrounds perceive food certification differently and how this may impact their actual purchase and consumption behaviour. In doing so, this paper extends the literature in trust in food labelling

through the inclusion of social-institutional factors in order to understand variations in trust in food. This paper provides novel insights into the process of trust in which trust stems not only from the control and certification system presented by food labelling, but also consumers' relationships with food chain actors. The paper objectives are:

1. To describe consumers' perceptions of different certification schemes, and explain how their trust in certification interacts with their trust in the food system;
2. To explore how consumer trust in certification interacts with other social trusting relationships in the food chain.

This research used certified vegetable consumption i.e., organic and GAP in Vietnam, a developing country in Southeast Asia, as a research context for several reasons. Firstly, trust theories and assumptions have been mainly developed in the Western world (Burgess & Steenkamp, 2006). Likewise, given trust is a context-specific construct (Berg et al., 2005; Bhattacharya, Devinney, & Pillutla, 1998; Glitsch, 2000; Lewicki & Bunker, 1996), contemporary trust theories mainly developed in Western countries might not necessarily be applicable to developing countries. In addition, most of the studies on consumer trust and organic food purchasing have been conducted in developed countries, in which supply and demand for organic products have become much more prevalent, compared with fledgling organic farming systems in developing countries (Kushwah, Dhir, Sagar, et al., 2019; Torjusen, Sangstad, O'Doherty Jensen, & Kjærnes, 2004). Therefore, understanding consumer trust and food choice considering the social context of a food system and food chain actors in emerging markets is of vital importance. Secondly, organic food was selected as the consumption context for its credence attributes which cannot be verified by consumers after purchase or consumption (Giannakas, 2002; Nuttavuthisit & Thøgersen, 2017). Consequently, consumer trust is a critical factor for the establishment of markets for such credence products (Janssen & Hamm, 2012; Vermeir & Verbeke, 2006).

Vietnam was chosen because it presents a fast- growing country in Asia with dynamic market structures and an emerging market for organic food which has also been influenced by globalisation and Western culture. In Vietnam, the demand for higher quality food is increasing as a result of higher incomes (GSO, 2018), and the dynamic food market structure is transforming towards modernisation with the presence of modern supermarket and speciality food stores (Wertheim-Heck et al., 2015). Vegetables were chosen as a food category because vegetables are particularly prominent in the Vietnamese diet, and are considered a daily necessity (FAO, 2019). Recent reports (World Bank, 2019) show that in big cities like Hanoi, 85% of vegetables are marketed mainly in traditional retail (wet) markets, and small-scale producers dominate the value chain. As certified vegetables are usually sold only at modern retail outlets (i.e. supermarkets, food stores, etc), this can be used as a proxy for determining the equivalent market value of certified organic and GAP vegetables sold in the domestic market, compared to the value of non-certified vegetables sold.

Finally, the diversity of food quality certifications in Vietnam presents an ideal context to study consumer trust in food certifications. Including different certification schemes allows us to develop a more complete understanding of how consumer trust in these certifications is created, and how it differs. Increasingly wealthier and urban consumers are driving demand for high quality and safe food (World Bank, 2019). Consequently, food quality certifications have been adopted by policymakers and the food industry to signal food quality to consumers. In the Vietnamese domestic market, certified vegetables are supplied by domestic growers who can choose to apply for different certifications. The two dominant vegetable certification standards are 1) organic certification for organic standards, and 2) GAP certification for GAP standards. GAP, as defined by FAO, is a "collection of principles to apply for on-farm production and postproduction processes, resulting in safe and healthy food and non-food agriculture products, while taking into account economic, social and environmental sustainability"(FAO, 2016). The

GAP standard does not provide any basis for certification of organic products, or GMO free products (FAO, 2016). Organic vegetables are mostly available under two contrasting schemes: 1) Foreign third-party organic certification such as the United States Department of Agriculture's organic standards (USDA), or the European Union's organic standards (EU) and 2) the domestic, community-based Participatory Guarantee System (PGS). VietGAP certifies vegetables based on GAP standards which are different from organic (EU, USDA and PGS) by allowing the use of chemical inputs in production according to national standards. Vegetables can be certified by multiple schemes and certification agencies if growers choose to apply for multiple certifications.

3.2 Theoretical framework: Social theory of trust

The social theory of trust provides a useful conceptual framework for understanding trust in food, the food system, and its actors (Giddens, 1990; Luhmann, 1979; Mollering, 2006). Sociological frameworks of trust specifically distinguish two forms of trust: abstract trust and interpersonal trust. Abstract trust is also sometimes referred to as faceless (Giddens, 1990), institutional (Luhmann, 1979), or system trust (Fukuyama, 1995). Interpersonal trust (Fukuyama, 1995; Luhmann, 1979) is similar to Giddens' (1990) concept of facework. Interpersonal trust refers to trust in individuals or representatives of a system while abstract trust is the trust placed in the system or its institutions.

In food systems, interpersonal trust refers to trust in specific actors involved in the food chain such as food retailers or food growers, and abstract trust refers to the trust placed in the entire food system, including all stages such as farming, production, processing, and distribution. Abstract trust can be dependent of interpersonal trust (Giddens, 1990) if trust is to compensate for a lack of information or ignorance. This explains the presence and expansion of expert systems of knowledge in nearly all aspects of modern social life, for example, the food or medicines people take. Conversely, abstract trust can determine interpersonal trust so

that society can function more effectively because trust helps to reduce complexity (Luhmann, 1979). Other scholars suggest the equally important roles of both the system, and actors in that system, who must provide a trustworthy environment, as failing to do so has the potential to undermine the public's overall trust in the entire system (Gilson, 2005). Therefore, it is essential to understand how the interaction of interpersonal and abstract trust facilitates trusting relationships (J. D. Lewis & Weigert, 1985). The call for empirical research studying this interaction has become widespread (Bennett & Robson, 2004; Currall & Inkpen, 2002; Kroeger, 2017). This paper addresses this gap by exploring how consumers form their trust in certified food based on their interaction with food certification, and with actors in the food system.

3.3 Methods

3.3.1 Methodological approach

Empirical research on how consumer trust in food certification relates to trusting relationships between consumers and other actors in the food chain remains unexplored. Therefore, this paper is exploratory, and uses an interpretivist approach (Klein & Myers, 1999; Walsham, 2006). This approach also appears overdue as a number of researchers have called for more in-depth accounts of consumption phenomena (Sherry, 1991; Yin, 2003). In consumer research, interpretivist approaches have been used to investigate the dynamic relationships between consumer actions, consumer experiences, and cultural meanings (Belk, 1988; Stern, 1995; Thompson, 2004), and to discover and understand consumer-based constructs and theories (Hirschman & Thompson, 1997). Central to the process of interpretivist research is understanding consumers' experiences from their own perspectives within their social contexts. As trust is rooted in social relationships, exploring consumer trust is impossible without reference to social settings. Therefore, the interpretation procedure is conducted

through a sense-making process, rather than a hypothesis testing process. The choice of this approach is further justified by its iterative back-and-forth method which attempts to relate observations (text) to the social phenomenon (context), to construct an emerging theory (Klein & Myers, 1999). The iterative process is also utilised in data analysis to organise the data and stimulate the process of theoretical thinking, and to link emerging theory with the on-going established body of theoretical concepts (Layder, 1998), in this case, social theories of trust.

3.3.2 Data collection

Data for this paper were collected in three stages: first, a pilot study, second, an online screening survey to select participants for the third stage, the main data collection of individual in-depth interviews. Participants were recruited in Hanoi, the capital city, because of its large market for certified food and the availability of organic and GAP food certifications. Later sections describe these methods.

3.3.2.1 Pilot study and screening survey

First, a pilot focus group with eight Vietnamese participants was conducted to explore the complexity surrounding food choice in general (Rabiee, 2004). An online Facebook post was used to recruit participants. The focus group discussion guide was structured around broad themes including participants' concerns about food safety, their current choice of vegetables and shopping places, their thoughts, expectations, and their general experiences with food. The focus group was audio-taped, transcribed, and translated into English, resulting in 20 pages of transcription. Thematic-based framework analysis was used to analyse the data (Krueger & Casey, 2014; Rabiee, 2004). Findings from the focus group were used to inform the main data collection interviews.

Second, potential participants for the interviews were screened through an online survey. The survey link was distributed through different organic food stores' Facebook pages.

In addition, the first author contacted different organic food stores to gain access to their regular organic buyers through customer lists in order to send out invitations. To select the most relevant participants for the interviews, participants had to satisfy four conditions: (i) they are the main grocery shoppers for their families, (ii) they are aware of different certification schemes, (iii) certified vegetables are affordable to them, and (iv) certified vegetables are accessible to them. Among 108 participants who completed the online screening survey, 27 participants were invited for personal interviews, described next.

3.3.2.2 Interviews

This paper followed Crotty (1998) to select methods justified by the nature of the research questions: to explore whether there is an interactive relationship between trust in certification and trust in food chain actors in certified food consumption. Adopting qualitative methods was important because the study deals with concepts that are still in their infancy, evident by the fact that most of the available research studies these two constructs (trust in certification and interpersonal trust in food actors) separately. Using qualitative methods allowed us to obtain rich descriptions and in-depth insights for the exploratory research (Robson & Foster, 1989). Therefore, semi-structured interviews are an appropriate method to collect data for this paper to understand participants' own interpretation of their lived experiences (Minichiello et al., 2008). They allow researchers to get beyond the surface meaning of phenomena and to explore more hidden meanings that these phenomena possess for respondents (Taylor & Bogdan, 1984). This method is particularly useful for exploratory studies, such as this one, where the aim is to gain preliminary insights into the problem and requires rich descriptions rather than generalisable results.

Participants' basic demographic information is presented in Table 7, utilising pseudonyms to ensure anonymity. Most of the participants (25 out of 27) are female due to the cultural norm that women are the main food shoppers in Vietnam (Speece & Huong, 2002).

The sample was diverse in term of age (ranging from 22 to 58 years old with an average of 35 years old), work sector (public sector, private sector, NGO), frequency of buying certified vegetables (regularly, occasionally, rarely), current food choice (different combination of certified and non-certified vegetables), shopping for family/children. Participants were reimbursed for their time through a grocery voucher with the equivalent value of approximately US$15.00. Participants' information on food choice (current vegetable purchasing behaviour), and frequency of buying certified vegetables, was based on their responses during interviews.

Table 7

Demographic Details of Interview Participants

Frequency of buying certified vegetables	Name	Current vegetable purchasing behaviour*	Age	Marital status	No. of children	Industry sector
Rarely	Tran	Non-certified, VietGAP	35	Single	None	Public sector
	Quynh	Non-certified, VietGAP	36	Married	2	Public sector
	Oanh	Non-certified, VietGAP	43	Married	2	Own business
	Chien	Non-certified, VietGAP	39	Married	2	Public sector
	Hien	Non-certified, VietGAP	36	Married	1	Health
	Lien	Non-certified, VietGAP	37	Married	1	Public sector
Occasional	An	VietGAP, non-certified	35	Married	3	Own business
	Huong	VietGAP, non-certified	32	Married	2	Own business
	Hang	VietGAP, non-certified	23	Single	None	Retail
	Thuong	VietGAP, non-certified	26	Single	None	Insurance
	Thoa	VietGAP, organic, non-certified	56	Married	2	Retired
	Hoang	VietGAP, organic, non-certified	29	Married	None	Agriculture
Regular	Na	Organic	40	Married	2	Health
	Ngan	Organic	27	Single	None	NGO

Tan	Organic	58	Married	2	Retired
Lan	Organic, VietGAP	22	Single	None	Student
Hong	Organic, VietGAP	36	Married	1	Public sector
May	Organic, VietGAP	47	Married	2	Pharmacy
Anh	Organic, non-certified	33	Married	1	Public sector
Han	Organic, non-certified	27	Single	None	Agriculture
Hanh	Organic, non-certified	26	Single	None	NGO
Lananh	VietGAP, organic	32	Married	1	Education
Tung	VietGAP, organic	39	Single	None	Construction
Hoan	VietGAP, organic	34	Married	2	Owned business
Viet	VietGAP, organic, non-certified	33	Married	2	Public sector
Thuy	VietGAP, organic, non-certified	34	Married	1	Education
Thuyen	Organic, VietGAP, non-certified	30	Married	2	Education

**In order of purchase frequency (highest to lowest)*

Interviews were conducted in Vietnamese by a bilingual researcher whose first language is Vietnamese. Interviews lasted from 60 to 90 minutes and were structured around broad themes including participants' thoughts on food safety, their perception of different certification schemes, their thoughts on differences between certified and non-certified vegetables, and their current food choices. Eight real packages of different certified vegetables available in the market representing organic and GAP certification schemes (e.g. USDA/EU; PGS and VietGAP certifications) were used as prompts to facilitate the discussion (Table 8). The interview questions and their order of presentation were not fixed, allowing each interview to develop naturally. When appropriate, interviews took place at participants' homes, and photos of food storages such as the fridge were taken with participants' permission as supporting context. Trust was not explicitly explored unless participants raised it by

themselves. This ensured that the results were participant-centric and derived from lived realities. Despite this, the issue of trust was invariably discussed by all participants.

Table 8

Packages of Vegetables Presented as Prompts to Facilitate Discussion During Interviews

Certification schemes	**Certifiers**	**Certification logos**	**Packages of vegetables presented in interviews**
International third-party certification	USDA/EU-accredited certifying agents		
Domestic third-party certification	Vietnamese government's accredited certifying agents		
Domestic community-based certification	PGS internal committee		
Vegetables with no certifications			

3.3.3 Data analysis

All interviews were audio-taped, transcribed, translated into English and analysed using NVivo 11. Thematic analysis was used to analyse the data. Thematic analysis involves the identification and categorisation of main themes, sub-themes, and relationships between themes emerging from participants' responses (Spiggle, 1994). Thematic analysis also allowed the comparisons between qualitative data-driven themes and the existing classification patterns in the literature (Braun & Clarke, 2006; Taylor & Bogdan, 1984). Each interview transcript was analysed and assigned content-related codes. Groups of similar codes were later categorised into themes. There was overall agreement on the coding and emerging themes among authors. During data analysis, major themes and subthemes were analysed while revisiting the set of guiding concepts in the social theory of trust, as described in the theoretical framework. In this way, empirical data were integrated with theory, and emerging themes were used to structure the results (Appendix 12).

3.4 Findings

The findings are presented to answer the two objectives of this paper. It will first discuss results in relation to objective 1, specifically, section 3.1 will describe consumers' perceptions of certified vegetables with different certification labels, and explain how trust in certification is a manifestation of abstract trust. Section 3.2 then discusses results in relation to objective 2, namely how consumer trust in certification (abstract trust) influences and is influenced by other social trusting relationships (interpersonal trust). Participants reported certain levels of distrust in certification at all stages of the certification process, including farm level and market level. However, trust in other food chain actors played a significant role in compensating for this distrust in certification and in determining their overall trust and their food choices.

3.4.1 Consumer trust in certification reflects abstract trust

3.4.1.1 Consumers' perception of different certification labels depends on their trust in the entire food system

Although real packages with different certificate logos were used to facilitate discussions (Table 8), almost none of participants paid attention to the text written in the packages, such as information related to certificates, i.e., reference number, name of certifiers, etc. No discussion on literal text or content written on the labels was recorded, except for the logo words presented, for example, USDA, PGS, or VietGAP. As participants construed their judgement over certification, they all considered the whole process of how certificates are issued, by whom, and how they are maintained. In other words, they considered that certified vegetables represent a process, rather than a product itself. Therefore, their judgement of food certification is associated with their perceptions of the food system as a whole entity, and how well the system manages to maintain the standards necessary for certification along the entire food chain.

Participants' recollections of food incidents served as a foundation for the way participants perceive the trustworthiness of the food system as a whole. The food industry was perceived negatively, and most participants showed little confidence in food safety. This low confidence in food safety was driven by the many food safety incidents that are reported in the media. For example, Tan said: "Food poisoning happened everywhere, in schools, in company's kitchen, etc. … covered in daily news", and Van said: "Many videos show that they added chemicals to fruits and vegetables to keep them fresh." Participants considered food safety incidents as consequences of the food management system. No specific actor of the food chain was clearly mentioned in the discussion of food safety issues, rather reference was made to overall management responsibility of the government: "our management is weak and lax"

and similar statements were mentioned by most of the participants. Participants consistently showed uncertainty around food safety, because of the perceived risk and the lack of reliable information: “There is no way to know whether it (food in general) is safe or not” (Chien).

Participants emphasised that they wished to buy safe food but that food safety is only guaranteed if the whole supply chain is well managed. They discussed to what extent certificates guarantee safe food throughout the whole food chain, including farm production, transportation and delivery to the stores, and selling by retailers to them. For example, one participant, Tung, shared: “Certification is to guarantee safe food. But food comes from the whole chain, sellers, traders, market authority, quality, safety monitoring office. It must be the responsibility of all these actors.”

To participants, organic and GAP certified vegetables refer to ‘process-oriented’ attributes rather than ‘product-oriented’ attributes: “If farmers do organic farming, follow standard procedure and control strictly, I’ll feel secured. If certification agencies only test samples and grant certificates, I do not trust” (Lien). In this way, certification is perceived as a representation of the capacity of the whole food system to deliver safe food, rather than a direct message presented to consumers by certifying agencies. Trust or distrust placed in certification thus depends on trust in the broader food system. In other words, trust placed in food certification reflects abstract trust.

3.4.1.2 Consumers distrust in the certification process at farm level: Farm inspection and issuing certifications

As participants perceived certification as a representation of the whole food chain in delivering certified food, they questioned the capacity of actors, including farmers/farm owners, retailers, certifying agencies and authorities, to manage on-farm activities and assure farmers comply with farming standards, regardless of certification schemes. In the context that

there is a long history of conventional farming in Vietnam with the overuse of chemical inputs for high productivity, anxiety about the insufficient capacity of certifying agents and farm owners to carry out farm inspections and monitor farming activities on regular basic was shared by the majority of participants: "Maybe the farm follows standard strictly at the beginning, but after getting a certificate it's hard to tell. There's a time gap between the first and the second inspection."(Hong)

The authenticity of certification was also a major concern for most participants. They doubted the integrity of the system that issues the certificates for growers. Quynh said: "In Vietnam, there are things like certificates, that can be easily obtained by money so that they can get more profit from selling certified foods." Thus, participants did not feel a certification can honestly reflect a farm's activities being up to the required standards.

There was a strong country-of-origin effect associated with participants' perception of system integrity in issuing certification. Specifically, participants' assessment of certificates differed vastly between domestic and international certification systems, with the latter being viewed far more positively. For example, participants associated USDA certification with the United State (US) as a country: "I trust USDA certification because the USA is a developed economy. It has a reputation for business integrity. I believe its standards are higher than other countries" (Lan). Participants also linked the credibility of international certificates with their highly recognised organic standards and farm inspection procedures:

> Their organic standards (USDA) are recognised by other countries because they can export their products with that label in other markets. Also, they send their staff to Vietnam for farm inspection; it is more reliable than Vietnamese organisations. (Hoan)

In contrast, participants were highly concerned about the integrity of domestic certifications such as VietGAP:

> VietGAP certificate is unreliable to me. Some news reported about the certification violation a year ago. In fact, there are many certification organisations in Vietnam that issue VietGAP certificates but the inspection procedure might take only half a day. I doubt if they conduct a proper farm inspection. (Hanh)

It appears that general mistrust and uncertainty in the Vietnamese system causes mistrust in the mechanisms such as food certification that are designed to instil trust, unless such mechanisms originate from system actors outside of the mistrusted system, such as international certificates. This reflects a trust paradox in food labelling: Where trust is most needed, it is most difficult to develop.

