

# SUSTAINABLE BUSINESS PRACTICES OF TAGBILARAN CITY'S STREET FOOD VENDORS AMID THE COVID-19 PANDEMIC

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## ABSTRACT

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The diverse cultural influences of the Philippines have enriched its street food industry, which has been a source of income for those working in this informal sector and an opportunity for food startups. Street food vending provides ready-to-eat food to a large cross-section of local people, but the late 2019 pandemic directly affected this industry. This situation prompted the researcher to study the sustainable business practices adopted by the Tagbilaran City Street Food Vendors to address challenges during the COVID-19 pandemic. The study utilized the Descriptive Research Survey Method, in which data were collected and analyzed through in-depth interviews and survey questionnaires with 60 street food vendors in Tagbilaran City. The health protocols prescribed for the COVID-19 pandemic response were followed in the conduct of the surveys and interviews. Based on the primary data, most vendors are male, married, and over 30 years old, with more than 5 years of experience in street vending. Many of the problems respondents face include increased debt, adjustment to new health standards, and constant fatigue from spending long hours in the sun. In conclusion, it was found that, from a sustainability perspective, street food vendors are



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humanly, socially, economically, and environmentally sustainable. To bridge the gap, the researcher proposes a training design that would address their needs and present it to the appropriate sectors to legitimize the business and align it with government standards, making it more economically sustainable.

## INTRODUCTION

Street vendors, often called informal vendors, are essential in the community. They provide goods and services to consumers who want to buy in small quantities at affordable prices. They earn their incomes in public, often crowded places. These vendors have always faced tedious regulations by authorities, such as the confiscation of goods. During this pandemic, not only is the livelihood of the informal vendors threatened by measures to contain the spread of COVID-19, but their very survival is at stake. Some areas in the Philippines can continue their operations, but vendors must make severe adjustments to their work and lifestyle. The situation remains quite tricky in the places where merchants are permitted to operate. This study examines street food selling as an enterprise and the techniques modified for sustainability, as it is becoming a dominant industry in Tagbilaran City. Street food vending has two essential functions. First off, it employs a large number of people who cannot be integrated into the formal, trained economy. Second, a wide range of locals are served by street food vendors, who deliver ready-to-eat cuisine. The prevalence of street food has grown hand in hand with the province's growing diversity.

The study aimed to analyze the problems faced by street food vendors and their sustainability practices during the COVID-19 pandemic. Additionally, it sought to investigate the participants in the business and the vendors' backgrounds.

Sustainability comprises four dimensions: human, social, economic, and environmental. Human sustainability means maintaining human capital. It seeks to preserve and enhance society's human capital. Programs under the human sustainability umbrella include investments in health and education systems, access to services, nutrition, and knowledge and skills (Goodland, 2002).

Social sustainability means maintaining social capital. By making investments and developing the services that underpin our society, it seeks to protect social capital. The idea allows for a more comprehensive perspective on societies, cultures, and globalization. It means preserving future generations and acknowledging that what we do can impact others and the world. Social sustainability emphasizes the maintenance and enhancement of social quality through values such as cohesion, reciprocity, honesty, and the importance of interpersonal relationships (Goodland & Bank, 2002).

Economic sustainability means maintaining capital. It aims to maintain the money intact. Economic sustainability aims to raise standards of living,

whereas social sustainability focuses on enhancing social equality. It refers to the effective use of resources to sustain long-term corporate profitability in the business world (Goodland & Bank, 2002).

The goal of environmental sustainability is to increase human welfare by safeguarding natural resources. Environmentally sustainable initiatives and programs ensure that the needs of the population are met without endangering future generations' needs. Environmental sustainability means maintaining natural capital. It includes the sources of raw materials used for human needs and ensures that human waste recycling does not exceed acceptable levels to prevent harm to humans (Goodland & Bank, 2002).

The Conflict Theory by Karl Marx, the Triple Bottom Line theory of Elkington, and Abraham Maslow's Theory of Motivation placed substantial emphasis on the conduct of the study, motivating individuals to adopt improvements in business practices for personal growth and progress.

The first theory related to the study was Karl Marx's conflict perspective, which explains how unequal access to resources and power produces enduring tensions among groups and economic actors (Marx, 1867). It was held that retail innovation encourages the creation of new structures rather than necessarily reducing the number of designs that are available to consumers. Retailing develops through a dialectic process, much as how two opposites come together to produce a new shape.

