

Gastronomic behaviour in Community Based Tourism: Ethnic food & beverages of North Eastern India

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Abstract

Food and beverages (F&B) experience can be potential content of community-based tourism practices. Community Based Tourism practice indulge sustainable exploitation of endemic food, ethnic cuisines, beverages, homestay operations, souvenir, craft sales in addition to folk performances, local adventure contents, providing vivid experience to demand side. This first-hand experience is different from conventional amenities of hotels, F&B service, pubs or discotheques. Ethnic F&B is practiced with active participation with community's decision-making process. Households engaged in homestay and home-based restaurant businesses are direct beneficiaries of F&B receipts. Aspects of quality of service verses F&B receipts and consumer behaviour (tourist's decision-making process) have direct implication in crafting marketing strategy of ethnic F&B attractions of CBT destinations in North Eastern India. Instead of an exclusive remark that tour operators and tourist prefer ethnic F&B attractions of CBT villages of North Eastern India, this paper provides empirical findings at granular level that will help strategic mapping vis-à-vis critical argument on various variables, dependencies and factors. These findings serve as a benchmark in understanding relationship of clean drinking water, clean hygiene kitchen, availability of subsidised household fuel facility, etc. with development indexes of the destination.

Keywords: *North Eastern India; Ethnic Cuisine; Ethnic Alcoholic beverages; Food & Beverages.*

Introduction

Food and beverages of community-based tourism model

Home-based restaurant & homestay is an important component of community-based tourism attractions (Dutta, 2014). The amenities of community-based tourism (CBT) are accommodation, F&B and other hospitality facilities to the tourist. CBT model emphasizes on cultural content, environmental considerations, divergent needs, sustainable utilisation of potential attractions of stakeholders of primary destination (Brohman, 1996). CBT involves equitable benefit sharing mechanism within the host community (WWF Guidelines for Community-based ecotourism development, 2001) and diversification of secondary destination as a brand (Sproule, 1996). The collaborative effort of primary stakeholders and community-based tourism attractions support and encourage wide range of activities such as *in-situ* conservation, homestay operations, guiding & leisure activities, food, cuisines, beverages, souvenir, craft sales, dance performances (Mountain Institute, 2000). The host communities earn tourism receipts with little revenue leakage

and recognition. Likewise, endogenous tourism aims to harness the traditional food (Tanwaret al., 2017), skills of rural artisans, dance & art performers, food & beverages, cuisine, and ethnic craft produce. The community can develop its business and economic (Ashley & Garland, 1994) policy for tourism purposes through its own community enterprise engaging endemic attractions. In principle, institutional support from North East Development and Finance Corporation is mobilized after considering tourism, food processing and agriculture as key thrust areas for economic development (NEDFI, 2000) of NEI. One of the success stories from North East India is the Gondhmow Endogenous Tourist Project, Sualkuchi of Assam (Dutta & Haque, 2016). In spite of being a secondary destination, it earned ranking among top three positions in the ethnic cuisine competition in the year 2009, organised by Ministry of Tourism, Government of India. The competition was among 36 Endogenous Tourist Project sites promoted by Ministry of Tourism, Government of India. In spite of troubled political uprisings (Deka & Baishya, 2009), the annual Hornbill Festival of Nagaland has also emerged as a mosaic of ethnic cuisines and traditional beverages representing major Naga tribes and ethnic communities of Nagaland, Assam (Goswami et al., 2017), Manipur and Arunachal Pradesh of North East India. The Hornbill Festival brand (Kant, 2008) of North Eastern India is an outcome of indigenous communities of Nagalandⁱ and Angamiⁱⁱ tribes of Kohima who have contributed to the Naga Heritage Village at Kisamaⁱⁱⁱ, Tourist Heritage Village at Toupheema and Khonoma Green Village. The process of developing the tourism initiatives (Cooper, 2004) with stakeholders includes multi-pronged participatory approaches, managerial control, research, capital investment & a good working knowledge of the leisure industry with little debate on direct economic benefit reaching the indigenous communities of the destination (Gyamtscho, 1996). On the demand side, satisfaction parameter is affected by glaring gaps with quality of service, unjustified room/homestay tariff (Dhan, Gurung & Seeland, 2008). Improvement in hygiene and utilities of the homebased restaurants and kitchens of homestays creates parity with food and beverages attraction. Another practice is provisioning equitable part of profit from CBT operations in a micro-finance mode for development and renovation homes, kitchen and washrooms as had been effective with Endogenous Tourism Projects and Mountain Shepherds Initiative of Nanda Devi Campaign (Equations, 2008). Though the host community face challenges with oriental food habits, perception about the quality of drinking water, language & hospitality skills, aspect of sanitation, hygiene, solid waste management, and exposure to different cultures & ethnicity, the improvement in capacity and positive impact through social development indexes boost the management aspects of sustainable business model of CBT (Raufflet, Berranger & Gouin, 2008). The components of development index may include availability of treated tap water, balanced nutrition, documentation on endemic food, beverages, herbs, amenities of healthcare, control of communicable & epidemics along with civic amenities and social safety program. Segmentation strategy in profiling of tourists to CBT destination suggests a significantly higher proportion of leisure motivation as compared to business travellers (Foo, McGuiggan & Yiannakis, 2004). Therefore, as a pro-poor tourism strategy, relevance to variables of leisure travellers and tourist motivation is important (Yiannakis, Gibson, 1992; 2002) for North East India.

