



Discourse Coalitions and Consumer Understanding of Organic and Pesticide Free Vegetables in Chiang Mai, Thailand

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Abstract

This paper will demonstrate how discourse coalitions promote and institutionalize regulations, communicating the meanings of certified, alternative agricultural production processes through the labeling of vegetable produce. This analysis introduces the concepts of discourse coalitions as a way to evaluate the power and linkages constituting an alternative agricultural commodity network. The actors constituting these networks will be shown to work as coalitions of actors promoting complementary and competing discursive strategies explains the role of consumer understanding in completing the commodity network. Data for this analysis was derived from a survey instrument used to determine the attitudes and propensities toward the purchase of conventional and alternative vegetables of 320 consumers in the city of Chiang Mai, Thailand. Discourse coalitions are responsible for enacting the relationship between regulatory practice, method of certification, and labeling practices. Effective communication of regulatory practices used in certification can be seen by the level of trust consumers have in the marketplaces and labeling.

Keywords: Discourse coalition, Certified agricultural commodity network

1. Introduction

For many years, there has been controversy over compliance and acceptability of certification policies on organic, pesticide free and pesticide reduced (alternative) agricultural products in Asia (Eischen, Prasertsri, & Sirikeratikul, 2006; Ellis, Panyakul, Vildoza, & Kasterine, 2006; FAO, 2001; Roitner-Schobesberger, 2008; Vandergeest, 2006). Problems in enforcement, oversight, and outright rule-breaking are noted throughout the literature (Roitner-Schobesberger 2008, Eischen, Prasertsri and Sirikeratikul 2006}. There is further evidence concerning problems with compliance. Investigations found that over 10% of certified produce has unacceptable levels of pesticide residue because of mismanagement and poor communications between ministries and farmers (Songpol, 2005:37; Vicha, 2007:77, 80). On the surface, the problem appears to be a lack of understanding throughout the entire organic agricultural network in Thailand. There is uncertainty as to the meaning of what constitutes organic, safe, or healthy products in the marketplace. Certified, alternative agricultural production processes are regulated by socially constructed discourse emerging from consumer needs, coalitions of concern citizens, and the authority of certifying bodies. Uncertainty arises from the propagation of contradictory organic narratives. For some consumers, organic produce means that the product is safe and healthy for consumption. In other cases it means the reduction or the elimination of chemical pesticides. Additionally, meanings such as the preservation of biodiversity, fair trade, and social welfare are also used to define alternative agricultural processes.

Alternative agriculture in Thailand presents a challenge in understanding the discourse of policies, narratives, and other social constructions. Consumer understanding of the meanings and values behind labeling drives the market to favor particular regulatory strategies. The label is the medium through which consumers identify an agricultural production process; consumer understanding controls the social and political power that flows through agricultural commodity networks. Discourse moves from the policy board to field specialists who train farmers in production practice.

Agricultural regulations become mobilized when they are accepted and put into practice by a network of actors. Agricultural networks are ordered by discourse coalitions, each with a specific function in the network. Agricultural discourse coalitions may be defined as a group of actors who share the same social construct, such as an organic or pesticide free agricultural regulation (Hajer, 2005). This analysis will use the concept of discourse coalitions to follow

the transference of the meanings behind agricultural certifications throughout the different vegetable commodity networks in Chiang Mai, Thailand. Consumers act as active participants in the agricultural commodity network through their purchasing power.

2. Research Methods

To find out more about consumer habits in Chiang Mai a survey was used to collect information about consumer attitudes and purchasing habits for organic and hygienic vegetable. The survey was developed in English following acceptable guidelines for the social sciences (Silverman, 2001:239). Specific questions were developed to add further insight into consumer perception of certified vegetable products and how that understanding contributes to the establishment of an alternative agricultural commodity network. The first draft of the survey was discussed with Dr. Chusak Wittayapak, an associate professor of Geography at Chiang Mai University, as well as with agricultural field specialists from MCC and ISAC, to confirm the understandability of each question for an average Thai consumer. The English version was translated with the assistance of the aforementioned individuals, while the final draft was checked by a Thai professor of English, responsible for curriculum coordination, at Chiang Mai University. The first draft of the Thai survey was tested at a Tops Supermarket outside of the survey area. Afterward, minor corrections were made to address specific concerns of the surveyors regarding readability and time constraints of interviewees. The results of the trial survey were discarded.

