An Ethical Matrix Analysis of the Thai Tapioca-chip Drying Yard Business

Manta Wuttisathitthaworn

Faculty of Social Sciences and Humanities, Mahidol University, Nakhon Pathom, Thailand
Email: manta.wtw@gmail.com

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Abstract

The qualitative research described in this article analyzed ethical concerns in the efforts of the Thai tapioca-chip business to develop guidelines to address ethical problems and promote sustainable business practices. The conceptual tool known as the ethical matrix was employed to analyze data collected through in-depth interviews with purposively selected informants. Findings showed a map of ethical concerns of five interest groups, that is, cassava farmers, employees in tapioca-chip drying yards, communities and the environment in the neighborhood of these drying yards, customers, and tapioca-chip businesses. These concerns were categorized according to the ethical principles of well-being, autonomy and justice. Through the lens of the Pyramid of Corporate Social Responsibility (CSR), these concerns were further classified into two groups under the layers of ethical and philanthropic responsibilities. The overview of ethical concerns in the Thai tapioca-chip business revealed a significant element toward the development of business sustainability. This was the element of corporate citizenship based on empathy that the tapioca-chip drying yards had for cassava farmers and communities.

Keywords: ethical matrix, ethical concern, tapioca-chip business, sustainability, corporate citizenship

Introduction

Cassava, because of its versatility, is considered by the Food and Agriculture Organization as the crop of the 21st century, which ensures food security in developing countries (Food and Agriculture Organization,

2013). In addition, the crop is highly adaptable and able to survive conditions caused by climate change. Moreover, it has become one of the top global economic crops, which also include wheat, corn, rice, and potatoes. The demand for products of cassava in the global market has been expanding. The demand has continually increased along with its production, whose output between 2010 and 2019 increased from 242.07 to 277.07m tons (Singvejsakul, Chaovanapoonphol, and Limnirankul, 2021).

At the global level, Thailand has ranked first as an exporter of cassava chips and pellets, as well as native starch. In 2021, the export values of cassava chips and pellets accounted for 64 percent, and native starch for 72 percent of the global export values. In addition, Thailand has ranked second in terms of its cassava production, which yielded 35.1 million tons in the same year. Thailand is also ranked third when it comes to the harvested area (Sowcharoensuk, 2023). In 2021, Thailand's cassava export value was the highest in 14 years. The total export volume of all types of cassava products was 10.38 million tons with an export value of 123,209 million baht (Department of Foreign Trade, 2021). The total export volume of all types of cassava products was 10.38 million tons with an export value of 123,209 million baht (Department of Foreign Trade, 2021).

In Thailand, cassava has been one of the six important economic crops along with rice, sugar cane, rubber, oil palm, and corn for animal feed. Cassava is not only significant for the economy at the national level but also at the household level, because it is also a crop for small-scale farmers (Kumsueb and Jintrawet, 2020). In 2021, there were 760,228 households of cassava farmers. Its plantation areas were in 54 out of the 76 provinces in Thailand. The area covered 1.74 million hectares. While the Central Plain, the North, and the Northeast are the important regions of cassava production, the Northeast is the major area, covering approximately 55 percent of the plantation area in the country (Office of Agricultural Economics, 2021a, 2021b).

Tapioca is the major cassava product in Thailand. The tapioca industry is categorized according to its product types. Among the three

main types, tapioca starch represents 55 percent of the industry while tapioca chips and pellets, and ethanol account for 40 and 5 percent, respectively. The tapioca-chip drying yards (or "ลานมัน" in Thai) were the first type of tapioca businesses in Thailand. They play important an important role in the tapioca industry, because they are at the beginning of the process where cassava roots are bought and processed into chips before entering other lines of production, such as manufacturing animal feed and ethanol. There are 394 registered tapioca-chip drying yards throughout the country. Small dealers also operate across Thailand as intermediaries between cassava farmers and larger dealers (Department of Internal Trade, 2018). Tapioca business associations were established to represent entrepreneurs, promote the business, and facilitate coordination with government agencies and among themselves. Among the four associations, the Thai Tapioca Trade Association was the first to be established in 1963. Following were Thai Tapioca Products Factory Association and Thai Tapioca Starch Association, which were formed in 1972 and 1976, respectively. Last of all, the North Eastern Tapioca Trade Association was established in 1981. All of these associations also collaborate with each other.