Objectives of the study

This study identifies the gaps between service expectations and service perception of F&B quality as prevalent in the CBT villages. Continuing with addressing the problem, the study recommends a set of realistic actionable tactics to mitigate the identified gaps. From the review of

literature and observations, the variables, factors and dependencies in the study of F&B (ethnic cuisines, endemic food and traditional beverages) attraction of CBT villages are: -

- *Eagerness of the tourist to experience F&B practice of destination;*
- *Freshness, aroma & taste of ethnic cuisines, endemic food & and traditional beverages;*
- *Availability of continental food;*
- *Experience of endemic food in the destination;*
- *Experience of preparation of ethnic cuisines&beverages;*
- *Experience of traditional way of eating(Hegde et al., 2018);*
- *Food and beverages with value for money, convenience.*

The objective of this research is to provide insight into the ethnic F&B attractions of CBT models of North East India through analysis of the ethnic F&B attractions of the CBT villages in North East India. The ethnic F&B attraction includes ethnic cuisines, endemic food and traditional beverages. From demand side, this research is an attempt to understand the profile of the tourist and strategize market segment of these CBT villages for drafting segmenting strategy based on buying behaviour of F&B services.

Research Methodology and limitations

Elements from demand side are: *Tourists&Day Visitors; Travel Writers and Researchers* engaged in wildlife conservation. The supply side is represented by *Village Administration Institution (Gaonburah^{iv}, Kebang^v, village chief, village councils, Khel^{vi})*, Non-government Organisation, registered societies, self-help groups, households of CBT village; policy makers; and tourism intermediaries. First universe of the study comprises of the villages of the tourism destinations of NEI represented by six CBT villages of three states of NEI. These six villages are selected on the basis of the following judgment parameters:

- (a) F&B business having active participation from the host community;
- (b) CBT site with potential primary destinations, with visible arrival of tourists;
- (c) Leisure business model sponsored by public private partnership, or with government aid.

Through multi-staged judgment sampling method, first stage of three primary destinations were selected based on their importance in the destination/circuit. In the second stage, two villages/localities from each destination were purposively selected. In the third stage, six villages/localities are selected, and opinion of 25 respondents or 2.5% of the total households of these villages are collected using enumerated house number. In the universe of demand side, i.e., tourists, guides, tour operator and travel writers are considered who have been visiting the destination and its selected villages. Due to the unavailability of sampling frame for the population of tourists, intuitive sampling procedure is used, and 25 samples are drawn from each village. The third universe of the study comprises of the traders (F&B), entrepreneurs, host community members serving leisure & tourism operations of destination. Judgment and snowball sampling method is used to collect opinion of 05 respondents from each selected village.

The study is limited to three tourism circuits/destinations of NEI only. Due to the heterogeneous nature of tribes and population demography, random sampling or stratified random sampling is avoided. Despite having household data of the villages, the cluster sampling procedure using the sample frame may have some limitations. The household enumeration is mostly based on kitchen identified for each household. Logically, there is not much difference in the opinion of enumerated household, because their opinion is mostly influenced by clan heads. Moreover, to

avail benefits of PDS^{vii} schemes the household enumeration data suffers severe manipulation. The census data of some districts of NEI states have limitation of estimation (Census of India, 2011). The period of data collection was between February 2013 and January 2014. The prospective tourists are not included. Geographical area is limited to North-East India excluding the state of Sikkim. The business model the destination is aligned with community-based tourism only. The service quality benchmark of ethnic F&B of a CBT village is contrastingly different from the mainstream F&B service of hotels/resorts.

Primary data was collected using a schedule for host community and a questionnaire for tourists. The questionnaire contained close-ended, multiple options, ranking options, 5-point Likert scales as well as open ended questions. The questionnaire asks opinion about food, cuisine and traditional beverages offered by the host community. Its starts with a question about the reason for having or not having food with the host community; opinion of the tourist about the features liked or disliked by the tourist; any specific dish/cuisine/drink liked by the tourist; and quantum of money the tourist has paid for ethnic F&B in the village. This question about food, cuisine and traditional beverage as an ethnic product of the host community measures the quality and perception experienced by the tourist. The question also validates the overall quality of the food & beverages in a 5-point Likert scale. The schedule asks about the variety of food, cuisine, kitchen-activities and traditional beverages offered by the host community. It asks about host community's awareness about tourist's preference such as freshness, common-available food, gourmet, cuisine preparation process, traditional alcoholic beverages, and food with value for money. This question also tries to find out from supply side about their F&B offerings and if they would encourage the tourist/visitor to enter the host's kitchen. The purpose of this question is scope for cultural exchange, which is always best when people share the meals and kitchen together (Cappellini& Parsons, 2012). The other queries are about the drinking water behaviour of the tourist and the money spent on food, water and beverages.

Non-response is eliminated, and the information was tabulated in SPSS table. The SPSS tool is used to conduct Chi Square analysis. Relationship between the dependencies and factors, if detected, the correlation was measured using Contingency Coefficient figure. If valid correlation is observed, the directional measure is conducted to find out the percentage of error in the judgment. The Lambda value is manually converted in percentage and subtracted from 100 to conclude a valid percentage. For opinions asking the satisfaction ratings on 3-point and 5-point Likert scale, the rating 1 referred the lowest in satisfaction level and 3/5 was for the highest level of satisfaction. 'T' test was conducted with that rating as factor believed to be benchmark rating or when it is bare minimum service quality rating for the host community's operations. Same modus-operandi of 'T' test was done to find out the cut off/benchmark level of expectation beyond which a tourist will not compromise. The findings of T-test conducted for said factor/variable for host operator and the tourist will allow this research to conclude the level of difference in the perception of the service/content. This process is used for gap analysis between the service provider i.e., homestay and destination conditions and the consumer i.e., tourist and tour operator. Analysis of variance is done for measuring the satisfaction ratings for different set of the population based on age, income, relationship status, physical fitness and the city of origin. From the One-way ANOVA^{viii} operation, test of equal variance is sought. Only for those variable where equal variance is not observed, multiple comparison operation is conducted using Post-Hoc analysis. In Post Hoc analysis^{ix}, the Games Howell correlation is identified to find out pairs having significant differences, i.e., opinion. The homogenous cluster of tourist segment is being profiled based on factors of *socio-economic*,

demographic, business operation logic, geographic, motivation & leisure interest using Cross-tabulation, Chi-square tests and ANOVA.