The content of the survey was designed to evaluate three specific behaviors and attitudes of northern Thai consumers. First, the survey sought to quantify consumer demand for certified vegetables, as well as to differentiate between local and introduced vegetable preference. Second, specific survey questions were asked so as to determine the degree to which consumers understand the difference of different certification strategies and labeling practices. Finally, the survey sought to establish the relative degree of trust consumers hold for different labels, certifications, and market venues. The survey was structured using both multiple choice questions and ranking formats so to make the survey timely enough to administer to passers by.

The survey was conducted during the months of June and July in 2008. It was administered at seven different venues representing the most common retail locations selling certified or alternative vegetables. These were the Tesco-Lotus and Carrefour hypermarkets, the Rimping Supermarket near the airport and Tops Supermarket in the center of the city, Surriwattana fresh market, in the center of the city, with known certified vegetable vendors, and at the MCC and ISAC communities markets (Table 1). Two senior level, undergraduate students were selected from Chiang Mai University based on both their fluency in English and *Kan Muang*, the language of northern Thai people. Knowledge of *Kan Muang* was found to be essential during previous field research because of the trust engendered from speaking in local dialect. Before data collection commenced, the two students were trained in both data collection techniques, as well as to develop their coherency of the questions. The interviewers were instructed to find, to the best of their ability, an equal proportion of men and women of all ages as each venue would permit. In total, 320 surveys were completed. The data from the surveys was entered into MS Excel for statistical processing. The data was aggregated by age, venue, and trust. The results used in this analysis were graphed for direct comparison.

3. Vegetable Certification in Thailand

Worried for their personal health, consumers seek out certified products to protect themselves from toxins and carcinogens. Investigations have shown that dangerous levels of pesticide are used in the production of in Northern Thailand. Estimates show that the amount of pesticides used in Thailand has increased eight times from 1973 to 2004 (GreenPeace, 2008; Chalermphol, 2009 #233; Plianbangchang, Jetiyanon, & Wittaya-Areekul, 2009). The increase in the use of pesticides can be traced to the government's subsidization of pesticides, a lack of clarity laws about agricultural regulation, including Good Agricultural Practices (GAP), and insufficient communication between ministries and stakeholders (Vicha, 2007:77, 80, Songpol 2005:37). Third party certifications provide farmers, assemblers and retailers a credible verification process to ensure quality and consistency throughout the vegetable commodity network.

Validated, organic regulations are accepted as truth by consumers. From the farm gate to the shopping cart, certification provides a framework of understanding. The specific processes verified by certification are represented by logos to identify products for consumers (Marsden, 1997; Raikes, Jensen, & Ponte, 2000; Raynolds, 2004). Certification is understood to have third-party oversight, though not necessarily approved by the government. For example, in Chiang Mai there are several certifications recognized by local consumers through the reputation of specific actor-coalitions. (Ellis et al., 2006; Songpol, 2005). Certified agricultural products may be seen as "embodying the processes of the commodity framework" (Raynolds, 2004:726-728). Certification, and the accompanying logo, brings the entire production process into an understandable representation for consumer.

The Thai government has instituted several different standards of food safety, ranging from organic regulations, pesticide reduced regulations and certification of the overall cleanliness of individual vendors, as listed below. All of

these certifications make the same general claim of food safety. Distributors using these certifications enter into a small and fragmented market. By far the vast majority of vegetables sold in Chiang Mai are uncertified. Within Thailand, less than 1% (.07%) of all farm land is cultivated under certified regulations (ITC, 2008).

Pak Plod Pai Jak San Pis (Safety Vegetable), a pesticide reduced, government certified food safety standard.

Thailand's Good Agricultural Practice (GAP), a fast-track program to encourage farmers to use pesticides responsibly. It is government certified.

Northern Organic Standards Association (NOSA) was organized by local consumers and NGO's to develop pesticide free standards for northern Thai farmers. It is not accredited by the government.

Multiple Cropping Center of Chiang Mai University is research institute whose reputation for training farmers in pesticide reduced and Integrated Pest Management methods has developed into a consumer accepted certification.