Abraham Maslow's hierarchy of needs explains that human motivation progresses from basic physiological and safety needs toward belongingness, esteem, and self-actualization (Maslow, 1943). These needs are physiological, safety, love and belongingness, esteem, and self-actualization. When a person's basic requirements are met, they can then move on to addressing the higher-level demands. Self-actualization can be attained through meeting or fulfilling other conditions.

The World Health Organization defined street food as food and beverages prepared and sold by vendors in streets and other public places for immediate consumption without further processing (Imathiu, 2017). Since street foods do not require additional preparation or processing, they can be eaten right away or later. On the streets, you can see people selling them from carts, stalls, pushcarts, balance beams, kiosks, or shops.

Across diverse countries, street food plays a crucial role for people of various classes. Street food is a fundamental part of society in every nation. Street food vending serves two essential functions. For starters, it provides work opportunities for those who cannot be integrated into the trained, formal sector of the economy. Second, street food vendors provide locals with ready-to-eat food (Das, 2019).

In Vienna, Austria, sustainability has become an issue for both the public and private sectors in recent years. The certification with the Austrian Eco-Label is the prime initiative promoted and supported (Raderbauer, 2011). It aimed to increase sustainable business practices in the industry and to raise

consumer awareness and demand.

The main motive for implementing sustainable business practices stems from the philosophy of business managers or corporations and is linked to cost savings. However, positive public relations and higher employee commitment and satisfaction were also essential benefits (Raderbauer, 2011).

Myriad problems encountered by street vendors include harassment by the police, the uncertainty of income, unnecessary strikes, dangerous rainfall goods, artificial flood affecting vending, competition from co-vendors and new entrants, long hours of work without rest, customer misbehavior, lack of shades to protect from different weather conditions, pollution, and increased traffic, as well as a project to enlarge the road (Njaya, 2014). To address these issues, adequate collaboration with the local government is required, including the provision of training, infrastructure, and laws.

In a study titled “Business Practices of Street Food Vendors in Guwahati City, India”, street food vendors should consider various hygiene factors, such as using gloves in preparing the food, dustbins for waste disposal, and paper plates, for further development and to increase their sales (Das, 2019). To preserve their rights and interests in accordance with the Act, they should make every effort to comply with all government laws and regulations. Street food vendors should try to compete by implementing new strategies. This study focused on human, economic, and environmental sustainability.

Another study titled “Nature, Operations, and Socio-Economic Features of Street Food Entrepreneurs of Harare, Zimbabwe” focused on the socio-economic demographic characteristics of street food vendors, many of whom came from low-income families. In the street food vendor industry, women made up 85% of the vendors. Numerous socioeconomic factors contributed to this, including limited skills and education, which prevented obtaining a formal job. As a result, citizens’ way of life is significantly affected by their economic situation (Njaya, 2014).

Another study, entitled “Street Vendors in Asia,” examined street vendors in Asian countries, namely Bangladesh, Sri Lanka, Singapore, Kuala Lumpur, Manila, Hanoi, Cambodia, Seoul, and India. The study analyzed the spread of street vending in these countries. The assessment found that the number of street vendors in the countries increased. The number of street food vendors grew due to the decline of the formal sector and the lack of employment in rural areas. This factor was common in Bangladesh, Nepal, Vietnam, and Cambodia (Bhowmik, 2005).

A study titled “Street Food Vending: For Economic and Social Empowerment of Women Street Food Vendors in Dumaguete City, Philippines” examined economic and social empowerment among women street food vendors of Dumaguete City in the central part of the Philippines. The study focused on women street food vendors who sold in areas where most people gathered, particularly in four locations: near the schools; at Rizal Boulevard and the pier area; the premises near the Dumaguete Cathedral; and

at Quezon Park, including surrounding streets (Khaya et al, 2019).

Another study, “Food Safety Knowledge and Practices of Street Food Vendors in a Philippine University Campus,” found that among the street food vendors surveyed, knowledge on food safety concepts was established particularly on topics that dealt with health and personal hygiene, food contamination, and reasonable manufacturing procedures (Azanza et al, 2000). However, vendors were found to be not very knowledgeable about food legislation and waste management.

This study sought to ascertain the extent of sustainable business practices among street food vendors in Tagbilaran City and the challenges they encountered during the COVID-19 Pandemic in 2022. The results will inform the creation of a training program to help street food vendors address issues and bolster their sustainable business practices.