These business associations never overlook the significance of business ethics. They include ethical elements as part of their regulations and policies. Apart from the basic duties of obeying laws and cooperating with authorities, these associations aim to maintain integrity and dignity in the conduct of their business. Furthermore, the associations were aware that the tapioca industry in Thailand had encountered ethical problems, especially when one of the most notorious ethical problems was found in the cassava pledging schemes. Corruption was detected in different forms. For example, processors offered cassava farmers a price below the pledging rate. They did so by either misrepresenting the quality of the farmers' products, offering false promises of rapid payment, or threatening the farmers that, if the price was not accepted, they would have to pay their loan debts. Another example was that of warehouse owners who had debris added into their cassava stock in order to increase the weight, or replaced higher-quality cassava chips

with lower-quality ones before selling them to the pledging programs (Ruengdet and Wongsurawat, 2015).

Therefore, the associations shared a concern that these ethical problems could have an impact on the survival and sustainability of the tapioca business in the long run. For example, in their letter to Pitak Udomwichaiwat, director-general of the Foreign Trade Department and Chair of Sub-committee of Strategic Planning for Cassava, the associations addressed their concern stemming from the poor quality of cassava roots that affected entrepreneurs, dealers, consumers, and the public as a whole (Thai Tapioca Trade Association, Thai Tapioca Products Factory Association, Thai Tapioca Starch Association, North Eastern Tapioca Trade Association, 2022). Efforts have been made in response to this concern. For example, the associations cooperated with government agencies to promote sustainable business practices. They played an important role in a commission appointed by the Department of Foreign Trade under the Ministry of Commerce to develop guidelines for production and marketing of clean tapioca chips. The resulting guidelines have been in use since 2002 (Department of Foreign Trade, 2002).

Related to this concern, the tapioca-chip business associations also have a plan to develop ethical guidelines for their members to promote sustainability. Such awareness of social responsibility showed that they were headed in the right direction. While the goals of business growth and profitability are maintained, the concept of sustainability requires businesses to have ethical practices and respond to non-profitable social goals related to welfare, community development, and the environment. Therefore, ethics is an element of corporate sustainability motivated by corporate social responsibility. Ethics should be based on corporate values. Every decision-making process in corporate management needs to reflect corporate ethics (Nguyen, et al., 2020). Consequently, it is necessary to develop ethical guidelines.

Sensitivity to specific contextual conditions of businesses is significant when ethical guidelines are developed (Wood and Rimmer, 2003). Such sensitivity can be realized when attention is paid to ethical concerns. Therefore, according to the Ethics Resource Center (2001)—an authority on the development of business ethics in organizations (Daniel C.,, 2001)—the first step toward the construction of ethical guidelines or a code of ethics is to investigate ethical concerns, which include ethical challenges, issues, and problems. The reason for this is that ethical guidelines must be designed in such a way that these concerns are adequately addressed (Ethics Resource Center, 2001 and 2003; Giorgetti and Dunoff, 2019; Brownlee, 2019). In other words, the identification of ethical concerns supports ethical consideration and translation of principles into concrete guidelines that enable practitioners to handle actual ethical issues (Hokke et al., 2018).

A review of relevant research found that only one study of the Thai tapioca industry includes a topic on value. It was conducted by Charoenrungrueang and Sungsanit (2019), who developed a causal model of factors affecting creation of shared value (CSV) in management of the tapioca starch industry in the Northeastern region of Thailand. However, the ethical dimension was not addressed in this study. Therefore, the present research project was initiated and conducted to fill this gap, that is, to understand ethical concerns in the context of the Thai tapioca-chip business. The research outcomes can lay the ground for this industry to create ethical guidelines for sustainable business practices in the future.

