

# Sustainability in Food Outlets: A Case Study of Food Outlets of Uttarakhand

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## ABSTRACT

This article is to get attention of food production units especially that of hotels & restaurants towards implementing the sustainable practices. The industry suffers with lots of food wastage due to negligence, weak process, and lack of positive intentions. This has been seen especially in the food outlets of Uttarakhand. These outlets were surveyed and respondents were asked to fill up the set of questionnaires. The result implies that the Central & State Government has to intervene and bring out some incentive policies to promote implementation of sustainable processes in food outlets. This will further help in achieving the SDG.

**Keywords:** Sustainability ,Food and F&B Outlet

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## INTRODUCTION

The Hospitality sector is continuously growing and becoming more & more successful. The hospitality sector has a bigger impact, particularly an adverse one, on the natural atmosphere as it grows and spreads around the globe. These consequences have developed into a significant challenge for the hospitality sector in general and restaurants in particular. Therefore, it is essential to put into effect sustainable practice guidelines to reduce your impact on the environment via eco-friendly and sustainable business practices. The damaging impact that industrialization has both on the ecology and on community has to be reduced.

Because of the complications brought about by the economy, globalization, and the rise in population, as well as the enormous growth in usage of electricity, natural sources, and food, there is now something that is known as sustainability that has gained everyone's attention. The concept of sustainability may take on a variety of meanings depending on the context. In its report from 1987, the United Nations defined sustainability as "meeting the requirements of the current generation without compromising the capacity of future generations to meet their own needs."

After the Rio de Janeiro Conference in 1990, the concept of sustainability was introduced into the hospitality business. As a result, restaurants were pushed to implement certain systems and practices

that contribute to the reduction of harmful ecological impacts on community.

In past few years, the idea of sustainability has gained popularity and established itself as a key term in the field of environmental studies. There has been a rise in the emphasis on sustainability as a result of its inclusion in the majority of practices and activities across all sections of hotels.

More than eighty percent of restaurants and hotels in Europe now adopt certain measures that keep the environment healthy, beginning with the design of the restaurant or hotel, continuing with the recycling of garbage, and culminating with the use of renewable electricity. To put it another way, they have ensured that life can continue as normally as possible.

The food and beverage industry is one of the most significant industries that sustainability has had an impact on. "A cooperative network that blends various aspects to promote green, social, and financial advantage," is how the system of food sustainability is characterised. In addition to this, Ellen and Prisbery described it as "the system which offers the healthy food in sound prices that meet the existing food demands with the least harmful impact on the environment and supports the national economy."

The cumulative impact that sustainability has on the world's economies, societies, and environments has had a significant impact on the restaurant industry.

Some restaurants consider food to be nothing more than an item that has to be purchased, cooked, and served, but they do not take into account how the food that they serve contributes to the larger food system. Because of this, restaurants have the power to influence the food that is produced and to boost the profit that farmers make from their agricultural activities.

### **Statement of the Problem**

Various national and international organizations have been compelled to hold conferences and seminars, to discuss this issue and its detrimental consequences on society as well as the eco system, as a direct result of the persistent rise in the world's population as well as the unparalleled levels of food consumption.

As a result, businesses and other organizations have been urged to embrace the concept of sustainability. Even if there are certain restaurants in Uttarakhand that have adopted environmentally friendly practices, the percentage of these restaurants is rather small when compared to the whole population of Uttarakhand's restaurant.

Hence, the issue rests in the following areas: -The absence of unambiguous studies that dealt with the adoption of sustainable practices in Uttarakhand's restaurant, as well as the haziness of the material that is currently accessible.

A new trend that has emerged in Uttarakhand's restaurant, which is the absence of application of the food sustainability criterion.

## **Research Questions**

Previous studies have not addressed the issue of food sustainability in Uttarakhand's restaurants, and this one aims to fill in some of the research gaps.

This is the direction in which the author wishes to go in order to answer the following questions:

The study's essential question:

- This study's essential question is, "How widely are Uttarakhand's restaurants using food sustainability practices?"

The following are the related questions:

- Workers in Uttarakhand's restaurants, to what degree are they aware of food sustainability practices?
- The administration of restaurants is eager to incorporate sustainable food practices, but the question is: to what extent?
- What are the driving forces behind restaurants deciding to embrace food sustainability practices?
- What are the advantages of practicing sustainable food practices?
- What are the challenges that Uttarakhand's restaurants face when it comes to implementing sustainable food practices?

## **Aim and Objectives of the Study**

As a current concept in the F&B industry that benefits the environment, economy, and community, the primary goal of this research is to determine the degree to which Egyptian restaurants are employing food sustainability methods.

