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The antecedents of purchase intention of meat with traceability in Thai consumers

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ABSTRACT

Due to the emergence of mad cow disease and avian flu in poultry, meat traceability has been implemented within the meat supply chain to more effectively handle food safety and quality issues. This study aims to examine antecedents of purchase intention of meat with traceability including health consciousness, quality consciousness, product diagnosticity, perceived quality and product trust. The survey with 463 participants was conducted in Thailand and data were analyzed with structural equation model. Results reveal that health consciousness and quality consciousness positively influence product diagnosticity of meat with traceability, which, in turn, positively influences perceived quality and product trust. Furthermore, trust is found to be a significant mediator between this set of relationship. Based on findings, marketers may design more persuasive marketing strategies for traceable meat.

1. Introduction

Food safety is an important issue in consumers' decision to buy food products (Grunert, 2005). This concern has been particularly pronounced for meat after the emergence of mad cow disease in Europe (Sans, De Fontguyon, & Giraud, 2008) and avian flu in Asia (Burgos & Burgos, 2007). These incidents have caused negative image of meat safety and decreased consumers' confidence in their meat consumption (De Jonge et al., 2004). In response, a traceability system has been established in Europe, North America and subsequently also used in many other countries across the world (Myae & Goddard, 2012) including those in Asia (Gunnar & Fremme, 2007; Wu, Xu, & Gao, 2011).

A traceability system is an information technology that records and displays information for each piece of a product in every step of the manufacturing process (Hobbs, 2004). Therefore, information including sources-of-origin, production methods, ingredients, manufacturers, warehouses, distributors, selling places and product movement from the beginning up to the point where that particular product reaches meat consumers can be retrieved with this technology. As a consequence, the traceability system is tremendously useful for product tracking and checking (Hobbs, Bailey, Dickinson, & Haghiri, 2005). Information offered by the traceability system is thus helpful in improving consumers' decision making before purchase as well as the possibility of recalling a flawed product (Van Rijswijk & Frewer, 2008).

Numerous studies have investigated the effects of food traceability system on consumers' perceptions and behaviors in several domains including, for example, willingness to pay for traceable meat (Cicia & Colantuoni, 2010; Dickinson & Bailey, 2002; Lichtenberg, Heidecke, & Becker, 2008), benefits derived from meat traceability (Van Rijswijk, Frewer, Menozzi, & Faioli, 2008), motives for traceable food choice (Menozzi, Halawany-Darson, Mora, & Giraud, 2015), consumers' acceptance model for food traceability system (Tsai, Hong, Yeh, & Wu, 2014), definitions and expectations of traceability and the importance of labels (Kehagia, Chrysochou, Chryssochoidis, Krystallis, & Linardakis, 2007), impact of an information campaign about beef traceability and consumer interest (Verbeke & Ward, 2006), and the link between traceability and quality/safety (Van Rijswijk & Frewer, 2008). Various methods including experiment (e.g., Dickinson & Bailey, 2002; Lee, Han, Nayga, & Lim, 2011), laddering (e.g., Van Rijswijk et al., 2008), conjoint analysis (e.g., Lichtenberg et al. 2008), survey (Menozzi et al., 2015; Myae & Goddard, 2012), qualitative research methods (e.g., Kehagia et al., 2007; Van Rijswijk & Frewer,

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2008), and meta-analysis (Cicia & Colantuoni, 2010) have been employed to study the topics.

Many of these studies have been conducted with consumers in Europe and other Western countries; however, relatively fewer studies have focused on developing countries in Asia such as Thailand. Avian flu crises occurring in Thailand in 2004 have stirred consumer concern in food safety and resulted in the decrease in chicken and poultry consumption at that time (Burgos & Burgos, 2007). In response, Thai government attempted to initiate meat safety and standard measures. For example, the Department of Livestock Development launched campaigns under the safe meat program to persuade consumers to buy meat with a "Q" mark label which denoted a quality assurance starting from the meat production process at cattle farms through the consumers (Piemkhoontham & Ruenrom, 2010) but this label did not allow the complete check of the product history and its withdrawal for the harmful ones. In a private sector, leading Thai companies with a comprehensive meat business have developed a voluntary traceability system to standardize quality and safety of their production (Piemkhoontham & Ruenrom, 2010). Recently, a traceability label with a QR code has been launched to help consumers quickly access meat information through their smart phones.