Ethical Concern and Ethical Analysis

When ethical concerns are voiced by an organization's members or involved parties, three things are implied. First, the ethical concerns reflect the parties' awareness of certain ethical values or principles. Second, the concerns indicate issues or situations in which these values or principles are violated or at risk of being violated. Third, the concerns imply the persons' sense of urgency and expectation of better ethical practices and operations within the organization. An inquiry into ethical concerns, therefore, encourages an organization's members or its involved parties to reflect on their ethical values and principles, current ethical issues and situations, and their expectations about the

organization's ethics. The reflections provide a basis for consideration and formulation of the organization's ethical vision and mission. Ethical guidelines are, then, developed to assist the organization in its effort toward these goals (Ethics Resource Center, 2001 and 2003).

The complicated nature of ethical concerns makes it difficult for those who voice the concerns to see the implications clearly. Therefore, technical support is required to elucidate these concerns. An example is the method of "Nash's 12 Questions" (Nash, 1981). The method not only incorporates sustainability aspects (such as consideration both of corporate and social goals, and attention to social relationships), but also effectively addresses ethical concerns in specific situations or contexts (Falter, 2006). Still popular today, Nash's competency-based methodical approach to ethical concerns has been used by ethics trainers and consultants to develop ethical competencies in professionals and managers, or systematically guide them with the questions to accurately define and contextualize ethical problems in their ethical decision-making processes (Ward, 2020).

In the same vein, to analyze ethical concerns in the tapioca-chip business, ethical concepts and frameworks must be drawn upon to delineate their implications for an ethical, sustainable business. As mentioned above, the data analysis used the conceptual tool known as the ethical matrix, which was first developed by Mepham (2000) to assist ethical analysis and deliberation in the fields of food and agriculture. Because of its simplicity and clarity, the tool facilitates participation by stakeholders who are non-experts in ethics (Cotton, 2009). Since its introduction, it has been used in research on ethics in related fields. (See, for instance, Millar et al.,2002; Kaiser et al.,2007; Cotton, 2009; Lam and Pitcher, 2012; Farstad, 2018; and Biasetti et al.,2020). Later, it was employed in other fields, such as science and engineering (Jensen et al., 2011), education (Tangen, 2014), and nursing (Grace, 2018). Therefore, it can be seen that the ethical matrix method has been widely used. Because of its most prominent feature, it is often considered a checklist of ethical concerns, though it is more than a checklist. One of its strengths is that it helps lay out a map of issues and concerns to guide ethical consideration (Forsberg, 2007).

Inspired by John Rawls' emphasis on decision procedures in his conception of justice as fairness, Mepham (2000) developed the ethical matrix framework as a tool to facilitate ethical decision making. The framework comprises two major elements, which are interest groups and ethical principles. The interest groups are parties affected by decisions or actions. As for ethical theories, Mepham was influenced by Tom L. Beauchamp and James F. Childress' theory of principlism (1994), widely used in the field of bio-medical ethics. The theory offers four ethical principles: autonomy, non-maleficence, beneficence, and justice. Mepham combined non-maleficence with beneficence to create the principle of well-being. As a result, there are three principles in his ethical matrix: autonomy, well-being, and justice. The principle of autonomy includes freedom, self-determination, and dignity, while the principle of well-being is related to the avoidance of harm, the promotion of welfare, and best interests. The principle of justice covers fairness and equality (Table 1)

Table 1 Ethical Matrix

Interest groups	Ethical principles		
	Well-being	Autonomy	Justice
Interest group A			
Interest group B			
Interest group C			
Interest group D			

(Adapted from Mepham, 2000: 170)

Study Methods

This qualitative research aimed to analyze ethical concerns in the context of the Thai tapioca-chip business, which would be the first step towards the development of ethical guidelines and sustainable tapioca-chip business practices. Adoption of this approach or such emphasis on ethical concerns also appears in other studies (Peregrin, 2018; Nair, 2020; and Battistuzzi et al., 2021 for instance). According to the Ethics Resource Center (2001 and 2003), the major source of information in

this regard is persons who know key ethical concerns in related contexts. In this study, therefore, a method of purposive sampling was used to identify informants who could share their ethical concerns about the conduct of tapioca-chip businesses. Participating in the business associations' joint survey team to study cassava production and sale during the 2018/2019 harvest seasons, the author became familiar with groups of people working with the business associations and selected informants from these groups based on their long-time experience, direct responsibilities, ethical awareness, and enthusiasm for the development of ethical, sustainable tapioca-chip businesses.