The locations from which primary data is obtained are:

- Manas National Park, Assam: Five fringe villages of Manas National Park, Barpeta, Assam. It is a prominent wildlife attraction site and World Heritage Site by IUCN.
- Sualkuchi, Assam: Gandhmou Endogenous Tourist Project sponsored by UNDP and operated by the host community. It is about 60 Km from Guwahati city, Assam.
- Khonoma, Nagaland: This village promoted Khonoma Nature Conservation & Tragopan Sanctuary without government support. It has a CBT model under village council.
- Toupheima, Nagaland: Toupheima Tourist Village is an Angami Naga Heritage village. It is located about 41 Km away from Kohima town.
- Thembang, Arunachal Pradesh: Thembang-Bapu Community Conserved Area Management Committee of Thembang is an initiative by WWF-India. It practices CBT as an alternate livelihood opportunity.
- Zemithang, Arunachal Pradesh: PangchenLumpo-Muchat Community Conservation Management Committee is another initiative by Western Arunachal Landscape by WWF-India in Tawang District of Arunachal Pradesh. It also practices CBT as an alternate livelihood opportunity along with conservation.

Findings

The analysis on the ethnic F&B receipts and its frequency reveals a moderate correlation between earnings of Rs. 800/- (about 12 US Dollars in 2014) per day in the peak season from October to December. Average earning of Rs. 400/- per day is projected in the peak season for any CBT village with home-based restaurant offering ethnic F&B services. The trend of the daily earning potential of food & beverages providers in the CBT destination indicates that the tourists are keen on experiencing ethnic cuisine & beverages and they are ready to spend. The home-based F&B service providers need to grab a larger share in near future. On the quality of 'freshness, aroma and taste' of F&B, tourists originating from Asian countries and USA are unlikely to prefer ethnic F&B. The tourists from North East India, Rest of India, Common Wealth Countries and European Countries prefer ethnic food & cuisine and traditional beverages. Thus, it could lead to a potential geographic target segment. Inbound tourists from Europe and Common Wealth Countries are expected to like the traditional way of preparation. Tourists originating from Asian countries and USA have shown no interest in the traditional way of meal/cuisine preparation in a homestay or home-base restaurant. Regarding traditional alcoholic beverages, 63.4% tourists from Common Wealth Countries and Europe have moderately liked it. There is a negative co-relationship between tourists from North East India for traditional alcoholic beverages. Thus, local visitors, i.e. tourist and visitors from NEI are to be avoided for traditional alcoholic beverages. For the factor 'value for money & convenience', there is a concern as the CBT villages do not offer F&B with segment 'value for money' or 'convenient for consumption'. One of the reasons could be the cultural shock to tourist from food habits of indigenous communities. For example, a tourist from Jain community, Hindu Brahmin, Buddhist and Islamic faith will have cultural shock to see voluptuous fresh pork dangling from the ceiling of the kitchen in Khonoma, Nagaland. Likewise, vegetarian meal in Toupheima Tourist Village would include steamed rice, roasted potatoes, brinjal and plain dal. Similarly, the households of Zemithang and Thembang prefer vegetarian food only with little use of cooking oil or spices in their cuisine. Most of the Monpa people of Thembang take pounded

corn with milk as in their breakfast, and it ends up sheer dissatisfaction if continental food is not available or offered to tourist.

The tourist will be buying food and beverages from the host community as compulsion, not by choice. It can't be concluded that the tourist visiting these villages will advocate for ethnic food (Khanongnuch, Unban, Kanpiengjai & Saenjum, 2017), cuisine and beverage of the host community. Regarding the perceived opinion, the tourist and visitors will be satisfied only when they comment or experience "Very Good" on the quality of ethnic F&B. Alarmingly, the tourists and visitors to the Western Arunachal Pradesh were not satisfied with the overall quality of F&B. Whereas, tourist visiting CBT destinations of Assam and Nagaland have satisfactory experiences.

Conclusions

Ethnic F&B habits of the host community is sacrosanct and thus, a balanced approach is required. Food habits of inbound tourist or from mainland India could be ham, bread, cheese, muesli, eggs, oiled paratha for the breakfast. But, the age-old food habits of the indigenous community cannot change over years. However, respecting the food habits of the tourist, the homestay, home-based restaurant and local entrepreneurs must add common food items while serving breakfast to the tourist. Another important aspect is that the host should enquire the food habits and should arrange it for the tourists and if possible, for the visitors also.

The perception of 'star hospitality & privacy feature' in home-based restaurant and homestay accommodation is inconclusive with reference to income category of tourist. A single pro-poor tourism strategy will not serve the purpose as it is seen that NEI destinations are with diverse cultural background much to the confusion to the outside world. Cost centre approach is needed at policy intervention for these CBT destinations capacity building in F&B services. These are training of host/hostess on F&B services, service quality and interpretation. There is visible opportunity for the home-based restaurant operators, endemic food collectors and the homestay operators as revenue centres for growth stages (Alvares & Lourenco, 2010) of these destinations. There is need for further research to find out the potential to attract inbound tourists on the various endemic varieties of rice, vegetables, herbs, honey and fresh water fish as F&B attractions of CBT villages of North East India.