Each of these certifications is supported by different discourse coalitions seeking to gain a larger share of Chiang Mai's organic market. Retailers, NGOs, government agencies and the certifying bodies themselves all promote these certifications by endorsing the labels representing the production process. The fact that only NOSA's certification is actually pesticide free has little affected on the consumer, who is motivated by issues of safety more than the specifics of pesticide use. The problem appears to be ineffective communication between discourse coalitions and consumers. One report showed that 97% of consumers surveyed in Bangkok did not know the meaning of "organic" (Roitner-Schobesberger, 2008). The problem is exacerbated by a proliferation of agricultural regulations, many of which are not organic.

Regulated government technologies, such as GAP and Safety Vegetable, are promoted through media campaigns funded by the Ministry of Agriculture and Cooperatives. The most common certified vegetable regulations in Chiang Mai is *Pak Plod Pai Jak San Pis*, hereafter referred to by its popular name "Safety Vegetable." The Safety Vegetable classification is the oldest pesticide regulatory standard in Thailand. Safety Vegetable was initiated by the Thai government in 1992 (Ellis et al., 2006; Vitoon, 2001). It is not a pesticide free standard. The goals of this program were to improve public safety and reduce the need for imported chemical fertilizers and pesticides (Ellis et al., 2006). This certification is overseen by the Ministry of Public Health (MOPH) and recorded at MOAC Agricultural Extensions offices. The Safety Vegetable standard is highly regulated and monitored. The goal of the program is to ensure that a limited, minimum level of pesticide residue reaches the consumer.

Safety Vegetable certification is being phased out and replaced by GAP. However, there are serious doubts about whether or not Thailand's GAP standard can be considered equivalent to international GAP regulatory standards for pesticide reduction and farmer and worker safety (Ellis et al., 2006:36; Vitoon, 2001:27). Like Safety Vegetable, GAP regulations allow for the use of pesticides using less vigorous control standards. GAP certification differs from Safety Vegetable certification in that it can be accomplished in three months compared to one year for the former.

GAP certification is being encouraged by the national government which allocated 8 billion baht (approximately US\$230 million) in 2008 to the Ministry of Agriculture and Cooperatives (MOAC) for the promotion of organic farming in Thailand, with further goals to increase land under GAP production 40% by 2010 (Chatrudee, 2008; Phusadee, 2008). MOAC has enticed many new farm groups to certify under GAP with both monetary and in-kind remuneration, and has invested heavily in a national marketing campaign which promotes GAP products. GAP is also promoted by the Royal Project Foundation (RPF), a quasi-governmental institution sponsoring the eradication of opium production through crop substitution in Thailand's northern highlands. Hundreds of highland farmers who were previously certified under Safety Vegetable are now being converted to GAP. RPF links GAP with the elimination of drugs and the improvement of the welfare of highland farmers in Thailand's remote border areas (Santhad, 2006). As the largest producer of GAP products in Thailand, RPF gives royal prestige to products certified under GAP. On the other hand, RPF has inadvertently diminished the respect for the Safety Vegetable program as it recertifies to GAP.

4. Discourse coalitions operating in Chiang Mai

Actors organize themselves into broad networks established by the acceptance of different agricultural production processes through which unique vegetable commodity networks emerge (Forsyth, 2003:37; Law, 1991). Each regulated, certified agricultural commodity network has a discourse coalition of actors advocating the unique qualities of their processes to consumers. Agricultural discourse coalitions place their power behind specific certified regulations. Alternative regulations can be described as discursive "technologies", these being calculations, regulations, and enforcements used to exert control over a situation (Rose & Miller, 1992:11). However, Thailand has been noted for its lack of coordination and communication between agencies and within the same agency (JICA, 2002). The technologies deployed suffer from a clear definition of terminology and contradictory meaning because alternative agriculture is conceptualized and implemented by different and often competing organizations.

Communication with consumers is done through various types of labeling, logos, and direct contact at community markets. Discourse coalitions align themselves with a specific set of regulations and certify body. Inside each alternative agricultural commodity network there are several different discourse coalitions actively promoting the values represented by the label. Discourse coalitions actively supporting different certifications in Chiang Mai are the certifying bodies, NGO's, university affiliates and retailers within each certified produce commodity network.

The once prominent Safety Vegetable program is now falling out of favor through the active, government promotion of GAP certification. GAP is a response to consumers who only want assurance of safety, not the elimination of pesticides and definitely not higher prices. Safety Vegetable is now only promoted by producers and retailers belonging to pre-existing Safety Vegetable networks. Given its high esteem among consumers of certified produce, practitioners of Safety Vegetable can be assured of a continuing market provided the government does not disclaim it, which is not likely. However, the government is not encouraging any new entrants into the safety vegetable regime.