The informants consisted of four entrepreneurs, three farmers who were also members of communities in the neighborhood of tapioca-chip drying yards, three government officials, and three employees in tapioca-chip businesses. Chairs of three tapioca-chip business associations were also selected for data collection. The four entrepreneurs were knowledgeable because of having had more than 30-40 years of experience in the business. The three chairs had 40-50 years of involvement and had extensive intimate experience because, as chairs, they had met entrepreneurs of tapioca-chip drying yards throughout the country in their annual surveys. The farmers had 20 years of experience in cassava farming and, therefore, knew in-depth details about the drying yards. Meanwhile, the officials had deep and wide understanding of regulations and situations of the tapioca industry through their 30 years of experience.

Mepham et al. (2006) indicated that interest groups that are relevant to issues in question should be selected for consideration in relation to the ethical principles. Depending on issues at hand, different groups can be identified as interest groups. Even non-humans such as animals and the environment can be so identified. For example, related to an issue of hormonal injection to increase milk production, interest groups included dairy farmers, consumers, dairy cows, and wildlife. In the present study, the informants themselves belonged to primary interest groups: cassava farmers, employees in tapioca-chip drying yards, and tapioca-chip businesses. However, after a data analysis, more

interest groups emerged. They included customers, communities, and the environment in the neighborhood of the drying yards.

In-depth interviews were used to collect data from these informants. Interview questions included, for instance, "How are prices determined?" and "Are there ethical issues or problems that should be addressed regarding the determination of prices?" Rounds of interviews were conducted until data were saturated. Regarding data trustworthiness, credibility was ensured by the author's prolonged engagement with the data. Moreover, dependability was ascertained through audits by three scholars who are experts in business and organizational ethics. Data were analyzed using the framework of ethical matrix. They were then categorized into ethical concerns for different interest groups under the four ethical principles.

Findings

Ethical Concerns of the Interest Groups of the Thai Tapioca-chip Business

An analysis of the interview data based on the ethical matrix framework showed that the ethical concerns of the Thai tapioca-chip business involved five interest groups: cassava farmers, employees in tapioca-chip drying yards, communities and the environment in the neighborhood of the drying yards, customers, and tapioca-chip businesses. Ethical concerns were voiced along with ethical problems and recommended solutions. This is reflected in the analysis results, as shown below (See also the summary in Table 2)

1. Cassava farmers

Well-being: The problem of the farmers' poor livelihood is a concern that led informants to believe that tapioca-chip drying yards should offer different types of support to the farmers to improve their livelihood. The first type is material, such as money, land, and seeds. The second type consists of skills and knowledge to improve their farming techniques and manage their personal lives, such as household financial management. Challenges are that farmers find it inconvenient

in acquiring new knowledge and developing a new set of skills, because they do not have sufficient time. In addition, they are satisfied with their current way of life so that it is not easy for them to change spending habits, for instance.

Autonomy: Because of insufficient information about price rates, many farmers make poor decisions or are even misled when they sell their products to tapioca-chip drying yards. Therefore, informants recommended that these drying yards should make clear announcements showing details of price rates, minimal purchase prices, and pricing periods. If there are specific agreements on pricing rates with individual farmers, those agreements should be upheld unless they are amended by mutual consent between the two parties.

Justice: Several issues emerged under this principle and were reflected in the following recommendations. First, tapioca-chip drying yards should offer fair prices. Determination of purchasing prices should be based on market conditions and production costs. Second, the sampling of products for quality assessment should be reliable and transparent. Third, the products should be weighed accurately. The weighing machines should be re-checked for accuracy, and farmers should be allowed to participate in the re-checking process. Moreover, truck drivers should not be bribed to participate in weight cheating. Fourth, payments should be consistent with announced prices. They should be paid in full and not delayed.