References

- Alvares, D. and Lourenco, J., (2005). *Life Cycle Modelling for Tourism Areas*.Guimarães: University of Minho, Portugal.
- Ashley, C. and Garland, E., (1994). *Promoting Community-Based Tourism Development: Why, What and How?*Namibia: Directorate of Environmental Affairs, Ministry of Environment and Tourism.
- Cappellini, B. & Parsons, E., (2012). Sharing the Meal: Food Consumption and Family Identity. In R. W. Belk, S Askegaard, L Scott (ed.), *Research in Consumer Behavior*, 14, 109-128.Emerald Group Publishing Limited.
- Brohman, J. (1996). New Directions in Tourism for the Third World. *Annals of Tourism Research*, 23(1), 48-70.
- Census of India (2011). Registrar General of Census, Government of India. Retrieved March, 01, 2016 from <http://www.censusindia.gov.in/2011census/Hlo-series/HH10.html>
- Cooper, G., (2004). *Community based tourism-Experiences in the Caribbean: Lessons and key considerations*. Havana: Sixth Annual Caribbean Conference on Sustainable Tourism Development: Keeping the right balance-Land and Sea Encounters, Caribbean Natural Resources Institute at the Caribbean Tourism Organisation, Cuba.
- Deka, P.K. &Baishya, P. (2009). Economy of Nagaland: Its strengths and potential. *Journal of Economics and Commerce*, 1(1), 54-60.
- Dhan, B., Gurung, and Seeland, K. (2008). Ecotourism in Bhutan-Extending its benefits to rural communities. *Annals of Tourism Research*, 35(2), 489-508.
- Dutta, M. and Das, R. (2011). Challenges of Community Based Tourism in a Typical Village of North East India. In P.S. Manhas (eds.), *Sustainable Destination Excellence: Innovations in Alternative Tourism*(pp. 164-167). University of Jammu, Jammu, India. ISBN 9788190970440.
- Dutta, M., (2014). *Community Based Tourism in North East India: A Study onSelect Destinations*.Assam: PhD thesis, Gauhati University, India.
- Dutta, M. & Haque, A. (2016). Review of business model of Gondhmow Tourism DevelopmentSociety, Gondhmow, Sualkuchi. In national seminar *Make in India and Rural North-East: TheChallenges*. National Institute of Rural Development and Panchayati Raj-North Eastern Regional Center,Guwahati, India.
- Equations (2008). Can Tourism Transform? Community-based Tourism Initiatives in India. Retrieved February 20, 2011 from www.equitabletourism.org
- Foo, J., McGuiggan, R. &Yiannakis, A. (2004). Roles Tourist Play-An Australian Perspective. *Annals of Tourism Research*, 31(2), 408-427.
- Gibson, H. &Yiannakis, A. (2002). Tourist Roles-Needs and the Lifecourse. *Annals of Tourism Research*, 29(2), 358–383.
- Goswami, G., Bora, S. S., Parveen, A., Boro, R, C., &Barooah, M. (2017). Identification and functional properties of dominant lactic acidbacteria isolated from *Kahudi*, a traditional rapeseed fermented foodproduct of Assam, India. *Journal of Ethnic Foods*, 4, 187-197.
- Gyamtsho, P. (1996). *Assessment of the condition and potential for improvement of high-altituderangelands of Bhutan*.Zürich: PhD Dissertation in Natural Science, EidgenössischeTechnische Hochschule Zürich, Switzerland.

- Hegde, S., Nair, L. P., Chandran, H., Irshad, H. (2018). Traditional Indian way of eating-an overview. *Journal of Ethnic Foods*, 5, 20-23.
- Kant, A., (2008). *Branding India-An Incredible Story*. India: HarperCollins. ISBN 9788172238094.
- Khanongnuch, C., Unban, K., Kanpiengjai, A., &Saenjum, C. (2017). Recent research advances and ethno-botanical history of miang, a traditional fermented tea *Camellia sinensis* var. *assamica* of northern Thailand. *Journal of Ethnic Foods*, 4, 135-144.
- North Eastern Development Finance Corporation, (2000). *Annual Report-NEDFI*. Guwahati:India.
- Raufflet, E., Berranger, A., &Gouin, J.F. (2008). Innovation in business community partnerships: evaluating the impact of local enterprise and global investment models on poverty, bio-diversity and development. *Corporate Governance Journal: The International Journal of Business in Society*, 8(4), 546-556.
- Sproule, K. W., (1996). *Community-based Ecotourism Development: Identifying partners in the process the Ecotourism Equation: Measuring the Impacts*. Yale: Yale School of Forestry and Environmental Studies. Bulletin No. 99, Yale University.
- Tanwar, M., Tanwar, B., Tanwar, R. S., Kumar, V., &Goyal, A. (2017). Himachalidham: Food, culture, and heritage. *Journal of Ethnic Foods*, 01-06
- The Mountain Institute (2000). Community-Based Tourism for Conservation and Development: What is Community based Tourism? Retrieved September 29, 2014 from <http://www.cbt-i.org/travel.php>
- World Wide Fund for Nature (2001). Retrieved December 12, 2013 from www.zeitzfoundation.org/userfiles/WWFGuidelinesForCommunityBasedEcotourismDevelopment.pdf

Annexure-I:

Demographic profile of the Sampled Tourists and Visitors

Table 1: Age in years

Age category in years	Frequency
15 – 20	3
21 – 25	19
26 – 30	21
31 – 35	11
36 – 40	22
41 – 50	11
51 – 60	11
60+	5
Total	103

Source: Sample survey

Table 2:
Marital Status

Occupation
Table 3:

Occupation Category	Frequency
Government service	16
Personal business/trader	16
Corporate employee	12
Professional	33
Retired	9
PSU	1
Student and dependent	16
Total	103

Source: Sample survey

Marital Status category	Frequency
Invalid	1
Just married	4
Single	39
Married	47
Living together	4
Engaged	8
Total	103

Source: Sample survey

Table 4: Annual income

Annual income category	Frequency
Invalid	1
Rs. 1 lakh	3
Rs. 3 lakh	10
Rs. 5 lakh	15
Rs. 8 lakh	11
Rs. 12 lakh	6
Total	103

Source: Sample survey

Table 5: Religion

Religion followed	Frequency
Invalid	7
Christian	29
Islam	2
Hindu	55
Jew	3
Buddhist	2
Jain	5
Total	103

Source: Sample survey

Table 6: Nationality

Nationality	Frequency
Australian	5
British	7
Canadian	1
Chinese	2
Deutsch	2
French	7
German	1
Indian	66
Spain	8
Switzerland	2
USA	2
Total	103

Source: Sample survey

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Annexure-II:

Inferential Analysis

The earning potential of the food & beverage providers' in peak season.