## RESEARCH METHODOLOGY

This study utilized a mixed-method type of research, combining qualitative and quantitative research, using in-depth and structured interviews to gather reliable data from the target respondents. The participants answered numerical responses or provided quantitative data on the levels of sustainable business practices and the problems faced by street food vendors, as rated. Fifteen (15) interviewees were purposefully selected to respond to the in-depth interview questions to collect qualitative data and validate the quantitative responses, which is thought to provide deeper insight into their experiences. Respondents were selected based on the number of years in business. The questions asked were about sustainable business practices and the challenges respondents encountered during implementation. The gathered answers were categorized according to their similarity in nature. For the survey results to be valid and dependable, the research questions were appropriately constructed, written, and delivered in a clear, easy-to-understand manner. This research approach described situations only; it did not make precise predictions or establish cause and effect. The researcher could infer causal relationships between the variables under inquiry using this logical model (Nachmias & Nachmias, 1996). The ordinal scale of measurement was considered when constructing the question type, as it simplifies statistical analysis (Jackson, 2009).

The study’s geographical focus is Downtown Tagbilaran City, specifically within the areas near St. Joseph’s Cathedral, old Bohol Capitol, Plaza Rizal, Citi Square, Shopper’s Mart, and Alturas Mall. Below is the map of the specific areas to be conducted for the interview. The study aims to elicit responses from street food vendors in Bohol’s only city. The researcher selected 70 street vendors within the study’s geographic focus using snowball sampling. Unfortunately, 10 street food vendors refused to participate in the study. To validate their responses, 15 selected respondents were interviewed. The researcher exclusively chose street food vendors selling ready-to-eat food who

had been in operation before and during the COVID-19 pandemic as the respondents for this study, as it was designed to evaluate their sustainability and the issues they faced during the pandemic.

This study used a researcher-made questionnaire that underwent a pilot test, and the Cronbach's alpha result was reported. Data collection was done using a questionnaire. The human, social, economic, and environmental sustainability components covered in the Encyclopedia of Global Environmental Change (Goodland, 2002) served as the foundation for the second section of the researcher-made questionnaire. The questions were geared toward obtaining responses on how sustainability, in its various facets, emerges in the present scenario of street food vending amid the COVID-19 Pandemic.

The survey questionnaire was researcher-made. For ensured functionality, the questionnaire form was pre-tested on twelve (12) sample respondents for applicability and comprehension. To further refine consistency, the tool underwent reliability testing in SPSS version 21. It passed, with results of 0.783, before being distributed to all actual respondents. To estimate the total time needed to complete the entire survey, the time spent responding to the assertions was recorded in the questionnaire-based assessment.

Rating for the level of sustainable business practices

<b>Value</b>		<b>Interpretation</b>
4	Always practiced	Highly Sustainable
3	Often Practiced	Moderately Sustainable
2	Sometimes Practiced	Less Sustainable
1	Not Practiced	Not Sustainable

Rating for the problems faced by the street food vendors

<b>Value</b>	<b>Interpretation</b>
4	Very Serious
3	Moderately Serious
2	Less Serious
1	Not Serious

To officially conduct the study, the research proposal was first submitted to the UB Ethics Review Committee for approval. After approval, the researcher wrote a letter addressed to the Vice President of Academics and the Dean of Graduate Studies at the University of Bohol, requesting permission to conduct the research. Another letter was sent to the Tagbilaran City Government through the City Administrator, asking permission to conduct the study among the street vendors. After obtaining the requested permissions, the researcher informed the respondents of the study's purpose and sought their informed consent. They were also assured of their right to privacy and that the researcher would always take and adhere to precautions to protect the confidentiality of the data and information gathered. Afterward, the researcher distributed the

survey instrument to the respondents and gave them ample time to complete it, ensuring proper and thorough completion.

The questionnaire was retrieved, and the responses were categorized, totaled, and compiled in a tabular format. A statistical formula was used to analyze and interpret the data and evaluate the hypotheses. The conclusions, recommendations, and proposed training design were then derived from the summary of the findings.

The surveys and interviews were conducted following the COVID-19 pandemic response guidelines, which included maintaining a physical distance of at least one meter from people even if they did not appear to be ill, donning properly fitted masks when this was not possible, and in places with poor ventilation, frequently washing hands with alcohol-based hand rub or soap and water, and covering mouth and nose with a bent elbow or tissue when necessary.