> Interviewer: "Do you trust international certificates"?
>
> Lananh: "If they have a branch office and they directly inspect and issue certificate, I will trust that certificate. However, if they authorise Vietnamese organisations, I won't trust them."

In Vietnam, USDA & EU organic certification process are conducted by USDA's authorised certifying agents including Control Union (Netherlands), BioAgriCert (Italy) and Ecocert S.A.(France). These agents send their qualified auditors to the farm in order to audit farming process and issue organic certification if all the requirements are met.

3.4.1.3 Consumers distrust in the certification process at market levels: Managing certification counterfeits

Not only concerned about mis-issuing of certifications at the farm level, most participants also worried about counterfeit certifications at the market level. The remarks "anything can be made counterfeit in Vietnam" or "labels/certificates can be made fraudulently" was repeatedly mentioned by most participants. They perceived that the use of

counterfeits is out of control due to lack of management competence of the authorities. Most participants shared these considerations. For example, Viet said: "Many organisations do not obtain certificates but still put that certificate logo on their label. As far as I know, there is no institute that controls such a problem of unauthentic labels strictly."

Distrust in the food system's integrity and management capacity results in distrust in certification which means, to participants, certification does not signal that the vegetables were genuinely certified according to the standards. Consequently, certification cannot perform its intended function: "It's labelled as organic certified but there is no guarantee that it's genuinely organic because we are not sure if the certificates are fake or not" (Ngan). Certification is commonly used as a tool by food chain actors to signal quality by differentiating certified vegetables from non-certified vegetables. However, this cannot be achieved without trust in the certification.

Overall, the perceived lack of integrity in the system and in management capacity at both farm level and market level leads to distrust in certification. Therefore, the influence of certification on participants' trust in certified food and their food choices is limited.

3.4.2 Consumer trust in certification (abstract trust) influences, and is influenced by, other social trusting relationships (interpersonal trust)

3.4.2.1 Interpersonal trust can compensate for a lack of abstract trust in certification

General distrust in the food system, abstract distrust, can negatively influence other social trusting relationships. Distrust in common institutions, the legitimacy of leaders and authorities whose responsibility for controlling the mislabeling might lead to distrust in other anonymous sellers, as the following quote shows:

> The seller said that it's safe but who knows. What if he bought the vegetables from China, then stuck a Vietnamese label on the package? You would never know its origin because you don't visit the farm yourself. You cannot just trust the label. (Thoa)

Lack of confidence in food safety also leads to extreme low social trust of unknown others: "The only way to assure that you have safe vegetable is to plant them in your own farm" (Hien).

Participants whose abstract trust is significantly missing actively search for trust from someone they know well. In other words, interpersonal trust can compensate for lack of abstract trust. Six participants who reported rarely buying any certified vegetables shared that they could not trust any certification, therefore, they only buy vegetables planted by someone they know, or someone recommended by their friends or relatives, regardless of being certified or not.

> I feel completely assured if I can buy from my friends or their relatives who plant vegetables and *directly* deliver them to me. That means the whole process is under control. She told me that the farm follow VietGAP standards although they do not apply for certification. Their vegetables are much more reliable than any type of certification anyway. (Lien)

It is noteworthy that these participants required the whole process to be under the control of a person that they trust, with no one else involved. Direct buying from someone who is trusted helps to dismiss participants' concerns over the supervising of food safety at both the farm and market level.

Participants' interpersonal trust in retailers also reinforced their abstract trust in certification in the case of VietGAP, a domestic certification. Participants expected that credible retailers will play a role in quality control at the farm level, and provide label

management at the market level to make sure VietGAP certification delivers what it promises. Therefore, their food choice decisions were totally dependent on trust in retailers. Hoang said: "I only buy VietGap vegetables at reliable stores. I think retailers must be responsible for what they sell, so they must check the source carefully." The majority of participants stated that they "never buy VietGAP at a random store" or "could not trust any certified vegetables at an unknown store" where they do not have any information regarding the retailer's credibility. Participants clearly expressed their expectations of the involvement of retailers in managing the safety of vegetables at the farm level, and therefore, the perceived capacity of retailers had an impact on participants' trust. For example, Oanh said: "I believe that Vinmart (a retailer) has enough human resources and capacity to manage and control their vegetable supply. They should be more professional in conducting an inspection on farms."

One-third of participants chose to buy certified vegetables at stores with good reputations, believing that the retailers' reputations are shaped by consumers' perceptions of how they deal with food certification fraud, through a social control mechanism. Lananh said: "I chose to rely on retailer's credibility. I think if there's any misconduct of food labelling, the stores' reputation will be affected."

3.4.2.2 Positive interaction occurs between abstract trust and interpersonal trust if either of the two is at a sufficient level

When abstract trust is perceived as sufficient, it can positively influence trusting relationships between consumers and other food actors such as retailers or growers. For example, participants who placed high trust in an international certification such as USDA found other actors involved in the process trustworthy as well: "I trust USDA because it's really a strict system. They will manage growers and retailers well to protect their system's integrity. So those stores that are selling USDA products are reliable to me" (Lan). Interestingly, trust in

retailers, in turn, leads to trust in other products sold in the same store, although products are not necessarily certified: "As I trust that they only sell authentic USDA vegetables, you know, they should be good, not cheating consumers, so I can buy other products in their store as well" (Hoan). Similarly, participants who placed their trust in PGS certified vegetables shared that they trust growers and retailers involved in the system. Three participants stated that retailers in the PGS system are reliable because they trust the system. One of them said:

> I remember not too long ago, there was a Facebook post in the PGS official page calling for volunteers to be trained to randomly check if stores display and sell organic properly. I feel these activities will help their PGS system control food labelling at market level. (Thuyen)

Consumers' trust in retailers or growers (interpersonal trust) can increase trust in certification (abstract trust) as well, particularly when participants have the opportunity to access more information on farming techniques through direct communication with growers. For example, the PGS certified vegetables are delivered through a short supply chain in which the target market is not far from farming sites (around 40 to 100 km), and only retailers are involved as middlemen. This short distance allows consumers to have occasional farm visits, mostly organised by retailers, and re-connect with local food production. Five participants considered that reconnection with local food reinforces their trust in growers and trust in PGS vegetable which is critical to their food choices. One of them said:

> It is no use to show me tons of certificates, they are no more than papers. I bought PGS vegetables because I visited the farm, talked to farmers, and understood better how they manage to plant organic vegetable. PGS is reliable because I trust these farmers. (Ngan)

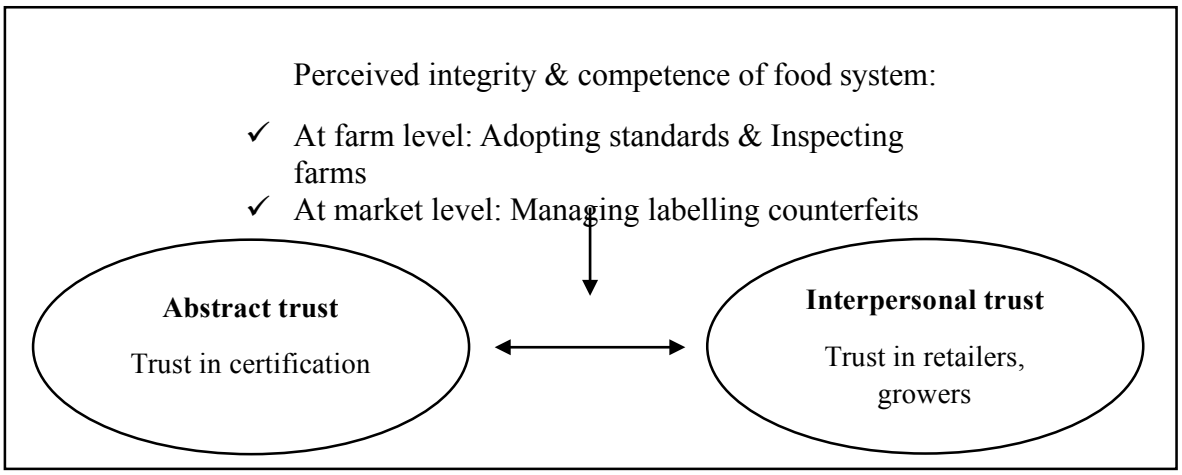
Three participants who currently buy USDA certified vegetables shared that they bought the vegetables before the farms obtained organic certification, based on their trust in

the farm owner. Hoan said: “At that time I knew that they followed organic standards but did not get any certificates. The story of the farm owner who left her job to invest in safe agriculture was spread widely. I visited her farm and believe she is capable of doing organic farming; their USDA certificates are genuine”. In this case, trust in the farm owner has reinforced trust in certification.

Figure 3 summarises the key findings of this section including: (1) Trust in certification depends on consumers’ perceived integrity and competence of the food system to manage food quality at farm level (through farming standards and inspection), and market level (through managing labelling counterfeits). (2) Consumers’ trust in certification influences, and is influenced by interpersonal trust, i.e., trust in retailers, growers. Specifically, interpersonal trust can compensate for the lack of abstract trust. When abstract trust is sufficient, it increases interpersonal trust among consumers.

Figure 3

Interaction Between Abstract Trust and Interpersonal Trust in the Food Consumption Context



3.5 Discussion

This research aims to understand if and how trust in certification interacts with trust in different food actors, such as growers or retailers, to influence overall trust in certified food and consumers' food choice. It utilised qualitative data from 27 in-depth interviews with participants in Vietnam to provide insights into consumer trust in food certification and food chain actors in a developing market. This paper found that consumer perception of certification is not limited to the certification logos and certifying agencies, but the capacity of the entire food chain to deliver safe food. Trust in certification therefore reflects abstract trust which influences and is influenced by trust in other food chain actors along the supply chain, such as retailers and growers. Importantly, interpersonal trust in food chain actors can compensate for the lack of abstract trust in the whole food system.

This paper makes several contributions to theory and literature. Firstly, this paper extends previous literature by showing that food certification is perceived as a representation of the entire food system, and trust in certification reflects trust in that system and its actors along food chain to deliver safe food, i.e. abstract trust. Previous studies have focused on the perceived truth of labels and the *presence* of organisations, such as government or private companies, and how this influences trust in certification based on their credibility (Aryal, Chaudhary, Pandit, & Sharma, 2009; Panico, Del Giudice, Cicia, & Cembalo, 2011; Sønderskov & Daugbjerg, 2011; Uysal et al., 2013). While this emphasis on content and physical names of organisations in *certification logos* provides a better understanding of consumers' preference toward private or government labels, the discussion is limited to trust in the explicit literal message or information communicated. The counter-intuitive problem of using food labels to provide information, a so-called 'knowledge fix', to instill trust, has been discussed in several studies because presenting more information tends to increase consumer skepticism due to the presence of (i) distanced information intermediaries (i.e. certification

agencies) and (ii) a regulation process to assure the independence of the certification agencies from beneficiaries of certifications (i.e manufacturers, retailers, etc.) (Eden, 2011; Eden et al., 2008a; Poortinga & Pidgeon, 2004; Scholderer & Frewer, 2003). However, such studies are limited to the name and logo of certification schemes and certification agencies, rather than the certification *process* itself, and the actors involved in different stages to guarantee the quality of that process. In contrast with other studies (Gerrard et al., 2013; Uysal et al., 2013), even with real packages used as prompts in this research, no evidence of judgement based on content in the package or labelling was found. Participants in the present study formed their trust judgement toward certifications based on their perceptions of *the process* by which certificates are issued and maintained, because this process reflects the way food systems operate to guarantee what certification can deliver. They actively look for process-oriented attributes, not product-oriented attributes. A few studies find that food labelling is perceived as more than an explicit message but a surrogate for personal judgment of food actor trustworthiness (Tonkin, Webb, et al., 2016). This paper added that trust in the food system and its actors informs consumers' perceptions of different food certifications. The present paper shows that consumers carefully assess how actors in the food system (e.g. growers, retailers) ensure that the truthfulness of such labels can be guaranteed. It is evident that the perceived insufficient capacity and integrity of the food system in delivering safe food leads to abstract distrust in food certification. This finding is novel for trust in the food labelling literature, showing that general mistrust and uncertainty in the system cause mistrust in mechanisms such as food labelling that are designed by the system to instil trust.

Secondly, this paper suggests two-way interaction between abstract trust in certification and interpersonal trust in food chain actors and how they influence the overall trust in certified food. Their separate influences on consumer food choice has been studied, for example consumer trust in organic certification in relation to the trustworthiness of certification agencies

(Botonaki et al., 2006; Gerrard et al., 2013; Janssen & Hamm, 2011, 2012; Sønderskov & Daugbjerg, 2011; Yeh, Hartmann, & Hirsch, 2018); and the influence of consumer trust in other food actors, particularly growers in direct and short supply chains (Essoussi & Zahaf, 2009; Giampietri et al., 2018; Naspetti & Zanoli, 2009; Padel & Foster, 2005; Pivato et al., 2008). In this paper, interpersonal trust in food chain actors play an important role to compensate for a lack of abstract trust in certification. While other research has found that abstract trust plays a more important role in forming quality expectation (Grunert, 2002), particularly in the first purchase of organic food (Nuttavuthisit & Thøgersen, 2017; Thøgersen et al., 2019), interpersonal trust in this paper was predominantly used to guide consumer's food choices, particularly in the case where abstract trust in the food system's integrity and competence was low. Participants in this paper actively search for trust in someone they have more interactions with, such as retailers or growers, when they perceive certification as not trustworthy. This finding is supported by recent literature that consumer trust in growers is enforced through local food production, rather than through food labelling, and that trust influence their purchase intention (Ditlevsen et al., 2020; Giampietri et al., 2018). The role of interpersonal trust can be explained by the fact that these participants look for process-oriented qualities in certified vegetables, which emphasises the roles of all actors in the food chain, from farm to market. In addition, the dynamic interaction between abstract trust and interpersonal trust extends the trust literature by empirically showing that both the system and actors must provide a trustworthy environment to maintain social trust in everyday life (Gilson, 2005; J. D. Lewis & Weigert, 1985). In the case where either of the two, abstract trust or interpersonal trust, is at a sufficient level, there is a co-dependence, and an interrelated relationship which highlights the equal importance of both abstract trust and interpersonal trust. Food actors such as retailers or growers earn their credibility by being involved in a trusted certification system. In turn, interpersonal trust in growers or retailers appears to facilitate abstract trust in

certification. While the relationship between abstract trust and interpersonal trust has been examined in other disciplines (Meyer, Ward, Coveney, & Rogers, 2008; S. D. Pearson & Raeke, 2000; Rowe & Calnan, 2006; Rus & Hajdeja, 2005), this is the first study to empirically examine the dynamic two-way interactions between abstract trust and interpersonal trust in a food consumption context.

Thirdly, the findings enhance our understanding of how abstract distrust in the food system can influence trusting social relationships between people. Giddens (1984) suggested that the abstract system relies on the effective functioning of the expert system, and needs to have an impact on the social or material world, for 'the capacity to achieve outcomes' (Giddens, 1984) to be significant. However, this research found that the basic function of expert systems, such as certification schemes, to assist consumers to differentiate organic and safe vegetables from non-certified produce, has not been achieved. Although studies in other disciplines found a low level of trust in wider institutional arrangements such as expert systems in government, finance or healthcare (Kroeger, 2015, 2017; Stevenson & Wolfers, 2011), the impact on social relationships has not been empirically studied. This study provides preliminary evidence that signs of lack of integrity and lack of prosecution destroy trust in the wider institutional system. And without abstract trust in the reliability, effectiveness and legitimacy of food safety regulation, modern social institutions would soon disintegrate (J. D. Lewis & Weigert, 1985). In this paper, distrust in the way the food system operates weakens the trusting relationship between participants and anonymous food actors. The effectiveness of abstract trust at a limited level cannot assure the minimum trust necessary among widespread society to maintain a base for modern society. In this sense, the findings of this study are similar to Durkheim's (2014) study which suggested that, as trust in common institutions or the legitimacy of leaders and authority erodes, consequently and ultimately, trust in other persons in everyday life will be

shaken as well. Importantly, the results of the present study provide additional empirical support for Durkheim's (2014) view on trust.

This paper has several implications for policymakers and marketers. Our results indicate that policymakers and food actors should not assume that certification will automatically result in trust, lowered risk perceptions, and food purchase. Instead, policymakers need to have an understanding of how to gain the required levels of trust for consumers to be motivated to purchase organic and GAP vegetables. Importantly, how to reach this required level of trust in various levels, starting from the wider institutional system, to the food system, and individual actors in that system, and then finally, to the certifications. Certification and labelling, which are used to signal differences in quality and food safety, only work if there are sufficient levels of trust in the broader food system which designs these mechanisms. The core of negative judgments displayed by participants regarding abstract trust was the lack of integrity in issuing certificates (at farm level), and the lack of competence in managing food mislabelling (at market level). This emphasis on integrity and competence is supported by the food literature which suggests that to increase trustworthiness in food safety, both competence and goodwill are essential (Frewer, Howard, Hedderley, & Shepherd, 1996; Tonkin, Webb, et al., 2016). Therefore, policymakers and industry should encourage business practices to promote transparency, integrity, and competency in order to increase trust in the wider institutional and food systems. Regular inspections at the farm and market level should be maintained and communicated well with consumers. Regular updates on inspections, misconduct and certification status on online and interactive platforms such as Facebook are particularly useful and highly valued by participants. The involvement of private external parties or international staff in issuing and managing certificates, rather than government agencies, should be considered in order to increase abstract trust.

Moreover, the dynamic interaction between abstract trust and interpersonal trust shown in this paper will be of interest to policymakers and food industry in developing effective communications to increase consumer trust in food. Published information on the involvement of all actors, including retailers and growers, to guarantee food safety along the food chain should be clearly communicated with consumers. Findings clearly indicate that interpersonal trust in retailers plays an important role in consumers' food choices. Retailers should be encouraged to participate in monitoring farming activities to ensure growers follow production standards. In other words, retailers could play an active role in reconnection consumers with food production. It is clear that both retailers and food certification are positioned at the interface of the consumers' point of purchase and, therefore, whether people place trust in retailers and certifications as well as interactions between abstract trust and interpersonal trust, largely influence their final food choice.

This paper has two limitations which can serve as opportunities for future research. Firstly, the paper employed a qualitative, exploratory approach. Therefore, as with other qualitative studies, findings of this paper should not be generalised. Related to this, the recruitment of interview participants included a screening survey to allow a meaningful exploration of trust in food certification. Therefore, participants may potentially be more motivated and more knowledgeable about food certification than other members of society. The second limitation is that this paper used data from one country (Vietnam) that was intended to represent developing nations. Therefore, the findings may be useful for other developing countries whose food sectors face similar challenges in establishing consumers' trust in the whole food chain, but that such assertions might be investigated with country-specific research, or regional research, that involves multiple countries.