Despite the fact that there are international guidelines and research on food sustainability, it is difficult for Uttarakhand's restaurants to apply sustainable practises.

In order to reach this goal, we need to do the following things:

- Employees' knowledge of food sustainability methods should be measured.
- Recognize the desire of the administration to adopt sustainable food practices.
- Make a list of the factors that lead restaurants to pursue food sustainability strategies.
- Determine how food sustainability strategies might help your organization.
- Identify the difficulties that Uttarakhand's restaurants experience when it comes to implementing food sustainability measures."

## **REVIEW OF LITERATURE**

### **Concept of Sustainability**

The definition of sustainability offered by Oxford Dictionaries is "maintaining an ecological balance by minimizing the loss of natural resources."

Food sustainability is the concept that any process (agricultural, fishing, or food preparation) is performed without wasting natural resources and may be sustained without causing environmental damage or any harm to the health.

Sustainable food systems are critical to the long-term viability of our food supply. Subsystems, such as agricultural, waste management, and supply systems, interact with commerce, energy, and health systems.

Food is seen by restaurant operators as something to be prepared, served, and then discarded after use. They frequently fail to take into consideration the effects that the food they serve has on the food chain as a whole. Restaurants can influence the types of food that are produced, the profitability of farming, and the amount of food that is wasted, as well as the environmental impact of the food producing industry. Indirect resource origin, agricultural and environmental implications are also included such as methods of harvesting, as well as packaging and delivery processes for products.

### **Motives and Benefits of Sustainability**

The attainment of a bottom line financial return from the application of sustainable business practices is undoubtedly the most powerful motivational factor that can be used to attract engagement from the private sector.

Many governments, institutions, and organizations throughout the globe have implemented various monetary and financial incentive programs to encourage ecological modifications and the construction of "green" buildings. A wide variety of incentives are available for sustainable projects, including tax breaks, unconditional grants, and innovative ideas such as insurance premium reductions and quicker approval processes.

More effective equipment and other kinds of utility generating may be used to hedge against future price rises in utility expenses, beyond basic cost reductions and regulatory frameworks.

In order to recruit and keep the best workers, companies should strive to cultivate a favorable corporate culture that encourages employees to stay.

Demands from Investors - Both public and private investors are growing interested in finding quantitative measures of a company's ability to maintain its level of efficiency over time.

The society "no longer accepts severe ecological damage as the cost for economic advancement," as the phrase puts it.

Businesses that do not participate in ecological or "ecofriendly" activities may come under increased pressure from the general people to make adjustments.

## RESEARCH METHODOLOGY

The participants in this study were staff working in international fast-food restaurants at Uttarakhand.

*Table No.1: Selected International fast-food restaurants at Uttarakhand.*

Sno.	Outlet Name	No .of Outlets
1	Mc.Donalds	02
2	Domino's Pizza	08
3	Pizza Hut	06
4	Café Coffee Day	04
5	KFC	07
6	Subway	03
7	Burger King	05
	Total	35

The field research was applied to a sample of 35 different international fast-food restaurants that were chosen at random basis.

In order to validate the constructs of the research, a pilot version of the survey questionnaire was administered to 40 of the participants. The questionnaire was meant to be refined during the course of the pilot study, and any possible issues were also looked at. As a direct consequence of this, ambiguities and terms that were not clear have been removed from the questionnaire. The completed questionnaire was comprised of a total of five sections, the first of which was designed to elicit information on the workers' demographic information, which included their gender, age, educational level, and number of years of experience. The second element of the project was an investigation of the levels of food sustainability knowledge and awareness held by workers. The final phase of the project was an investigation of the practice of food sustainability. The purpose of the fourth section was to investigate the advantages of implementing food sustainability. The fifth and final section looked at the challenges that come with putting food sustainability into practice. It was requested of the respondents that they identify their level of agreement with the assertions using a Likert-type scale, where a score of 5 indicates that they strongly agree with the statement, and a score of 1 indicates that they strongly disagree with the statement. To evaluate the extent to which one agrees with each of the claims that were looked at. In order to do an analysis on the data that was gathered, the Statistical Package for the Microsoft excel was used.