NOSA actively educates consumers about its certification through cooperating with complementary organizations, such as the Institute for Sustainable Agricultural Communities. Together they promote many issues related to organic agricultural production, including biodiversity and fair trade through public meetings held at community markets. NOSA is the only one of Chiang Mai's certifications represents pesticide free, organic agricultural. However, it is not accredited by the government because it can not meet all of the requirements of the International Federation of Organic Movements. NOSA is unique in Chiang Mai because it supports many other issues separate from organic agricultural, such as biodiversity, social welfare, and fair trade.

The community market sponsored by the Institute for Sustainable Agricultural Communities (ISAC) receives its certification through NOSA. Both NOSA and ISAC are supported in part by OXFAM, an international NGO (Chomchuan, 2008). OXFAM's role as a discourse coalition brings an international array of concerns, expanding the local discourse. Certified farmers must adhere to strict rules to preserve biodiversity, hence they may not implement many forms of integrated pest management. The groups supporting NOSA standards have agreed to support sustainable agriculture and what is known in Thailand as sufficiency economy, a system which strives to work outside of conventional markets. As a result, NOSA products are only available at community markets.

By comparison, the Multiple Cropping Center (MCC) is a university sponsored discourse coalition advocating pesticide reduced production processes. The university allowed farmers to sell experimental crops, using alternative production processes, to consumers from stalls located at the experimental farm. As MCC's research mandate grew, so did its need to help its farmers. In 2008, MCC has developed its on label which is used outside of the community market. The MCC label can be found in several market venues throughout Chiang Mai. Unlike any other label, MCC developed from a synergy of consumer acceptance and research needs.

There are many other types of certified vegetables which occasionally appear in the supermarkets of Chiang Mai. These include vegetables certified by Great Britain's Soil Association, Thailand's ACT, and the United States Department of Agriculture. Overall, Chiang Mai does not yet have the market strength to support these high-priced certifications on a regular basis. Fresh vegetable markets and community markets continue to dominate produce purchases throughout the city, leaving large retailers a small share of the overall market.

5. Consumer purchases

Consumers in Chiang Mai are willing to accept non-accredited, local certification at the community markets operated by MCC and ISAC. This is evidenced by the numbers of consumers purchasing vegetables at these community markets as shown in Figure 1. Local, non-government accredited certification is a tacit acceptance by the community based on the reputation of the certifying body overseeing local, alternative agriculture. Local certification provides consumers with an additional level of oversight into certification by allowing a greater level of personal involvement. The two most prominent local certifying bodies in Chiang Mai are the Northern Organic Standards Association and the Multiple Cropping Center. What makes ISAC and MCC markets unique is that none of the vegetables are packaged or labeled. Communication of the production process is made directly between farmer and consumer. These community markets represent a certified space. The products are signified by the boundaries of the market, constituting what may be identified as "spatial labeling."

With the exception of community markets, certified vegetables are wrapped in packages labeled with official logos; package labeling provides an additional layer of customer assurance (Allen, Massey, Cochrane, & Charlesworth, 1998:90; Massey, 2005:85). Labeling is a symbolic representation of the objects of certification. The label allows the vegetable commodity network to communicate with consumers. The label provides a point of passage where the consumer enters into the certified agricultural commodity network.

The coalitions promoting Safety Vegetable, Gap, and the RPF's privately branded GAP logo, are perceived favorably by almost 60% of northern Thai consumers as shown in Figure 2. Previous studies about crop production show that most farmers want to use high amounts of pesticide because the physical appearance of these crops leads to higher farm

gate prices (Jungbluth, 1997). By comparison, 24% of consumers are not sure what the certifications represent and another 18% do not trust the label at all. This suggests that over 40% of the potential market for certified vegetable is lost to mistrust and misunderstanding. Though discourse coalitions provide concerned consumers knowledge of process and oversight, it is difficult to overcome problems directly related to practice and implementation.

