

## Examining the Influence of QSR Green Practices on Customer

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### Abstract

Quick Service Restaurants are progressively following suit as, according to (Deveau, 2009; Dutta, Umashankar, Choi, & Parsa, 2008), businesses realise the environmental, economic, and societal benefits of adopting green practises. Some of the motivating factors for service firms to go green are increased competition in the marketplace, changing guest demand, and increased environmental concern. The current study examines the perceptions of a random sample of quick service restaurant customers about restaurant green practises in order to determine the impact these practises may have on customer satisfaction, intent to patronise the restaurant, and thus the bottom line of the businesses.

The authors assessed the impact of 4 factors viz; **Natural/organic ingredient, Environmentally Friendly Product, Pro-environmental activities and Ambience.**

The data demonstrate that, while most consumers feel restaurants should use green practises, they are not so willing to pay higher rates but are willing to visit again for those green activities. Another conclusion is that environmentally friendly products and pro environmental activities have significant relation with consumer intention to visit quick service restaurant who are doing green practice.

Furthermore, the findings revealed that using green practises can boost profitability by decreasing operations, increase consumer happiness by delivering safe organic products, and engage in active environmental actions.

Quick Service Restaurants should improve understanding of green practises by promoting them to the public in order to raise public awareness of such activities.

**Keywords:** Quick service restaurants, green practices, customer perception, Customer intentions

### Introduction

Customers are becoming more environmentally conscious as they purchase items and services that are environmentally friendly as more customers comprehend the significance of environmental concerns (Han, Hsu, & Sheu, 2010). Marketers across all industries are scrambling to match the growing demand for "green" products and services and hence putting a lot of time and money into developing and promoting environmentally friendly products. The hospitality business is no exception and

will no longer be able to ignore its environmental duties since it will be subjected to a variety of challenges. As a result of increased environmental awareness among consumers, political and social groups, and employees, environmental management has become one of the most essential management concerns confronting enterprises in a wide range of industries, including hospitality firms (DiPietro et al., 2013).

The emphasis on being environmentally friendly has pushed the restaurant industry to

adapt its offerings to match shifting customer expectations. Restaurants have been slower to adopt green practises than other sectors of the hospitality industry, but they are now taking the same approach and implementing green practises that have beneficial effects on the environment (**Dutta et al., 2008; First, 2008; Deveau, 2009 and Gise, 2009**).

Several studies in the past have been conducted in the field of green product consumption, focussing on demographic and psychological characteristics of green consumers, or on the relationship between consumers' behavioural intentions and other experiences of green purchasing in the decision-making process (**Chan & Lau, 2000; D'Souza, Taghian, & Khosla, 2007; Straughan & Roberts, 1999**). This study examines the perceptions of a random sample of quick service restaurant customers about restaurant green practises in order to determine the impact these practises may have on customer satisfaction, intent to patronise the restaurant, and thus the bottom line of the businesses. The specific objective of this study is to examine the impact of green practices in QSR on consumer behavior.

## Literature Review

In recent hospitality industry studies, researchers have paid attention to behavioural and psychological aspects of hotel and restaurant customers' eco-friendly decision-making processes, similar to the other general green product consumption studies.

Using Ajzen's Theory of Planned Behavior, **Han et al. (2009)** investigated the creation of hotel customers' intentions to visit a green hotel (1991). The predictors-attitude, subjective norm, and perceived behavioural control-had beneficial effects on customers' propensity to stay at a green hotel, according to their findings. They also discovered that there was no statistical difference in the pathways of eco-friendly activists and non-environmental activists.

**Dutta, Umashankar, Choi, and Parsa (2008)** investigated customers' psychological aspects in the restaurant business to assess customers' green practise orientation in two distinct countries—India and the United States. The findings revealed that consumers in the United

States were more engaged in ecologically and socially responsible restaurant policies, which had the greatest impact on consumers' willingness to pay up to 10% or more on menu prices for green practises. Indian consumers, on the other hand, were more concerned about their health, which prompted them to pay a premium of 10% or more on menu prices. This research has a lot of practical implications for a restaurant management. When restaurant management adopt green techniques, they need also consider the cultural factor to optimise earnings.