This research was subjected to permission and review by the UB Ethics Review Committee. Research ethics required that survey participants be informed of the research purpose and given the opportunity to provide their informed consent. Before distributing the instruments, the participants were asked to sign an informed consent form. The researcher respected the research participant's right to privacy and always undertook and observed measures for the confidentiality of information. The researcher ensured that the risks of damage to the research subjects in this study were as low as feasible. The respondents in the study were treated as autonomous, meaning they could decide whether to participate, what to answer, and what to agree to. Hence, the purpose of the study should never be to hurt anyone or to obtain information at the expense of others.

This research analyzed the collected data using statistical methods. Age, sex, marital status, number of years in business, and vending technique data were all expressed as percentages for the respondents. The degree of sustainable business practices and the problems faced by street food vendors during COVID-19 were evaluated using a weighted mean. Because the data were derived from respondents' perceptions of their own opinions, the Chi-Square Test of Independence was used to assess whether there was a significant association among respondents' profiles, the degree of sustainable business practices, and the issues faced by street food sellers. To ascertain the substantial degree of variance among the elements of the level of sustainable business practices, the Friedman Chi-Square Test was employed. The qualitative data from the in-depth interview were tabulated and examined using thematic analysis.

## **RESULTS AND DISCUSSIONS**

The first problem of the study focused on the profile of the street food vendors identified as participants.

The 18-30-year age group has the highest frequency, accounting for 48.33% of respondents. The age group below 18 years old had the lowest frequency, at 6.67% of respondents. The result above supports the study by Bhowmik (2005), entitled “Street Vendors in Asia,” which examined street vendors in Asian countries, namely Bangladesh, Sri Lanka, Singapore, Kuala Lumpur, Manila, Hanoi, Cambodia, Seoul, and India. The study analyzed the spread of street vending in these countries. The assessment found that the number of street vendors in the countries increased. The number grew due to declines in formal-sector employment and a dearth of jobs in rural areas. This factor was common in Bangladesh, Nepal, Vietnam, and Cambodia.

Sixty percent (60%) of the respondents were male street food vendors, while 40% were female. The data presented above contradicts what Njaya found in his 2014 study, “Nature, Operations, and Socio-Economic Features of Street Food Entrepreneurs of Harare, Zimbabwe,” in which many of the street food vendors were from poor backgrounds. Women predominated among street food vendors, accounting for 85% of vendors. However, a study titled “Food Sovereignty” analyzed the constraints faced by 90 Indian street-food corn vendors in Tamil Nadu. It found that women in the street food vending industry faced harassment, forced shutdowns, and payment of bribes to police and authorities. Female laborers working under street vendors received daily wages that were three times lower than those of their male counterparts. Female corn vendors expressed a greater desire to expand their enterprises than their male counterparts (Patel, 2013).

For the civil status of the respondents, most of the street food vendors who participated in the study were single, 66.67% of the respondents were single, 31.67% were married, and only 1.67% were separated.

The respondents who had been street vending for more than 5 years had the highest frequency, at 40%, followed by 35% who had been vending for 3-5 years, and 25% who had been vending for less than 3 years. Street food vending serves two essential functions. First, it is a source of employment for those who cannot be absorbed into the skilled, formal sector of the economy. Secondly, street food vendors provide ready-to-eat food to local people (Das, 2019).

Regarding the respondents’ vending method, 58.33% were permanently vending, while 41.67% were selling through mobile or ambulant vending. According to the Draft National Policy for street vendors, a street vendor offers goods for sale to the public without having a permanent built-up structure, but with a temporary static design or mobile stalls (Das, 2019).

In terms of the types of food sold by the respondents, cooked food had the highest frequency, with 66.67% of respondents selling it, followed by fruits. Juice and vegetables sold through street vending had the lowest frequency, 1.67%. Simple foods are served in street food services. These include fried and boiled snacks, other packaged snacks, beverages, soups, ices, native cakes, grilled items, sandwiches, fish, cooked vegetables, eggs, fruits, and bakery

products. They prepare street foods in their homes and transport these to public places.

Survey shows that 53.33% of street food vendors worked 8-10 hours a day, and only 10% worked more than 10 hours a day. The schedule of the street food businesses varied with the size of the operation, the location of the service, and the type of food sold. Some of them operated for 24 hours. They seemed to be primarily migrants from the provinces.

