

A Holistic Analysis of Key Drivers of Food Establishments in the National Capital Region: An Input To Strategic Framework

Franz V. Jaminit, DBA

Chairperson, College of Hospitality, Tourism, and Culinary Management, Siena College of Taytay

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Email of Corresponding Author: franz.jaminit@sct.edu.ph

Abstract

This study examined the key operational drivers influencing the sustainability and financial performance of Department of Tourism (DOT)-accredited food establishments in the National Capital Region (NCR), Philippines, and developed a strategic sustainability framework to enhance long-term competitiveness. Grounded in the Resource-Based View (RBV) Theory and the Triple Bottom Line (TBL) Framework, the study investigated the effects of food quality, service quality, physical environment, customer satisfaction and loyalty, price fairness and value, and marketing and branding on social, environmental, and economic sustainability, as well as financial performance. A convergent mixed-methods research design was employed, involving 301 respondents composed of customers, employees, supervisors, and managers from 43 DOT-accredited food establishments. Quantitative data were analyzed using descriptive statistics, analysis of variance (ANOVA), and correlation analysis, while qualitative data were subjected to thematic analysis. Findings revealed that respondents generally perceived the operational drivers and sustainability practices to be highly implemented, although significant differences existed among stakeholder groups. The study further found limited significant relationships between operational drivers, business sustainability, and financial performance, suggesting that operational excellence alone does not ensure sustainable business outcomes. Qualitative findings identified major challenges, including supplier limitations, financial constraints, regulatory compliance, and balancing sustainability initiatives with profitability. Based on these findings, a Strategic Sustainability Framework was proposed, emphasizing stakeholder alignment, operational excellence, sustainability integration, financial performance monitoring, and continuous feedback mechanisms. The study concludes that food establishments should adopt independent yet complementary sustainability strategies alongside operational improvements to achieve resilience, long-term profitability, and competitive advantage in the evolving Philippine food service industry.

Keywords: Food Establishments, Operational Drivers, Business Sustainability, Financial Performance, Resource-Based View, Triple Bottom Line, Strategic Sustainability Framework, Department Of Tourism, National Capital Region, Philippines.

Introduction

The food service industry has evolved significantly from simply providing quality meals to delivering comprehensive customer experiences that integrate operational excellence, sustainability, and financial performance. In today's highly competitive business environment, food establishments are expected not only to satisfy customers through quality products and services but also to operate responsibly by protecting the environment, supporting local communities, and maintaining long-term economic viability. This shift reflects the growing importance of sustainable business practices, where organizations strive to balance profitability with social and environmental responsibilities. Guided by the Triple Bottom Line framework of people, planet, and profit (Elkington, 1997), food businesses are increasingly recognizing that sustainable operations contribute to organizational resilience, competitive advantage, and long-term success (Porter & Kramer, 2011).

In the Philippines, the food service industry remains one of the country's major contributors to employment, tourism, and economic growth. The National Capital Region (NCR), as the country's primary commercial and tourism center, hosts a diverse range of Department of Tourism (DOT)-accredited restaurants, cafés, and food establishments that continuously adapt to changing consumer demands and industry standards. These establishments operate under various regulatory policies, including the Food, Drug and Cosmetic Act (Republic Act No. 3720), the Consumer Act of the Philippines (Republic Act No. 7394), the Tourism Act of 2009 (Republic Act No. 9593), and the Department of Tourism accreditation guidelines, which collectively ensure food safety, consumer protection, quality service, and operational accountability. Compliance with these standards has become increasingly important as consumers seek establishments that demonstrate not only quality products but also ethical and sustainable business practices.

The success of food establishments is influenced by several operational factors that shape customer experiences and organizational performance. Previous studies have consistently identified food quality, service quality, pricing, physical environment, customer satisfaction, customer loyalty, and branding as critical determinants of business competitiveness and financial success (Abdullah et al., 2018; Rajput & Gahoor, 2020; Vu, 2021). High-quality food, responsive service, fair pricing, and an appealing dining environment encourage customer satisfaction, repeat patronage, and positive word-of-mouth, while effective branding strengthens customer trust and market positioning. In today's digital landscape, online reviews and social media presence further amplify customer perceptions, making reputation management an essential component of business sustainability and long-term profitability.

Beyond operational excellence, sustainability has become an integral strategy for improving organizational performance. Social sustainability emphasizes employee welfare, community involvement, cultural preservation, and responsible stakeholder engagement, while environmental sustainability promotes waste reduction, energy efficiency, sustainable sourcing, and environmentally friendly operations. Economic sustainability, on the other hand, focuses on maintaining financial stability through efficient resource utilization, strategic investments, and continuous business growth. Studies have shown that organizations implementing sustainable business practices often experience enhanced operational efficiency, stronger customer loyalty, improved corporate reputation, and better financial outcomes (Hartmann & Siegrist, 2017; Bhukya & Paul, 2023; Gu, 2024; Zhu et al., 2021). These sustainability initiatives enable food establishments to respond effectively to changing consumer expectations while contributing to broader environmental and societal goals.