**Choi and Parsa (2006)** concentrated on the managers' willingness to engage in environmentally friendly initiatives. They looked at the link between restaurant managers' psychological characteristics, which include attitudes, preferences, and involvement in green practises, and their propensity to charge for green practises. Unlike other green research, this one looked at managers' attitudes toward environmental behaviour in the hospitality industry. Furthermore, their research presented a novel perspective on how the level of managers' psychological aspects can explain price decisions related to green practises. The findings revealed that managers' preferences and involvement in socially responsible actions influenced their readiness to charge higher costs for performing such initiatives. Green practices, they claimed, were developed from three perspectives: health, environmental, and social concerns.

Customers' intents to stay in a hotel were explored by **Gustin and Weaver (1996)** based on the hotel's environmental initiatives. Their findings revealed that three elements (i.e.) *customers' knowledge about environmental issues, customers' attitudes toward environmental strategies and their perceived self-efficacy* had a favourable link with purchasing intent. This study was unique in that it attempted to uncover green practises that could elicit customers' behavioural intentions. This was the maiden attempt to try to figure out what customers truly felt about green practises and what they expected from the hotel business.

While numerous marketing studies show that green practises might be one of the most important components of social concern, non-green social issues (such as fair human resource policies) should not be included in green

practise research. Also, in the hospitality business, particularly in the restaurant industry, there has been very little research on green practises.

### Green Practices

Green practises are defined as "those practises used by organisations to minimise their carbon footprint and reduce harm to the environment, including the overuse of resources as well as any use of non-recyclable products, ineffective recycling processes, and harmful chemical products," **Schubert et al (2010) and DiPietro and Gregory (2012)**.

### Why adopt green practices

According to **Miles and Covin (2000)**, there are two theories that explain why organisations invest in improving environmental performance: (1) the "slack resources" view (**Graves & Waddock, 1994**) and (2) the "excellent management" competitive advantage perspective (**Russo & Fouts, 1997**). According to 'Slack Resources' theory the companies with significant assets are more likely to devote discretionary resources to socially responsible activities such as environmental improvements. This investment aims to improve competitive

advantage through enhancing reputation, image, and long-term cost savings (**Miles & Covin, 2000; Miles & Russell, 1997**). According to good management theory, organisations with innovative management are more likely to seek out new sources of competitive advantage, such as new environmental practises, in order to better please customers. The study indicates that the managers are concerned about achieving exceptional environmental performance, which reflects customers' expectations, and they believe that such recognition among customers lends them strong competitive advantage.

According to the two theories, the primary reason why companies engage in conducting and developing superior environmental performance is to improve the company's image through green practises, and thus to gain a competitive advantage.

### Green Practices in Restaurants

**EunHa and SooCheong (2010)**, in their study "Effects of restaurant green practices: Which practices are important and effective?" have identified the following green practices that the customers are exposed to in their interaction with the restaurant industry:

Table1: Green Practices

<b>Recycling and composting</b>	<ul style="list-style-type: none"> <li>• Recycle paper, plastic, cardboard, glass, and aluminium</li> <li>• Provide recycling bin in store (Self-service restaurant setting)</li> <li>• Conduct food waste composting programs</li> </ul>
<b>Energy and water-efficient equipment</b>	<ul style="list-style-type: none"> <li>• Use flow restrictors on faucets, low-flow toilets, and water-less urinals</li> <li>• Only serve customers water upon request</li> <li>• Replace incandescent light bulbs with longer lasting CFL light bulbs or LED</li> <li>• Replace exit lights with LED's</li> <li>• Use motion detectors for lights in the restroom</li> <li>• Use of a system which monitors and controls comfortable temperatures efficiently with the HVAC (Heating, Ventilating and Air Conditioning) system</li> <li>• Keep the entrance door closed or use a double entrance door</li> </ul>
<b>Eco-friendly cleaning supplies</b>	<ul style="list-style-type: none"> <li>• Use of environmentally friendly cleaners for dishes, and linen</li> <li>• Use of environmentally friendly cleaners for tables and floors</li> </ul>