Findings revealed the respondents' average monthly expenses and income before and after the pandemic. It was found that, for pre-pandemic costs, 36.67% of street food vendors spent ₱10,001-₱20,000 a month, and only 5% spent more than ₱20,000 a month. It is an interesting finding that 36.67% of street food vendors spent an average of ₱10,001-₱20,000 monthly during the pandemic, the same as before, while only 18.33% spent less than ₱5,000 monthly.

Survey findings for street food vending income revealed an interesting trend. It showed that before the pandemic, 40% of street food vendors earned less than ₱5,000 a month, 40% earned ₱5,001 - ₱10,000 a month, and only 6.67% received more than ₱20,000 a month. Amid the pandemic, 33.33% of street food vendors earned less than ₱5,000 a month, while those earning more than ₱ 20,000 a month increased to 10%.

A research study entitled “Street Foods in the Philippines Health, Nutrition, Management, and Livelihood Aspects” revealed that the initial capital investment of most street food businesses comes from loans from relatives, friends, or money lenders (Castillo, 2019). Based on the presented data, it can be understood that street food vending plays a dynamic role in the urban economy, providing durable, cost-effective items to average-income households at affordable rates. The sale of street foods also makes a sizeable contribution to the economies of developing countries.

#### **Level of Sustainable Business Practices of the Street Food Vendors.**

The second problem statement for the study concerns the level of sustainable business practices among street food vendors in terms of human, social, economic, and environmental sustainability.

The street food vendors are highly sustainable across all aspects of human sustainability practices. Specifically, they ranked human sustainability practices as the highest, with a mean of 3.768, followed by maintaining area cleanliness. Although it is highly sustainable, maintaining proper hygiene during food preparation had the lowest mean. These results support the idea that street food vending has become a significant public health issue and a primary concern for everyone due to the spread of food-borne diseases, driven by the mushrooming of wayside food vendors who lack adequate understanding of fundamental food safety issues (Rane, 2011).

The core themes that emerged from respondents' interview responses regarding their human sustainability practices. Cleanliness of the area, hygienic food preparation, and safe food ingredients emerged as their common answers.

Regarding the cleanliness of the area, all respondents reported practicing “proper waste segregation” and “cleanup before and after work”. In terms of hygienic food preparation, all respondents followed “sanitary food practices”. In terms of safe food ingredients, 60% answered that street food vending was “practiced by their family for years”, 6.67% chose street food vending because of its “convenience and profitability”, and 6.67% chose street food vending according to “children’s choice”.

The responses revealed that all respondents were highly sustainable in terms of social sustainability. They had identified showing proper behavior to customers as the most practiced sustainability and got the highest mean of 3.85. On the other hand, providing good customer service and applying fair trade practices had the lowest mean of 3.8167, but it is still considered highly sustainable. The results support the theory that social sustainability maintains and improves social quality with concepts such as cohesion, reciprocity, honesty, and the importance of relationships among people (Goodland & Bank, 2002). It aims to preserve social capital by investing in and creating services that underpin our society.

The core themes of street food vendors’ practices regarding social sustainability, or their approaches to customer and competitor interactions. During the interview, it appeared that the street food vendors consistently showed proper behavior toward customers, provided good customer service, and practiced fair-trade practices. All respondents had a “pleasant attitude” toward customers.

As with the street food vendors’ perception of the importance of applying fair trade practices, 60% responded “good relations with competitors,” and 40% answered “cooperation with competitors.” They believe that fair business competition enables them to build rapport and strong relationships with competitors, as part of the social sustainability dimension.

In terms of economic sustainability practices among the respondents, buying essential goods for the family was identified as highly sustainable, with the highest mean of 3.8333. By following the government’s rules and regulations with a mean of 3.6500, paying bills on or before time with a mean of 3.3833, and saving from monthly income with a mean of 2.6333, all of which were highly sustainable, respondents interpreted the latter as less sustainable.

They also took the job because it was the only one available. Moreover, economic sustainability in the business context refers to the efficient use of assets to maintain business profitability over time (Goodland & Bank, 2002), thereby helping vendors provide for their families’ daily needs.