Last, price determination should be based on the cassava roots' actual weight. In the present practice, dirt and debris are not sieved from the cassava roots. The actual weight of the roots is calculated by subtracting an estimate of the weight of dirt and debris from their total weight with the dirt and debris. This estimate, which is based on speculation, is vital in that, if it is too high, it is not fair for the farmers; if it is too low, the tapioca-chip drying yards can eventually become bankrupt. Informants believed that the most effective method is for the dirt and debris to be sieved off. In this way, the actual weight of dirt and debris can be determined, and the method of speculation is no longer needed. However, a challenge was pointed out that some farmers

preferred not to use this method, because they believed that when the dirt and debris were removed, their products were likely to have a lower price. In addition, sieving is not cost effective when the amount of cassava is small.

2. Employees

Well-being: Concerns for this interest group are related to the common issues of job security, safe working conditions, health, and human resource development. Informants recommended that tapioca-chip drying yards should develop measures to make their employees confident of their job security. The issue of working conditions was also voiced. Some tapioca-chip drying yards show a lack of responsibility for their employees, neglecting risk assessment and safety. For example, employees are sometimes asked to collect tapioca chips from drying yards during storms. Thus, measures to prevent accidents and risk, such as proper zoning and dress codes, should be installed. Human resource development and training should also be offered to employees to develop their skills and knowledge. It was also suggested that different kinds of welfare benefits should be in place. In this regard, an annual health check-up package was mentioned by many informants. A challenge in this regard is an overlap with services provided through the social security system, which leads some entrepreneurs to think that it is not necessary.

Autonomy: Employees should be given opportunities to participate in policy making and management. They should be allowed to voice ideas and concerns in matters that affect them. In addition, they should be treated in such a way that their human dignity is respected. Verbal and physical abuse should be avoided.

Justice: The main issue under this principle is remuneration. Informants recommended that remuneration should be appropriate in comparison to workloads. Moreover, overtime pay should always be available.

3. Communities and the environment

Well-being: Data analysis showed that under this principle, the focus is on community development to improve the quality of life in

the communities surrounding tapioca-chip drying yards. Informants believed that support should be given to improvement or construction of basic utilities and infrastructure, which included roads, bridges, and water resources for household use and agriculture. In addition, aid should be given to support activities run by schools, Buddhist temples, and public health and social welfare offices in the communities. A big challenge for tapioca-chip drying yards, of course, is the limitation in the funding that they can provide for these costly activities.

Justice: Attention was drawn to just and fair compensation for the communities and environmental areas negatively impacted by the operations of tapioca-chip drying yards. The three major impacts include air pollution, water pollution, and road damage. The environment, communities, and employees are all affected by the process of tapioca-chip production. Air and water pollution are generated in all production stages, including sifting and milling tapioca roots, drying and flipping tapioca chunks, and collecting tapioca chips. In addition, repeated transport by truck of tapioca chips from yards to customers inevitably causes road damage. The situation becomes worse when trucks are overloaded.

Informants agreed that tapioca-chip drying yards should take responsibility by improving the production process and operation areas. The sifting and milling stage should start as soon as possible to prevent foul odors from developing. Backhoe loaders, which flip tapioca chunks, should run slowly to avoid spreading dust. The design of tapioca-chip drying yards should be improved to reduce stagnant water. Drainages should be constructed to lead polluted water away from surrounding communities. More trees should be planted for dust control. Representatives should visit surrounding communities to learn about negative impacts. Personnel should be dispatched to mitigate problems in the communities, for example, by offering house-cleaning services. Different channels should be set up for people to submit their complaints about the impacts of tapioca-chip drying yards. Moreover, truck overloads should be avoided, and some financial support should be given to local administrative organizations to restore damaged roads.

A challenge in this regard is the cost of improvement in tools, processes, and ways of practice, which can put entrepreneurs at a disadvantage with their business rivals.