3.6 Conclusion

This paper incorporates the social theory of trust to provide a comprehensive understanding of how consumers perceive certified food through their interactions with food labelling and with food chain actors. The paper is novel in providing an understanding of how abstract trust in food certification establishes, operates, influences, and is influenced by, other trusting relationships, particularly between consumers and food actors, i.e. interpersonal trust. It shows that a complex interaction of abstract trust and interpersonal trust determines overall trust in certified food which in turn determines consumers' food choices. Therefore, findings of this paper can be used as a platform for future research and help practitioners increase both abstract trust and interpersonal trust, particularly in high risk food environments where abstract trust tends to be low. Findings of this paper show that certification schemes are far more likely to be successful if consumers have high abstract trust in the broader food system. Thus, designing and implementing business practices followed by certifications to reestablish high levels of abstract trust in the food system is of key importance for both policymakers and actors in the food system (e.g. retailers). Vegetables with such high trust certifications have a far greater potential to be sold across a wider range of retailers, thus making organic and safe food more accessible and more likely to be bought by a wider range of consumers. Designing such certifications will ultimately reduce the cost of production, have positive environmental effects, and benefit consumer health.

IV. PAPER 3: FOOD GOVERNANCE AND FOOD CHOICE: SIMILARITIES AND DIFFERENCES OF CONSUMER TRUST IN FOOD QUALITY CERTIFICATIONS

This chapter presents Paper 3 which examines consumer trust in three food certification schemes which represent differences in type - community-based versus third-party - and origin - international versus domestic certification - to extend the literature on food certification in a nuanced and complex network environment. In doing so, the paper provides an understanding of how perceived trustworthiness of food actors such as growers and retailers and the way they operate in food chain influence consumer trust in food certification and consumer food choice. It starts with an overview of adoption of organic food certification and food safety concerns, followed by a literature review on food certification and food choice, theoretical framework, methodology, and findings. This chapter concludes with contributions of this paper to theory and practice.

4.1 Introduction

Food certification is becoming more commonplace (Bailey & Garforth, 2014; Tran & Goto, 2019; Veldstra, Alexander, & Marshall, 2014). Organic certification, in particular, is not only becoming increasingly important in industrialised nations (Janssen & Hamm, 2014; Mosier & Thilmany, 2016; Sirieix et al., 2013) but also in less developed countries where approximately 80% of the world's population, including a growing number of middle- class consumers, is located (United Nations, 2019). Reasons for increasing adoption of organic certification in developing countries include consumers' concerns about climate change, social issues, and food safety (Mergenthaler et al., 2009a; Narrod et al., 2009; Tran & Goto, 2019). In Vietnam, a developing country, food safety is a major concern. Vietnam's Ministry of Health statistics indicate that between 2011 and 2016, an average of 669,000 people per year were

impacted by foodborne diseases (National Assembly Supervision Delegation, 2017). Foodborne diseases are estimated to cost Vietnam an annual productivity loss of US$740 million and the medial costs of treating foodborne disease is an additional US$200 million per year (World Bank, 2019). Unsurprisingly, "Vietnam is likely the only country in the world where such a large number of citizens rank food safety the number one social concern" (World Bank, 2019, p. 61). Despite high anxiety around food safety, consumers are not able to measure food risks by themselves and have to rely on authority figures, such as government agencies or expert organisations who can issue certifications, to provide information. Certifications or labels therefore might work as a proxy for more complex information such as production process and food safety assurance (Eden, 2011).

Another driver for the increasing adoption of organic certification in Vietnam is the increasing demand for high quality food. This demand is rapidly growing as a result of (i) food safety concerns associated with the long history of overusing agro-chemicals in agricultural production (Mergenthaler et al., 2009a; Nguyen, 2017), (ii) wealthier and urbanised consumers (World Bank, 2019), and (iii) the rapid expansion of modern retail markets in Vietnam (Wertheim-Heck & Raneri, 2019; Wertheim-Heck et al., 2015; World Bank, 2017, 2019). In urban areas, income gains have resulted in dietary shifts from mainly rice consumption to mainly fresh food such as meat and vegetables. Expenditure on fresh food now accounts for two thirds of consumer food expenses (World Bank, 2019). These trends represent opportunities for Vietnamese high quality fresh produce. The food industry, therefore, has used quality certifications as a quality signal to attract consumers in this growing market. Certified fresh produce, once found only in the margins of the food market, is becoming an increasingly visible element in retailers' offerings. In Vietnamese domestic food markets, there are different certification qualifications, such as international third-party certifications (EU, USDA), domestic third-party certifications (VietGAP), and domestic community-based certifications

(Participatory Guarantee System or PGS). While these certifications (EU, USDA, VietGAP, PGS) are farming practice certifications, VietGAP certifies Good Agriculture Practice (GAP) and differentiates itself from organic (EU, USDA and PGS) by allowing the use of chemical inputs in production according to national standards.

Despite the increase in certification, certified foods only make up a small slice of the Vietnamese market compared with conventional, uncertified food. Approximately 95% of grocery retail sales nationwide took place in traditional outlets which sell conventional fresh produces including meat, vegetables, meats and eggs (Wertheim-Heck et al., 2015; World Bank, 2019). These facts present policymakers and the food industry with a challenging issue: The supplying of food certified as safe and organic has so far failed to match increasing demand for safe food among Vietnamese consumers. Literature has documented the reluctance of consumers to switch to high quality food such as organic, even if they have a positive attitude and intention to buy these foods. The barriers to *actual purchasing behaviour* include lack of awareness and knowledge, lack of availability, and high price (Bryła, 2016; Hasimu et al., 2017; Janssen, 2018). However, these studies allow a partial understanding of how *general consumers* respond to certification. Little is known about the influence of certification on consumer food choice when these barriers to purchasing are relaxed. In other words, it is currently unknown how a *specific* group of consumers who have demand for and are capable of purchasing certified foods make a decision whether or not to purchase the food. We also do not know what role certification plays in consumer decision making. This paper, therefore, purposely selected participants from comparable backgrounds in terms of awareness of organic vegetables, and the affordability and accessibility of organic vegetables. Importantly, their food choices vary, with some participants switched to purchasing certified food, while others did not. This allowed us to explore the influences on consumer perceptions of food certifications and how these perceptions affect their actual food choice if direct barriers of purchasing are

not present. In doing so, this paper extends research on food certification by showing how food certification does not transfer farming information to consumers in a linear way. Instead the influences are different even among a group with comparable backgrounds. More importantly, the present paper identifies different factors that positively and negatively affect consumer perceptions of food certification and behaviour. Insights provided by this paper will assist policymakers and the food industry in improving the regulation and communication of food certification schemes.

4.2 Literature review

Modern food system with long supply chains have increased the gap between producers and consumers, and consequently, reduced consumers' knowledge and control of food production (Kjærnes, 2012; Meyer et al., 2012). Based on the level of information available at the point of purchase, a quality can be classified into search, experience, and credence attributes (P. Nelson, 1970). Process-oriented quality such as in organic food, has been referred to as a credence attribute in the literature (Caswell et al., 2002; Grunert, Bredahl, & Brunsø, 2004) which neither the buyer no external institutions are able to verify through laboratory analysis of the end product.

Certification schemes are designed to reverse this process by increasing consumers' knowledge of the food production process. Certification is an explicit and formal process to validate a product has met certified standards (Starr & Brodie, 2016). It provides visible and salient information enabling an invisible process to gain credibility (Darnall et al., 2018). In other words, certification is a symbol of intangible attributes. As a result, certification schemes are gaining popularity as a food chain governance tool (Hatanaka et al., 2005; Veldstra et al., 2014) and a consumer policy tool (Golan et al., 2001; Janssen & Hamm, 2011; Thøgersen et al., 2019). There are different types of certifications that certify food based on different standards. For example, organic certifications and GAP are granted to food produced following

organic and Good Agricultural Practice standards, respectively. These certifications are designed to differentiate certified food from conventional food, providing evidence for authentic products and assisting consumer food choice. An organic certification system, therefore, assures the functioning of organic markets (Albersmeier et al., 2009; Deaton, 2004; Jahn et al., 2005).

Much is known about the effects of certification schemes and the central importance of trust. Several studies have found a positive relationship between consumer purchase decisions and organic product labelling (Chang & Kinnucan, 1991; Yiridoe, Bonti-Ankomah, & Martin, 2005). However, the influence of information provided through food certification and labelling on consumers' choices largely depends on their knowledge of the certification systems, and their trust in the certification process (Lassoued & Hobbs, 2015; Loebnitz & Aschemann-Witzel, 2016). A number of studies suggest consumers tend to be sceptical towards green product claims (Bray, Johns, & Kilburn, 2011; D'Souza, Taghian, Lamb, & Peretiatko, 2007), including organic food (Aarset et al., 2004; Janssen & Hamm, 2012; Vermeir & Verbeke, 2006). Other studies suggest consumer trust in a certification system influence their trust in organic food (Golan et al., 2001; Jahn et al., 2005; Janssen & Hamm, 2011, 2012). Consumers' perceptions of different organic logos has also featured in certain studies (Eden et al., 2008b; Gerrard et al., 2013; Van Loo et al., 2014). Others have compared private and government certifications (Janssen & Hamm, 2014; Uysal et al., 2013), and, international and domestic certifications (Barrett et al., 2002; Janssen & Hamm, 2011; Nuttavuthisit & Thøgersen, 2017; Thøgersen et al., 2019) to understand which type of certification is trusted more by consumers under which circumstances. These findings provide useful and important insights into consumer perception and trust in certifications.

However, there are two gaps in our understanding of how organic certifications work that are worth exploring. First, most of the studies focus on the physical appearance of

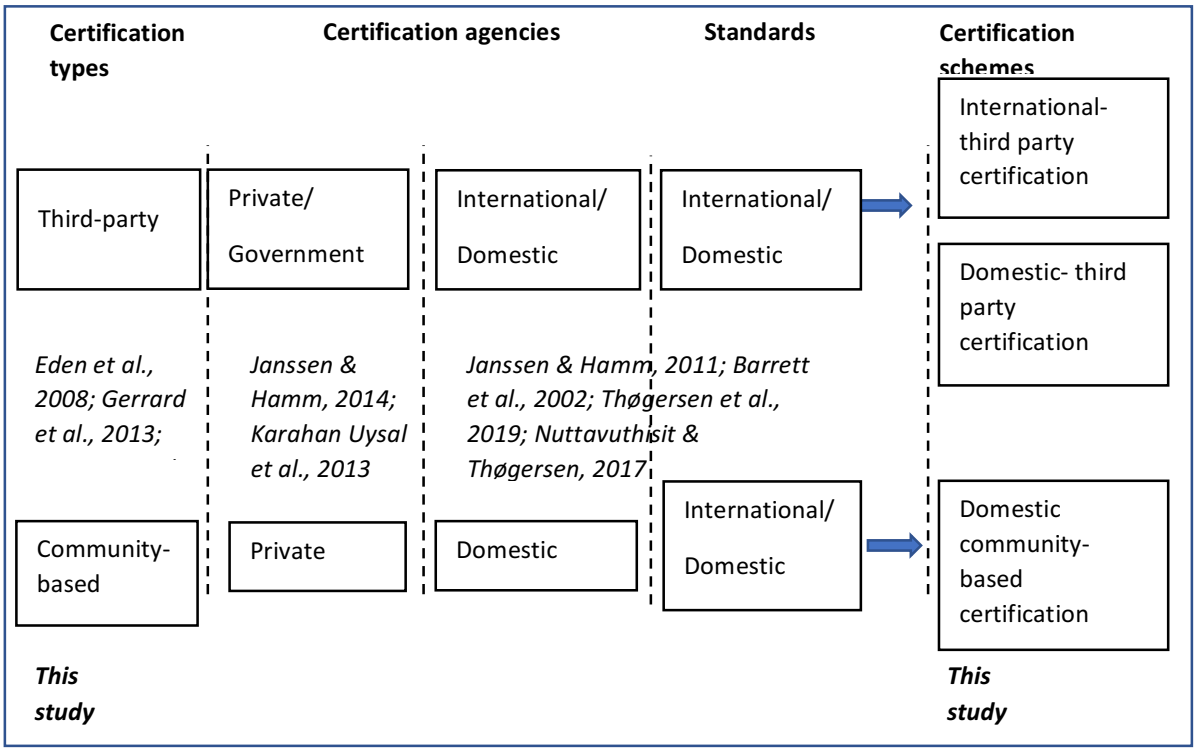
certification logos, emphasising the role of certification agencies or overseeing organisations (Gerrard et al., 2013; Janssen & Hamm, 2014; Uysal et al., 2013). Only a few studies have considered labelling more broadly than as a direct message or logo, such as labelling forming judgement of food chain actors (Tonkin, Webb, et al., 2016), an impression of a food system (Van Rijswijk et al., 2008) or a representation of a food system (Truong et al., 2021). As a result, the roles of other food actors i.e., growers and retailers in the delivery of certifications have not been explored, particularly the way consumers' perception of other food actors' trustworthiness affect their judgement of certifications. To better understand the discrepancy between demand and supply of certified food, it is important to understand consumer trust in food more fully because these actors are directly involved in the food production process and deliver certified food to consumers. While certification aims to explicitly guarantee the standard, food production is a process and certification is a part of that process. Therefore, it is essential to understand if and how perceived trustworthiness of food actors and the way they operate influences consumers trust in food certification.

The second gap this paper addresses is that consumer trust studies have typically focused on third-party certifications, leaving other alternative certification schemes such as PGS unexplored. While third-party certification has gained popularity in developed organic markets (Darnall et al., 2018; Hatanaka et al., 2005), PGS is a more feasible certification scheme for smallholder farmers in developing countries who own very small farms and are less able to afford the high cost of third-party certifications (Kaufmann & Vogl, 2018; Sacchi et al., 2015). A few exceptions are studies investigating the demographic profile of buyers of PGS (Sacchi et al., 2015). This lack of studies is surprising because PGS has been promoted and internationally recognised by the International Federation of Organic Agriculture Movements (IFOAM) and operates in more than 76 countries worldwide. Literature has investigated the operation and benefits of PGS from institutional and production perspectives (Home,

Bouagnimbeck, Ugas, Arbenz, & Stolze, 2017; Kaufmann & Vogl, 2018; E. Nelson, Tovar, Rindermann, & Cruz, 2010), however, little has been done to explore this emerging phenomenon from the consumer perspective. The literature's current focus on third-party certification only allows a partial understanding of how consumers respond to certification schemes. Specifically, this creates three gaps in our understanding. First, how consumers perceive and respond to PGS certification schemes remains unexplored. Second, how consumers compare different certifications that operate in the same market is unknown. Third, it is also unknown whether the existence of PGS may influence consumers' perceptions of certification in general and individual schemes in particular. Figure 4 provides a summary of the relevant key literature and what gaps the present study fills.

Figure 4

Literature on Consumer Perceptions of Organic Certifications



As shown in Figure 4, the literature has studied third party certification systems which involve government and private agencies; international and domestic agencies; and

international and domestic standards. This study adds to the extant literature by including community-based certification systems and directly compares international-third party certification; domestic third-party certification and domestic community-based certification. Comparing these different certification schemes is appropriate because this study aims to investigate consumers' perceptions of the certification of a process, not the certification of a product.

In summary, what the literature on food certification has not considered thus far is (i) if and how perceived trustworthiness of food actors i.e., growers, retailers and their coordination influence consumer trust in food certification and (ii) consumers perception of community-based certification in comparison with other third-party certifications in the same market (Figure 4). To fill these gaps, a qualitative study of consumer perceptions of three different certification schemes was conducted, which leads to the following research questions:

1. What is the level of consumer trust in three fundamentally different certification schemes (international versus domestic, third-party certification versus community-based) and their resulting consumption behaviour regarding these schemes?
2. What factors influence consumers trust in the three certification schemes and their food choice?

The remainder of this paper consists of five sections. The next section (Section 4.3) presents the theoretical framework, which is followed by a description of the methods (Section 4.4) and reporting of the results of this paper (Section 4.5). Section 4.6 discusses the variations in consumers' perceptions of three different certifications schemes. The discussion also presents indicators of trustworthiness of food actors, particularly retailers such as food stores and supermarkets, that participants use to form judgements on each certification. Finally, Section 4.7 discusses the practical implications of our results for increasing consumer trust in food safety by proposing two food chain governance frameworks to reconnect consumers with food production.

4.3 Theoretical framework

4.3.1 Social theory of trust

This paper utilises the social theory of trust as a theoretical framework to understand trust and the dimensions of trust in different certification schemes (Giddens, 1990; J. D. Lewis & Weigert, 1985; Luhmann, 1979; Mollering, 2006). Sociologists classify trust into broad categories such as institutional or system trust (e.g., trust in a regulatory system) and generalised trust or interpersonal trust (trust in others) (Bachmann & Inkpen, 2011; Giddens, 1990; Luhmann, 1979; McKnight & Chervany, 2006; Rousseau et al., 1998). Trust is seen as multidimensional: "It has distinct cognitive, emotional and behavioural dimensions which are merged into a unitary social experience" (J. D. Lewis & Weigert, 1985, p. 969). This perspective emphasises trust as a social concept and therefore it can be strengthened or weakened through social interaction. Trust at different social levels (system, organisations, individuals) is interrelated (Giddens, 1990). In the food context, trust depends on the functioning of complex interrelations and interdependence between public regulations, civil society and public discourse (Kjaernes, 2006). Applying the social perspective of trust to the food consumption context, makes it possible to examine trust in certification through trust indicators of the food system and its actors (growers, retailers, etc.) because consumers interact directly with food provision and indirectly with other food actors when they purchase food (Kjaernes, 2006).

4.3.2 Dimensions of trust

Literature also provides insights into dimensions of trust which are indicators of trustworthiness (Barber, 1983; Mollering, 2006). Two prominent dimensions of trust are competence (Barber, 1983; Metlay, 1999) and the affective or honesty dimension (e.g., openness, reliability, integrity, credibility, and caring of trustees) (Metlay, 1999). The affective

dimension is also termed as fiduciary obligation (e.g., ethical and moral character of social interactions) (Barber, 1983). Other scholars term competence and honesty as general trust and add accountability as another dimension (Frewer et al., 1996; Poortinga & Pidgeon, 2003). Food research found empirically that indicators of competence and affective dimensions (openness and care) determine trust in food systems (De Jonge, Van Trijp, Jan Renes, & Frewer, 2007; Sapp et al., 2009). This paper therefore uses two main dimensions, namely competency and honesty (Metlay, 1999), as guiding concepts to explore trust dimensions in certification schemes.

4.4 Methodology

4.4.1 Research design and sampling considerations

Given the large number of quantitative studies investigating influence of trust in certification on consumer's willingness to pay (Ha et al., 2019; Teuber, Dolgopolova, & Nordström, 2016; Van Loo et al., 2011; Yu et al., 2014) and the absence of prior research regarding community-based certification, an exploratory, qualitative study was considered most appropriate.

This paper used three data collection methods, two preliminary and one main data collection method (Table 9), which will be explained in more detail below. In-depth, semi-structured interviews were used as the main data collection method. These were used to understand participants' interpretation of their lived experience (Minichiello et al., 2008).