**RESULTS AND DISCUSSIONS**

*Table 2: Demographic Data of the Respondents*

Sno	Demographic	Attribute	Frequency	Percentage	Ranking
1	Gender	Male	240	68.5	1
		Female	110	31.5	2
		<b>Total</b>	<b>350</b>	<b>100</b>	
2	Age	20-25	107	30.6	1
		25-30	91	26	2
		30-35	82	23.4	3
		35-40	42	12	4
		More than 40	28	8	
		<b>Total</b>	<b>350</b>	<b>100</b>	
3	Education	Less than 12	74	21.1	3
		12	112	32	1
		Certificate course	58	16.6	4
		Bachelor's Degree	79	22.5	2
		Master Degree	27	7.8	5
		<b>Total</b>	<b>350</b>	<b>100</b>	
4	Experience	Less than 1 year	59	16.9	4
		1-5 years	103	29.4	1
		5-10 years	76	21.7	2
		10-15 years	68	19.4	3
		More than 15 years	44	12.6	5
		<b>Total</b>	<b>350</b>	<b>100</b>	

The data concerns respondents education level variables shows that 21.1% have not completed 12<sup>th</sup> class, 32% completed 12<sup>th</sup> class, 16.6% have done certificate course in hotel management, 22.5% completed bachelor's degree in various subject, 27% completed master degree. Description of demographic data shows respondents years of experiences as; 16.9% were in less than 1 years, 29.4% has between 1-5 years and 21.7% were have 10-15 years and 12.6% has more than 15 years. From the above table found maximum age group were from 20-25 years, 30.6% and 26% were from 25-30 years, 23.4% were from 30-35 year, 12% were from 35-40 and 8% were more than 40 year old. In survey maximum participant were male 68.5% and females were 31.5%.

**Table 3: Staff's food sustainability knowledge and awareness**

Sno.	Particular	N	Min	Max	Mean	Std. Deviation
1	Knowledge of the environmental effect of F&B outlets	350	1.00	5.00	3.0886	1.28274
2	Being well-versed in food sustainability procedures and guidelines.	350	1.00	5.00	2.8000	1.40200
3	Understanding of the environmental effect of sustainable methods.	350	1.00	5.00	2.9743	1.26306
4	Awareness of the usage of organic and locally sourced ingredients in the menu's dishes.	350	1.00	5.00	3.4771	1.33642
5	Knowledge about the vendors' origins and addresses.	350	1.00	5.00	3.3743	1.39788
	Valid N	350				

The mean calculated signifies that the Staff is very well aware of items certified as good exchange. High level of awareness on usage of organic and locally source ingredients as well as knowledge about vendor’s origin could be seen. Medium level of significance could be seen in other aspects such as Knowledge on environmental effects, sustainable procedures & guidelines and understanding of the environmental effect of sustainable methods. So this area need more attention as in to educate them more about the Sustainable practices and create an understanding of its harmful effect on environment.

**Table 4: Adoption of sustainable food practices in Fast food restaurants**

Sno.	Particular	N	Minimum	Maximum	Mean	Std. Deviation
1.	Employees is educated on food sustainability methods and encouraged to spread the word about them.	350	1.00	5.00	2.9743	1.26306
2.	Food is prepared using organic and certified food ingredients.	350	1.00	5.00	2.6914	1.22378
3.	On the menu, there are vegetarian options.	350	1.00	5.00	3.0886	1.28274

4.	The Menu is based on locally sourced ingredients that are in season.	350	1.00	5.00	2.7943	1.29490
5.	Farm-to-fork items are obtained directly from local farmers at reasonable pricing.	350	1.00	5.00	2.4457	1.19989
6.	Local bakeries provide the eatery with daily fresh baked goods.	350	1.00	5.00	2.9771	1.20150
7.	Several members of the restaurant's administration are active in cultivating the menu items.	350	1.00	5.00	3.0143	1.32739
8.	The food served at the restaurant is sourced ethically and sustainably.	350	1.00	5.00	2.8000	1.40200
9.	We only buy seafood that has been sustainably raised.	350	1.00	5.00	2.6171	1.12117
10.	Meat and poultry of various types are procured from reputable suppliers	350	1.00	5.00	2.9000	1.35577
11.	Eggs from a verified and local source are used in the restaurant.	350	1.00	5.00	3.0514	1.45916
12.	Dairy products used in the restaurant are all made in the area and are approved by the state.	350	1.00	5.00	2.7571	1.37971
13.	Dietary restrictions and food allergies may be accommodated with a variety of dishes.	350	1.00	5.00	2.8143	1.28126
14.	Reduced food waste helps the restaurant save costs and resources while also reducing its impact on the environment.	350	1.00	5.00	2.9800	1.48040
15.	Valid N	350				



Medium level of significance could be seen on implementation part in the food outlet. Be it the education part, applying sustainable practices in restaurant. Procurement of sustainable viable options is also not explored to the fullest. The result also shows that the medium level of efforts could be seen on reducing food wastage. A low-level response could be seen when it comes to buying from local source directly from the farm.