In the interview, creating good cash flow, paying bills on time, monthly savings, buying essential and non-essential goods for the family, and obeying rules and regulations were the core themes, as reflected in their responses. Forty-seven percent answered “budget of expenses and savings,” and 53.33% responded “proper spending” in order to create good cash flow. To avoid bill

penalties, 20% answered “paying bills in advance,” while 80% responded “income allocation.” For them to save money from their monthly income, 47% answered “prioritize savings,” and 53.33% answered “save before spending”.

Regarding the street food vendors’ economic problems, some themes emerged that could be addressed through financial literacy and sound business sense. Some vendors admit that economic problems result from their lack of business experience, family issues, inflation, and wrong choice of funds, such as borrowing from loan sharks. As shown in the interviews, the street-savviness of the street food vendors, although some did not adopt a budgeting strategy.

In the area of environmental sustainability, creating zero waste by having appropriate trash bins received the highest mean of 3.2667, which respondents identified as highly sustainable. In contrast, respondents identified using eco-friendly materials as moderately sustainable, with a mean of 2.1167. This means that their practices are geared towards the United Nations Sustainable Development Goals, which each member of the union must substantially meet by 2030, including Goal 12, which is to “ensure sustainable consumption and production patterns”. These environmental practices, including reducing plastic use and boosting the circularity of the plastic economy, are expected to be necessary to make plastic products more durable and thus reduce plastic waste. Other measures that could help achieve the objective include increasing domestic recycling and reducing dependence on the international trade in plastic waste.

Although 53.33% of respondents have no strategies for environmental sustainability, the themes that emerged from the interviews indicated that street food vendors are aware of several alternative, eco-friendly materials and the innovative practice of bringing waste from the store home. Regarding the use of eco-friendly materials, 26.67% answered “biodegradable”. Sixty percent of the respondents “brought their waste to their homes” to create zero waste in the area.

Results showed that among the sustainability practices, street food vendors were highly sustainable in terms of social, human, and economic sustainability. In contrast, environmental sustainability was less sustainable, with a mean of 2.6917. However, the data still revealed that with a mean of 3.6083, the respondents are highly sustainable in their daily vending routines. The main motive for implementing sustainable business practices stems from the philosophy of business managers or corporations and is linked to cost savings. However, positive public relations and higher employee commitment and satisfaction were also mentioned as essential benefits (Raderbauer, 2011). It aimed to increase sustainable business practices in the industry and to raise consumer awareness and demand.

The list and the themes revealed in the in-depth interviews will guide the recommendations for this study.

**Problems Faced by Street Food Vendors during the COVID-19 pandemic.** The study assessed the issues faced by street food vendors during

the COVID-19 pandemic.

Based on the participants' responses, they identified a decrease in income as the most serious problem they encountered in street food vending during the pandemic, with a mean of 3.4667. However, they have determined that competition from new entrants, insecure working conditions, and exploitation by national police and municipal authorities are not serious problems they encountered, though exploitation by national police and municipal authorities received the lowest mean of 1.3667.

**Table 1.** *Statistical Analysis on the Relationship Between the Profile of the Respondents and the Level of Sustainable Business Practices*

Profile Variables (Friedman Test, N = 60)	$\chi^2$	$p$	Interpretation
Age	8.298	0.016	Significant
Sex	0.017	0.895	Not significant
Civil status	0.617	0.735	Not significant
Years in street vending	1.808	0.405	Not significant
Way of vending	0.429	0.513	Not significant
Type of food sold	2.197	0.821	Not significant
Working hours	1.75	0.916	Not significant
Average monthly expenses before the pandemic	3.114	0.374	Not significant
Average monthly expenses during the pandemic	4.861	0.182	Not significant
Average monthly income before the pandemic	2.448	0.485	Not significant
Average monthly income during the pandemic	0.685	0.877	Not significant

Note.  $\chi^2$  = Friedman chi-square statistic. Significance level set at  $\alpha = .05$ .

The relationship between the respondents' socio-demographic and business profiles and their level of sustainable business practices was examined using the Friedman chi-square test. As shown in Table 10, **age was the only**

**variable that demonstrated a statistically significant relationship** with the level of sustainable business practices ( $\chi^2 = 8.298, p = .016$ ). This indicates that sustainability practices among street food vendors vary significantly across age groups.

The significant association suggests that age may influence vendors' capacity or inclination to adopt and maintain sustainable practices. Older vendors may have accumulated greater experiential knowledge, adaptive skills, and resilience through prolonged exposure to the informal economy, while younger vendors may still be developing stable routines and sustainability-oriented strategies. This finding aligns with livelihood and learning theories that emphasize experience as a key factor in shaping adaptive business behavior.