Despite the growing body of literature on food service management and sustainability, there remains limited empirical evidence explaining how operational drivers collectively influence the financial performance of food establishments through sustainability practices, particularly among Department of Tourism-accredited establishments in the National Capital Region. Existing studies have primarily examined these variables independently, providing insufficient understanding of their combined relationships within a comprehensive sustainability framework. Moreover, the long-term effects of sustainability initiatives and regulatory compliance on business performance remain underexplored. Addressing these research gaps is essential for developing evidence-based strategies that support sustainable growth in the Philippine food service industry.

Therefore, this study examines the influence of operational drivers—including food quality, service quality, physical environment, customer satisfaction, customer loyalty, pricing, and branding—on the financial performance of Department of Tourism-accredited food establishments in the National Capital Region, with social, environmental, and economic sustainability serving as mediating variables. Anchored on the Triple Bottom Line Theory and Stakeholder Theory, the study seeks to provide a comprehensive understanding of how sustainability strengthens the relationship between operational excellence and financial performance. The findings are expected to contribute to the existing body of knowledge while providing practical recommendations for business owners, managers, policymakers, and industry stakeholders in developing evidence-based strategies that enhance operational efficiency, promote sustainability, improve financial performance, and support the long-term competitiveness of the Philippine food service industry.

Material and methods

2.1 Research Design

This study employed a convergent mixed-methods research design, integrating quantitative survey data and qualitative interview responses to comprehensively examine the relationships among operational drivers, business sustainability, and financial performance of Department of Tourism (DOT)-accredited food establishments in the National Capital Region (NCR).

2.2 Locale of the Study

The study was conducted among 43 Department of Tourism (DOT)-accredited food establishments located in the National Capital Region (NCR), Philippines, representing various cities and municipalities within the country's primary commercial and tourism hub.

2.3 Respondents of the Study

The respondents consisted of 301 participants, including customers, employees, supervisors, and managers from the selected DOT-accredited food establishments, providing diverse perspectives on operational practices, sustainability, and business performance.

2.4 Sample and Sampling Procedure

The study utilized purposive sampling in selecting 43 DOT-accredited food establishments and their respondents, comprising 129 customers, 129 employees, and 43 supervisors/managers, while managers also participated in qualitative interviews to provide in-depth insights.

2.5 Research Instrument

Data were gathered using a researcher-developed, expert-validated structured questionnaire employing a four-point Likert scale to measure operational drivers and business sustainability practices, complemented by a structured interview guide for qualitative data collection.

2.6 Data Gathering Procedure

Following approval from the concerned authorities, the researcher distributed validated questionnaires to the selected respondents, conducted interviews with managers, retrieved the completed instruments, and organized the collected data for statistical and thematic analyses.

2.7 Data Analysis Techniques

The quantitative data were analyzed using frequency and percentage, weighted mean, analysis of variance (ANOVA), and correlation analysis, while qualitative responses were examined through thematic analysis to identify emerging patterns and support the quantitative findings.

2.8 Ethical Considerations

The researcher strictly observed ethical principles throughout the conduct of the study. Prior approval was obtained from the appropriate educational authorities before data collection commenced. Participation was voluntary, and informed consent was secured from all respondents after explaining the objectives, procedures, benefits, and confidentiality of the study. The identities of the respondents and the academic records of the pupils were kept anonymous through coding, and all information gathered was treated with strict confidentiality and used solely for academic and research purposes in compliance with the provisions of the Data Privacy Act of 2012 (Republic Act No. 10173) and accepted ethical standards in educational research.

Results and Discussion

3.1 Profile of the Respondents in terms of the Selected Variables

The majority of customers were below 27 years old, male, allocated ₱351.00–₱450.00 as their food allowance, and visited restaurants one to three times during the reference period. Employees were predominantly below 27 years old, male, worked as kitchen staff, and were mostly under probationary employment status. Meanwhile, supervisors were generally aged 28–59 years, predominantly female, all occupied managerial or supervisory positions, and were primarily regular employees. These findings indicate that DOT-accredited food establishments mainly serve a young customer market while maintaining a workforce composed of younger operational staff supported by experienced and stable supervisory personnel.

Table 1.1
Profile of the Respondents

Profile Variable	Customer (n = 129)	Employee (n = 129)	Supervisor (n = 43)
Age	Below 27 years old (66, 51.2%)	Below 27 years old (44, 34.1%)	28–43 years old and 44–59 years old (14, 32.6% each)
Sex	Male (65, 50.4%)	Male (65, 50.4%)	Female (26, 60.5%)
Food Allowance	₱351.00–₱450.00 (73, 56.8%)	—	—
Frequency of Restaurant Visit	1–3 times (61, 47.3%)	—	—
Job Position	—	Kitchen Staff (70, 54.3%)	Manager/Supervisor (43, 100.0%)
Employment Status	—	Probationary (59, 45.7%)	Regular (27, 62.8%)