Outside of local forms of certification, only government authorized certification and labeling is proof of regulatory compliance. The abundance of consumer apathy has led many vegetable producers and retailers to place labels assuring consumers of safety on uncertified, conventionally grown produce. Surreptitious labeling enters into the marketplace through loopholes in packaging laws. There are many labeling misnomers in the markets of Chiang Mai. In many cases the labeling is very similar to that of certified produce. Some examples as seen on the supermarket shelves in Chiang Mai include:

"Safe Vegetable"

"Grown with organic fertilizer"

"Fresh and Clean"

"Safety Plant"

"Fresh Vegetable"

"The quality and safety you can trust"

Clearly, all of these labeling claims are meant to give the consumer confidence in the health and safety of the product. However, none of the vegetables observed with these labels was certified as organic or pesticide free. The only guarantee of authenticity is the use of a government authorized certification logo.

Major supermarkets and hypermarkets in Chiang Mai have products using surreptitious labeling on uncertified produce. In some cases, the surreptitiously labeled produce is placed alongside genuinely labeled, certified produce. This helps to explain consumer's overall trust in the government logo. It is illegal in Thailand to use the any government approved logo without permission. However, these logos are often reproduced in likeness. Sometimes a vendor will create a unique design resembling a government seal without actually copying the original. Consumers who trust the government logo understand these deceptions and know that the only sure way to purchase genuine certified vegetables is to look for the official seal. For example, the GAP certified "Q" logo was copied as the "Q for quality" logo. Referring to the examples above, the phrases "Safety Plant" and "Safe Vegetable" are used to confuse a consumer to believe the product is an approved "Safety Vegetable."

One particular counter-discourse, known as the food safety program, creates wide-spread confusion in the markets for safe or organic vegetables. The Food Safety program is sponsored by the Ministry of Public Health. Once a year inspectors evaluate the overall cleanliness of a market, inspect selected vegetables to be tested for pesticide contamination, and look for any other problems of concern to public health. The inspections are scheduled in advance and inspectors generally cooperate with owners. Once approved, the market may display the "Clean Food, Good Taste" placard above all products sold in the market. Many consumers believe that this placard guarantees that all of the produce is hygienic and safe for consumption when, in fact, there is no specification as to where produce may be purchased or of the production method used. It would be inappropriate to call this labeling surreptitious. The intent is to maintain some minimum standard of public health in the marketplace. However, the placards are often used to assure customers of a much greater level of consumer safety than is actually offered. These placards are also used by conventional markets to reinforce the "discourse of assuagement" used to represent contested market spaces of certified and uncertified produce.

6. Conclusions

In conclusion, the availability of certified organic and safe vegetables in Chiang Mai is a direct reflection of the perceived needs of the consumer. At this time different coalitions of Thai consumers have established commodity networks around GAP and Safety Vegetable, NOSA and MCC standards. Except for NOSA, the general public appears to have been excluded from direct participation in the creations of production standards. The actions of the different discourse coalitions manipulate the meaning of different certifiable agricultural production processes. The consumer is informed of the specific discursive practices mobilized by each discourse coalitions by product labeling. Unfortunately, consumers are largely unaware of the specifics of the discourse, with the exception of those who go to community markets and participate in public presentations.

Inaction by government certified discourse coalitions to fully explain the specifications endorsed by certification has allowed various interlopers using surreptitious labeling to enter and compete in the market. Consumers are confounded by a profusion of labels with similar claims. The negative feelings about certified labels can only be addressed by eliminating inefficiencies caused by improper inspection and certification practices. In general, the consumer turns to the fresh market where all vegetables are presented under the Food Safety placard which also assures health and safety.

Effective communication between consumer and retailer takes place at the community markets where spatial labeling is created through direct dialog between consumer and farmer.

Further research is needed to understand the role of consumers and consumer advocacy groups on official policy regarding certified production processes. For the vast majority of people in Chiang Mai organic or safe vegetables are unnecessary, misunderstood, or misrepresented. The expansion of organic or safe vegetables is possible only if the government is willing to:

Promote consumer awareness as to the hazards of pesticides.

Promote consumer awareness as to the actual meaning of GAP and Safety Vegetable

Discontinue or redefine certifications which unintentionally misrepresent products not grown under safe or organic agricultural production processes, such as the "Food Safety" program.

Develop policies to enforce better without strict policies about truth in advertisement

Increase the number of categories of organic agricultural to include in widespread practice and acceptance but not internationally certifiable.