From the responses tallied from host community, the trend is:

Rs. 60/day is “Rarely” (frequency is 33, 23.7%.3)

Rs. 100/day is “Sometimes” (frequency is 38, valid % is 27.3)

Rs. 400/day is “Sometimes” (frequency is 42, valid % is 30.2)

Rs. 800/day is “Often” (frequency is 37, valid % is 26.6)

To test if there is any linear relationship between the revenue receipt in Rupees of “per day earnings from food & beverages” and its frequency in the peak season, the descriptive statistics implies: -

Descriptive Statistics

	Mean	Std. Deviation	N
Peak & Slack season	2.66	.533	73
Upto Rs.400/-	2.37	.540	73

Correlations

		Peak & Slack season	Upto Rs.400/-
Peak & Slack season	Pearson Correlation	1	.253(*)
	Sig. (2-tailed)		.031
	N	73	73
Upto Rs.400/-	Pearson Correlation	.253(*)	1
	Sig. (2-tailed)	.031	
	N	73	73

Correlation is significant at the 0.05 level (2-tailed).

The correlation between per day earnings ‘upto Rs. 400/- ‘and ‘Peak & Slack season’ is +0.253 which is considered to be weak and the significance value is 0.05. A weak correlation between the above variables is established. The mean of these two variables are close to each other. Season mean is 2.66 and earnings upto Rs. 400/- mean is 2.37.

Descriptive Statistics

	Mean	Std. Deviation	N
Peak & Slack season	2.65	.480	66
Upto Rs.800/-	2.38	.780	66

Correlations

		Peak & Slack season	Upto Rs.800/-
Peak & Slack season	Pearson Correlation	1	-.423(**)
	Sig. (2-tailed)		.000
	N	138	66
Upto Rs.800/-	Pearson Correlation	-.423(**)	1
	Sig. (2-tailed)	.000	
	N	66	66

** Correlation is significant at the 0.01 level (2-tailed).

The correlation between per day earnings ‘upto Rs. 800’ and ‘Peak & Slack season’ is -0.423, and the significance value is 0.01. The range of coefficient between -/+0.41 to +- 0.60 is considered to be of moderate strength. The mean of these two variables are also close to each other. Season mean is 2.65 and mean of earnings upto Rs. 800/- is 2.38.

Tourist’s preferences for ethnic F&B freshness, aroma and taste.

The descriptive statistics implies that ethnic F&B are liked by most of the tourist as offered by the host community in one way or another. Comparing the opinion of the tourists about food & beverages based on city of origin, the hypotheses are: -

H_0 : Perception of Food & Beverages by the tourists of North East India, Rest of India, Common Wealth Countries, European Countries, Asian Countries and USA is same, i.e., $\mu_{NER} = \mu_{CW} = \mu_{Europe} = \mu_{ROI} = \mu_{USA} = \mu_{Asia}$

H_1 : Perception of Food & Beverages is different for of the tourist segments based on city of origin or region, i.e., $\mu_{NER} \neq \mu_{CW} \neq \mu_{Europe} \neq \mu_{ROI} \neq \mu_{USA} \neq \mu_{Asia}$

Where μ_{ROI} = mean of tourists originating from India (other than North Eastern India),

μ_{CW} = mean of tourists originating from Common Wealth countries

μ_{Europe} = mean of tourists originating from European countries

μ_{NER} = mean of tourists originating from North Eastern Region of India

μ_{USA} = mean of tourists originating from USA

μ_{Asia} = mean of tourists originating from Aisa countries

ANOVA

Freshness, aroma and taste and Food & Beverages

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	3.408	5	.682	2.466	.038
Within Groups	25.982	94	.276		
Total	29.390	99			

The F Probability value in the ANOVA table is less than 0.05. The null hypothesis is rejected to statistically conclude that equal variance cannot be assumed. It is concluded that each segment’s mean on the perception about ethnic Food & Beverages is different for each other. By conducting Post Hoc analysis, Games Howell figure indicates the pairs with opposite opinion.

Multiple Comparisons

Dependent Variable: Freshness, aroma and taste

Games-Howell * The mean difference is significant at the .05 level.