As is typical with qualitative research, relevance was more important than randomness and representativeness (Popay et al., 1998). Therefore, the aim of this paper was not to obtain a representative sample of the population but to find suitable participants to answer the research questions. This paper, therefore, used purposive sampling techniques to attract participants who have knowledge of all three certification schemes examined in order to identify information

rich participants (Patton, 2002; Sandelowski, 1995; Suri, 2011). Sampling via relevance is an important condition for this paper to ensure that participants have the type of knowledge needed to "understand the structure and processes within which the individuals or situation are located" (Popay et al., 1998, p. 348). To be selected for this paper, participants had to fulfil the following criteria (i): awareness of the different certification schemes, having access to purchase food that is certified by the different certification schemes, and the ability to afford to purchase vegetables certified with these schemes; and (ii) their current food choice: buyers of certified food or non-buyers of certified food.

4.4.2 Data collection

Data for all three stages of this paper were collected by the researcher who is a native speaker of Vietnamese to ensure cultural appropriateness (Patton, 1980; Twinn, 1997) and the required understanding of the food context in Vietnam and its various certification schemes.

Table 9

Three Stages of Data Collection

Tasks	Methods	Aim
Pilot study	Focus group (N=8)	Understand the complexity surrounding food choice, food labels available in the market. Findings were used to design interview guide.
Data collection	Online survey (N=108)	Select participants for in-depth interviews
Data collection	In-depth Interviews (N=27)	Understand consumer perception of different certification schemes

Firstly, a focus group was conducted with eight Vietnamese participants who are the primary grocery buyers in their households to discuss their current food choices and opinions about food in general. An online Facebook advertisement was used to recruit participants. Thematic-based framework analysis was used to analyse the data (Krueger & Casey, 2014; Rabiee, 2004). Findings from the focus group were used to inform the main data collection and to design the interview guide.

Secondly, in Vietnam an online screening survey was used to select participants for the in-depth interviews. The survey link was distributed through different organic food stores' Facebook pages. In addition, the researcher contacted different organic food stores to get access to their regular organic buyers through customer lists in order to send out invitations. Among 108 participants who completed the screening survey, 27 participants were invited for personal interviews. To select the most relevant participants for the interviews, participants had to satisfy four conditions from the screening survey: (i) they are the main grocery shoppers for their families, (ii) they are aware of different certification schemes, (iii) certified vegetables are affordable to them, and (iv) certified vegetables are accessible to them.

Next, in-depth, face to-face, semi-structured interviews were used to collect the main data for this paper. Interviews were conducted in Hanoi, Vietnam and ranged from 60 to 90 minutes. The sample was diverse in term of age (ranging from 22 to 58 years with an average age of 35 years), shopping channels (online, offline), shopping place (single store, multiple stores), shopping for children (yes/no), and purchasing frequency of certified food (regular, occasional and non- buyers of certified food).

Participants' basic demographic information is presented in Table 10, utilising pseudonyms to ensure anonymity. Most of the participants (25 out of 27) were female because of the cultural norm that women are the main grocery shoppers in Vietnam (Speece & Huong,

2002). Participants' information on food choice (current baskets) and frequency of buying certified vegetables, were based on their responses during interviews.

Table 10

Participant Characteristics

Participant	Frequency of buying certified vegetables	Age	Gender	Typical shopping occurs at	Shop for children
Tung	Regular -GAP	39	M	Single store	N
Thuy	Regular -GAP	34	F	Variety of stores	Y
Thuyen	Regular- GAP	30	F	Variety of stores	Y
Viet	Regular-GAP	33	F	Variety of stores	Y
Lananh	Regular-GAP	32	F	Variety of stores	Y
May	Regular -organic	47	F	Single store	Y
Na	Regular -organic	40	F	Single online store	Y
Lan	Regular -organic	22	M	Single store	N
Tan	Regular -organic	58	F	Single store	Y
Ngan	Regular -organic	27	F	Single online store	N
Han	Regular- organic	27	F	Single store	N
Hanh	Regular- organic	26	F	Variety of stores	N
Anh	Regular- organic	33	F	Variety of stores	Y
Hoan	Regular-organic	34	F	Variety of stores	Y
Hong	Regular-organic	36	F	Variety of stores	Y
Hoang	Occasional -GAP, organic	29	F	Variety of stores	Y
An	Occasional -GAP, organic	35	F	Variety of stores	Y
Thoa	Occasional -GAP, organic	56	F	Variety of stores	N
Huong	Occasional -GAP, organic	32	F	Single store	Y
Hang	Occasional -GAP, organic	23	F	Single store	N
Thuong	Occasional -GAP, organic	26	F	Single store	N
Tran	Rarely	35	F	Variety of stores	N
Oanh	Rarely	43	F	Variety of stores	Y
Chien	Rarely	39	F	Variety of stores	Y
Hien	Rarely	36	F	Variety of stores	Y
Lien	Rarely	37	F	Variety of stores	Y
Quynh	Rarely	36	F	Variety of stores	Y

To ensure relevance and realism in the interviews, eight real packages of different certified vegetables available in the market were used as prompts during the interviews. These represented the key certification schemes: international third-party certification (EU, USDA), domestic third-party certification (VietGAP), domestic community-based certification (PGS) and non-certified vegetables (Table 11). When appropriate, interviews took place at participants' homes, and photos of food storages such as the fridge were taken with participants' permission as supporting context. Participants were reimbursed for their time through a grocery voucher with the equivalent value of approximately US$15.00.

Table 11

Certifications Schemes for Vegetable in Vietnam and Real Packages

Real packages used in interviews	**Certification schemes**	**Certifiers**
Packages with EU/USDA logo   	International third-party certification	USDA/EU-accredited certifying agents
Packages with VietGAP logo  	Domestic third-party certification	Vietnamese government's accredited certifying agents
Packages with PGS logo 	Domestic community-based certification	PGS internal committee

Real packages used in interviews	Certification schemes	Certifiers
Packages with no certification  	Vegetables with no certifications	No certification agency

4.4.3 Data analysis

All interviews were audio-taped, transcribed, translated into English and analysed using NVivo 11. Each interview was summarised, content-coded and linked with guiding concepts: competence and honesty (see 'Theoretical framework' section). In this way, empirical data were integrated with theory and emerging themes were used to structure the results (Layder, 1998). Open-coding was used for initial coding to identify concepts and axial coding was used later to link concepts (Strauss & Corbin, 1998). Codes were refined through interrogating each individual code for uniqueness and merging, nesting as appropriate (Saldaña, 2015). Major themes were trust in the food system and food chain actors i.e. growers, retailers in delivering certified food, and indicators of competence and honesty of the food system and food actors.

4.5 Findings

The findings are presented in two sections. The first section presents similarities and differences in consumer trust between international and domestic certifications and between third-party and community-based certifications. The second section identifies factors that positively or negatively affect trust in certification, i.e. dimensions of trust.

4.5.1 Comparison of consumer trust among certification schemes

When presented with real vegetable packages, participants appeared to be aware of all certification labels. Regardless of certification schemes, participants' judgement of food certification was associated with their perceptions of standards, farm inspections, management

of counterfeits and prosecution for violation. In other words, consumer perception of certification depends on how the system operates to deliver the food with certified standards. The following section presents consumer trust in different schemes comparing international versus domestic and third-party versus community-based certification.

4.5.1.1 Differences in consumer trust in certification schemes

International certification versus domestic certification

Most participants perceived international certificates (e.g. EU or USDA) to have 'higher' standards due to country-of-origin effects particularly associated with economic development and international recognition. Lan said: "USDA is hard to get because organic standards are higher and stricter when it comes to the United States which is a well-developed economy. Our domestic level of safe food would not be accepted in their market". Participants also linked the credibility of international certification with its recognition by other countries because it indicates an objective and independent reference, "their organic standards (EU and USDA) are recognised by other countries"(Hoan).

However, this country of origin effect was diminished through another factor: inspection procedures. Many participants were concerned about the frequency of inspections when staff are from overseas "International staff only come and perform inspections once a year. I wonder how growers follow the standards during the remaining time" (Than). Conversely, domestic certification was perceived more favourably because "domestic certifications such as PGS, they inspect more regularly because people are on-site" (Han).

Most of the participants perceived international certification agencies, such as EU or USDA as having more competence in term of expertise and experience. Tung expressed that: "organic farming is still new in Vietnam while it has been developed in other more developed countries. I suppose they should have more experience in doing organic than us, so do their

inspection procedure and staff" (Tung). Some participants thought international certification agencies might have higher profit incentives due to higher certification costs.

> There are certification agents actually enthusiastic about doing organic farming, they only certify operations that meet USDA standard, they do a proper job. However, a few agents work for benefits, the more they certified, the more fees they get paid. (Han)

Interestingly, high certification cost was perceived as an indicator of honesty of growers/farm owners who are certified by international agencies because it indicates incentives to comply: "I prefer USDA because I think certification cost is high, so only some private companies can afford that. When they pay a large amount of money for the certificate, they must control their production more strictly to not loss the certificate" (Hoang).

Compared with international certifications, domestic certifications, particularly VietGAP was perceived as having a lack of integrity in issuing certificates by many participants. They did not feel that VietGAP can honestly reflect a farm's activities being up to the required standards due to a "lax and weak management system":

> I think VietGAP management are weak and lax therefore I don't trust them. During production procedure, growers can use chemical pesticide and fertiliser. The accurate standard requires precise pre-harvest intervals; however, you will never know if proper inspection is conducted. I think those certificates are valueless in Vietnam (Ngan).

In addition, participants doubted the role certification plays in differentiating certified vegetables from uncertified vegetables because of lack of integrity in obtaining VietGAP certificates, "because growers can pay money to get certificates without proper inspection, uncertified and certified products are just the same" (Hien). As a result, VietGAP was the least trusted certificate among the three certification schemes.

In summary, international certification is perceived as having higher standards, more competent staff, and higher incentives to comply for growers. The only issue that weakens

consumers trust in international certifications is caused by less frequent inspections compared with domestic certification schemes.

Third-party certification versus Community-based certification

Approximately half of the participants preferred third-party certifications (e.g. EU, USDA, VietGAP) for their independence and objectivity: "I trust the third-party certification, they are independent agencies monitor and verify information of the organization" (Na). However, irregular inspections were seen as the main weakness of this system, because normally certificates are renewed after one to two years. For example, An said:

> Perhaps third party-certification carry out more thorough inspection procedure, however how they maintain certificates is what I concern the most. Growers may follow standard strictly at the beginning, but it is hard to tell after getting certificate. There is a time gap between the first and the second inspection.

Many participants who currently buy community-based certification (PGS) certified vegetables, reported they do so because they value the cross-check inspection process within PGS. For example, "PGS is more effective, particularly for seasonal fresh produce. PGS guarantees cross-checking all the time during the season" (Viet). Other participants highly valued the fact that on-site inspectors can supervise the farming activities on a regular basis: "It is impossible to have an external party to inspect all farm activities regularly while PGS cross-check inspectors can inspect the farm weekly" (Na).

Compared with EU, USDA and VietGAP, consumers of PGS certified vegetables have more direct communication with retailers and growers. PGS requires active involvement of retailers and growers in the certification system through attending a regular meeting and participating in the inspection process. This is perceived as increased competence of retailers in controlling on-farm activities and therefore control quality. "I learned from their website that retailers are involved in the inspection process, that would make them be more aware of

production activities and product quality" (Thuyen). This involvement is also perceived as honesty of the retailers, as expressed by Hong: "The fact that they are in the (PGS) system means they want to do something good i.e. supporting farmers, or to provide safe food, so I think they are reliable". In addition, PGS demonstrates a short supply chain of fresh produce involving retailers as the only middlemen. The target market for PGS vegetables is not far from production sites (around 40 to 100 km). This short distance allows consumers to have occasional farm visits mostly organised by retailers. Five participants considered their trust in producers as more important than PGS certificates. One of them said:

> It is no use to show me tons of certificates, they are no more than papers. I bought PGS because I visited the farm, talked to farmers and understood better how they plant organic vegetable. (Ngan)

In short, although third-party certification provides objectivity and independence, buyers of community-based certification highly value two mechanisms which build trust by closing the gap between consumers and the food they purchase: 1) temporal distance (e.g. high frequency of inspections) and 2) spatial by being physically close to farms with community-based certification. This allows consumers to get involved and understand production. Growers and retailers actively guarantee safe food in the process, rather than just certifying agencies playing that role in third-party certification.

4.5.1.2 Similarity in consumer trust in certification schemes

Concerns about counterfeit issues were shared by most participants, regardless of certification scheme. This was associated with the way participants perceived food fraud management in Vietnam. Chien said: "there is no guarantee that certificates are genuine, these logos and labels can be fraudulent". Participants perceived that there is lack of capacity in labelling management, as expressed by Viet in this statement: "Many organisations are not

granted certificate still put that certificate on their label. As far as I know, there is no institute that controls such problems strictly".

Consequently, they feel uncertain of the truthfulness of the labels. It seems that participants have little trust in the capacity of themselves and others, to ascertain the safety and quality of food, "especially in Vietnam, I can't know what's real and what's fake. There are chances that they may deceive even though they may have been doing it right for a long time" (Anh). For some participants, the lack of capacity of the domestic food system to manage certificate counterfeits negatively influences their perception of international certification schemes:

> Interviewer: What do you think about international certificates such as USDA like this (showing the real package)?
>
> Hoan: I don't trust that because the seller might print it illegally. I buy certified food at reliable stores only.

One fourth of participants were concerned about insufficient capacity of certifying agents to carry out regular farm inspections regardless of the origin (international or domestic) or type (third-party or community-based). As a result, they doubted the capacity of these certifying agencies to assure that farming activities are up to standards. To these participants, growers and retailers play the key role in food quality control:

> It is not the issue of certification itself. It means that you can do enough to get a certificate but much more works is needed to maintain that certification. If a grower or retailer cannot maintain their system to deliver certified quality, then certificate is just useless. (Quynh)

Regardless of certifications scheme, participants are dependent on their trust in retailers to make their food choice decision, although the influence of trust in retailers varies across certification schemes. This will be discussed in the next section.

4.5.2 Dimensions of trust in certification

4.5.2.1 Direct selling is perceived as an indicator of competence in quality control

Six participants reported rarely buying certified vegetables due to their lack of trust in the competence of the system to control food quality. As a result, these participants question the credibility of food certification, and actively seek reliable retailers in their routine food shopping. These participants mainly buy vegetables from someone they personally know or who has been recommended by their friends or relatives and directly sells vegetables to them, without any intermediaries. Personal relationships such as these also help to build trust by closing of the gap between consumers and the food they purchase:

> Only when I buy vegetables from my friends or their relatives who directly plant and deliver vegetables to me, I feel completely assured. The reseller might not know well the source of supply if they bought vegetable in a wholesale market. They might not know well the farming practices. The farming should be under control of someone I can trust. Their vegetables are much more reliable than any certificate. (Thu)

Participants' concerns over the capacity to supervise farming activities and manage counterfeit labelling disappeared if the person looking after the whole process is someone they trust. They are well aware of the fact that no certification was granted to these growers, "I trusted my friend (who sold the vegetables), we were colleagues. I visited her farm several times. Her vegetables are not certified but her vegetables are safe for sure" (Lien).

Direct selling also proves its advantages as an indicator of competence in the case of VietGAP certified vegetables sold in Vinmart stores- the largest supermarket store chain in the country. This supermarket provides vegetables mainly from two sources: vegetables labelled as VinEco from their own farms and vegetables from farmer cooperatives. Regardless of the source, vegetables are supervised under the same management and sold in the same stores. It

is an interesting finding that most of the participants who are frequent buyers at Vinmart stores clearly stated that they prefer VinEco labelled vegetables to farmer cooperatives' vegetables. When presented with real packages collected from the supermarkets, participants distinguished vegetables sourced from VinEco's farms or from farmer cooperatives. "VinEco labelled vegetables are always my first choice over other vegetables sold in the supermarket. I only choose vegetables from others when I can't find VinEco vegetables" (Thuong). Sourcing from its own farms was perceived by participants to provide Vinmart better quality control as an indicator of competence. "I prefer their own farm products, I.e. VinEco, because they cannot fully supervise other supplies from farmers as good as they supervise their own farms" (May). In other words, direct selling serves as an indicator for retailers' competence. It works as a mechanism to build trust by reconnecting consumers with food production.

4.5.2.2 Certificate-based contract alone are not sufficient to indicate competence and honesty

Participants were familiar with certificates being used as an essential condition for farmers and cooperatives to sign a supplying contract with retailers such as supermarkets and stores. Yet participants perceived certificates as an administrative procedure, not as a quality assurance. Certificates were perceived as a 'ticket' to enter the market rather than a proof of proper quality control and supervision processes. Participants questioned how well the certificates reflect what happened on the farm in practice. For example, Tan shared:

> They (retailers) sourced vegetables based on VietGAP certificate without their direct control and supervision but I don't know if the farms actually obtain VietGAP or not.

The phrase "they only follow the procedure on paper, not in practice" was consistently shared by participants when offering their thoughts about the VietGAP certificate as a basis for contract farming and market linkage. In other words, participants perceived retailers as lacking competence in quality control if they manage their supply based on certificates only.

Interestingly, a participant who also owns a food store shared: "As my consumers require to provide certificates, we (retailers) just ask growers for that (VietGAP). It is not our job to verify whether inspection is properly conducted or not. To me, that makes the quality management so lax" (Oanh). Certificates in this case are used as a necessary signal of a procedure so that vegetables are bought by consumers.

4.5.2.3 Informal food chain governance is perceived as an indicator of competence and honesty of retailers

Participants chose to buy certified vegetables at credible stores which do more than signing certificate-based contracts. Retailers' expertise in agriculture, technical support and training for farmers serve as indicators of the competence and honesty of such retailers. "I trust Vinmart stores because I had a chance to work with a farmer group who supply vegetables to them. They assigned their staff to come and support producers to make sure they follow the VietGAP standards" (Viet). Similarly, other participants who had visited certified farms, such as PGS and USDA, shared that retailers' strong commitment to support farmers indicated not only the level of quality control but also "their caring". "I trust this store (Bac Tom), they are involved in the inspection process of PGS, the owner has agricultural expertise and he motivated farmers, guaranteed the outcome to make sure the farmers follow the standard" (Viet).

Interestingly, participants associated the small-scale of some retailers as an indicator of quality control and integrity. To them, organic farming is small-scale with limited availability. "At the beginning, they were just a small-scale business. I trust their vegetables. But then they expanded too fast and I no longer trust them. Organic vegetable farmers are not able to supply too many organic stores at the same time. So it is hard for me to feel trust in them" (Thuong). Thus, businesses that are deemed 'too big' may sell untruthful organic vegetables, while the

more modest nature of small-scale businesses becomes an indicator of quality control ability and integrity.