In contrast, **sex, civil status, years in street vending, vending modality, type of food sold, working hours, and income and expense variables—both before and during the pandemic—were not significantly related** to the level of sustainable business practices. These results indicate that sustainability practices were generally consistent across these profile categories, regardless of vendors' economic standing or operational characteristics.

The absence of significant relationships for income- and expense-related variables suggests that sustainable business practices were not necessarily dependent on financial capacity. Instead, vendors appeared to maintain sustainability practices as part of their daily routines and survival strategies, even amid financial strain. This finding supports earlier results showing that sustainability practices function more as **coping and continuity mechanisms** rather than as outcomes driven by economic advantage.

Overall, the findings imply that while street food vendors share similar sustainability behaviors across most demographic and operational factors, **age remains a distinguishing variable** influencing how sustainability is practiced. This underscores the importance of age-sensitive interventions in training and capacity-building programs, particularly for younger or less-experienced vendors who may benefit from mentorship, skills development, and practical guidance to sustain their businesses during crisis conditions.

These results suggest that sustainability practices among street food vendors are broadly uniform across socio-economic conditions, with age emerging as the primary differentiating factor influencing sustainability behavior.

**Correlation Between the Level of Sustainable Business Practices and The Problems Faced by Street Food Vendors.** To explore the relationship between the level of sustainable business practices and the problems faced by street food vendors, a Spearman Correlation Coefficient was calculated between the variables of interest.

**Table 2.** *Correlation Between the Level of Sustainable Business Practices and The Problems Faced by Street Food Vendors*

Spearman's rho		Sustainable business practices of the street food vendors	Problems faced by street food vendors during the COVID-19 pandemic
Sustainable business practices of the street food vendors	Correlation Coefficient	1.000	-0.062
	Sig. (2-tailed)		0.639
	N	60	60
Problems faced by street food vendors during the COVID-19 pandemic	Correlation Coefficient	-0.062	1.000
	Sig. (2-tailed)	0.639	

The absence of a significant relationship between sustainable business practices and the problems faced by street food vendors during the COVID-19 pandemic ( $\rho = -0.062, p = .639$ ) can be explained through the lens of established social and business theories. While vendors consistently reported sustainability practices, the magnitude and nature of pandemic-related challenges appear to be driven primarily by structural and external forces rather than by individual operational behavior.

From the perspective of Elkington's Triple Bottom Line (TBL) Theory, sustainability requires a balanced integration of economic viability (profit), social responsibility (people), and environmental stewardship (planet). The findings suggest that although street food vendors demonstrated strong commitment to human and social sustainability—such as maintaining hygiene, customer relations, and ethical conduct—the economic pillar of sustainability was disproportionately undermined by pandemic-induced disruptions. Reduced consumer mobility, inflation, and declining purchasing power constrained income generation regardless of vendors' sustainability efforts. This supports Elkington's assertion that focusing on one or two dimensions of sustainability, without favorable external conditions, is insufficient to ensure overall business resilience.

Conflict Theory, as articulated by Karl Marx, further contextualizes the findings by highlighting the structural vulnerabilities faced by informal workers operating at the margins of the economy. Street food vendors occupy a disadvantaged position characterized by limited capital, weak institutional protection, and exposure to regulatory and economic shocks. The lack of correlation between sustainability practices and experienced problems reflects this structural inequality: even well-managed and socially responsible vendors remain susceptible to systemic forces such as public health restrictions, inflation, and uneven enforcement of regulations. The pandemic magnified

these inequalities, reinforcing the notion that individual adaptive behavior cannot fully compensate for structural constraints.

The findings are also consistent with Maslow's Hierarchy of Needs, particularly in explaining vendors' prioritization of immediate survival over long-term strategic improvements. During the pandemic, vendors focused primarily on meeting physiological and safety needs, such as securing daily income, food, and health protection. This explains why sustainability practices continued despite persistent hardships—vendors were motivated by necessity rather than strategic choice. Higher-level needs, such as business growth, innovation, or environmental investments, were constrained by the urgency of daily survival.