(I) D_City	(J) D_City	Mean Difference (I-J)	Std. Error	Sig.	95% confidence level	
					Lower Bound	Upper Bound
NER	RoI	-.029	.128	1.000	-.41	.35
	CW	-.525	.218	.209	-1.23	.17
	Europe	-.006	.130	1.000	-.39	.38
	Asian	.244	.084	.061	-.01	.50
	USA	.244	.084	.061	-.01	.50

RoI	NER	.029	.128	1.000	-.35	.41
	CW	-.497	.223	.276	-1.21	.21
	Europe	.023	.139	1.000	-.39	.44
	Asian	.273	.097	.096	-.03	.58
	USA	.273	.097	.096	-.03	.58
CW	NER	.525	.218	.209	-.17	1.23
	RoI	.497	.223	.276	-.21	1.21
	Europe	.519	.224	.239	-.19	1.23
	Asian	.769(*)	.201	.023	.09	1.44
	USA	.769(*)	.201	.023	.09	1.44
Europe	NER	.006	.130	1.000	-.38	.39
	RoI	-.023	.139	1.000	-.44	.39
	CW	-.519	.224	.239	-1.23	.19
	Asian	.250	.099	.168	-.06	.56
	USA	.250	.099	.168	-.06	.56
Asian	NER	-.244	.084	.061	-.50	.01
	RoI	-.273	.097	.096	-.58	.03
	CW	-.769(*)	.201	.023	-1.44	-.09
	Europe	-.250	.099	.168	-.56	.06
	USA	.000	.000	.	.00	.00
USA	NER	-.244	.084	.061	-.50	.01
	RoI	-.273	.097	.096	-.58	.03
	CW	-.769(*)	.201	.023	-1.44	-.09
	Europe	-.250	.099	.168	-.56	.06
	Asian	.000	.000	.	.00	.00

The above Games-Howell test for mean difference, the pairs “USA and Common Wealth Countries” and “Asian and Common Wealth Countries” have significant differences in their opinion on the freshness, aroma and taste of food & beverages of CBT Village.

Tourist’s preferences for traditional way of preparation.

The descriptive statistics implies that food & cuisine prepared in the traditional way is liked by 68% of the sampled respondents. To identify tourist based on city of origin and not liked or differed their opinion from the opinion of the population, the means are required to be compared to find out which group differs from the opinion of the population. The hypotheses for comparing the opinion of the tourists about food & cuisine prepared in traditional way and their city of origin are-

H_0 : Food & Cuisine prepared in a traditional way is equally liked by the tourists of NEI, Rest of India, Common Wealth, European Countries, Asian Countries and USA.

$$\mu_{NER} = \mu_{CW} = \mu_{Europe} = \mu_{ROI} = \mu_{USA} = \mu_{Asia}$$

H_1 : Food & Cuisine prepared in a traditional way is not equally liked by the tourists based on origin.

$$\mu_{NER} \neq \mu_{CW} \neq \mu_{Europe} \neq \mu_{ROI} \neq \mu_{USA} \neq \mu_{Asia}$$

Where μ_{ROI} = mean of tourists originating from Rest of India and so on

ANOVA

	Sum	of	df	Mean	F	Sig.
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	Squares		Square		
Between Groups	4.893	5	.979	2.393	.044
Within Groups	35.580	87	.409		
Total	40.473	92			

The F Probability value in the ANOVA table is less than 0.05. The null hypothesis is rejected to statistically conclude that equal variance cannot be assumed. It is concluded that the mean opinion about Food & Cuisine prepared in traditional way is not equally liked by the tourists of North East India, Rest of India, Common Wealth Countries, European Countries, Asian Countries and USA. Further by conducting Post Hoc analysis, Games Howell figure provides pair wise segments of tourists who have significant difference of opinion

Multiple Comparisons

Dependent Variable: Traditional way of preparation

Games-Howell

* The mean difference is significant at the .05 level.

(I) D_City	(J) D_City	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
NER	RoI	.374	.159	.192	-.10	.84
	CW	-.214	.242	.947	-.96	.54
	Europe	.333	.168	.367	-.16	.83
	Asian	.556(*)	.135	.003	.15	.96
	USA	.556(*)	.135	.003	.15	.96
RoI	NER	-.374	.159	.192	-.84	.10
	CW	-.587	.218	.130	-1.29	.11
	Europe	-.040	.131	1.000	-.44	.36
	Asian	.182	.084	.297	-.08	.45
	USA	.182	.084	.297	-.08	.45
CW	NER	.214	.242	.947	-.54	.96
	RoI	.587	.218	.130	-.11	1.29
	Europe	.547	.225	.197	-.17	1.26
	Asian	.769(*)	.201	.023	.09	1.44
	USA	.769(*)	.201	.023	.09	1.44
Europe	NER	-.333	.168	.367	-.83	.16
	RoI	.040	.131	1.000	-.36	.44
	CW	-.547	.225	.197	-1.26	.17
	Asian	.222	.101	.286	-.10	.54
	USA	.222	.101	.286	-.10	.54
Asian	NER	-.556(*)	.135	.003	-.96	-.15
	RoI	-.182	.084	.297	-.45	.08
	CW	-.769(*)	.201	.023	-1.44	-.09

	Europe	-.222	.101	.286	-.54	.10
	USA	.000	.000	.	.00	.00
USA	NER	-.556(*)	.135	.003	-.96	-.15
	RoI	-.182	.084	.297	-.45	.08
	CW	-.769(*)	.201	.023	-1.44	-.09
	Europe	-.222	.101	.286	-.54	.10
	Asian	.000	.000	.	.00	.00

Therefore, the Games-Howell test for mean difference, the pairs “USA and Common Wealth Countries” and “USA and North East Region” and “Asian and North East Region” and “Asian and Common Wealth Countries” have significant differences in their opinion. This is because there is remote possibility of tourists from North East India to not like food & cuisine from their home region and their opinion is matching with these two segments.

Tourist’s preferences in ethnic F&B: Traditional alcoholic beverages.

Cross tabulation: Traditional Alcoholic Beverages and City of origin of the tourist

		City of Origin						Total
		NE R	Ro I	C W	Europ e	Asia n	US A	
Traditional alcoholic beverages	I liked	8	4	3	15	0	0	30
	No so bad	5	14	6	3	2	2	32
	Not liked	10	4	2	0	0	0	16
	Error	19	2	2	2	0	0	25
Total		42	24	13	20	2	2	103

The cross tabulation between preference of ‘Traditional Alcoholic Beverages’ and the ‘Tourist’s City of origin’ indicates a positive relation for tourist from European origin and negative correlation for tourists from North East Origin. Therefore the hypotheses are:-

H_0 : There is no relationship between preference of ‘Traditional Alcoholic Beverages’ of CBT village and the ‘Tourist’s City of origin’.