4.5.2.4 Interaction through digital platform increases perceived competence and honesty of retailers and growers

Traditionally consumers preferred to shop at open-markets and select fresh produce by assessing the freshness, colour and size of produce. However, with the wide spread use of the Internet and rapid growth of e-commerce, participants reported starting to rely on digital platforms to make their food choice decisions. This was consistently mentioned as a gradual but significant change in their grocery purchasing pattern during the last five years. Half of the participants shared the importance of transparent information, such as violation cases, published on certification websites as well as direct communication and interaction through online platforms such as Facebook pages. In particular, participants rely on Facebook pages to connect with other consumers who have a similar interest in purchasing certified organic vegetables such as PGS or USDA. For example, participants who buy USDA vegetables often look for store reviews as an indicator of their credibility before purchase. Anh shared:

> I trust this Facebook group as its members care a lot about food safety. I read a lot of useful information from them. If there is a new store selling USDA certified vegetables, I have to look up reviews on the Facebook page about that store. I believe USDA is a trustworthy certification, you know, but I want to hear from others, to make sure the stores sell genuinely USDA vegetables.

A Facebook group is sometimes used as a platform for farmers to sell their products to the groups, through posting videos of their farms, farming practices and products. Participants shared,

> I feel I know better after seeing her (farmer) farms and the way they plant vegetables without chemicals. It is also convenient to read other buyers' feedback about the quality of her vegetables to see if it is good enough. It is so convenient that I start to buy other fresh produce in these groups as well. (Na)

4.6 Discussion

This research aims to provide an understanding of how consumer trust differs among different types of certification schemes and to explore the dimensions of trust in these schemes. The findings suggest that while consumer trust in certifications varies across schemes, participants place greater significance on how the food system and its actors i.e., retailers and growers, operate to guarantee the certified food is up to standard. In other words, the certification system, its standards, inspection procedures, and agencies are all important, but the trustworthiness of the whole food system, is an even bigger determinant of consumers trust in certification and their purchasing behaviour.

This research focused on three previously unexplored areas. First, it extends the literature on consumer trust in certification by showing how consumers have different perceptions of international versus domestic certifications, and third-party versus community-based certifications. These findings are consistent with previous studies which have shown that consumers prefer organic labels from more developed countries (Dekhili & Achabou, 2014; Onozaka & McFadden, 2011; Schjøll, 2017; Thøgersen et al., 2017; Xie et al., 2016). This finding also supports other studies which found the interpretation of country-of-origin labelling to have a broader meaning than the definition used by regulators and industry (Eden, 2011; Tonkin, Coveney, Meyer, Wilson, & Webb, 2016). Although low trust in domestic certifiers or controllers is the main reason cited in the literature (Grunert et al., 2015; Nuttavuthisit & Thøgersen, 2017, 2019), this present paper extends this literature by showing that the 'country-

of-origin argument' is more nuanced. Participants perceive international schemes to have stricter and more internationally accepted standards, and more experience and expertise in inspection than domestic certifiers. Yet, participants are concerned about the irregular inspection of international schemes, which might not ensure the adherence to certification standards across time (i.e. between temporally distant inspection dates). Although third-party certification is objective and independent, participants put more importance on how quality is maintained after certificates are granted regardless of the certification types. The perceived compliance with standards after obtaining certificates is mainly dependent on growers' and retailers' credibility. Much literature has emphasised the role of certifying agencies to provide credibility of certification for consumers' informed decisions (Dekhili et al., 2011; Hatanaka et al., 2005; Jahn et al., 2005; Janssen & Hamm, 2012). This paper argues that the variation in consumer perception of certification also depends on their perception of how well the system works and whether it is coordinated across food actors (i.e. growers, retailers) to deliver certified standards. Using two core dimensions of trust identified in previous research (De Jonge et al., 2008; Sapp et al., 2009), this paper found that different indicators of the competence and honesty of the food system and food actors influence trust in certifications positively or negatively, as summarised in Table 12.

Table 12

Indicators of Trustworthiness of Food System and Food Actors

	International third-party certification (USDA, EU)	**Domestic third-party certification (VietGAP)**	**Domestic community-based certification (PGS)**
Indicators of competence of system	(+) Country of origin (+) Internationally recognised standards (+) Internationally recognised inspection process	(-) Irregular inspection (-) Lack of monitoring and testing (-) Lack of proper supervision of mislabelling	(+) Mutual agreement among farmer groups (+) Cross-checking inspection procedure

	(-) Irregular inspection		
Indicators of competence of actors	(+) Financial resources to afford certification indicates sufficient capacity for quality control	(+) Reliable retailers participate in monitoring and quality control (+) Direct supply is perceived as better monitoring and quality control	(+) Retailers are committed to food safety (+) Retailers have agricultural expertise (+) Smaller shops can control food quality better (-) Farmer owners or retailers do not have enough capacity for daily farm management (-) Expansion is associated with lack of quality control
Indicators of honesty of system	(+) Country of origin (+) Transparency about violation	(-) Inspection process is not transparent	(+) Transparency about violation (-) Not independent and objective
	(-) Lack of integrity (-) Lack of transparency -misconduct or violation		
Indicators of honesty of actors	(+) Commitment of farm owners (-) Certifier's incentives for profit	(+) Reliable retailers sell truthful VietGAP (+) Retailers provide technical support to farmers which shows retailers' commitment to guarantee food standards (-) Certifier's incentives for profit	(+) Direct communication with farmers

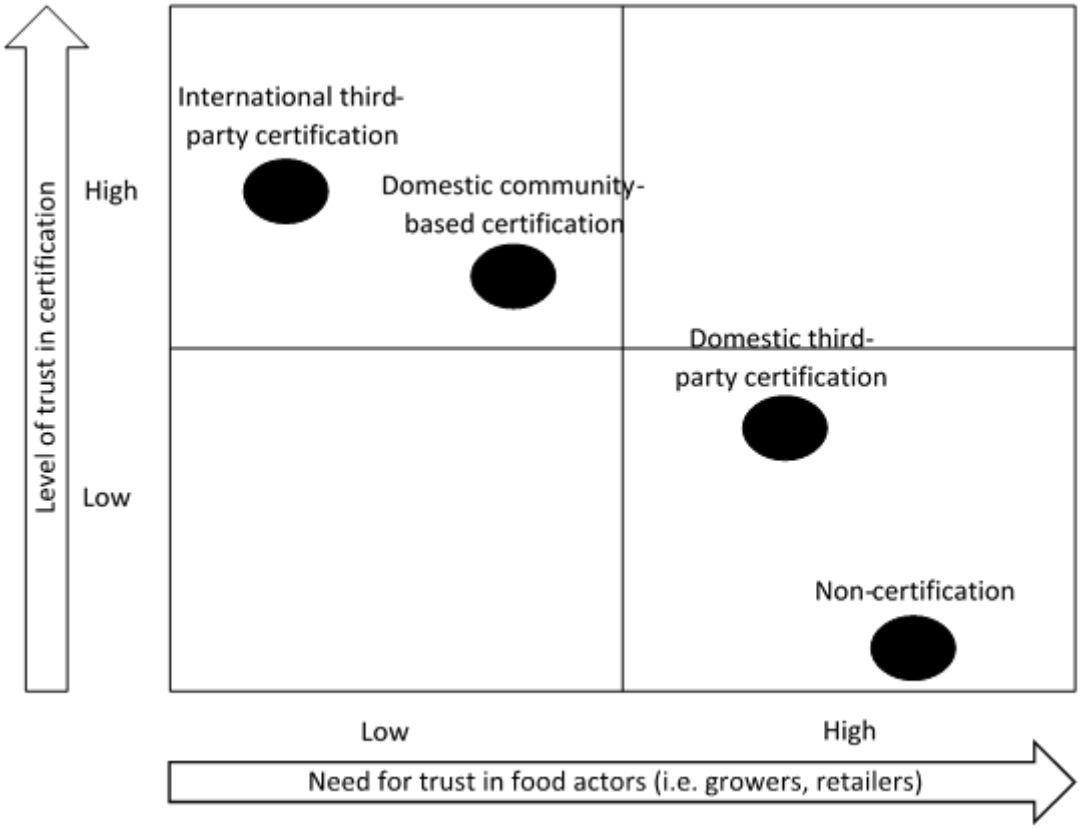
(+) positively influence trust; (-) negatively influence trust

Second, the findings suggest consumers utilise their personal relationships differently in purchasing certified vegetables under different certification schemes. It is likely that when consumers doubt the capacity of the food system to deliver safe and high-quality food, they prefer to use their relationships with other specific actors in the food chain. This finding is novel. While other research has found that institutional trust or trust in a system plays a more important role in forming quality expectation (Grunert, 2002), particularly in the first purchase of organic food (Nuttavuthisit & Thøgersen, 2017), in this paper trust in individual food actors was predominantly used to guide consumers' food choice, particularly in the case where trust

in the food system's honesty and competence was low. In this paper, participants relied on food actors, particularly retailers and growers to reconnect them with food production. The derived assurances from personal relationships (Telligman, Worosz, & Bratcher, 2017) support other studies on social trust fostered by personal interactions (Giampietri et al., 2018; Sapp et al., 2009) and studies on embodied trust where consumers see themselves in a reciprocal network with food chain actors who they have known for some time (Green, Draper, & Dowler, 2003). Our finding extends other research on the active role of consumers in collaborating with different actors in farmers' organic food markets (Schouten, Martin, Blakaj, & Botez, 2016; Thompson & Coskuner-Balli, 2007), through understanding their strategies to cope with lack of trust in certification schemes used in official organic markets. It appears that trust in growers or retailers can partly compensate for lack of trust in the certification system. The higher the level of trust in the certification, the lower the need for trust in food actors (i.e. growers, retailers). Conversely, the lower the level of trust in the system, the higher the need for trust in food actors (Figure 5). Participants who have very little trust in food certification, simply do not choose to buy certified food because certificates do not guarantee adherence to food standards. Due to their distrust in food certification, these participants require a comparatively high level of concrete, interpersonal trust- mainly by buying vegetables from someone they personally know or from someone who is recommended by someone they trust.

Figure 5

Level of Trust in Food System and Demand for Trust in Food Actors



Third, this paper sheds further light on the influence of consumer's judgement of food chain governance on their perception of certified food. In this context, food chain governance refers to the way retailers and growers collaborate to deliver safe food. From a supply chain perspective, certification can be used as a quality standard assurance or formal governance mechanism to link growers with retailers and consumers through contract farming (Narrod et al., 2009; Ogutu, Ochieng, & Qaim, 2020; Snider, Gutiérrez, Sibelet, & Faure, 2017; Tran & Goto, 2019; Veldstra et al., 2014). Nonetheless, without other mechanisms, certification, designed by the food system that lack of competence and honesty, is perceived as having a negative impact on consumer trust. In this paper, participants perceived certification as a mechanism for retailers to bypass their responsibility of food quality monitoring to third-party

certification agencies. Instead, other informal mechanisms, such as retailers providing technical training and support increase consumer trust in certified food. The findings show that participants have more trust in retailers who (i) own farms and directly supply vegetables to consumers and (ii) have different modes of coordination with farmers, such as technical support, rather than just certification-based contracts.

4.7 Practical implications

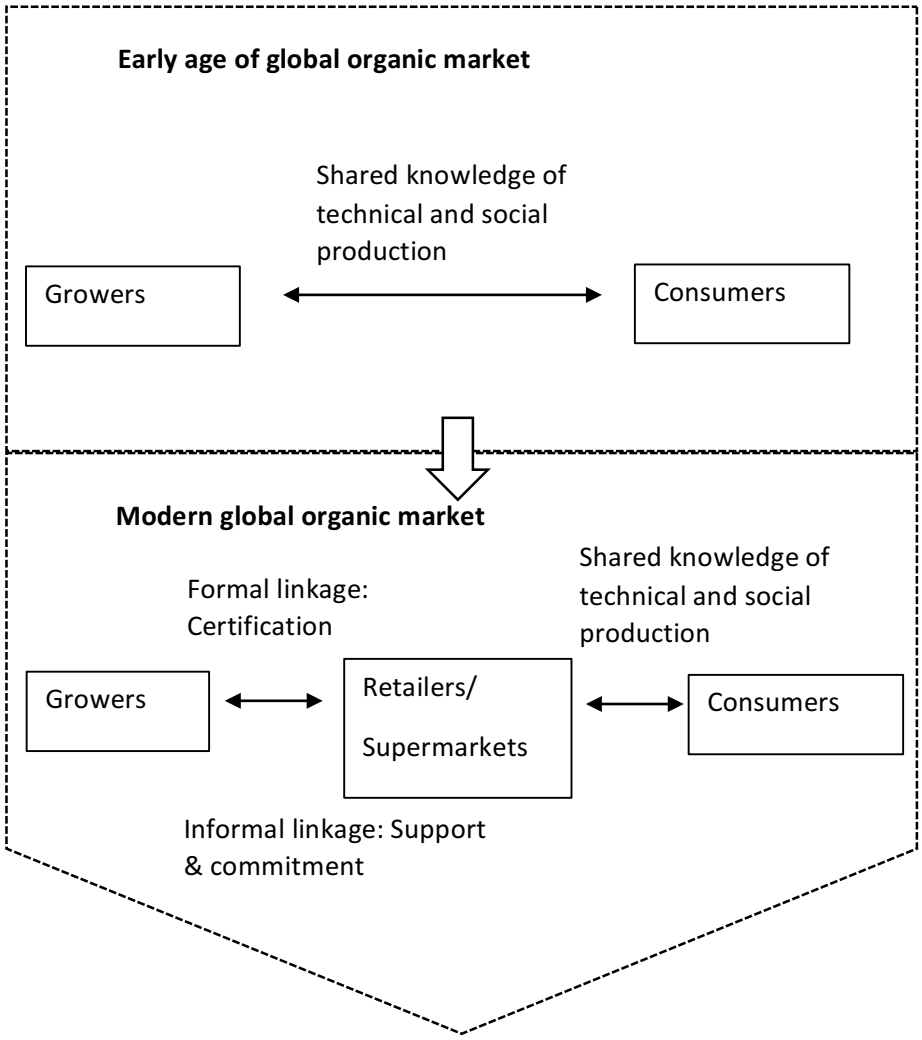
This section discusses the practical application of the findings. Two food chain governance frameworks are proposed to increase perceived competence of the food system and its individual actors, and consequently, work towards increasing trust in food certification and food safety.

Policymakers and the food industry have implemented a number of approaches to address the problem of distrust in food. In terms of competence of the food system, these include production methods, regulations, and standards, legitimising regulation and assurance agencies, increasing auditing and inspecting production (Albersmeier et al., 2009; Deaton, 2004; Hatanaka et al., 2005). In terms of the honesty of the food system, these include increasing traceability and transparency of food production (Hall, 2010) and increasing consumer knowledge of food production through communications (Vega-Zamora, Torres-Ruiz, & Parras-Rosa, 2019). However, these solutions are system-oriented, and therefore, do not acknowledge the role of individual food actors, particularly retailers, in reconnecting consumers with the food production system. To date, few studies consider solutions directly reconnecting consumers with producers to increase trust, for example, through local food networks such as farmers markets and community gardens (Meyer et al., 2012). Yet 'face-to-face' encounters between consumers and producers might not be feasible because of geographic, time, and financial constraints. Therefore, this paper suggests different solutions emphasising the role of retailers to reconnect consumers in the production of food.

Based on the findings, this present paper proposes two frameworks to increase trust in food by reconnecting consumers with food production. The first model focuses on coordination between retailers and farmers. Retailers providing technical training and other support signal the capacity of retailers in quality control and monitoring rather than simply enacting purely certification-based mechanisms. Prior research has documented benefits of governance tools such as direct selling and contract farming to growers and retailers, thus focusing on the supply side of the food system (Hughes & Isengildina-Massa, 2015; Ochieng et al., 2017; Ogutu et al., 2020; Tran & Goto, 2019). However, little is known about if and how consumers' perceptions of food chain structure and governance influence their trust in food actors. This paper provides empirical evidence for the role of food governance mechanisms in building consumers' trust through signalling indicators of competence and honesty of retailers. Retailers providing technical support to farmers not only display their commitment and trust in their relationship with their suppliers i.e. growers, but they also signal to consumers their involvement in production and their commitment to quality control. Consumers main concern is the uncertain ability of food systems to deliver safe food. Therefore, consumers demand quality monitoring from other food actors. Personal trust-based direct commercial relationships between producers and consumers in the early age of organic markets have switched to intuitional trust-based relationships provided by food regulation and certifications (Guthman, 2002; Ochieng et al., 2017; Tovar et al., 2005). However, if there is insufficient institutional trust in the system, there is another approach to instil trust in certified organic food, through retailers/supermarkets. (Figure 6).

Figure 6

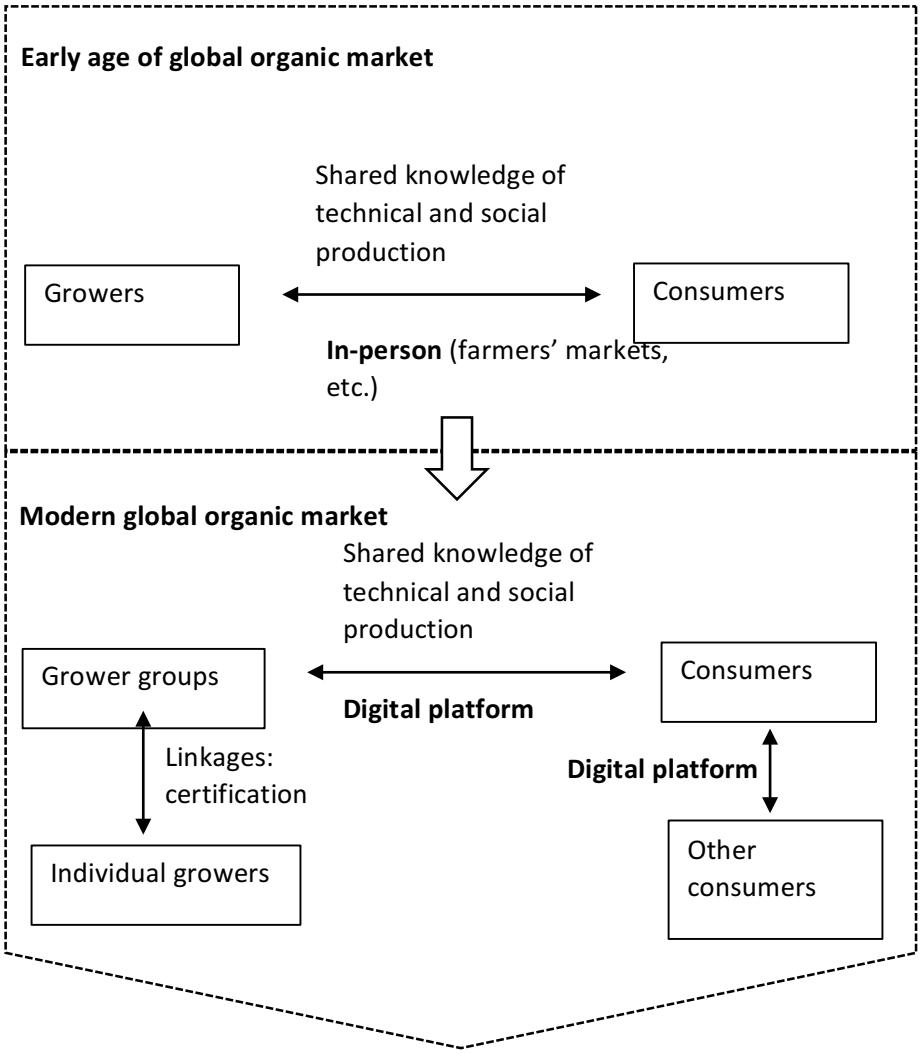
Transitioning from Personal Trust-based to Institutional Trust-based Commercial Relations



The second model is proposed in the context where consumers prefer to have direct linkage with growers, emphasising the 'direct interaction' feature between them. While real-life, face-to-face encounters between these two groups may be difficult to achieve due to geographic and time constraints, virtual encounters are completely feasible thanks to digital platforms (Figure 7).