Even though meat traceability has been used within the manufacturer–wholesaler–retailer cycle in Thailand, its role as a strategic marketing tool intended for final consumers is still in its infancy although the traceability system could be linked to meat quality and meat safety (Van Rijswijk & Frewer, 2008). It is thus necessary for meat marketers to deeply understand consumers' perception and intention for the successful promotion and implementation of such information technology in the meat industry. The first meat traceability research in a marketing context was conducted by Piemkhoontham and Ruenrom (2010). Their results indicated that Thai consumers tend to accept meat with traceability and be willing to pay more for it because they believed that traceability can help them acquire safer meat. However, specific reasons for the positive feedback and the characteristics of consumers who are more likely to desire traceability systems remain unclear and thus exists a research gap that needs more investigation.

Moreover, although ample research in traceability has existed, many studies appear to focus on consumer characteristics in terms of demographic variables. In addition, relatively few surveys specifically have developed a causal model to address consumers' response to meat traceability. The present study, therefore, attempts to fill in this void by examining consumers' psychographic variables (i.e., health consciousness and quality consciousness). Furthermore, we also aim to uncover the mechanism underlying consumers' purchase intention of traceable meat by using structural equation modeling (SEM) to examine the hypothesized relationship (Fig. 1).

That is, present study attempts to contribute to the food marketing theory and practice by conducting a study with Thai consumers to investigate the purchase intention of meat with traceability and its antecedents including health consciousness, quality consciousness, product diagnosticity, perceived quality, and product trust. The selection of these five antecedents is based on past research (e.g., Kornelis, De Jonge, Frewer, & Dagevos, 2007; O'Donovan & McCarthy, 2002; Van Rijswijk & Frewer, 2008; Van Rijswijk et al., 2008) which indicates that consumer's focus on health and quality may lead to purchase intention of traceable meat. That is, consumers with strong health and/or quality motivation tend to carefully consider product information and thoroughly examine the product before making a purchase. Subsequently, the consumers will perceive the quality of meat with traceability and have trust in it which will later result in stronger purchase intention (Menozzi et al., 2015; Mora & Menozzi, 2008).

2. Theoretical framework

2.1. Health consciousness

Health consciousness refers to the attention consumers pay to the prevention and promotion of their good health (Newsom, McFarland, Kaplan, Huguet, & Zani, 2005). Health conscious consumers often reflect about their health and are alert to changes in their health. In addition, they strongly believe that they, themselves, are the persons who take charge of their health (Michaelidou & Hassan, 2008). As a result, health consciousness could lead to healthy lifestyles such as the more careful selection of food (Chen, 2009). For example, health conscious consumers are found to have stronger purchase intention of organic foods (O'Donovan & McCarthy, 2002).

Similar to organic meat which is introduced as a new quality and safety parameter in a market place, quality assurance in the form of traceability programs may also help to alleviate consumer concerns (O'Donovan & McCarthy, 2002). That is, health is regarded as an

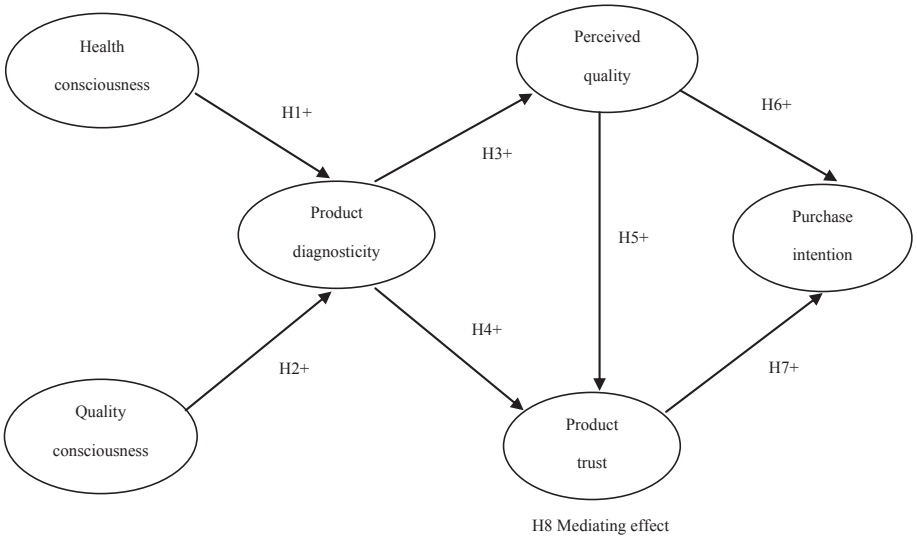

Fig. 1. The hypothesized relationships.