H_1 : There is a relationship between preference of ‘Traditional Alcoholic Beverages’ CBT village and the ‘Tourist’s City of origin’.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	56.752(a)	15	.000
Likelihood Ratio	56.576	15	.000
N of Valid Cases	103		

a 15 cells (62.5%) have expected count less than 5. The minimum expected count is .31. Inadequacy of cell count ignored.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	.596	.000
N of Valid Cases		103	

a Not assuming the null hypothesis. b Using the asymptotic standard error assuming the null hypothesis.

Directional Measures

Nominal by Nominal	Lambda		Value	Asymp. Error(a)	Std.	Approx. T(b)	Approx. Sig.
		Symmetric	.318	.073		4.063	.000
		Traditional alcoholic beverages Dependent	.366	.073		4.368	.000
		D_City Dependent	.262	.091		2.545	.011

a Not assuming the null hypothesis. b Using the asymptotic standard error assuming the null hypothesis. c X2 approximation

Proportional Reduction of Error (Lambda =36.6%, or 100 - (0.366 x 100) % = 63.4%). The error in the statement is 36.5% only. There is a moderate probability (Contingency Coefficient 0.596) of 63.4% tourists based on specific city of origin to prefer ($P < \alpha$) traditional alcoholic beverages offered by the host community of the CBT village. To identify these specific tourist based on cities of origin/region having a positive and negative preference for alcoholic beverages, the hypotheses for comparing the opinion of the tourists about preference of Traditional Alcoholic Beverages and City of Origin of the Tourist are:-

H_0 : Traditional Alcoholic Beverages is liked equally by the tourists of NEI, Rest of India, Common Wealth Countries, European Countries, Asian Countries and USA.

$$\mu_{NER} = \mu_{CW} = \mu_{Europe} = \mu_{ROI} = \mu_{USA} = \mu_{Asia}$$

H_1 : Traditional Alcoholic Beverages is not liked equally by the tourists of NEI, Rest of India, Common Wealth Countries, European Countries, Asian Countries and USA.

$$\mu_{NER} \neq \mu_{CW} \neq \mu_{Europe} \neq \mu_{ROI} \neq \mu_{USA} \neq \mu_{Asia}$$

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10.252	5	2.050	4.442	.001
Within Groups	33.235	72	.462		
Total	43.487	77			

The F Probability value in the ANOVA table is less than 0.05. The null hypothesis is rejected to statistically conclude that equal variance cannot be assumed or the mean opinion on preferences of

Traditional Alcoholic Beverages is not liked equally by the segments. Conducting Post Hoc analysis, Games Howell figure provides tourists having significantly opposite/different opinion.

Multiple Comparisons

Dependent Variable: Traditional alcoholic beverages

Games-Howell

* The mean difference is significant at the .05 level.

(I) D_City	(J) D_City	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
NER	RoI	.087	.229	.999	-.60	.77
	CW	.178	.283	.988	-.69	1.05
	Europe	.920(*)	.208	.001	.29	1.55
	Asian	.087	.188	.997	-.50	.67
	USA	.087	.188	.997	-.50	.67
RoI	NER	-.087	.229	.999	-.77	.60
	CW	.091	.249	.999	-.70	.88
	Europe	.833(*)	.160	.000	.35	1.31
	Asian	.000	.132	1.000	-.41	.41
	USA	.000	.132	1.000	-.41	.41
CW	NER	-.178	.283	.988	-1.05	.69
	RoI	-.091	.249	.999	-.88	.70
	Europe	.742	.230	.055	-.01	1.50
	Asian	-.091	.211	.998	-.82	.64
	USA	-.091	.211	.998	-.82	.64
Europe	NER	-.920(*)	.208	.001	-1.55	-.29
	RoI	-.833(*)	.160	.000	-1.31	-.35
	CW	-.742	.230	.055	-1.50	.01
	Asian	-.833(*)	.090	.000	-1.12	-.54
	USA	-.833(*)	.090	.000	-1.12	-.54
Asian	NER	-.087	.188	.997	-.67	.50
	RoI	.000	.132	1.000	-.41	.41
	CW	.091	.211	.998	-.64	.82
	Europe	.833(*)	.090	.000	.54	1.12
	USA	.000	.000	.	.00	.00
USA	NER	-.087	.188	.997	-.67	.50
	RoI	.000	.132	1.000	-.41	.41
	CW	.091	.211	.998	-.64	.82
	Europe	.833(*)	.090	.000	.54	1.12
	Asian	.000	.000	.	.00	.00

The pairs “USA and Europe” and “Europe and NEI” and “Rest of India and Europe” and “Asian and Europe” have significant differences.

Tourist's preferences for value for money, convenience.

The availability of common food and beverages as is liked by all set of tourists. It is very important for the survival of tourism inflow to the destination. The food and beverage needs to be convenient for the tourist and value for money. Food & beverages business is an important aspect for direct economic impact and induced economic effects. From the review of literature and general trends as observed is that tourists, irrespective of city of origin, will have to depend on common food and beverages. To have a reality check about the availability of food & beverages which offers value for money and convenient for consumption, the hypotheses are:-

H_0 : *The CBT Village does not offer food & beverages which offers value for money and convenient for consumption for the tourist.*

H_1 : *The CBT Village do offer food & beverages with value for money and convenient for consumption by the tourist.*

One-sample T test is conducted with test value 3 (ordinal scale) as 'liked by tourist for value for money and convenience'. The value 2 representing 'No so bad' and 1 being 'Not liked'.