**Table 5: Fast Food restaurants may reap the advantages of sourcing food sustainably.**

Sno.	Particular	N	Minimum	Maximum	Mean	Std. Deviation
1	Improving profits by meeting the needs of eco-friendly consumer groups.	350	1.00	5.00	4.0400	.87211
2	Employees are becoming more concerned about the use of sustainable eating practices.	350	1.00	5.00	3.5714	1.24126
3	Giving clients the peace of mind that their food is secure and organic.	350	1.00	5.00	3.9600	1.26155
4	Incentivizing local farming via the use of locally-sourced raw materials	350	1.00	5.00	3.8943	1.11911
5	Increasing awareness of the need of environmental stewardship and decreasing pollution are two of the most important goals we can achieve.	350	1.00	5.00	3.5400	1.39066
6	Getting ahead of the competition by implementing sustainable food practices	350	1.00	5.00	3.6629	1.41443
7	Reducing food waste allows us to rationalize our food usage.	350	1.00	5.00	3.8057	1.24019
	Valid N	350				

The data collected signifies that a high involvement to sustainable practices could be seen if it comes to making profits. Clients are also now aware of food safety and food production units try to reduce food wastage. However, improvement needed from the Staff's perspective of applying the sustainable practices.

**Table 6: Achieving Food Security and Sustainability in Fast Food Restaurants**

Sno.	Particular	N	Minimum	Maximum	Mean	Std. Deviation
1	Lack of knowledge about food sustainability methods among staff.	350	1.00	5.00	3.5400	1.31002
2	Insufficient interest by administration in adopting food sustainability measures	350	1.00	5.00	3.6914	1.39860
3	Employees' lack of knowledge and training on food sustainability.	350	1.00	5.00	3.3886	1.44543
4	Managers' incapacity to devise a long-term strategy for implementing sustainable food practices.	350	1.00	5.00	3.5343	1.41329
5	Insufficient financial resources to implement sustainable food practices.	350	1.00	5.00	3.5971	1.38989
6	Insufficient number of vendors	350	1.00	5.00	3.4286	1.28214
	Valid N	350				

The above table implies that the administration needs to put in more efforts to make sustainable policies effective. Staff training is also required and the number of vendors to be increased. Lack of financial resources to implement sustainable food practices is also a concern. The managers are not very effective in devising the long term strategy for implementing sustainable practices.

## **RECOMMENDATION**

Increase the involvement of the Ministry of Tourism and the state governments as well as of FHRAI in raising understanding of the significance of food sustainability by creating an execution team.

Using competitive contests among the chains of restaurants to pick the top restaurants interested in adopting food sustainability and reducing their tax rates, the Ministry of Tourism and the State government must use competitive measures to achieve this goal.

Set up obligatory training for fast food restaurant workers via the Ministry of Tourism and the State Government in collaboration with the green certifier's organization to increase job performance in the optimum implementation of sustainable foods.

Implementing food sustainability in restaurants and establishing a link between employee expectations and actual performance results in increased enthusiasm for the initiative among restaurant staff.

Encourage Fast food restaurants to cultivate their own organic produce in accordance with established guidelines.

## **REFERENCES**

1. Amicarelli, V., Lagioia, G., Sampietro, S., & Bux, C. (2022). Has the COVID-19 pandemic changed food waste perception and behavior? Evidence from Italian consumers. *Socio-Economic Planning Sciences*, 82, 101095.
2. Barrientos-Báez, A., Caldevilla-Domínguez, D., Vizcaíno, A. C., & Val, E. G. S. (2020). Tourism sector: Communication and sustainable innovation. *Revista de Comunicación de la SEECI*, (53), 153-173.
3. Bergendahl, J. A., Sarkis, J., & Timko, M. T. (2018). Transdisciplinarity and the food energy and water nexus: Ecological modernization and supply chain sustainability perspectives. *Resources, Conservation and Recycling*, 133, 309-319.
4. Berry, E. M., Dernini, S., Burlingame, B., Meybeck, A., & Conforti, P. (2015). Food security and sustainability: can one exist without the other?. *Public health nutrition*, 18(13), 2293-2302.
5. Bharucha, J. (2018). Tackling the challenges of reducing and managing food waste in Mumbai restaurants. *British Food Journal*.
6. Block, L. G., Grier, S. A., Childers, T. L., Davis, B., Ebert, J. E., Kumanyika, S., ... & Bieshaar, M. N. G. (2011). From nutrients to nurturance: A conceptual introduction to food well-being. *Journal of Public Policy & Marketing*, 30(1), 5-13.
7. Bohdanowicz, P. (2005). European hoteliers' environmental attitudes: Greening the business. *Cornell hotel and restaurant administration quarterly*, 46(2), 188-204.
8. Camacho, A. E. (2010). Transforming the means and ends of natural resources management. *NCL Rev.*, 89, 1405.
9. Dani, R., Juyal, D., & Rawal, Y. S. (2022). A critical analysis of the restaurant industry's effect on environment sustainability: <https://doi.org/10.52152/spr/2022.159>. *Science Progress and Research (SPR)*, 2(1), 464-471.