Table 1.2 presents reveals the majority of the DOT-accredited food establishments were located in Southern NCR (53.5%), had been operating for 6–10 years (58.1%), and were primarily organized as corporations (53.5%). Most establishments employed 11–20 workers (74.4%), accommodated 31 or more customers (48.8%), and served more than 100 customers daily (53.5%), indicating medium-sized businesses with high customer traffic. Slightly over half operated for 8 hours daily (51.2%), while all catered to diverse client groups. Financially, most establishments started with an initial capital exceeding ₱1,001,000 (55.8%), currently maintained ₱801,000–₱1,000,000 in present capital (60.5%), generated gross income of ₱801,000–₱1,000,000 (60.5%), and incurred gross expenses exceeding ₱1,001,000 (51.2%). Overall, these findings

characterize the respondents as established, medium-scale corporate food businesses with substantial capital investment, stable operations, and high customer volume in the National Capital Region..

Table 1.2

Profile of Food Establishments in the National Capital Region

Profile Variable	Dominant Category	f	%
Location of Food Establishment	Southern NCR	23	53.5
Years of Operation	6–10 years	25	58.1
Type of Ownership	Corporation	23	53.5
Number of Employees	11–20 employees	32	74.4
Seating Capacity	31 pax and above	21	48.8
Average Number of Customers per Day	100 customers and above	23	53.5
Operating Hours	8 hours	22	51.2
Types of Clients	All of the above	43	100.0
Initial Capital	₱1,001,000 and above	24	55.8
Present Capital	₱801,000–₱1,000,000	26	60.5
Gross Income	₱801,000–₱1,000,000	26	60.5
Gross Expenses	₱1,001,000 and above	22	51.2

3.2 Assessment of Customers, Employees, and Supervisors in the Key Drivers of Food Establishment in the National Capital Region (NCR) in terms of Different Aspects

Table 2 shows that customers, employees, and supervisors consistently strongly agreed that the key drivers of food establishments in the National Capital Region (NCR) are effectively implemented, as reflected by their grand mean ratings of 3.49, 3.61, and 3.84, respectively. Supervisors provided the highest assessments across all dimensions, followed by employees and customers, indicating a generally positive perception of operational performance among all stakeholder groups. Among customers, Customer Satisfaction and Loyalty received the highest rating (3.60), while Physical Environment obtained the lowest (3.40), although both remained within the "Strongly Agree" category. Similarly, employees rated Food Quality and Customer Satisfaction and Loyalty the highest (3.69), whereas Marketing Branding received the lowest rating (3.42). Supervisors likewise gave the highest ratings to Food Quality (3.88) and the lowest to Marketing Branding (3.76). Overall, the findings indicate that the food establishments demonstrate strong performance across all operational dimensions, with opportunities to further strengthen marketing and branding strategies and enhance stakeholder alignment to sustain customer satisfaction and competitive advantage..

Table 2

Assessment of Customers, Employees, and Supervisors in the Key Drivers of Food Establishment in the National Capital Region (NCR) in terms of Different Aspects

Key Drivers	Customer (n=129)		Employee (n=129)		Supervisor (n=43)	
	W $\bar{x}$	VI	W $\bar{x}$	VI	W $\bar{x}$	VI
Food Quality	3.56	Strongly Agree	3.69	Strongly Agree	3.88	Strongly Agree
Service Quality	3.54	Strongly Agree	3.62	Strongly Agree	3.86	Strongly Agree
Physical Environment	3.40	Strongly Agree	3.66	Strongly Agree	3.83	Strongly Agree
Price Value	3.36	Strongly Agree	3.60	Strongly Agree	3.85	Strongly Agree
Customer Satisfaction and Loyalty	3.60	Strongly Agree	3.69	Strongly Agree	3.86	Strongly Agree
Marketing Branding	3.46	Strongly Agree	3.42	Strongly Agree	3.76	Strongly Agree
Grand Mean	3.49	Strongly Agree	3.61	Strongly Agree	3.84	Strongly Agree

3.3 Significant Differences in the Assessment of the Three Groups of Respondents on the Key Drivers of Food Establishment in the National Capital Region (NCR) When Grouped According to their Profile

Table 3 reveals that the assessment of the key drivers of food establishments in the National Capital Region (NCR) significantly differed only across selected profile variables. Among employees, age significantly influenced perceptions of food quality, service quality, customer satisfaction and loyalty, and marketing and branding, while employment status significantly affected assessments of food quality, service quality, physical environment, and customer satisfaction and loyalty. Among supervisors, job position showed significant differences in food quality, service quality, physical environment, price value, and marketing and branding, whereas employment status significantly influenced perceptions of food quality, service quality, physical environment, price value, and marketing and branding. In contrast, customers exhibited no significant differences in their assessments when grouped according to age, sex, food allowance, or frequency of restaurant visits. Likewise, sex did not significantly influence the perceptions of any respondent group across all key drivers. Overall, the findings indicate that organizational factors, particularly employment status and job position, have a greater influence on employees' and supervisors' perceptions of food establishment performance than demographic characteristics, while customers maintain consistently positive assessments regardless of their demographic profile.