One-Sample Test

		Test Value = 3					
		t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Value for money, convenience	4	-23.59	89	.000	-1.544	-1.67	-1.41

Since p value (0.000) is less than the level of significance ($\alpha = 0.05$), the null hypothesis is rejected to conclude statistically that the CBT Villages in this study do offer food & beverages which offers value for money or convenient for consumption by the tourist.

Tourist's perception on satisfaction about ethnic food, cuisine & beverages.

The five point Likert scale on satisfaction level reveals the following:-

Cross tabulation: 'Overall quality of F&B' and 'Approximate receipts from F&B'

		Approximate receipts from F&B to the host community								Total
		250	500	700	1000	1500	2000	3500	5000	
Ratings from tourists on 'Overall quality of F&B'	Needs improvement	0	0	0	1	2	0	0	0	3
	Can't say	3	1	3	2	2	0	0	2	13
	Ok	4	0	2	10	2	9	2	0	29
	Excellent cuisine & beverages	2	0	1	1	0	1	0	0	5
	Below average	0	0	1	0	0	0	0	0	1
Total		9	1	7	14	6	10	2	2	51

The cross tabulation indicates a relationship between these two variables. To test this relationship for the population, the null and alternate hypothesis will be:-

H_0 : There is no relationship between 'Earnings from F&B' and 'Tourist Satisfaction level' visiting the CBT destinations.

H_1 : There is a relationship between 'F&B receipts' and 'Tourist Satisfaction level' visiting the CBT destinations.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	36.672(a)	28	.126
Likelihood Ratio	34.640	28	.181
N of Valid Cases	51		

a 37 cells (92.5%) have expected count less than 5. The minimum expected count is .02. Inadequacy of cell count ignored.

The Chi-square (X^2) statistics of the SPSS program shows the P value (0.126) more than the level of significance ($\alpha = 0.05$). Therefore the null hypothesis is not rejected to conclude that there is a no relationship between these variables.

To find out the whether the tourist population and host community has the same understanding on the opinion about the level of satisfaction, the perception of the tourist population on the different scales as asked in the questionnaire needs to be tested.

H_0 : If the tourist is not satisfied about the host community's F&B, it has to be below "Ok".

H_1 : If the tourist is satisfied about the host community's F&B, it has to be equal to or above "Ok" rating.

One-Sample Test

Please rate the overall quality of the food and beverages.	Test Value = 4					
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
	-4.025	10	.000	-.333	-.50	-.17

Test value 4 as 'Ok', the P value (0.000) is less than the level of significance ($\alpha = 0.05$). The mean opinion of the tourist about host community's food, cuisine & beverages is less than or equivalent to "Ok". The qualitative interpretation is that the tourist will be satisfied if they say the quality is Ok.

Comparisons of the opinion of the tourists about satisfaction about food, cuisine & beverages of the CBT destination based on different locations, the hypothesis will be:-

H_0 : Perception about ethnic F&B by the tourists visiting different locations is same.

$$\mu_{\text{Western Arunachal Pradesh}} = \mu_{\text{Assam}} = \mu_{\text{Nagaland}}$$

H_1 : Perception about ethnic F&B by the tourists visiting different locations is different.

$$\mu_{\text{Western Arunachal Pradesh}} \neq \mu_{\text{Assam}} \neq \mu_{\text{Nagaland}}$$

ANOVA

Please rate the overall quality of the food and beverages.

	Sum of Squares	df	Mean Square	F	Sig.
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Between Groups	4.577	2	2.289	3.428	.036
Within Groups	66.089	99	.668		
Total	70.667	101			

The F Probability (0.036) value is less than 0.05. The null hypothesis is rejected to conclude that equal variance cannot be assumed or mean perception about host community's food & beverages is different for each destination. Games Howell figure in Post Hoc analysis indicates the pair "Western AP and Assam" has significant difference of the opinion from the population.

Multiple Comparisons

Dependent Variable: Please rate the overall quality of the food and beverages.

Games-Howell

(I) Location	(J) Location	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Western AP	Assam	-.494(*)	.178	.020	-.92	-.06
	Nagaland	-.417	.198	.096	-.89	.06
Assam	Western AP	.494(*)	.178	.020	.06	.92
	Nagaland	.077	.194	.918	-.39	.54
Nagaland	Western AP	.417	.198	.096	-.06	.89
	Assam	-.077	.194	.918	-.54	.39

The mean difference is significant at the .05 level.

ⁱ Nagaland is the 16th state of India bordering the state of Assam, Arunachal Pradesh and Manipur and the country Myanmar. It is represented by sixteen indigenous tribes. These tribes have unique customary law, dialect and dress.

ⁱⁱ Angami is an ethnic tribe settled in Kohima and Dimapur district of Nagaland, India with Scheduled Tribe status in the 5th schedule of the Indian Constitution.

ⁱⁱⁱ Kisama hosts the Naga Heritage Village with an objective to preserve ethnic cultural heritages and for promotion of tourism.

^{iv} Nominated or elected Head-man or Head-Women of the village.

^v Kebang is a democratic political body (village council) of an Adi village in Arunachal Pradesh. The leadership in Kebang given to a male elder by virtue of his merits. Kebang is mostly run by adult male members of the village.

^{vi} *Khel* is an institution in village governance in any Angami Naga village. This institution brings together several clans within the village community. Membership of a *khel* is either decided by birth or heredity. No village decision can be taken without the consensus of the *khel* of the village.

^{vii} Public distribution system is a food security system initiated by Ministry of Consumer Affairs, Government of India.

^{viii} A statistical tool used to determine whether there are any statistically significant differences between the means of two or more independent unrelated groups.

^{ix} It is analysis of inferential result with error rate. probability of Type I error in a set of comparisons through Bonferroni procedure.