<b>Serving ware and packaging</b>	<ul style="list-style-type: none"> <li>• Use of take-out containers that are biodegradable (paper) or recyclable instead of using Styrofoam</li> </ul>
<b>Menu sustainability</b>	<ul style="list-style-type: none"> <li>• Offer local ingredients on the menu</li> <li>• Offer organic food on the menu</li> <li>• Offer fish and seafood harvested sustainably and free of harmful pollutants</li> <li>• Avoid genetically modified foods</li> </ul>

Keeping this as a base, the researchers have examined the **Influence of QSR Green Practices on Customer on the following 4 factors in this study:**

#### **Conceptual framework and hypothesis formulation:**

**Natural/organic ingredient:** Anna Botonaki et al 2006; Urena, F et al, 2008; Yoon et al 2011, they found willingness to pay for organic or natural product is higher among the consumers specially who are health consensus, The study also revealed that organic ingredient one of the most significant factors for restaurant or hotel where green practices happening it does not matter gender of consumer.

**H1:** Natural and organic ingredient have significant relation with behavioral intention of consumer towards green QSR.

**Environmentally Friendly Product:** Botonaki et al. Vieregge, 2006; Yoon et al 2011, Consumer prefer to those hotels or restaurant where they participate in recycling of water, using recycled paper, monitor wastage of food, offer fresh food, using chemical free dish wash.

**H2:** Environment friendly product have significant relation with behavioral intention of consumer towards green QSR.

**Pro-environmental activities:** Manaktola, K., 2007, Yoon et al 2011, The consumers availing hotel services are very conscious about environmentally friendly practices. They patronise the hotels or restaurant

that have adapted green practices without compromising on service quality. The consumers would prefer to use lodging or dining that follows these practices but are not willing to pay extra amount for these services.

**H3:** Pro-environmental activities have significant relation with behavioral intention of consumer towards green QSR.

**Ambience:** Kim et al 2009; Yoon et al 2011, they found in their study atmosphere or ambience of restaurant affect on consumer intention to revisit for having food. It increase the customer satisfaction.

**H4:** Ambience have significant relation with behavioral intention of consumer towards green QSR.

#### **Objective of the study**

Since very few studies have been done in this context and whatever study has been done, happened in outside India. In that scenario we are trying to find out that if green practices happening in quick services restaurant, at what level is affecting on consumer behaviour in Indian context.

- To Know the impact of green practices in QSR on consumer behavior.

#### **Research Methodology and Data Analysis**

Based upon the literature, four independent variables were identified to measure behavioural intention to visit QSR where green practices are doing. A questionnaire was framed on the base of literature review and

practices happen in quick service restaurant (QSR). The survey questionnaire consisted of two parts, first part about the demographic information and eating out habit and second part about the factors affecting on consumer intention to visit QSR. Non- probability convenience sampling technique was used to collect the data. Data was collected from Pune region. Online survey was conducted through

google form Questionnaire's link was sent to 757 respondents We found 514 completed questionnaires from the respondents who are belonging to age group 18 to 60 years. So that finally 514 samples were considered for the study. The questionnaire used a five-point Likert scale to measure the respondents' intention to visit QSR who are doing green practices. SPSS 25 was used to analyse the data.

Table 2 (Demographic Characteristics)

Demographic Variable	Characteristics	Frequency	%
Age	18-25	120	23.35
	26-33	244	47.47
	34-41	112	21.79
	42-49	21	4.09
	50 and above	17	3.31
Gender	Male	265	51.56
	Female	249	48.44
Education	10 <sup>th</sup>	7	1.36
	12 <sup>th</sup>	39	7.59
	Graduation	221	43
	Post Graduation	247	48.05

Result shows that (Table 2) the visit to QSR is dominant by the age group 26-33 years followed by 18-25 years and 34-41 years. Very few respondents are visiting to QSR who are belonging to age group more than 42 years.