Table 3

Significant Differences in the Assessment of the Three Groups of Respondents on the Key Drivers of Food Establishment in the National Capital Region (NCR) When Grouped According to their Profile

Profile	Key Drivers	Costumer				Employee				Supervisor			
		F	Sig	HO	VI	F	Sig	HO	VI	F	Sig	HO	VI
Age	Food Quality	2.205	0.89	NR	NS	10.968	.000	R	S	1.964	.130	NR	NS
	Service Quality	1.137	.336	NR	NS	11.893	.000	R	S	1.334	.272	NR	NS
	Physical	.976	.405	NR	NS	2.556	.057	NR	NS	.867	.464	NR	NS
	Price Value	1.204	.310	NR	NS	1.441	.232	NR	NS	2.604	.061	NR	NS
	Customer Satisfaction and Loyalty	2.064	.107	NR	NS	4.949	.003	R	S	1.827	.153	NR	NS
	Marketing and Branding	1.815	.146	NR	NS	14.561	.000	R	S	.786	.507	NR	NS
Sex	Food Quality	.489	.485	NR	NS	.571	.451	NR	NS	1.664	.202	NR	NS
	Service Quality	.772	.381	NR	NS	.006	.936	NR	NS	.069	.793	NR	NS
	Physical	.524	.470	NR	NS	.031	.861	NR	NS	.039	.844	NR	NS
	Price Value	.332	.565	NR	NS	.299	.585	NR	NS	.977	.327	NR	NS
	Customer Satisfaction and Loyalty	2.139	.145	NR	NS	2.269	.134	NR	NS	1.181	.282	NR	NS
	Marketing and Branding	.043	.836	NR	NS	.054	.817	NR	NS	0.33	.856	NR	NS
Food Allowance	Food Quality	.489	.691	NR	NS	-	-	-	-	-	-	-	-
	Service Quality	.729	.536	NR	NS	-	-	-	-	-	-	-	-
	Physical Envi	.739	.530	NR	NS	-	-	-	-	-	-	-	-
	Price Value	.143	.934	NR	NS	-	-	-	-	-	-	-	-
	Customer Satisfaction and Loyalty	1.234	.299	NR	NS	-	-	-	-	-	-	-	-
	Marketing and Branding	.605	.613	NR	NS	-	-	-	-	-	-	-	-
Frequency of Visit	Food Quality	1.059	.349	NR	NS	-	-	-	-	-	-	-	-
	Service Quality	1.522	.221	NR	NS	-	-	-	-	-	-	-	-
	Physical Environment	.622	.538	NR	NS	-	-	-	-	-	-	-	-
	Price Value	.352	.704	NR	NS	-	-	-	-	-	-	-	-
	Customer Satisfaction and Loyalty	1.236	.293	NR	NS	-	-	-	-	-	-	-	-

	Marketing and Branding	1.076	.343	NR	NS	-	-	-	-	-	-	-	-
Job Position	Food Quality	-	-	-	-	3.156	.077	NR	NS	83.153	.000	R	S
	Service Quality	-	-	-	-	.673	.413	NR	NS	17.502	.000	R	S
	Physical Envi.	-	-	-	-	.766	.383	NR	NS	3.189	.049	R	S
	Price Value	-	-	-	-	1.408	.237	NR	NS	5.664	.006	R	S
	Customer Satisfaction and Loyalty	-	-	-	-	.731	.394	NR	NS	.492	.614	NR	NS
	Marketing and Branding	-	-	-	-	1.304	.255	NR	NS	18.304	.000	R	S
Employment Status	Food Quality	-	-	-	-	5.666	.001	R	S	5.681	.006	R	S
	Service Quality	-	-	-	-	12.145	.000	R	S	5.888	.005	R	S
	Physical Envi.	-	-	-	-	4.089	.008	R	S	4.315	.018	R	S
	Price Value	-	-	-	-	1.981	.118	NR	NS	3.978	.024	R	S
	Customer Satisfaction and Loyalty	-	-	-	-	5.144	.002	R	S	.671	.515	NR	NS
	Marketing and Branding	-	-	-	-	1.214	.306	NR	NS	12.643	.000	R	S

3.4 Significant Differences Between Key Drivers of Food Establishments in the National Capital Region (NCR) and the Business Profile

Table 4 indicates that only selected business profile characteristics significantly influenced the key drivers of food establishments in the National Capital Region (NCR). Location significantly affected food quality, while type of ownership significantly influenced customer satisfaction and loyalty. Likewise, the number of employees showed significant differences in food quality, price value, and marketing and branding, whereas seating capacity significantly influenced price value and customer satisfaction and loyalty. The average number of customers per day, operating hours, and present capital were significantly associated with customer satisfaction and loyalty, while types of clients significantly affected service quality, price value, and marketing and branding. In contrast, years of operation, gross income, and gross expenses did not exhibit significant differences across the key drivers. Overall, the findings suggest that structural and operational characteristics of food establishments, rather than financial or longevity-related factors, play a more substantial role in shaping perceptions of operational performance, particularly in customer satisfaction, pricing, service quality, and marketing effectiveness.