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Table 1. Supermarket Venues Surveyed

Venue	Sub-district	Date	Surveys
Carrefour Hypermarket	San Sai	Thursday, June 19, 2008	48
ISAC Community Market	Patong	Saturday, July 05, 2008	52
MCC Community Market	Suteph	Saturday, June 21, 2008	54
Rimping Supermarket	Baanvan	Thursday, July 10, 2008	15
Siriwatana Fresh Market	Chang Puak	Saturday July 12, 2008	54
Tesco-Lotus Hypermarket	Patong	Saturday, June 28, 2008	48
Tops Supermarket	Suteph	Thursday, June 12, 2008	49
Total			320

The community markets are only open on Wednesdays and Saturdays, with Saturday having the most customers.

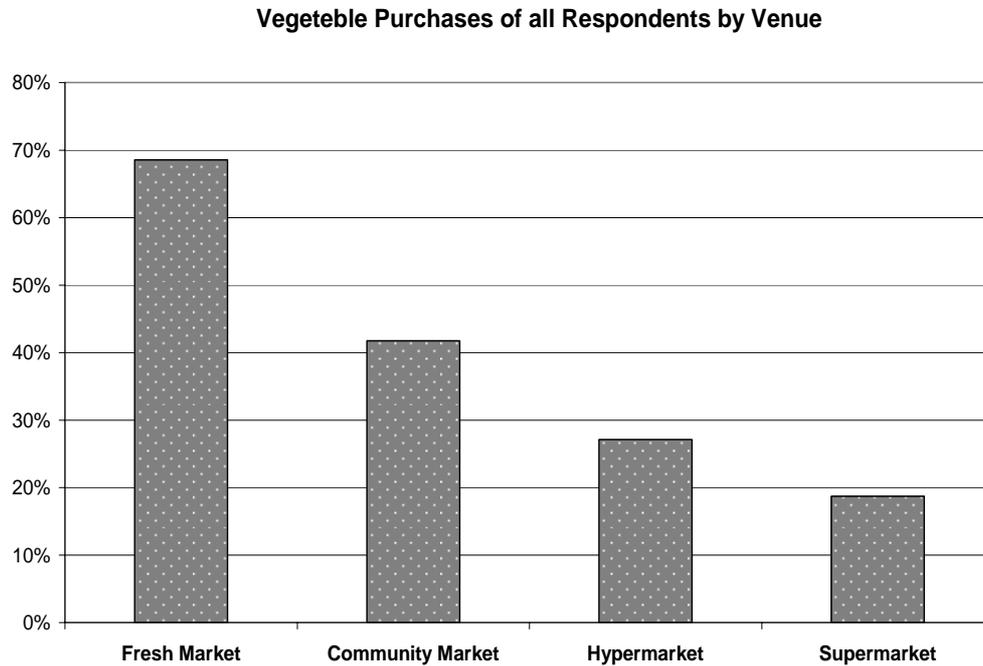


Figure 1. The location of vegetable purchases as a percent of consumers surveyed in Chiang Mai (n = 320)
 Consumers were found to shop for vegetables at more than one location; therefore, the totals represent the percentage of all consumers surveyed shopping at a particular venue.

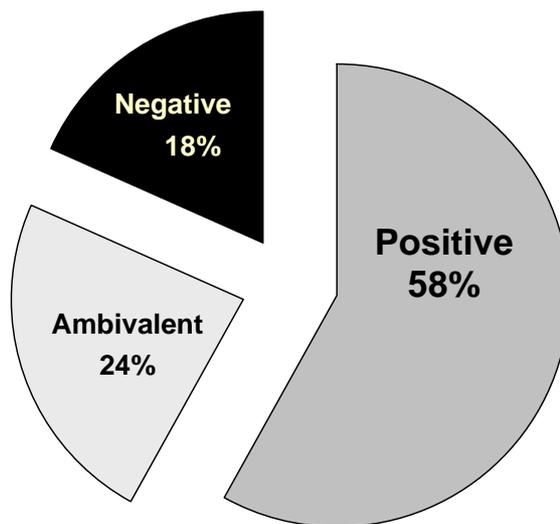


Figure 2. Consumer trust in the logos as a percent of all consumers surveyed.
 This figure represents the attitudes of all 320 consumers surveyed in Chiang Mai when asked about their overall level of trust of logos affixed to fresh vegetables when ranked from trust, no worried, and not trust.