4. Customers

Autonomy: Informants opined that tapioca-chip drying yards, as product providers, should be transparent so that accurate details of their products are presented and provide a basis for agreements with customers. Products should not be misrepresented through adulteration. The practice of bribing procurement and quality assurance officers to assist in product misrepresentation should be avoided. Furthermore, contracts should be fulfilled. Currently, breaching a contract is easy because contracts are usually made in an informal way. A major reason for this is the fluctuating nature of the prices of tapioca roots and chips. When prices change, some tapioca-chip drying yards decide to breach their contracts either directly or indirectly, through tactics such as delaying the sales process. Breaches of contract are also found in other forms, such as producing low-quality cassava to reduce costs and adulteration of products. Informants recommended that contracts should be created formally, with clearly detailed quality levels, price rates, and dates of purchasing, selling, and delivery.

Justice: Tapioca-chip drying yards should avoid delivering tapioca chips whose quality is lower than the promised level. Bribes should not be given to procurement and quality assurance officers. Furthermore, if tapioca-chip drying yard workers become aware of bribes, they should notify affected customers directly.

5. Tapioca-chip businesses

Well-being: Under this principle, the focus is on sustainability. Changes to current business practices are recommended to create sustainability. First, in place of the existing popular practice of single-rate pricing, a new policy should be introduced so that tapioca roots are priced relative to levels of starch percentage. Since cassava quality is measured by starch percentage, this policy will encourage farmers to improve their crops. Second, tapioca-chip drying yards should avoid purchasing roots of prematurely harvested cassava. This will

encourage farmers to provide quality products. Quality products will ensure the sustainability and competitiveness of the tapioca-chip business. In addition, informants recommended that tapioca roots should be purchased according to their actual weight. This recommendation has already been mentioned above in relation to the method of sieving off dirt and debris. The new policy will reduce the uncertainty that can lead to unfairness for the farmers and huge losses for tapioca-chip drying yards. Finally, tapioca-chip drying yards should become members of a trade association to keep informed and cooperate in making improvements and solving problems in a unified manner. Moreover, drying yards in adjacent areas should develop collaboration among themselves to create standard business practices that lead to sustainability for the entire cassava business.

Justice: Tapioca-chip drying yards engage in competition with each other. Informants voiced a concern that tactics such as false accusations and price-cutting are used in such competition. To maintain fair competition, these tactics should be avoided.

The above analysis shows the ethical matrix of ethical concerns in the tapioca-chip business in the context of Thailand. A summary of the matrix is presented in Table 2.

Table 2 Ethical matrix of ethical concerns in the tapioca-chip business

Interest groups	Ethical principles		
	Well-being	Autonomy	Justice
Cassava farmers	Good livelihood	Price information	Fair pricing and purchasing process
Employees	- Job security - Safe working conditions - Good health - Human resource development	Participation	Fair remuneration
Communities and the environment	Quality of life		Fair compensation

Table 2 Ethical matrix of ethical concerns in the tapioca-chip business (cont.)

Interest groups	Ethical principles		
	Well-being	Autonomy	Justice
Customers		Contract fulfillment	Fair business dealings
Tapioca-chip businesses	Sustainability		Fair competition

Discussions

According to Mepham et al. (2006), an overview of ethical concerns regarding affected parties under each category of the four ethical principles is shown through the ethical matrix method. Likewise, the application of the method in this study led to a roadmap of ethical concerns in the tapioca-chip business as shown above. In comparison to other studies with application of the ethical matrix tool, an obvious point to observe is that different interest groups emerged in different studies due to their involvement with different ethical issues and concerns. For instance, while the interest groups in this study were cassava farmers, employees in tapioca-chip drying yards, communities and the environment in the neighborhood of tapioca-chip drying yards, customers, and tapioca-chip businesses, the interest groups in Mepham's (2000) study of novel food covered treated organisms, producers, consumers, and biota. Or, in Tangen's (2014) study of educational research, the interest groups included research communities, research participants, users of educational services, students, practitioners, and policy makers. The different interest groups set the stage for ethical consideration based on the four principles, which effectively reflect ethical concerns in these specific contexts. This reflects the flexibility of the ethical tool, which is able to respond to diverse ethical issues.