Table 4

Significant Differences Between Key Drivers of Food Establishments in the National Capital Region (NCR) and the Business Profile

Profile	Key Drivers	Supervisor			
		F	Sig	HO	VI
Location	Food Quality	3.149	.050	R	S
	Service Quality	2.895	.063	NR	NS
	Physical Environment	1.535	.224	NR	NS
	Price Value	1.501	.231	NR	NS
	Customer Satisfaction and Loyalty	2.945	.061	NR	NS
	Marketing and Branding	.547	.582	NR	NS
Years of Operation	Food Quality	1.628	.205	NR	NS
	Service Quality	1.251	.294	NR	NS
	Physical Environment	1.054	.355	NR	NS
	Price Value	.563	.573	NR	NS
	Customer Satisfaction and Loyalty	.491	.615	NR	NS
	Marketing and Branding	.346	.709	NR	NS
Type of Ownership	Food Quality	.771	.383	NR	NS
	Service Quality	2.926	.092	NR	NS
	Physical Environment	.509	.478	NR	NS

	Price Value	6.108	.016	NR	NS
	Customer Satisfaction and Loyalty	1.289	.261	R	S
	Marketing and Branding	5.760	.020	NR	NS
Number of Employees	Food Quality	.230	.795	R	S
	Service Quality	.468	.629	NR	NS
	Physical Environment	.631	.536	NR	NS
	Price Value	5.053	.009	R	S
	Customer Satisfaction and Loyalty	1.973	.148	NR	NS
	Marketing and Branding	4.277	.019	R	S
Seating Capacity	Food Quality	.323	.809	NR	NS
	Service Quality	.783	.508	NR	NS
	Physical Environment	.363	.780	NR	NS
	Price Value	2.964	.040	R	S
	Customer Satisfaction and Loyalty	8.862	.000	R	S
	Marketing and Branding	1.727	.172	NR	NS
Average Number of Customers Per Day	Food Quality	2.121	.129	NR	NS
	Service Quality	1.367	.263	NR	NS
	Physical Environment	.224	.800	NR	NS
	Price Value	.077	.926	NR	NS
	Customer Satisfaction and Loyalty	9.519	.000	R	S
	Marketing and Branding	.050	.952	NR	NS
Operating Hours	Food Quality	.015	.904	NR	NS
	Service Quality	2.484	.120	NR	NS
	Physical Environment	.091	.764	NR	NS
	Price Value	1.032	.314	NR	NS
	Customer Satisfaction and Loyalty	7.203	.009	R	S
	Marketing and Branding	1.824	.182	NR	NS
Types of Clients	Food Quality	.233	.793	NR	NS
	Service Quality	4.146	.021	R	S
	Physical Environment	1.416	.251	NR	NS
	Price Value	4.888	.011	R	S
	Customer Satisfaction and Loyalty	2.628	.081	NR	NS
	Marketing and Branding	4.993	.010	R	S
Present Capital	Food Quality	1.825	.170	NR	NS
	Service Quality	1.834	.169	NR	NS
	Physical Environment	.011	.989	NR	NS
	Price Value	1.866	.164	NR	NS
	Customer Satisfaction and Loyalty	5.919	.005	R	S
	Marketing and Branding	.531	.591	NR	NS
Gross Income	Food Quality	1.664	.202	NR	NS
	Service Quality	1.348	.250	NR	NS
	Physical Environment	.001	.971	NR	NS
	Price Value	.497	.484	NR	NS
	Customer Satisfaction and Loyalty	.005	.942	NR	NS
	Marketing and Branding	1.761	.190	NR	NS
Gross Expenses	Food Quality	1.664	.202	NR	NS
	Service Quality	1.348	.250	NR	NS
	Physical Environment	.001	.971	NR	NS
	Price Value	.497	.484	NR	NS
	Customer Satisfaction and Loyalty	.005	.942	NR	NS
	Marketing and Branding	1.761	.190	NR	NS

3.5 Extent of Business Sustainability of Food Establishments in the National Capital Region as Perceived by the Respondents in terms of Different Aspects

Table 5 shows that customers, employees, and supervisors generally strongly agreed that food establishments in the National Capital Region (NCR) implement business sustainability practices, with grand mean scores of 3.49, 3.41, and 3.55, respectively. Supervisors consistently provided the highest ratings across all sustainability dimensions, followed by employees and customers. Economic sustainability received the highest assessment from employees (3.57) and supervisors

(3.74), indicating strong confidence in the establishments' financial stability and long-term viability. Social sustainability was likewise rated positively by all respondent groups, reflecting favorable perceptions of employee welfare, community engagement, and stakeholder responsibility. In contrast, environmental sustainability obtained the lowest rating among customers (3.18, Agree), although employees and supervisors still rated it as Strongly Agree (3.36), suggesting that environmental initiatives may be more evident to internal stakeholders than to customers. Overall, the findings indicate that food establishments demonstrate strong sustainability practices, particularly in economic and social aspects, while highlighting the need to enhance the visibility and communication of environmental initiatives to improve customer awareness and perception..