Figure 7

From Farm to Table Digital Platform



This model can retain local network-based trust combined with digital platforms to help farmers, especially smallholder farmers, to direct sell vegetables to consumers. These farmers can be organised into groups to get group certifications, such as PGS, and directly market

themselves to consumers. Preferably, target consumers are located within geographically local food networks to take advantage of local food knowledge, logistics, and transportation. Digital platforms can be used to connect a group of consumers who share a similar interest in certified food. Perceived honesty would increase through regular interactions and perceived competence is guaranteed through 'direct' control of the system or interpersonal trust. Digital platforms provide farmers with an opportunity to virtually communicate their farming practices and how they control vegetable quality, which is likely to help build trust in the absence of 'face-to face' encounters (Dixon & Banwell, 2004; Giddens, 1990). The proposed model can compensate for a lack of institutional trust in certified food systems by building trust through virtually reconnecting consumers with the food network.

These two models will work particularly well with appropriate support structures, such as incentive schemes to encourage retailers to not only participate in the monitoring of farming activities but also to provide technical support, training, and other support to farmers. Communicating the connection between retailers and farmers to consumers will be essential to reap the benefits of such actions.

Such support mechanisms will enhance the supply of and the demand for certified food. From a supply perspective, such actions tighten retailers' coordination with farmers, enhancing trust in and commitment to follow production standards. From a demand and marketing perspective, such actions increase the indicators of trustworthiness of retailers, both competence and honesty, and thus trust in certified food. This would convince consumers that retailers have control over food quality through close coordination and monitoring between retailers and farmers. Meanwhile, direct selling of vegetables from farmer groups to consumers through digital platforms could be another potential mechanism if appropriate management tools are utilised. This could reconnect consumers with food production through regular, direct interaction with producers. The key to developing successful online 'farm to table' platforms

is to bring a business mindset which will help master aspects, such as marketing, logistics, management and e-commerce of such platforms.

4.8 Conclusion

This paper employs the social theory of trust to explore variations in consumer trust in three different certification schemes. The paper is novel in providing an understanding of how consumers form their judgements of certification schemes based on indicators of competence and honesty of food actors i.e., growers and retailers and food chain governance. Findings show the variation in perception of different certifications even from a comparable group of participants and this variation drives their food choices. Consumers largely rely on retailers and their coordination with farmers to build trust in certified food. Two food governance frameworks are proposed to reconnect consumers with food production. These frameworks increase indicators of trustworthiness of the food system and its individual actors, and consequently consumers' trust in food and food certifications.

V. CONCLUSION

This final chapter concludes the thesis with an overview of linkages among the three papers and the main findings and key contributions of the whole research project in response to the research questions regarding consumer trust in different food certification schemes in the larger context of the food chain system. The chapter also acknowledges the potential limitations of the current research and avenues for future research.

5.1 Linkages among three studies

The overall purpose of this thesis is to understand the variations in consumer perceptions of different food quality certifications, i.e., organic and GAP certifications, in a larger social context of the food chain, taking into consideration social interactions between consumers and food chain actors. This thesis is comprised of three papers which are interrelated. Their connection is different dimensions of trust in food that influence consumers' food purchasing behaviour. The first paper focused on the macro view of trust in the entire food system as the main driver for food purchase. The second paper focuses on the elements that form the macro view, which are abstract trust in certification and interpersonal trust in food chain actors. The third paper focuses on individual certifications to understand how food governance influences these elements of trust differently across three different certification schemes.

Paper 1 starts with exploring the determinants of actual organic food choice of consumer groups with different levels of purchasing involvement. The main finding from this paper is the critical role of consumer trust in the entire food system (including both conventional and organic food) and its actors in forming the consumption value of organic food. This finding served as a motivation to conduct the second paper which explores the two-way interaction between trust in the food system and its actors and trust in certification, and

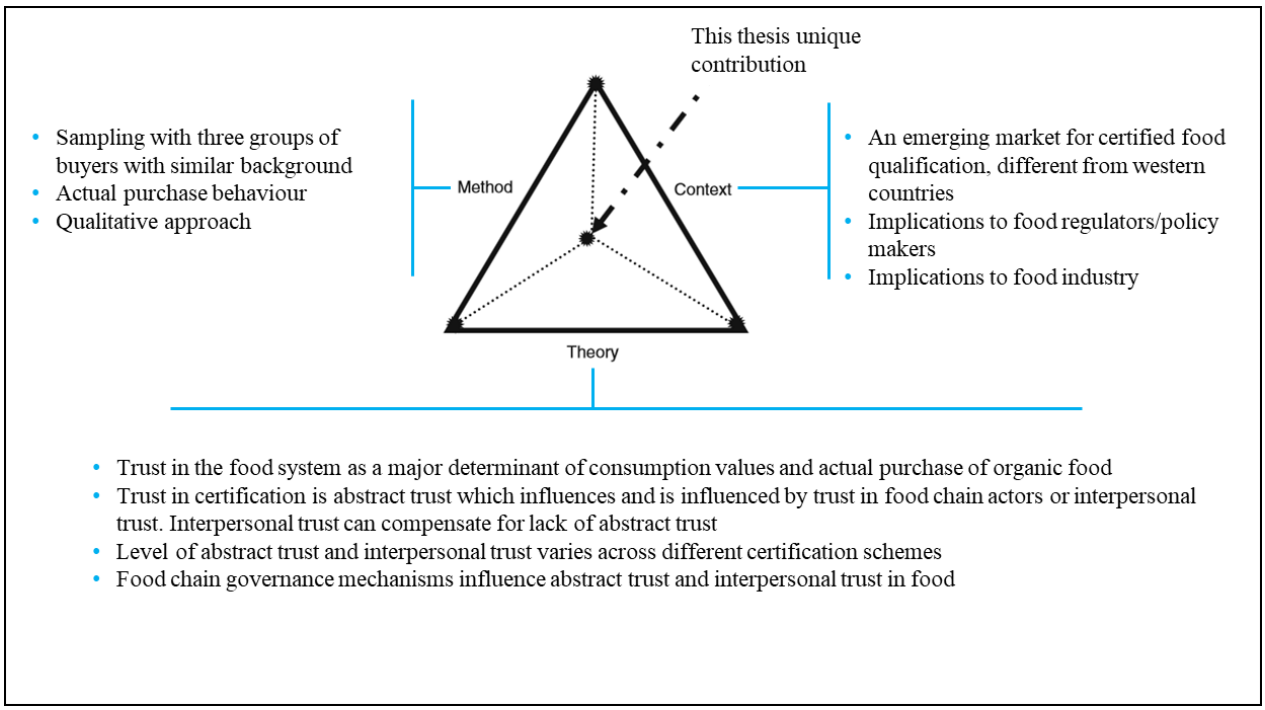
the influences of these interactions on overall trust in food. Paper 2 provides significant empirical evidence for the co-dependent relationship between abstract trust, that is trust in certification and interpersonal trust, such as trust in food chain actors. Importantly, interpersonal trust in food chain actors can compensate for the lack of abstract trust in the whole food system. The purpose of Paper 3 is therefore to explore further the roles of abstract trust and interpersonal trust in different types of certifications to understand the variations in consumer perceptions of food certifications existing in the same market. Paper 3 is also the first paper to explore how consumers perceive PGS, a community-based certification promoted in 76 countries as an alternative scheme to third-party certifications, particularly in developing countries.

5.2 Research contributions

The contributions of this research can be illustrated in three domains, including theory, method, and context (Ladik & Stewart, 2008). This research has several contributions to literature about consumer trust in food and food choice (Figure 8). The thesis builds on the understanding of the research context to provide practical implications for the food industry and policy makers.

Figure 8

Research Contribution Domains, Adapted from Ladik and Stewart (2008)



5.2.1 Theoretical contributions

The main contribution of this thesis is that it has highlighted the importance of trust in the food system as a major determinant of consumption values and actual purchase of organic food. The findings indicate that participants who know about organic vegetables, have access to them, and can afford to buy them, still do not purchase them because of their distrust in the food system and its actors. It is noteworthy that distrust in the food system found in this paper reflects much a wider anxiety than a lack of trust in organic labelling or certification reported in the extant literature (Botonaki et al., 2006; Sondhi, 2014). Prior research on trust in organic food has focused on trust in food certification and communications (Sultan et al., 2020), therefore put an emphasis on the credibility of certification agencies (Janssen & Hamm, 2012; Sultan & Wong, 2019). Particularly, distrust in certifiers and controllers has resulted in distrust in organic labels in different countries (Grunert et al., 2015; Thøgersen et al., 2019). This thesis

adds an important dimension of trust - trust in the entire food system which includes both conventional and organic food - as the main driver of organic food purchase behaviour. As a consequence of distrust in the whole food system, organic food is not necessarily perceived as a better or healthier alternative to non-organic food by occasional buyers and non-buyers of organic food, which is opposite to the findings of other studies (M. F. Chen, 2007; Kushwah, Dhir, Sagar, et al., 2019; Padilla et al., 2013). The link between trust, consumption values, and actual food choice shown in this thesis directly responds to the call for focusing on determinants of consumers actual choice behaviour, not surrogates of choice (Ham et al., 2018; Prakash et al., 2018; Yadav & Pathak, 2016). Trust in the food system and its actors plays a key role in forming consumption values of organic food and translating these values into food choice. Thus, it is important to include consumer trust in the food system and its actors in understanding consumer trust in organic food.

This thesis offers a second contribution to literature by showing that consumers perceive certification as a representation of the entire food system in delivering safe food, or in other words, trust in certification reflects abstract trust. Certification is considered as a representation of a quality guarantee process involving multiple food chain actors. Therefore, consumer trust in certification depends on their perceptions of trustworthiness of these food chain actors to deliver food to certified standards. Previous studies have focused on the visible component of certification, the certification logo itself, rather than the process behind it (Aryal et al., 2009; Panico et al., 2011; Sønderskov & Daugbjerg, 2011; Uysal et al., 2013). These studies emphasise the influence of perceived trustworthiness of certification agencies on trust in food (Botonaki et al., 2006; Gerrard et al., 2013; Janssen & Hamm, 2011, 2012; Sønderskov & Daugbjerg, 2011; Yeh et al., 2018). Thus far, only few studies find that food labelling is perceived as more than an explicit message but also as a surrogate for personal judgment of food actor trustworthiness (Tonkin, Webb, et al., 2016).

Thirdly, up to this point, the literature has often studied the influence of consumer trust in other food actors on trust in food separately (Essoussi & Zahaf, 2009; Giampietri et al., 2018; Naspetti & Zanoli, 2009; Padel & Foster, 2005; Pivato et al., 2008), not in association with trust in food certification. This limits our understanding of trust in certification because certification is to verify a process involving different actors. Paper 2 found interactions between abstract trust in certification and interpersonal trust in food chain actors, and the influence of this interaction on overall trust in food. Interpersonal trust in food chain actors can compensate for a lack of abstract trust in certification. If abstract trust or interpersonal trust are at a sufficient level, there is a co-dependence relationship. Food actors such as retailers or growers earn their credibility by being involved in a trusted certification system. In turn, interpersonal trust in growers or retailers appears to facilitate abstract trust in certification. While the relationship between abstract trust and interpersonal trust has been examined in other disciplines (S. D. Pearson & Raeke, 2000; Rowe & Calnan, 2006; Rus & Hajdeja, 2005), this is the first paper to empirically examine the dynamic two-way interaction between abstract trust and interpersonal trust in a food consumption context.

The interaction between abstract trust and interpersonal trust is further explored across three different certification schemes in Paper 3. The findings in this paper provide preliminary evidence for the inverse relationship between abstract trust in certification and demand for interpersonal trust in food supply chain actors. It appears the higher the level of trust in the certification, the lower the demand for trust in food actors (i.e., growers, retailers) and, conversely, the lower the level of trust in the system, the higher demand for trust in food actors. This finding suggests people utilise their personal relationships differently in purchasing certified vegetables under different certification schemes. The findings support the derived assurances from personal relationships (Telligman et al., 2017) and align with the findings from

other studies on social trust fostered by personal interactions (Giampietri et al., 2018; Sapp et al., 2009).

Fourthly, this thesis extends literature in food certification by showing variations and dimensions of consumer trust across three different certification schemes that exist in the same market. It found that consumers prefer international certifications from economically more developed countries, supporting the findings from other studies (Dekhili & Achabou, 2014; Onozaka & McFadden, 2011; Schjøll, 2017; Thøgersen et al., 2017; Xie et al., 2016). Although low trust in domestic certifiers or controllers is the main reason cited in the literature (Grunert et al., 2015; Nuttavuthisit & Thøgersen, 2017, 2019), this paper found other important factors related to food chain actors to explain these differences. International schemes are perceived to have higher standards and stricter inspection procedures. Third-party certification is perceived as objective and independent. However, both international certification and third-party certification are perceived to lack regular inspections due to insufficient capacity of food actors to conduct such inspections. Community-based certification, however, is highly valued for its local production knowledge, and regular cross-check inspection systems. Therefore, the variation in consumer perceptions of certification largely depends on their perception of how well the system works and in particular, how it is coordinated across actors (i.e., growers, retailers) in the food chain to deliver certified standards.

Finally, the thesis suggests the influence of food chain governance on abstract trust and interpersonal trust in food. Consumers perceive certification as a formal basis for a business contract between growers and retailers. This certification-based contract means that retailers only purchase products if they are certified with specific certification. In other words, the certification is used as a quality guarantee in the purchasing contract between growers and retailers. This role of certification has often been studied from a food chain governance perspectives with a focus on the production side (Hughes & Isengildina-Massa, 2015; Ochieng

et al., 2017; Ogutu et al., 2020; Tran & Goto, 2019). It is interesting that participants in this thesis consider this function of certification as a way for retailers to bypass their responsibility of food quality control to third-party agencies. This finding is novel showing that certification-based governance mechanisms play an important role in forming the consumer perception of trustworthiness of food actors and therefore, their trust in food. It suggests that certification can work more effectively if it is combined with other informal interpersonal trust-based mechanisms such as direct selling to consumers and different supports to growers.

Overall, this thesis advances literature in trust in food by enriching our understanding of the variations in consumer perceptions of different food quality certifications, i.e., organic and GAP certifications, in a larger social context of the food chain, taking into consideration social interactions between consumers and food chain actors. The linkages between trust, consumptions value, and actual food choice as well as the linkages between abstract trust and interpersonal trust shed light on understanding the variations of trust in food in modern societies.

5.2.2 Methodological contributions

This thesis marks the first research that uses a qualitative methodology, investigates actual purchase behaviour, and covers the full range of purchase possibilities of organic food. The main methodological contribution of this thesis was made by the use of three different buyer groups to collect primary data for the exploration of consumer trust in food. These participants share a similar background of accessibility, affordability, and awareness of certified food and food certifications, but belong to different three consumer groups: regular, occasional, and non-buyers of organic food. In doing so this thesis directly responds to Kushwah, Dhir, Sagar, et al.'s (2019) call for research studying consumers motives of organic food purchase based on their involvement. Only three studies thus far have included occasional buyers of organic food (Hasimu et al., 2017; Henryks et al., 2014; Stolz et al., 2011), and non-

buyers have rarely been used for studying the motives for purchasing organic food (Kushwah, Dhir, Sagar, et al., 2019); one exception is a paper by Bryła (2016). Different groups of buyers have different perceptions of consumption values (Kushwah, Dhir, Sagar, et al., 2019). Therefore, the relative importance of motives to these groups of buyers' purchasing behaviour is likely to be different. Furthermore, considering all three groups will provide a better understanding of the attitude- behaviour gap (Van Dam & Van Trijp, 2011), and provide a wider range of insights for practitioners and policymakers about motivations for purchasing organic food.

The second methodological contribution of this thesis is the focus on actual purchase behaviour, not behavioural intention. Regular buyers of organic food were identified with the help of main organic retailers in Vietnam. Other occasional buyers and non-buyers were identified through an online survey before individual interviews to assure that they are suitable for inclusion in the study. The use of this sampling responds to the call of literature to examine determinants of actual choice behaviour (Ham et al., 2018; Prakash et al., 2018; Yadav & Pathak, 2016). The three papers in this thesis adopt thematic analysis to interpret consumption stories from a real consumption scenario, i.e., vegetable consumption in Vietnam, therefore can offers insightful understanding of the complexity of consumer trust in food.

5.2.3 Contributions to context

Recent literature has called for more research in emerging markets which present significant differences from assumptions of theories developed in the Western world (Burgess & Steenkamp, 2006). Likewise given trust is a context-specific construct (Bhattacharya et al., 1998; Lewicki & Bunker, 1996), contemporary trust theories mainly developed in Western countries might not necessarily be applicable to developing countries. In addition, most of the studies on consumer trust and organic food purchasing have been conducted in developed countries, in which supply and demand for organic products have become much more

prevalent, compared with fledgling organic farming systems in developing countries (Kushwah, Dhir, Sagar, et al., 2019; Tandon et al., 2020). Furthermore, developing countries are a large market for more than half of the world's customers, with a growing market of middle- class consumers (United Nations, 2019). Therefore, understanding consumer trust and food choice considering the social context of food system and food chain actors in emerging markets is of vital importance.

This research, conducted in the context of vegetable consumption in Vietnam, presents a fast-growing country in Asia with dynamic market structures and an emerging market for organic food which has also been influenced by globalisation and Western culture. This thesis demonstrates several findings that are likely to be different from findings in developed countries and therefore add to our understanding of consumer behaviour related to food choice in emerging markets. For example, this is the first paper found that emotional value plays the most crucial role for regular and occasional buyers, while in developed countries rational considerations, such as functional attributes, mostly influence consumers' purchase decisions (Ditlevsen et al., 2020; Essoussi & Zahaf, 2009; T. Hansen et al., 2018). These findings have contributed to the current knowledge of food trust through the inclusion of social-institutional factors in emerging markets to understand variations in trust in food.

5.3 Practical implications

This thesis has three implications for practitioners. First, the findings show that lack of trust in the food system is a key factor that hinders the consumption values of organic food. In other words, policymakers and food actors should not assume that certification will automatically result in trust, lowered risk perceptions, and food purchase. Instead, policymakers need to have an understanding of how to gain the required levels of trust for consumers to be motivated to purchase organic and GAP vegetables. Certification and labelling, which are used to signal differences in quality and food safety, only work if there are

sufficient levels of trust in the broader food system which designs these mechanisms. Strategies to increase trust among people needs to consider level of trust on various levels, starting from the wider institutional system, to the food system, and individual actors in that system, and then, finally, to the certifications. They should communicate the 'process' of producing and distributing food, such as encouraging business practices to promote transparency, integrity, and competency in order to increase trust in the wider institutional and food systems. Building trust can occur through a myriad of activities, such as communication about regular inspections at the farm and market level, providing digital transparency on which organisations are certified, how long for, what the certification entailed, and who was responsible for awarding the certification. Regular updates on inspections, misconduct, and certification status on online and interactive platforms such as Facebook are particularly useful and highly valued by participants. The involvement of private external parties or international staff in issuing and managing certificates, rather than government agencies, should be considered in order to increase abstract trust.