51.56% Male usually visit to QSR followed by Female 48.44%. Also sample indicate that post graduate (48.05 %) and graduate (43%) respondents mostly visit to QSR.

Table 3: Frequency of eating out

	Total No. of Respondents	Percentage
1 to 3 times	47	9.14
4 to 6 times	198	38.52
7-to 10 time	254	49.42
more than 10 times	15	2.92

<b>Total</b>	<b>514</b>	<b>100</b>
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It is observed that (Table-2) most of the respondents eating out in quick service restaurant in a month 7 to 10 times (49.42%) and 4 to 6 times 38.52%.

A principal component analysis with varimax rotation was used to check the structure of the data. Table 4 indicate that Bartlett's test of sphericity and KMO measure sample adequacy showed the KMO value 0.647, which is higher than the suggested value of 0.6 (Kaiser 1974)

and Bartlett's test of sphericity was significant ( $P < 0.05$ ) at degree of freedom 105, suggesting that factor analysis can be administrated. In this study the factor loading 0.5 or more was considered for the study (Hair et. Al 1998).

Table 4: KMO and Bartlett's Test		
Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy.		.647
Bartlett's Test of Sphericity	Approx. Chi-Square	3020.647
	df	105
	Sig.	.000

The result of the varimax rotation (factor analysis) are given table 5. Varimax rotation was run to know the multiple items grouped into a different factor. As per rotation table all fifteen items were grouped into five factors. These five factors were explaining 71.856% variance of total variance (Table 5)

**Factor 1** Contained four items were measuring natural and organic ingredient with variance of 21.207%.

**Factor 2** Contained three items were measuring environment friendly product with variance of 14.403%.

**Factor 3** Contained three items were measuring Pro environmental activities with variance of 13.852%.

**Factor 4** Contained three items were measuring behavioural intention of consumer with variance of 12.850%.

**Factor 5** Contained two items were measuring ambience with variance of 9.744%.

All fifteen items have loading value are more than 0.5 and loaded in respective factors on account of that none of the items were deleted from the study.

Internal consistency of scale is often measured when five-point Likert scale is used in study. Cronbach's alpha test was administrated to know the reliability and consistency of the scale. The Cronbach's alpha of each factor was higher than the suggested value 0.7 (Hair et.al, 1998)

	Component					Reliability $\alpha$
	1	2	3	4	5	
Nat_Org_Ing3	.910					0.894
Nat_Org_Ing4	.899					
Nat_Org_Ing2	.854					
Nat_Org_Ing1	.841					
Envfr_pro3		.856				0.704
Envfr_pro1		.791				
Envfr_pro2		.735				
Pro_env1			.846			0.719
Pro_env2			.842			
Pro_env3			.686			
Behavioral_int2				.848		0.752
Behavioral_int3				.763		

Behavioral_int1				.716		
Ambience2					.846	0.732
Ambience1					.791	
<b>Average variance explained</b>	21.207%	14.403%	13.852%	12.850	9.744	
<b>Eigen Value</b>	3.272	2.836	2.290	1.305	1.074	
Extraction Method: Principal Component Analysis.						
Rotation Method: Varimax with Kaiser Normalization.						
a. Rotation converged in 6 iterations.						