Table 5

Extent of Business Sustainability of Food Establishments in the National Capital Region as Perceived by the Respondents in terms of Different Aspects

Business Sustainability	Customer		Employee		Supervisor	
	W $\bar{x}$	VI	W $\bar{x}$	VI	W $\bar{x}$	VI
Social	3.43	Strongly Agree	3.30	Strongly Agree	3.54	Strongly Agree
Environmental	3.18	Agree	3.36	Strongly Agree	3.36	Strongly Agree
Economic	-	-	3.57	Strongly Agree	3.74	Strongly Agree
Grand Mean	3.49	Strongly Agree	3.41	Strongly Agree	3.55	Strongly Agree

3.6 Significant Differences Between the Participants Assessment on the Extent of Business Sustainability of Food Establishments in the National Capital Region when Grouped According to Profile

Table 6 reveals that the respondents' assessment of the extent of business sustainability practices among food establishments in the National Capital Region (NCR) significantly differed according to selected profile characteristics. Age significantly influenced perceptions of social and environmental sustainability, while job position and employment status significantly affected assessments of social and economic sustainability. Moreover, sex showed a significant difference only in environmental sustainability, whereas food allowance and frequency of restaurant visits did not significantly influence sustainability assessments. These findings indicate that demographic and organizational characteristics shape how respondents perceive sustainability practices, particularly in the social and economic dimensions. Overall, the results suggest that organizational factors, such as job position and employment status, together with age, have a greater influence on sustainability perceptions than customer-related characteristics, highlighting the need for targeted sustainability communication and engagement strategies across different stakeholder groups.

Table 6

Significant Differences Between the Participants Assessment on the Extent of Business Sustainability of Food Establishments in the National Capital Region when Grouped According to Profile

Profile	Key Drivers	Profile			
		f	Sig	HO	VI
Age	Social	3.757	.011	R	S
	Environmental	4.711	.003	R	S
	Economic	.363	.780	NR	NS
Sex	Social	3.593	.059	NR	NS
	Environmental	4.186	.041	R	S
	Economic	.315	.575	NR	NS
Food Allowance	Social	.180	.910	NR	NS
	Environmental	.458	.712	NR	NS
	Economic	-	-	-	-
Frequency of Visit	Social	.912	.404	NR	NS
	Environmental	.949	.389	NR	NS
	Economic	-	-	-	-
Job Position	Social	9.730	.000	R	S
	Environmental	.593	.553	NR	NS
	Economic	8.768	.000	R	S
Employment Status	Social	3.176	.025	R	S

	Environmental	.416	.741	NR	NS
	Economic	3.402	.018	R	S

3.7 Financial Performance of the Food Establishments in terms of Different Aspects

The overall financial performance of food establishments in the National Capital Region (NCR) indicates moderate profitability, sound liquidity, manageable financial risk, and generally moderate operational efficiency. The establishments were moderately profitable in terms of return on equity but demonstrated low profitability in asset utilization and net profit generation. Liquidity ratios showed that most businesses maintained sufficient current and quick assets to meet short-term obligations, although cash reserves remained only at a fair level. Leverage ratios suggest a moderate reliance on debt financing, indicating acceptable but carefully managed financial risk. In terms of operational efficiency, inventory and receivables were managed moderately efficiently, while asset utilization remained relatively low, implying opportunities to improve the productivity of business resources. Overall, the findings suggest that NCR food establishments maintain stable financial operations but could further enhance profitability and efficiency through better asset management, cost control, and resource optimization.

Table 7
Financial Performance of the Food Establishments in terms of Different Aspects

Financial Aspect	Indicator	Overall Average	Verbal Interpretation
Profitability	Return on Equity (ROE)	0.18	Moderately Profitable
	Return on Assets (ROA)	0.10	Low Profitability
	Net Profit	0.09	Low Profitability
Liquidity	Current Ratio	1.50	Good Liquidity
	Quick Ratio	1.01	Good Liquidity
	Cash Ratio	0.86	Fair Liquidity
Leverage	Debt-to-Equity Ratio	0.95	Moderate to High Financial Risk
	Equity Ratio	0.81	Moderate to High Risk
	Debt Ratio	0.68	Low to Moderate Risk
Efficiency	Inventory Turnover Ratio	12.57	Moderately Efficient
	Receivables Turnover Ratio	14.22	Moderately Efficient
	Asset Turnover Ratio	1.10	Low Efficiency

3.8 Significant Relationship between the Key Drivers of Food Establishments and the Extent of Business Sustainability of Food Establishments

Table 8 indicates that only a few significant relationships existed between the key drivers of food establishments and business sustainability practices. Among customers, physical environment was positively associated with social sustainability, while price value showed a negative relationship with the same dimension. For environmental sustainability, service quality demonstrated a positive relationship among customers but a negative relationship among employees, whereas marketing and branding was negatively associated with customers' perceptions. No significant relationships were found for economic sustainability across any respondent group, and supervisors reported no significant associations between the key drivers and any sustainability dimension. Overall, the findings suggest that business sustainability is only selectively associated with operational key drivers, indicating that sustainability practices may require dedicated strategies and management initiatives beyond improvements in traditional operational performance.