According to Brom et al. (2006), results from application of the ethical matrix method can be considered through the lens of corporate social responsibility (CSR) in order to focus on responsibilities in response to ethical concerns. In this study, the findings are discussed

based primarily on their consideration through Carroll (1991)'s Pyramid of Corporate Social Responsibility (CSR), which comprises four layers; from bottom to top, these are economic, legal, ethical, and philanthropic responsibilities. It was thereby shown that the ethical concerns can be categorized into two groups. The first group of the ethical concerns comprises those related to the layer of ethical responsibilities, which is based on the obligation to avoid harm and do things that are right, just, and fair. It covers all the concerns presented in Table 2 except "good livelihood" and "quality of life." These concerns resonate with those practices reported of Thai-listed companies, which covered fair business operation and fair treatment of labor, for example (Petcharat and Zaman, 2019). These concerns are also in line with the high value upheld by Thailand's major sustainable enterprises for their ethical obligation (Kantabutra and Ketprapakorn, 2020).

The second group of the ethical concerns covers "good livelihood" and "quality of life." Therefore, it corresponds to the top layer of philanthropic responsibilities. Fulfillment of the philanthropic responsibilities leads to good corporate citizens. This finding is important in that it shows the ethical matrix analysis demonstrates the significant element toward sustainable tapioca-chip business, that is, corporate citizenship. When businesses act as good corporate citizens, they take responsible and voluntary actions towards betterment of communities, society, and the environment, which leads to different types of benefits that support sustainability (Nawaz and Koç, 2019). While the layer of ethical responsibilities is expected by society, the layer of philanthropic responsibilities is desired by society (Carroll, 1991). Although not necessary, altruism can be part of the motivation underlying the philanthropic activities of corporations (Carroll, 2016). The analysis shows that this is the case for the second group, which markedly contains altruistic and philanthropic elements.

For the interest group of cassava farmers, the data under the principle of well-being reflect a concern for their quality of life. Although this is beyond the scope of the relationship between businesses and farmers, informants believed that it was the obligation of tapioca-chip drying yards to help cassava farmers improve their quality of life. Apart from the basic necessities of life, informants recommended a policy to "professionalize" the farmers. It was highly encouraged that tapioca-chip drying yards should empower farmers by providing them with training programs to strengthen their knowledge and skills: for example, to efficiently select cassava species, tend growing cassava, harvest and store tapioca roots, solve different kinds of problems, and identify appropriate purchasers. Likewise, for the interest group of communities, a concern for quality of life is shown under the principle of well-being. Informants did not believe that it was sufficient for tapioca-chip drying yards to compensate for damages and pollution that negatively impact surrounding communities. They believed that it was also an ethical obligation of these drying yards to contribute to community development.

This marks a relatively advanced and optimistic view on the part of the informants in comparison to many business organizations in Thailand. In the initial stage when the concept of CSR was introduced to Thailand, most business organizations considered philanthropic projects to be unfavorable, but unavoidable for their business purposes. They believed that these projects resulted in financial burdens. Part of the reason was that the business organizations that implemented philanthropic projects had a limited understanding of philanthropic responsibilities and, consequently, designed their activities in the form of charity and donation events (Kraisornsuthasinee and Swierczek, 2006). In the later stage, many business organizations were still skeptical about philanthropy. They either felt it lacked serious commitment or considered it to be part of public relations projects (Kraisornsuthasinee and Swierczek, 2009). However, philanthropic projects are still prominent for Thai corporate social responsibility. An analysis showed that this reflects the influence of Buddhism in that the concept of doing good has been an underlying motivation of such projects (Srisuphaolarn, 2013). It was, therefore, observed that several philanthropic activities took ritualistic, religious forms such as alms offering, donations to monasteries, and organizing religious ceremonies (Issarawornrawanich and Wuttichindanon, 2018). Although philanthropic projects as

charitable donations and episodic activities can convey good will, they neither have significant impacts nor lead to sustainability. A foundation in the corporate ethos is required to connect philanthropy to corporate citizenship, an important element that ensures sustainability (Yohn, 2020).