Second, retailers' trustworthiness plays an important role in consumers' food choice, particularly when there is a lack of trust in the entire food system. Therefore, retailers can take this opportunity to increase trust through increasing their engagement with consumers, and providing production information to them, and actively getting involved in farm management to guarantee food quality and thus build consumer trust. In addition, the findings about the key consumption values of different consumer groups can be used by retailers and practitioners to design communication strategies for each segment. For example, they can increase communication on supporting local farmers and the environment for regular buyers, and highlight the differences between organic and safe conventional vegetables for occasional buyers. Retailers could also play an active role in reconnecting consumers with food production. It is clear that both retailers and food certification are positioned at the interface of

the consumers' point of purchase and, therefore, whether people place trust in retailers and certifications as well as interactions between abstract trust and interpersonal trust, largely influence their final food choice.

Finally, the thesis suggests two food chain governance frameworks to increase perceived competence of food system and food actors, and consequently, work towards increasing trust in food certification and food safety. While governments and the food industry have implemented a number of approaches to address the problem of distrust in food, these solutions are system-oriented and therefore do not acknowledge the role of individual food actors, particularly retailers, in reconnecting consumers with food production system. For example, production methods regulation and standards, legitimising regulation and assurance agencies, increasing auditing and inspecting production, have been suggested to increase the competence of food systems (Albersmeier et al., 2009; Deaton, 2004; Hatanaka et al., 2005). Traceability and transparency of food production has been recommended to increase the integrity of food systems (Hall, 2010). To date, few studies consider solutions directly re-connecting consumers with producers to increase trust, for example through local food network such as farmer markets and community gardens (Meyer et al., 2012). Yet face-to-face encounters between consumers and producers might not be geographically, time, and financially feasible. Therefore, this research suggests two different models emphasising the role of retailers to re-embed consumers in the production of food.

The first model suggests that retailers provide technical training and other support to growers to signal the competence and honesty of retailers in quality control (Figure 7). Prior research has well documented benefits of the governance tools such as direct selling and contract farming to farmers and supermarkets focusing on the supply side of the food system (Hughes & Isengildina-Massa, 2015; Ochieng et al., 2017; Ogutu et al., 2020; Tran & Goto, 2019). This research provides empirical evidence for the role of food governance mechanisms

in building trust in consumers through signalling to consumers of their involvement in production and quality control. As perceived lack of capacity of the food system in delivering safe food is still participants' main concern, they demand higher capacity of quality monitoring from other food actors. When there is insufficient institutional trust in the system, retailers/supermarkets need to play significant roles to instil trust in certified organic food among consumers.

The second model suggests the combination of using PGS and farmer groups' direct selling through digital platforms to instil interpersonal trust among consumers (Figure 8). Preferably, consumers are located within geographical local food networks to take advantage of local food knowledge, logistics, and transportation. This model works on the basis of local network-based trust between consumers and farmers and adopting PGS as the regulation system. Supported by previous literature, which found that the lack of face-to face encounters is problematic in food trust (Dixon & Banwell, 2004; Giddens, 1990), the proposed model can compensate for the lack of institutional trust in certified food systems by re-establishing trust based on direct engagement in the food network.

5.4 Limitations

This thesis has three limitations which can serve as opportunities for future research. Firstly, all papers in this research used the same operational procedures including sampling, methodology, and scope that constrain the generalisability of the research findings. This research employed purposive recruitment to select suitable participants to participate in the research, which usually gives access to a specific population group. Related to this, the recruitment of interview participants included a screening survey to allow a meaningful exploration of trust in food certification. Therefore, participants may potentially be more motivated and more knowledgeable about food certification than other members of society. In addition, criticising government official certified products might be seen as being socially

undesirable by some consumers that may cause inherent problems in convincing them to share their honest perceptions on different types of vegetable products. Therefore, as with other qualitative studies, findings of this paper should not be generalised. Rather, they contribute to the social theory of trust through the inclusion of social-institutional factors that form part of the context and explain individual perceptions and behaviour (J. Lewis, Ritchie, Ormston, & Morrell, 2013). As the aim of this research is to provide insights into consumer trust in food, purposive sampling was beneficial to attract participants with knowledge of all three certification schemes, which means they can be regarded as information rich (Patton, 2002; Sandelowski, 1995; Suri, 2011).

Secondly, this research investigated only one specific food category, i.e., vegetables, and only one single market in a specific context research context, i.e., Vietnam. This may also constrain the generalisability of the research findings to different product categories and different social-cultural settings. However, it is not a purpose of this research to provide understanding of the differences across food categories or countries or indeed to be generalisable. For an in-depth understanding of variations and dimensions of consumer trust in food, trust should be prominent in a consumer - food relationship. Fresh food consumption, such as organic vegetables, is appropriate for the exploration of trust because consumers often associate organic attributes with fresh produce (Hughner et al., 2007), and Vietnamese people, who consume a high intake of vegetables (FAO, 2019), are highly concerned about their food safety (World Bank, 2019). In addition, the research findings from an emerging market may enrich the current Western-dominated trust theory. These findings could be useful for other developing countries whose food sectors face similar challenges in establishing consumers' trust in the whole food chain, but such assertions need be investigated with country-specific research, or regional research, that involves multiple countries.

Finally, as this is interpretivist research, the researcher's subjectivity and potential bias should be acknowledged (Cavana, Delahaye, & Sekeran, 2001). The researcher has spent several years working with government officials, NGOs, traders, and farmers to promote the PGS development in Vietnam and other Asian countries. This might cause potential bias in this research. The fact that the researcher has knowledge and experience regarding national food certification systems and PGS promotion as food certification may draw presumptions, and this was noted by the researcher. Also, the subtle differences in cultural, geographic, and demographic backgrounds between the researcher and the participants may affect the interpretation. To minimise the impact of such subjectivity and potential bias, the researcher frequently discussed and sought feedback from PhD supervisors during the research process from research design to interview guidelines development, data analysis and interpretation, and findings.

5.5 Future research

There are several opportunities for future research to extend the present research findings. This research marks the first empirical evidence that consumption values can be interrelated in the fresh produce consumption context. Both positive and negative influences are found in the first paper. For example, emotional value positively influences functional values for regular and occasional buyers. Meanwhile, the high commercial availability of organic food, that is, conditional values, triggers negative feelings of non-buyers, i.e., emotional value. This adds to our understanding of the complex linkages among consumption values related to food and food purchase decision-making. Therefore, further research could explore these dynamic interactions to better understand the formation of perceived consumption values.

In light of the limitation stemming from the constraints of a qualitative approach, sampling and research context, future research is recommended to use other research

approaches, such as experiments or surveys across different product categories in different social-cultural contexts, to further test and extend the research findings. For example, the relative importance of each value for regular buyers, occasional buyers, and non-buyers could be investigated further with a future large-scale quantitative survey. In addition, it has been shown that general trust in the food system varies across countries with different institutional conditions (Berg et al., 2005; Glitsch, 2000). Therefore, future research could explore further the influence of trust on consumers' perceived consumption values of organic food in other countries. This would help to understand the variation in consumer perception of food across countries by considering the influences of different levels of general trust in these countries.

Future research could also look into the abstract trust - interpersonal trust relationship in other sectors, such as healthcare, or finance and investment, where abstract trust in the effectiveness and legitimacy of regulation play a critical role in these modern social institutions. Although studies in other disciplines found a low level of trust in wider institutional arrangements such as expert systems in government, finance, or healthcare (Kroeger, 2015, 2017; Stevenson & Wolfers, 2011), the impact on social relationships has not been empirically studied. More research about the interaction between abstract trust and interpersonal trust in other sectors will improve our understanding of what modern social institutions can do to increase trusting social relationship or social capital.

As this is the first research exploring consumers' perceptions of community-based certification, future research could explore other alternative types of certification to third-party schemes in other countries. Community-based certification is found to be highly trusted for its local production knowledge, and regular, cross-check inspection systems. It would be important to understand if and how the appearance of community-based certification influence consumers' perception of established third-party certification in other contexts, particularly in developed countries.

Finally, this research shows that certification can work more effectively to increase consumer trust in food if it is combined with other governance mechanisms such as direct selling or technical support of retailers for growers. Therefore, it could be valuable to explore the influence of certification and these governance mechanisms on consumer trust in food to confirm the findings in other consumption contexts. It is the ultimate goal of this research to propose different strategies for policy makers and the food industry to increase consumers' perceived competence of the food system and food chain actors, and consequently, to increase trust in food certification. The two proposed frameworks in this research are designed to reconnect consumers with the food system, increase their knowledge of food production through the combination of food labelling (i.e., certification) and food chain actors. This will increase perceived trustworthiness of the food system and its actors, and ultimately consumers' trust in food and food certification. Establishing trust in food is beneficial and needs to extend beyond the food sector. As Marison Nestle, a food politic expert, once said: "If we have a food supply that we can't trust, that has enormous implications for the way we view government, for the way we trust business, and for our international trade relations" (Brittney, 2008). It is hoped that the present thesis inched us closer to such goals, by improving our understanding of trust.

APPENDICES

Appendix 1. Letter of Ethics Approval

Research Office
Post–Award Support Services

The University of Auckland
Private Bag 92019
Auckland, New Zealand

Level 10, 49 Symonds Street
Telephone: 64 9 373 7599
Extension: 83711
Facsimile: 64 9 373 7432
ro-ethics@auckland.ac.nz

UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE (UAHPEC)

16-Jul-2018

MEMORANDUM TO:

Dr Denise Conroy
Marketing

Re: Application for Ethics Approval (Our Ref. 021265): Approved with comment

The Committee considered your application for ethics approval for your study entitled **Encouraging consumers to switch to purchasing community-based certified organic food**
.

Ethics approval was given for a period of three years with the following comment(s):

1. PIS Focus Group
Please replace:
Because of the group nature of the discussion, you cannot edit your transcript/contribution in the discussion.
With:
We are unable to offer you the opportunity to review/edit a copy of the transcript for the focus group, as any amendments could change the contextual meaning of the remaining data.

The expiry date for this approval is 16-Jul-2021.

If the project changes significantly you are required to resubmit a new application to UAHPEC for further consideration.

If you have obtained funding other than from UniServices, send a copy of this approval letter to the Activations team in the Research Office, at ro-awards@auckland.ac.nz. For UniServices contracts, send a copy of the approval letter to the Contract Manager, UniServices.

The Chair and the members of UAHPEC would be happy to discuss general matters relating to ethics approvals if you wish to do so. Contact should be made through the UAHPEC Ethics Administrators at ro-ethics@auckland.ac.nz in the first instance.

Please quote Protocol number **021265** on all communication with the UAHPEC regarding this application.

(This is a computer generated letter. No signature required.)

UAHPEC Administrators
University of Auckland Human Participants Ethics Committee

c.c. Head of Department / School, Marketing
Van Anh Thi Truong
Dr Bodo Lang

Additional information:

1. Do not forget to fill in the 'approval wording' on the Participant Information Sheets, Consent Forms and/or advertisements, giving the dates of approval and the reference number. This needs to be completed, before you use them or send them out to your participants.

2. At the end of three years, or if the study is completed before the expiry, you are requested to advise the Committee of its completion.

3. Should you require an extension or need to make any changes to the project, please complete the online Amendment Request form associated with this approval number giving full details along with revised documentation. If requested before the current approval expires, an extension may be granted for a further three years, after which time you must submit a new application.

Appendix 2. Participation Information Sheet - Focus Group Discussion

University of Auckland Business School
Department of Marketing
12 Grafton Road
Auckland 1142
New Zealand
Ph: + 64 9 373 7599

Participant Information Sheet
(Focus group discussion)
Encouraging consumers to switch to purchasing community-based certified organic food

Researcher: Van Anh Thi Truong, PhD Candidate, The University of Auckland
Supervisors: Dr Denise Conroy and Dr Bodo Lang, The University of Auckland

Researcher profile

My name is Van Anh Thi Truong, and I am conducting this research as part of my PhD thesis in the Department of Marketing at the University of Auckland in New Zealand, under the supervision of Dr Denise Conroy and Dr Bodo Lang. Before commencing my PhD research, I developed an interest in consumers' behaviour in food choice through several years working experiences in the agricultural sector to promote affordable and safe food for society.

What is the research about?

We would like you to invite you to participate in a research project on exploring the consumption of Participatory Guarantee System, a community-based certification, certified organic vegetables in Vietnam. We are seeking to understand the impacts of involvement with food, uncertainty about organic food and trust on consumers' switching behaviour.

The outcomes from this research will be very useful in informing how people make a decision related to their food choice and the characteristics of community-based certification system in promoting their food choice.

What is involved?

I would like to collect data primarily from 10-15 interviews and 4 group discussions of 4-6 people. Total participants in this research is from 26 to 39 people. You are invited to participate in one of these focus group and your participation is voluntary. The discussion will take approximately 60-90 minutes. If you choose to participate and feel uncomfortable at any time during the focus group, you are welcome to leave the room without giving a reason. However, your contribution to the focus group cannot be removed from the research due to the nature of the activity.

The focus group will be audio recorded. I may use a third party to transcribe the recording. In order to maintain your privacy, I will use a third party that agrees to a strict condition of confidentiality. For data analysis purpose, I will translate all the transcripts into English. The translated transcripts will only be shared with the interviewee and the named researcher.

The focus group will involve discussions and activities aimed at understanding how you switch toward buying PGS organic vegetables. The focus group will be conducted at a central location that convenient for majority of participants.

As a token of appreciation, I would like to provide you with a VND 400,000 grocery voucher.

Am I able to receive a copy of my recording and/or final report?

We are unable to offer you the opportunity to review/edit a copy of the transcript for the focus group, as any amendments could change the contextual meaning of the remaining data. A copy of the research findings will also be made available for you at the end of the study. If you would like a report of the research findings, please indicate this on the Consent Form and provide your email address in the indicated field.

How will the data be stored?

All digital data will be stored on a password protected computer at the University of Auckland. Hard copies will be securely stored in a locked location within the university. Interview data and consent forms will be stored in separate locations. All data will be retained for no more than a period of 6 years from the date of collection. After this period, all data will be permanently deleted from the computer and hard copies will be physically destroyed in a secure manner.

What happens to the information collected from me/us?

The information you provide in this project will be used to write a thesis, research papers and articles, including related reports, presentations and possible publications.

Anonymity and Confidentiality

Participants details will be kept confidential, and pseudonyms will be used when reporting results of the research. Any report on findings of this study will include no material that could personally identify you.

You have the right to withdraw from the study at any time without giving reasons including part-way during discussion by leaving the room. You may also choose not to answer interview questions. You cannot withdraw your research data due to the conversational and contextual nature of group discussions.

I would greatly appreciate your assistance in this research. Please indicate your approval for permission in the consent form for this study.

Contact details and approval
Van Anh Thi Truong
University of Auckland
v.truong@auckland.ac.nz
Supervisors
Dr Denise Conroy
University of Auckland
Tel: 09 373 7599 ext 87286 Email: d.conroy@auckland.ac.nz
Dr Bodo Lang
University of Auckland
Tel: (09) 923 7162
Email: b.lang@auckland.ac.nz

The Dean of Business School is:
Professor Jayne Maree Godfrey
Tel: +64 9 923 4550
Email: jayne.godfrey@auckland.ac.nz

For any queries regarding ethical concerns, you may contact:
The Chair, The University of Auckland Human Participants Ethics Committee, The University of Auckland, Research Office, Private Bag 92019, Auckland 1142, New Zealand.
Tel: (09) 373 7599 ext 83711
Email: ro-ethics@auckland.ac.nz

Approved by the University of Auckland Human Participants Ethics Committee on 16/7/2018 for three years. Reference Number 021265

Appendix 3. Consent Form - Focus Group Discussion

University of Auckland Business School
Department of Marketing
12 Grafton Road
Auckland 1142
New Zealand
Ph: + 64 9 373 7599

Encouraging consumers to switch to purchasing community-based certified organic food

Consent Form: Focus group

This consent form will be securely held for six years

Researcher: Van Anh Thi Truong, PhD Candidate, The University of Auckland
Supervisors: Dr Denise Conroy and Dr Bodo Lang, The University of Auckland

---

I confirm that I have read the Participant Information Sheet. I understand the nature of the research project and the reason why I was selected. The researcher(s) have given me the opportunity to ask questions which have been answered to my satisfaction.

I consent to participate in this research project and:

- I agree that my participation in this project and the focus group is entirely voluntary
- I agree to be audio recorded while participating in the focus groups.
- I may withdraw from the research in progress at any time, by leaving the focus group without giving a reason.
- I understand that, if I choose to withdraw during the focus group session, my contribution to the focus group cannot be removed from the research due to the nature of the activity.
- I understand that pseudonyms will be used in file names to ensure full confidentiality for participants and pseudonyms will be used when the audio is sent to a third party for transcription and translation, although total anonymity may not be possible.
- I agree to not talk about anything discussed in the focus group with those who did not take part.
- A third party who has signed a confidentiality agreement may transcribe the tapes.
- I understand that the research I will participate in will be used as part of an assessed piece of university work and subsequent academic papers.
- The interview recordings and transcripts will not be made available to anyone outside the research team. They will be stored securely for six years on University of Auckland premises, after which the computer files will be erased and the paper transcripts shredded.

I wish/do not wish to receive a summary of the final results, which can be emailed to me at this email address:

Name _____

Signature _____Date_____

APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE ON 16/7/2018 FOR (3) YEARS REFERENCE NUMBER 021265

Appendix 4. Participant Information Sheet – Interviews

University of Auckland Business School
Department of Marketing
12 Grafton Road
Auckland 1142
New Zealand
Ph: + 64 9 373 7599

Participant Information Sheet
(Interviews)

Encouraging consumers to switch to purchasing community-based certified organic food

Researcher: Van Anh Thi Truong, PhD Candidate, The University of Auckland
Supervisors: Dr Denise Conroy and Dr Bodo Lang, The University of Auckland

Researcher profile

My name is Van Anh Thi Truong, and I am conducting this research as part of my PhD thesis in the Department of Marketing at the University of Auckland in New Zealand, under the supervision of Dr Denise Conroy and Dr Bodo Lang. Before commencing my PhD research, I developed an interest in consumers' behaviour in food choice through several years working experiences in the agricultural sector to promote affordable and safe food for society.

What is the research about?

We would like you to invite you to participate in a research project on exploring the consumption of Participatory Guarantee System, a community-based certification, certified organic vegetables in Vietnam. We are seeking to understand the impacts of involvement with food, uncertainty about organic food and trust on consumers' switching behaviour.

The outcomes from this research will be very useful in informing how people make a decision related to their food choice and the characteristics of community-based certification system in promoting their food choice.

What is involved?