Table 8
Significant Relationship between the Key Drivers of Food Establishments and the Extent of Business Sustainability of Food Establishments

Business Sustainability	Key Drivers	Customers				Employee				Supervisor			
		r	Sig	HO	VI	r	Sig	HO	VI	r	Sig	HO	VI
Social	Food Quality	-0.098	0.937	NR	NS	-0.305	0.802	NR	NS	-0.911	0.271	NR	NS
	Service Quality	0.707	0.500	NR	NS	-0.763	0.447	NR	NS	-0.990	0.092	NR	NS
	Physical	0.998	0.043	R	S	-0.911	0.271	NR	NS	-0.821	0.386	NR	NS
	Price Value	-1.000	0.019	R	S	-0.952	0.198	NR	NS	0.924	0.250	NR	NS

	Customer Satisfaction and Loyalty	- 0.649	0.550	NR	NS	- 0.949	0.204	NR	NS	0.558	0.623	NR	NS
	Marketing and Branding	- 0.791	0.420	NR	NS	- 0.342	0.778	NR	NS	- 0.305	0.802	NR	NS
Environmental	Food Quality	0.571	0.613	NR	NS	- 0.850	0.353	NR	NS	- 0.425	0.721	NR	NS
	Service Quality	0.997	0.050	R	S	- 1.000	0.002	R	S	- 0.846	0.358	NR	NS
	Physical	0.715	0.493	NR	NS	- 0.425	0.721	NR	NS	- 0.255	0.836	NR	NS
	Price Value	- 0.741	0.468	NR	NS	- 0.526	0.647	NR	NS	0.454	0.700	NR	NS
	Customer Satisfaction and Loyalty	- 0.988	0.101	NR	NS	- 0.927	0.245	NR	NS	0.963	0.174	NR	NS
	Marketing and Branding	- 0.999	0.030	R	S	- 0.870	0.328	NR	NS	- 0.850	0.353	NR	NS
Economic	Food Quality	-	-	-	-	- 0.291	0.415	NR	NS	0.478	0.162	NR	NS
	Service Quality	-	-	-	-	0.221	0.540	NR	NS	- 0.053	0.884	NR	NS
	Physical	-	-	-	-	- 0.384	0.274	NR	NS	- 0.131	0.718	NR	NS
	Price Value	-	-	-	-	0.582	0.077	NR	NS	0.115	0.751	NR	NS
	Customer Satisfaction and Loyalty	-	-	-	-	0.107	0.768	NR	NS	- 0.219	0.544	NR	NS
	Marketing and Branding	-	-	-	-	0.116	0.750	NR	NS	- 0.264	0.461	NR	NS

3.9 Challenges and Issues of the Department of Tourism Accredited Food Establishments in National Capital Region (NCR)

Table 8 identifies six major themes that characterize the challenges and issues faced by Department of Tourism-accredited food establishments in the National Capital Region (NCR): food and service quality, physical environment, customer satisfaction and pricing, marketing and branding, sustainability practices, and financial performance. The findings reveal that establishments continuously struggle to maintain consistent food quality and efficient service during peak hours while addressing infrastructure limitations, rising customer expectations, and increasing operational costs. Businesses also face challenges in balancing competitive pricing with profitability, strengthening brand identity through customer engagement and staff development, and implementing sustainability initiatives due to the high cost and limited availability of eco-friendly materials. Moreover, escalating expenses for ingredients, utilities, and labor significantly affect financial performance, prompting establishments to adopt cost-control measures such as menu optimization, waste reduction, value meal promotions, and operational efficiency improvements. Overall, the thematic analysis indicates that NCR food establishments operate in a highly competitive and resource-constrained environment, requiring integrated strategies that simultaneously enhance operational excellence, customer satisfaction, sustainability practices, and financial resilience to ensure long-term business success.

Table 9

Challenges and Issues of the Department of Tourism Accredited Food Establishments in National Capital Region (NCR)

Theme	Description	Sample Verbatim
Food and Service Quality	Establishments face challenges maintaining consistent food quality and service standards, especially during peak hours. Quality issues include temperature control,	"May isang incident pa nga na lumamig na yung baby back ribs bago na-serve" (Eastern NCR-G)