10. Dani, R., Tiwari, K., & Negi, P. (2021). Ecological approach towards sustainability in hotel industry. *Materials Today: Proceedings*, 46, 10439-10442.
11. Darko, A., Zhang, C., & Chan, A. P. (2017). Drivers for green building: A review of empirical studies. *Habitat international*, 60, 34-49.
12. Filimonau, V., Krivcova, M., & Pettit, F. (2019). An exploratory study of managerial approaches to food waste mitigation in coffee shops. *International Journal of Hospitality Management*, 76, 48-57.
13. Garnett, T. (2013). Food sustainability: problems, perspectives and solutions. *Proceedings of the nutrition society*, 72(1), 29-39.
14. Germak, A. J., & Robinson, J. A. (2014). Exploring the motivation of nascent social entrepreneurs. *Journal of Social Entrepreneurship*, 5(1), 5-21.
15. Helms, M. (2004). Food sustainability, food security and the environment. *British Food Journal*.
16. Ibrahim Gado, G., & Gamal Saad Soliman, S. (2019). FOOD SUSTAINABILITY AS A NEW TREND IN RESTAURANT INDUSTRY. *مجلة كلية السياحة والفنادق، جامعة المنصورة*, 15(5), 99-116.
17. Khan, N., Hassan, A. U., Fahad, S., & Naushad, M. (2020). Factors affecting tourism industry and its impacts on global economy of the world. *Available at SSRN 3559353*.
18. Lang, T., & Barling, D. (2012). Food security and food sustainability: reformulating the debate. *The Geographical Journal*, 178(4), 313-326.
19. Marques, A., Martins, I. S., Kastner, T., Plutzer, C., Theurl, M. C., Eisenmenger, N., ... & Pereira, H. M. (2019). Increasing impacts of land use on biodiversity and carbon sequestration driven by population and economic growth. *Nature ecology & evolution*, 3(4), 628-637.
20. Martínez, P., Herrero, Á., & Gómez-López, R. (2019). Corporate images and customer behavioral intentions in an environmentally certified context: Promoting environmental sustainability in the hospitality industry. *Corporate Social Responsibility and Environmental Management*, 26(6), 1382-1391
21. Mensah, J. (2019). Sustainable development: Meaning, history, principles, pillars, and implications for human action: Literature review. *Cogent social sciences*, 5(1), 1653531.
22. Nadeem, M., Bahadar, S., Gull, A. A., & Iqbal, U. (2020). Are women eco-friendly? Board gender diversity and environmental innovation. *Business Strategy and the Environment*, 29(8), 3146-3161.
23. Niederle, P., & Schubert, M. N. (2020). How does veganism contribute to shape sustainable food systems? Practices, meanings and identities of vegan restaurants in Porto Alegre, Brazil. *Journal of Rural studies*, 78, 304-313.
24. Norton, A., & Foster, M. (2001). *The potential of using sustainable livelihoods approaches in poverty reduction strategy papers* (Vol. 148). London: Overseas Development Institute.
25. Petit-Boix, A., & Leipold, S. (2018). Circular economy in cities: Reviewing how environmental research aligns with local practices. *Journal of Cleaner Production*, 195, 1270-1281.
26. Roberts, S. B., Das, S. K., Suen, V. M. M., Pihlajamäki, J., Kuriyan, R., Steiner-Asiedu, M., ... & Speakman, J. R. (2018). Measured energy content of frequently purchased restaurant meals: multi-country cross sectional study. *bmj*, 363.

27. Székely, F., & Knirsch, M. (2005). Responsible leadership and corporate social responsibility:: Metrics for sustainable performance. *European Management Journal*, 23(6), 628-647.
28. Tamburini, E., Pedrini, P., Marchetti, M. G., Fano, E. A., & Castaldelli, G. (2015). Life cycle based evaluation of environmental and economic impacts of agricultural productions in the Mediterranean area. *Sustainability*, 7(3), 2915-2935.
29. Yuan, J., Lu, Y., Wang, C., Cao, X., Chen, C., Cui, H., ... & Du, D. (2020). Ecology of industrial pollution in China. *Ecosystem Health and Sustainability*, 6(1), 1779010.