Based on the author's familiarity with the informants during their participation in the survey and the interview process, their advanced ethical view and altruistic attitude can partly be explained by their long and direct experience working closely with different stakeholders. Their direct exposure to problems and impacts on individuals and communities has developed in them a sense of empathy. The informants' long and direct experience can also account for their views that cassava farmers should be empowered. Their close knowledge of farmers' capacities and problems led them to develop empathy for these farmers and see the need for tapioca-chip drying yards to adopt the role of corporate citizen by altruistically empowering them. Empathy can be a foundation for the altruistic and philanthropic elements reflected in ethical concerns.

The cross-country study of Chourou, Grira, and Saadi (2020) showed a positive association between CSR and empathy. By enabling people to develop concern for others and assume another person's perspective, empathy leads to altruistic motivation and prosocial actions. Lam (2018), who also discovered a link between empathy and CSR, explained that engagement with stakeholders at the organizational level allowed innate human moral capacities—the capacities for social reflection and emphatic concern—to grow. With these developed capacities, business organizations became more responsive to local needs. Apart from empathy, another possible explanation may be drawn from the nature of patron-client relationships since the Thai tapioca-chip drying yards operate in rural areas where the social values of agrarian community are found (Srisuphaolarn, 2013). However, the ethical concerns under the principle of well-being point out that the informants went beyond the traditional scope of patronage, which usually focuses on mutual relationships between specific individuals. Their concerns reflected their sense of obligation to assist all cassava farmers who are

their business partners, and communities as a whole. Therefore, the informants' views appeared to lean less toward traditional patronage and more toward corporate citizenship.

Conclusion and Recommendations

Using the ethical matrix offered a map of ethical concerns related to the five interest groups in this study, that is, cassava farmers, employees in tapioca-chip drying yards, communities and the environment in the neighborhood of these drying yards, customers, and tapioca-chip businesses. The ethical concerns for the cassava farmers involved good livelihood, price information, and fair pricing and purchasing processes; while those for the employees included job security, safe working conditions, good health, human resource development, participation, and fair remuneration. The ethical concerns related to the communities and the environment covered quality of life and fair compensation, whereas those for the customers were contract fulfillment and fair business dealings. Finally, sustainability and fair competition were shown to be the tapioca-chip businesses' ethical concerns. As a whole, these ethical concerns were categorized into two groups under ethical and philanthropic responsibilities, respectively.

The overall research results show that the ethical matrix method can give an overview of the ethical concerns in the context of Thai tapioca-chip businesses, which can provide a basis for these business associations to develop ethical guidelines for sustainability in the future. In addition, ethical matrix analysis also reveals the element of corporate citizenship, an important element of business sustainability. Moreover, it was also found that corporate citizenship is driven by the empathy that Thai tapioca-chip businesses have toward cassava farmers and communities, which should be a firm foundation for the effort toward the goal of sustainable business practices.

Leadership has been proven to be a significant element to realize sustainability or factors leading to sustainability, such as corporate citizenship (Akbari and McClelland, 2020). Therefore, it is promising

that Thai tapioca-chip business associations initiated the idea to create the ethical mechanism to guide sustainable business practices. It is, therefore, recommended that a further step should be taken to translate these concerns into a concrete set of ethical guidelines for sustainable tapioca-chip drying yard business. An important process is for the relevant business associations to involve their members and a wider range of representatives from different stakeholder groups in the tapioca business and conduct a hearing on a draft of ethical guidelines. The participatory process will ensure that the guidelines reflect ethical concern of all involved parties and provide a basis for mutual acceptance and commitment of the ethical guidelines (Ethics Resource Center, 2003) In addition, continued commitment is an important and yet often overlooked factor in realizing the goal of ethical and socially responsible business (Lee, 2020). Therefore, the trade associations should develop measures or mechanisms to ensure commitment among the tapioca-chip drying yards to further translate the mutually approved ethical guidelines into fruitful implementation.

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