	cooking consistency, and service delays that impact customer experience.	"Pag sobrang dami ng dine-in at delivery orders, may times na nagiging inconsistent ang luto. May guest na nag-feedback one-time na 'parang hilaw daw yung manok'" (Eastern NCR-D) "We maintain food quality through strict kitchen protocols, gumagamit kami ng fresh local ingredients and tried-and-tested recipes" (Eastern NCR-A)
Physical Environment	Infrastructure limitations and maintenance challenges affect ambiance and customer satisfaction. Establishments struggle with wear and tear, aging facilities, and limited renovation budgets while trying to maintain appealing dining environments.	"Hindi madaling i-renovate dahil sa limited budget, kaya ang ginagawa namin ay thorough daily cleaning and minor repairs habang hinihintay pa yung approval sa upgrades" (Capital NCR-A) "May mga guests na nag-comment na parang outdated na raw ang interiors. Minsan may issue pa sa aircon sa function room" (Eastern NCR-E) "We aim for a cozy Parisian café vibe, but dahil nasa mall kami, foot traffic and wear-and-tear are real issues" (Eastern NCR-C)
Customer Satisfaction and Pricing	Establishments actively collect and respond to customer feedback while balancing competitive pricing with rising operational costs. Modern customers have evolving expectations for faster service, healthier options, and Instagram-worthy experiences. Pricing strategies focus on value propositions and promotional bundles rather than direct price increases.	"Customer feedback ay sobrang important sa amin, whether sa online or in-store, is crucial. Guests' suggestions help in improvements" (Eastern NCR-A) "Customers now want faster service, healthier options, at Instagrammable vibes" (Southern NCR-A) With rising costs in utilities and ingredients, we've adjusted by refining the menu to reduce slow-movers, bundling value meals, and sourcing more efficiently. We avoid steep price hikes by focusing on overall value" (Eastern NCR-A) "Competitive kami through value-for-money pricing and seasonal promos---plus, active din kami sa social media for marketing na hindi mahal pero masarap" (Southern NCR-A)
Marketing and Branding	Establishments emphasize brand identity through staff training, cultural heritage, and customer experience design. Marketing strategies combine traditional brand values with modern promotional approaches including social media and value-focused messaging. Training focuses on representing brand values while adapting to contemporary service expectations.	"Every new hire goes through heritage service training kasi ito yung focus ng establishment namin---a blend of customer service skills as usual and Filipino cultural knowledge since more on Filipino them ung establishment" (Eastern NCR-A) "We train our staff to reflect the xxxx lifestyle---chill, stylish, and approachable. We do brand immersion sessions, service etiquette training" (Eastern-B)

		"Hindi kami basta-basta nagtaas ng presyo kasi known kami for affordable meals. Kaya ang strategy: optimize prep time, control wastage, and promote value meals" (Capital NCR-B)
Sustainability Practices	Implementation of eco-friendly practices faces challenges including higher costs, supplier inconsistencies, and customer resistance. Despite obstacles, establishments pursue sustainability for brand image and customer appeal, particularly among younger demographics.	"We've embraced waste segregation, local sourcing, and portion control to lessen food waste. It's rewarding, but the challenge lies in balancing cost with accessibility to sustainable ingredients" (Eastern NCR-A) "Challenge talaga ang cost ng sustainable materials---mas mahal sila, and not always available from suppliers" (Southern NCR-B) Customers today are more socially aware. When we share our green practices on social platforms or highlight them in-store, we get positive responses" (Eastern NCR-A)
Financial Performance	Rising operational costs in utilities, ingredients, and labor significantly impact profitability. Establishments adopt various strategies including portion optimization, menu streamlining, and promotional bundling to maintain margins without drastic price increases.	"Totoo po, tumaas talaga ang costs---lalo na sa ingredients at labor. Pero imbes na itaas agad ang prices, nag-streamline kami ng menu, in-optimize food waste, and offered bundled packages" (Southern NCR-A) "Malaki ang epekto---lalo na sa meat prices and utilities. Hirap kami minsan mag-maintain ng margins, so we opt to promote dishes na lower-cost but high-value sa customer" (Southern NCR-C) "Sobrang ramdam. Beef, cheese, and spices went up, tapos may increase pa sa labor costs. Hindi kami agad nagtaas ng presyo kasi ayaw namin magulat ang customers" (Eastern NCR-G)

Conclusions & Recommendations

The study concludes that Department of Tourism-accredited food establishments in the National Capital Region demonstrate strong performance in key operational drivers, business sustainability practices, and financial stability. Food quality, service quality, customer satisfaction, and operational efficiency were consistently rated positively by customers, employees, and supervisors. However, organizational characteristics such as employment status, job position, and selected business profile variables significantly influenced stakeholder perceptions, while only limited relationships were found between operational drivers and sustainability practices. The qualitative findings further revealed that rising operational costs, infrastructure limitations, sustainability implementation challenges, and increasing customer expectations remain the major issues affecting long-term business performance.

Based on these findings, food establishments should strengthen sustainability initiatives by integrating environmental, social, and economic practices into daily operations while improving their visibility to customers. Management should continue investing in employee development, facility improvement, digital marketing, cost optimization, and quality assurance to enhance customer satisfaction and competitiveness. Policymakers and the Department of Tourism may further support accredited establishments through sustainability programs, capacity-building initiatives, and incentives that promote innovation and long-term business resilience. Future researchers are encouraged to expand the study to other regions and explore additional organizational and sustainability factors affecting food establishment performance.

Compliance with ethical standards

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