### Hypothesis testing:

Multiple linear regression was run to test the hypothesis relationship between independent and dependent variable. The dependent variable behavioural intention measures the intention to eating out in QSR. The F statistics for the regression model is 75.345 was significant at (P value <0.01) Table-7, thus confirming the

fitness of model. Result indicates that the coefficient of determination  $R^2 = 0.372$  (Table 6), which explain that the variables accounted 37.2% of variance on behavioural intention. The results of the regression analysis shows that all four factors had significant effect on behavioural intention to eating out in QSR where green practices are happened.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.610 <sup>a</sup>	.372	.367	.35545

a. Predictors: (Constant), NaturalIngredient, Enviromnetfrproduct, Proenvactivities Ambience

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.078	4	9.520	75.345	.000 <sup>b</sup>
	Residual	64.310	509	.126		
	Total	102.388	513			

a. Dependent Variable: Behavioralintent

b. Predictors: (Constant), NaturalIngredient, Enviromnetfrproduct, Proenvactivities Ambience

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.417	.137		10.303	.000
	NaturalIngredient	.138	.024	.213	5.763	.000
	Enviromnetfrproduct	.142	.023	.233	6.149	.000
	Proenvactivities	.151	.019	.285	8.049	.000
	Ambience	.192	.025	.287	7.685	.000

a. Dependent Variable: Behavioralintent

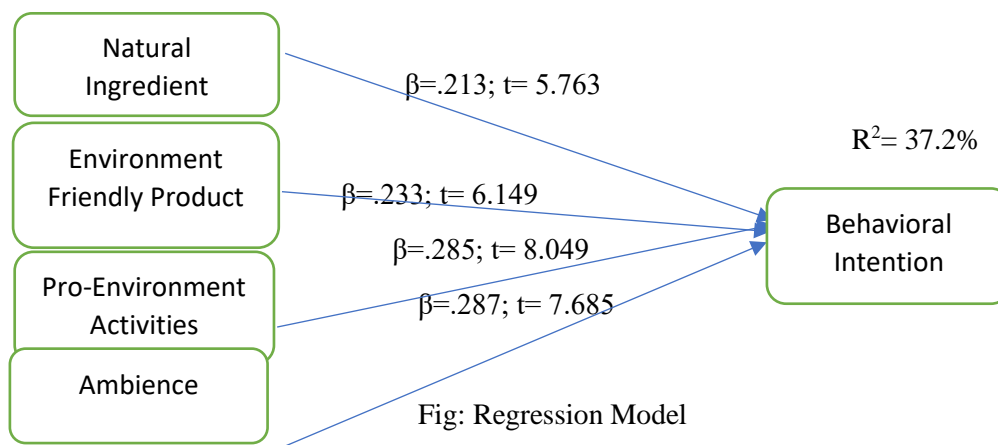


Table 8 shows the regression result, The value obtained for pro- environmental activities ( $\beta=.285$ ;  $t= 8.049$ ,  $P=0.00$ ) is the most contributing factor, followed by ambience ( $\beta=.287$ ;  $t= 7.685$ ,  $P=0.00$ ), environmental friendly product ( $\beta=.233$ ;  $t= 6.149$ ,  $P=0.00$ ) and Using Natural ingredient ( $\beta=.213$ ;  $t= 5.763$ ,  $P=0.00$ ) towards the behavioural intention to eating out in QSR.

Thus, the results of the multiple regression analysis show that H1a, H2a, H3a and H4a have been accepted at the significance level of 0.001.

This study pro environmental activities, Ambience of the QSR, environmentally friendly product and Natural ingredient are the significant relation with intention to eating out in QSR in Indian context and this supported by the studies of Yoon Jung Jang et. Al, 2011.

### Findings, Recommendations and Conclusion

- Pro-environmental activities like recycling and ambience of QSR are the most contributing factor on consumer behavior i.e., consumers are more influenced towards QSRs when they involve in pro environmental activities.
- Using environment friendly product like temperature control devices, organic cleaners etc. in QSR has an impact on consumer behavior to visit the restaurant regularly.
- The customer is unwilling to pay higher price for QSRs engaging in green practices
- They must involve in pro-environmental activities accordingly and provide good ambience to attract

more customers and also patronize the existing customers.

- They should use environment friendly product to attract customer more towards restaurant.
- They should improve understanding of green practises by promoting them to the public in order to raise public awareness of such activities as this would help create positive perception about the brand and also likely that they would share the cost of going green by willingly paying higher prices.

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