I would like to collect data primarily from 10-15 interviews and 4 group discussions of 4-6 people. Total participants in this research is from 26 to 39 people. You are invited to participate in one of these interviews and your participation is voluntary. The interview will take approximately 60-90 minutes. Any such interview would be arranged at a time that suits your schedule. The interview will be audio-recorded with your permission and can take place in your own home. If I audio-record you, I may use a third party to transcribe the recording. In order to maintain your privacy, I will use a third party that agrees to a strict condition of confidentiality. For data analysis purpose, I will translate all the transcripts into English. The translated transcripts will only be shared with the interviewee and the named researcher. You are free to choose the location of these interviews as well if you do not feel comfortable or convenient being interviewed at home. I also seek your permission to take photographs such as food storage/fridge that help to illustrate what has been described in the interviews. No image of persons will be included.

As a token of appreciation, I would like to provide you with a VND 400,000 grocery voucher.

Am I able to receive a copy of my recording and/or final report?

You will receive interview transcripts to review and edit if necessary. Should you wish to change, please return the transcripts, with any amendments within two weeks of receiving the transcripts.

A copy of the research findings will also be made available for you at the end of the study. If you would like a report of the research findings, please indicate this on the Consent Form and provide your email address in the indicated field.

How will the data be stored?
All digital data will be stored on a password protected computer at the University of Auckland. Hard copies will be securely stored in a locked location within the university. Interview data and consent forms will be stored in separate locations. All data will be retained for no more than a period of 6 years from the date of collection. After this period, all data will be permanently deleted from the computer and hard copies will be physically destroyed in a secure manner

What happens to the information collected from me/us?
The information you provide in this project will be used to write a thesis, research papers and articles, including related reports, presentations and possible publications.

Anonymity and Confidentiality
Participants details will be kept confidential, and pseudonyms will be used when reporting results of the research. Any report on findings of this study will include no material that could personally identify you.
You have the right to withdraw from the study at any time without giving reasons including part-way during interviews. You may also choose not to answer interview questions. You may withdraw from the research without giving reason up to one month after the interview have been conducted.
I would greatly appreciate your assistance in this research. Please indicate your approval for permission in the consent form for this study.

Contact details and approval
Van Anh Thi Truong
University of Auckland
v.truong@auckland.ac.nz
Supervisors
Dr Denise Conroy
University of Auckland
Tel: 09 373 7599 ext 87286 Email: d.conroy@auckland.ac.nz
Dr Bodo Lang
University of Auckland
Tel: (09) 923 7162
Email: b.lang@auckland.ac.nz

The Dean of Business School is:
Professor Jayne Maree Godfrey
Tel: +64 9 923 4550
Email: jayne.godfrey@auckland.ac.nz

For any queries regarding ethical concerns, you may contact:
The Chair, The University of Auckland Human Participants Ethics Committee, The University of Auckland, Research Office, Private Bag 92019, Auckland 1142, New Zealand.
Tel: (09) 373 7599 ext 83711
Email: ro-ethics@auckland.ac.nz

Approved by the University of Auckland Human Participants Ethics Committee on 16/7/2018 for three years. Reference Number 021265

Appendix 5. Consent Form - Interviews

University of Auckland Business School
Department of Marketing
12 Grafton Road
Auckland 1142
New Zealand
Ph: + 64 9 373 7599

Encouraging consumers to switch to purchasing community-based certified organic food

Consent Form: Interviews

This consent form will be securely held for six years

Researcher: Van Anh Thi Truong, PhD Candidate, The University of Auckland
Supervisors: Dr Denise Conroy and Dr Bodo Lang, The University of Auckland

---

I confirm that I have read the Participant Information Sheet. I understand the nature of the research project and the reason why I was selected. The researcher(s) have given me the opportunity to ask questions which have been answered to my satisfaction.

I consent to participate in this research project and I understand the following:

- I agree that my participation in this project and the interview is entirely voluntary
- I may withdraw my data from the research without giving a reason at any time within one month of the date of the interview.
- I may withdraw from the research in progress at any time without giving a reason.
- I will have the option to be or not to be audio recorded during the interview and photos of food storage/fridge supporting the context maybe taken with my permission. These photos will not contain images of my person.
- If I chose to be recorded, I may stop the recording at any point during the interview without giving a reason.
- A third party who has signed a confidentiality agreement may transcribe the tapes.
- I will be offered the opportunity to edit my transcript. I will have two weeks to return this to the researchers with any changes or points of clarifications noted.
- Identity information will be treated confidentially; participants will not be identified.
- Pseudonyms will be used in file names to ensure full confidentiality for participants, such as when the audio is sent to a third party for transcription and translation.
- The interview recordings and transcripts will not be made available to anyone outside the research team. They will be stored securely for six years on University of Auckland premises, after which the computer files will be erased and the paper transcripts shredded.

I wish/do not wish to receive a summary of the final results, which can be emailed to me at this email address:

Name _____

Signature _____Date_____

APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE ON 16/7/2018 FOR (3) YEARS REFERENCE NUMBER 021265

Appendix 6. Question Guide - Focus Group Discussion

QUESTION GUIDE: Focus group discussion

Encouraging consumers to switch to purchasing community-based certified organic food

Introduction

Thanks for allowing me to come in today and learn more about your vegetable choice for your daily meals. There are no right or wrong answers as we are all individuals and food is something that is personalised. Every opinion that you express therefore is valid and will contribute to increasing our understanding of the subject.

Sample General Questions/Paraphrasing/Probing

1. Participant's self-introduction
2. Tell us about your recent shopping for food experience. Where did you shop? How often did you shop there? What do you like about the shop? How do you make decision on what type of vegetables to buy?
3. Do you plan a menu and make a list or do you just go to the shops and decide on the spot?
4. What significant changes have you made in your food consumption pattern up to now and which are factors that make you change? How to make these changes? (For examples: situational changes such as moving house, changing jobs, getting married, giving birth, etc.)
5. Everyone (who switch) is asked to add their words starting with: I switch to buying PGS vegetables because (1st person), (2nd person)... until no new reason added
6. Everyone (who do not switch) is asked to add their words starting with: I do not switch to buying PGS vegetables because (1st person), (2nd person)... until no new reason added
7. Everyone (who switch) is asked to add their words starting with: The first time I switch to buying PGS is (when)....because....
8. Everyone (who switch) is asked to add their words starting with: The first time I heard about PGS is (when)....from....
9. Everyone (who do not switch) is asked to add their words starting with: The first time I heard about PGS is (when)....from....
10. Everyone (who do not switch) is asked to add their words starting with: The first time I saw PGS vegetables in a store is (when)....from....
11. How often do you read news about food safety or food incidents or knowledge about food production?
12. Which factors are most important when you choose food in general and vegetables in particular?
13. Are you happy with your food and vegetable selection?
14. How often do you change your food stores or select different type of products that you usually buy?

Thank you very much once again for agreeing to participate in this group discussion!

Appendix 7. Advertisement Note

Hi, my name is Van Anh and I am a PhD student at the Department of Marketing, the University of Auckland. My area of interest is to encourage healthier food choice, affordable food safety certification and sustainable food production in Vietnam and other countries. My PhD is supervised by Dr Denise Conroy and Dr Bodo Lang from the Department of Marketing at the University of Auckland.

We would like you to invite you to participate in a research project on exploring the consumption of Participatory Guarantee System, a community-based certification, certified organic vegetables in Vietnam. We are seeking to understand the impacts of involvement with food, uncertainty about organic food and trust on consumers' switching behaviour.

The interview and discussion will take approximately 60-90 minutes. Any such interview or discussion would be arranged at a time that suits your schedule.

As a thank you for your time, you will be given a VND 400,000 grocery voucher.

If you are interested in being part of this study and/or would like more information, please contact: Van Anh Truong at v.truong@auckland.ac.nz

Appendix 8. Online Survey: Selection of Participants for Interviews

Online survey: Select participants for interviews

The following survey is designed to select suitable participants to participate in research project on exploring the consumption of certified organic and safe vegetables in Vietnam. The research findings will be used to write a PhD thesis of Van Anh Truong, University of Auckland, New Zealand.

Time to finish the survey: 1-3 minutes

Participants who met the research criteria will be invited to participate in an individual interview which will last around 60 minutes.

Interview appointments will be arranged subject to participants' availability, from 20/3 to 31/5/2019

Participants details will be kept confidential, and pseudonyms will be used when reporting results of the research.

As a token of appreciation, participants in the interview will received a VND 400,000 grocery voucher.

Thank you for your time.

Question 1. Select types of vegetables that you have seen or heard about

☐Vineco vegetables	☐PGS organic vegetables	☐Orfarm vegetables
☐Organica organic vegetables	☐FVF organic vegetables	☐Dalat GAP vegetables
☐Safe (RAT) vegetables	☐Tue Vien organic vegetables	☐Global GAP vegetables
☐Dai Ngan organic vegetables	☐VietGAP vegetables	☐Never heard of any

Question 2. Select types of vegetables that you have bought

☐Vineco vegetables	☐PGS organic vegetables	☐Orfarm vegetables
☐Organica organic vegetables	☐FVF organic vegetables	☐Dalat GAP vegetables
☐Safe (RAT) vegetables	☐Tue Vien organic vegetables	☐Global GAP vegetables
☐Dai Ngan organic vegetables	☐VietGAP vegetables	☐Never bought any

Question 3. Select types of vegetables that you often buy

☐conventional vegetables,

☐safe vegetables,

☐organic vegetables,

☐vegetables planted by someone you know

Question 4. Select venues that you often shop

☐Supermarkets

☐Special/safe food stores

☐Wet markets

☐Others (list)

Question 5. Would the price of organic vegetables be affordable to you should you choose to buy?

☐Yes

☐No

☐Maybe

Question 6. Would organic vegetables be accessible to you should you choose to buy

☐Yes

☐No

☐Maybe

Question 7. Are you the main shopper for vegetables in your family?

☐Yes

☐No

Appendix 9. Question Guide – Interviews

INTERVIEW GUIDE

Encouraging consumers to switch to purchasing community-based certified organic food

Introduction

Thanks for allowing me to come in today and learn more about your vegetable choice for your daily meals. There are no right or wrong answers as we are all individuals and food is something that is personalised. Every opinion that you express therefore is valid and will contribute to increasing our understanding of the subject.

Sample General Questions/Paraphrasing/Probing

1. Tell me a little bit about yourself/yourselves and your family (elder, partner, children)
2. How often do you shop for food and vegetables?
3. Where do you normally shop for food and vegetables? Why do you go there?
4. How do you normally decide what you need to buy? Do you plan a menu and make a list or do you just go to the shops and decide on the spot?
5. What significant changes have you made in your food consumption pattern up to now and which are factors that make you change? How to make these changes? (For examples: situational changes such as moving house, changing jobs, getting married, giving birth, etc.)
6. How often do you read news about food safety or food incidents or knowledge about food production?
7. Do you think food has an impact on your health? And how?
8. How would you describe your health?
9. Which factors are most important when you choose food in general and vegetables in particular?
10. Are you happy with your food and vegetable selection?
11. How often do you change your food stores or select different type of products that you usually buy?

Sample Questions to Probe/Explore Specific Themes

Depending on the responses to the more general questions, potential probing and exploration of more specific areas around themes could include the following:

1. Since when did you know about organic vegetables?
2. Since when did you know about PGS vegetables? How do you know about it? Do you share PGS and organic vegetables information with others? Why and why not?
3. When you shop, how do you differentiate organic vegetables with ordinary vegetables?
4. Why do you choose to buy organic vegetables? Since when did you buy organic and PGS organic vegetables? How often do you buy PGS organic vegetables?
5. How often do you try new food / products? Why? / Why not?
6. Is any of your friends or relatives who currently buy PGS organic vegetables?
7. Do you consult with others when make decision on buying food or vegetables?
8. What sorts of things do you find you have trouble with, if any?
9. Do you have anything else to add?

Thank you very much once again for agreeing to participate in this interview!

Appendix 10. Translator Confidentiality Agreement

University of Auckland Business School
Department of Marketing
12 Grafton Road
Auckland 1142
New Zealand
Ph: + 64 9 373 7599

Transcriber confidentiality agreement

Title: Encouraging consumers to switch to purchasing community-based certified organic food
Researcher: Van Anh Thi Truong, PhD Candidate, the University of Auckland
Supervisors: Dr Denise Conroy and Dr Bodo Lang, the University of Auckland

---

Transcriber:

In signing this form, you agree to the following:

I agree to transcribe the audiotapes (from Vietnamese to English) for the above research project. I understand that the information contained within them is confidential and must not be disclosed to, or discussed with, anyone other than the researcher.

All electronic files will be deleted upon satisfactory completion of the transcriptions

Name _____

Signature _____

Date_____

Approved by the University of Auckland Human Participants Ethics Committee on 16/7/2018 for (3) years. Reference number 021265

Appendix 11. Coding Examples 1

Based on group categories: regular buyers, occasional buyers, and non-buyers

Quotes examples	Coding	Subthemes	Main themes
Hoan: It is very important to me that organic vegetables are chemical-free for their whole lifetime, you know, other certified safe conventional vegetables, such as VietGAP they still use chemical inputs, but they follow the techniques to make sure that there are no chemical residues in vegetables'	• Regular buyers • Chemical-free process • Difference between organic and safe vegetable	• Regular buyers value process-attributes • Unique motive	Regular buyers &Functional value of organic food
Lananh: it's not necessary to be organic. I doubt they can achieve such high standards of organic vegetables. Vegetables that follow preharvest interval accurately to assure no chemical residues, are good enough for me	• Occasional buyers • Chemical residual in the final products • No different between organic and safe vegetable	• Occasional buyers value product-attributes • Food safety is emphasised • Functional value is party formed (safety)	Occasional buyers &Functional value of organic food
Viet: authentic organic farming requires safe isolation distance and the water source. This is hardly achieved in Vietnam because other conventional farms in their neighbourhood share the same water source but use chemical fertiliser and pesticide. However, to me, as long as they use organic fertilizer and pesticide, it is safe enough.	• Occasional buyers • Organic standards are hard to achieve • Sufficient level of safety can be achieved	• Occasional buyers • Food safety is emphasised • Functional value is party formed (safety)	
Lien: There is no such thing as purely organic. As far as I know, to become an organic farm, the land and surrounding area must qualify many conditions of soil and water in years. I don't think there are any lands in Vietnam qualify that	• Non-buyers • Organic standards are hard to achieve	• Non-buyers • No functional values formed	Occasional buyers &Functional value of organic food

Appendix 12. Coding Example 2

Based on individual interviews

Excerptions	Open coding	Subthemes	Main themes
VA: What do you think about organic vegetables and safe vegetables? Viet: They still use chemical pesticides and fertilizer for safe vegetables but limit to the minimum necessary. They control safe isolation time and the possibility of infections thoroughly. Meanwhile, organic vegetables are grown in an organic environment, no pesticides or fertilizer. I think safe vegetables are already good but not as much as organic ones. Organic vegetables are better if the farmers follow the standard of organic farming then yes. You have to comprehend fully organic farming. It is much more than not using pesticide and fertilizer. If soil and water source you use for the farm are not qualified, you cannot say your vegetables are organic. VA: How do you think and choose PGS vegetables? Viet: I visited and watched the production process in both safe and organic vegetable farms, which operates as cooperatives. They follow a mutual management model; therefore, if one farm breaks the rules, for instant they sell vegetables for another organization or being accused of dumping, they will be disqualified. So I would support if organic farming follow that model. The procedures of safe vegetable farming are not strictly monitored because the local government wants to facilitate farmers to earn more income by selling at higher price. They want to encourage farmers so that the farmers comprehend and take the opportunity to adapt to meet the standards. Nevertheless, farmers only noticed the immediate benefit and broke the rules. Meanwhile, organic farming is not yet common; there are only a few people dedicated to organic farming. So I only bought PGS vegetables from Thanh Xuan farm. I'm not sure about others. Yes I feel confident after visiting the farm and know about their farming after talking with farmers and I would feel trustworthy when my friends or acquaintances share reliable information. VA: Do you recognize this label? Viet: It's VietGAP. There are so many products are labelled with VietGAP logo. But I don't believe much in this standard. The producer can use this logo freely on their labels without the authority's control. They might use VietGAP label as a tool to build their brand. Even if they said they're certified, I'm not sure they really get the certificate. The label doesn't tell the whole story. I recently searched for information about VietGAP standards and found out that water, soil, surroundings will be tested; and the criteria are so relative. VietGAP certificate is valid for 02 years. Meanwhile, who knows if the producer strictly follows the standards? The certification body's lack of control and our local authority are also reasons that make VietGAP label unreliable. VA: Is it legal to use VietGAP label when they don't really get the certificate?	• Safe conventional versus organic • Chemical residue-free versus chemical-free • Soil and water quality in organic • PGS-cross-checking • PGS-strict regulation • Safe conventional -not strict regulation • Safe conventional- lack of monitoring & inspection on farm • Farm visits increase trust in vegetables • Trust in friends/relatives' recommendations of vegetables • VietGAP-fraud label- trust violation • Lack of regular inspection on farm • Farmers broke the rules- certificate violation • Lack of food labelling control • Confusion about the authenticity of certificate • Standard is not high enough for VietGAP • Standard violation	• High organic standards • Standard/certificate violation at farm level ☾ lack of trust in certificate • Certificate mislabelling & counterfeit at market level ☾ lack of trust in certificate • Lack of trust in Food regulation ☂ competence aspect including 🌍strict requirements 🌍regulation enforcement 🌍punishment of noncompliance ☂ insufficient capacity in ☂ integrity aspect including 🌍regular inspection & monitoring at farm level and market level 🌍corruption in issuing certificates • Lack of trust in Food system (competence & integrity) ☾ Lack of trust in certification	• Trust in certification is abstract trust based on food regulation: competence & integrity • Distrust in food system regulation 🌍farm level 🌍market level leads to distrust in certification • Certificate cannot signal quality and guide food choice • Interpersonal trust (i.e. trust in farmers) can compensate lack of trust in certificate

Viet: I think it's totally out of control. Our authority management is weak and lax. There is regulation to avoid counterfeit but no enforcement. There is no clear punishment of noncompliance. I remember 3 years ago when VietGAP were famous, it created a trend of fraud label as shown in media. They can purchase the certificate without owning a farm. But they did not use VietGAP, they used "safe vegetable" or "organic vegetable" label. Or they used branding label for vegetables from unreliable source. However, there is a good side of this story. When they use VietGAP label, they will change their production procedure gradually and consider pursuing better standard. VA: How's about FVF vegetables' packages? Viet: I saw that they have USDA certificate but never really noticed. I visited their farms so I know that they built an isolated and closed system for organic farming. However, they are not 100% organic because the soil is not qualified for organic farming. VA: What does the USDA mean to you? Viet: It is not completely worthless. However, many organizations do not get the certificate but still put that certificate on their label. As far as I know, there is no institute that controls such problem strictly. There is no procedure to control unauthentic labelled safe and organic. Personally, I don't think that big company get certificate properly. I knew this PGS farms personally as I came to visit	• Certificate cannot guarantee the genuineness of certified vegetables • Unreliable certificates • Weak and lax control and management • Insufficient capacity to control mislabelling &label counterfeits • Food choice is not guided by certification • Certificate do not completely reflect the standards	• Consequences of lack of trust in certification ☂ certificate cannot guarantee the genuineness of standards ☂ certificate cannot guide food choice ☂ certificate cannot signal quality • Trust in farmers can compensate lack of trust in certificates	

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