The qualitative findings further illuminate this theoretical alignment. Economic concerns such as inflation and reliance on informal funding sources reflect unmet safety needs, while fatigue and compliance with health protocols highlight the strain on human sustainability. Social challenges, including managing intoxicated customers, illustrate interpersonal tensions intensified by crisis conditions but still primarily within vendors' control. Environmental issues, though less frequently cited, remain external and situational, reinforcing vendors' limited agency over broader ecological and infrastructural factors.

Overall, the findings demonstrate that sustainable business practices among street food vendors function more as coping mechanisms than protective buffers during systemic crises. While these practices support continuity and dignity in work, they do not necessarily reduce exposure to macro-level shocks such as pandemics. This underscores the need for institutional and policy-level interventions—including financial assistance, training, infrastructure support, and regulatory protection—to complement individual sustainability efforts.

## CONCLUSIONS

This study found that street food vendors in Tagbilaran City demonstrated **high levels of human and social sustainability** during the COVID-19 pandemic, reflected in their adherence to hygiene practices, ethical conduct, and positive customer relations. Economic sustainability practices were primarily directed toward meeting essential household needs, whereas long-term financial practices, such as savings, were less sustainable. In terms of environmental sustainability, vendors consistently practiced proper waste management by using trash containers. However, the adoption of eco-friendly materials remained moderate due to cost and accessibility constraints. Compliance with Inter-Agency Task Force (IATF) health protocols emerged as the most serious challenge for vendors, alongside reduced income and physical fatigue.

Statistical analysis showed that **age was the only profile variable significantly related** to the level of sustainable business practices, suggesting that experience and maturity influence adaptive behavior. Other demographic

and operational factors, including sex, civil status, income, expenses, and vending characteristics, were not significantly associated with sustainability practices. Moreover, no significant correlation was found between sustainability practices and the problems encountered during the pandemic, indicating that individual sustainability efforts were insufficient to offset broader economic and structural disruptions. These findings highlight the resilience of street food vendors while underscoring the need for institutional support and targeted interventions to strengthen the long-term sustainability of the informal food sector.

## RECOMMENDATIONS

### For Street Food Vendors

#### 1. **Financial Literacy and Record-Keeping**

Street food vendors are encouraged to participate in financial literacy training focused on basic bookkeeping, budgeting, savings management, and responsible borrowing. Strengthening these skills will enable vendors to manage income, better control expenses, and improve long-term financial stability, particularly during economic disruptions.

#### 2. **Customer Relations and Conflict Management**

Capacity-building activities should include training on customer service and conflict management to equip vendors with strategies for handling complex or hostile customers. Improved interpersonal skills can enhance vendor–customer relationships, reduce stress, and create a safer and more positive vending environment.

#### 3. **Business Diversification and Innovation**

Vendors are encouraged to diversify their product offerings or explore complementary income-generating activities to reduce dependence on a single revenue stream. Product innovation and diversification can help vendors respond more effectively to changing consumer demands and unexpected disruptions.

#### 4. **Food Safety, Cleanliness, and Sanitation Practices**

Street food vendors should continue to strengthen compliance with food safety and sanitation standards by maintaining clean workspaces, practicing proper food handling, and coordinating with local authorities. Consistent adherence to hygiene protocols is essential to protect public health and sustain customer trust.

#### 5. **Waste Management and Environmental Responsibility**

Although waste management was not identified as a significant problem, vendors should be encouraged to adopt proper waste disposal practices and gradually shift toward zero-waste and environmentally friendly initiatives. Simple measures such as waste segregation and the use of reusable or biodegradable materials can help improve

environmental sustainability.

## **For the Local Government of Tagbilaran City**

### **1. Targeted Training and Capacity-Building Programs**

The city government is encouraged to institutionalize regular training programs for street food vendors, focusing on financial literacy, customer service, food safety, and business sustainability. These programs may be implemented in partnership with academic institutions, non-government organizations, and relevant government agencies.

### **2. Improved Waste Management Infrastructure and Environmental Support**

Local authorities should provide adequate waste disposal facilities in vending areas and promote the use of eco-friendly packaging and materials. Incentives or subsidies for sustainable materials may further encourage vendors to adopt environmentally responsible practices.

### **3. Regular Health and Sanitation Monitoring**

Consistent and supportive health and sanitation inspections by the City Health Office are recommended to ensure compliance with food safety standards. Rather than punitive measures, inspections should emphasize guidance, education, and technical assistance to help vendors maintain acceptable hygiene standards.

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