Effectiveness of F2F and ODL Mode in Hospitality and Tourism Education: A Study on Learners' Perception

Soumitra Sen[*]
Nripendra N. Sarma[**]

Abstract

Being highly labour intensive, the growing tourism and hospitality sector provides vital employment opportunities for people with a wide range of skills. The regular courses, offered mostly as full time courses through Face to Face (F2F) mode, are not sufficient to meet the huge demand of trained manpower required by this ever expanding industry. Apprehensions are sometimes expressed on the effectiveness of tourism and hospitality courses offered through Open and Distance Learning (ODL) mode. This is the problem area that this research work seeks to address by trying to have an answer to the question: Do the learners of the tourism and hospitality courses have different perceptions on the effectiveness of the courses offered through F2F and ODL mode? An overall analysis of the null hypothesis adopted for this research, that there is no significant difference in the effectiveness of F2F and ODL mode of education in hospitality and tourism education stands good. As the conventional F2F mode of tourism and hospitality courses have failed to cope up with the growing demand of trained manpower the alternative avenue of Open and Distance Learning (ODL) for the hospitality and tourism industry is the best option, the paper asserts.

Keywords : *Effectiveness, F2F and ODL mode, Hospitality and tourism education, Learners' perception.*

1 Manpower Related Issue and Statement of the Problem

The institutions like Institutes of Hotel Management, Catering Technology and Applied Nutrition (IHMCTAN), Indian Institute of Tourism and Travel

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[*] Soumitra Sen is the Head of the Department, Institute of Hotel Management, Catering Technology and Applied Nutrition, Guwahati.

[**] Nripendra Narayan Sarma is Professor in Management, Krishna Kanta Handiqui State Open University, Guwahati.

Management (IITTM), Food Craft Institutes (FCI), Universities etc. offer various courses in the areas of hospitality and tourism. These include Post Graduate level courses, Bachelor courses, Diploma courses, Certificate courses, employment oriented *Hunar Se Rojkar* courses etc. The regular courses, offered mostly as full time courses through Face to Face (F2F) mode, are not sufficient to meet the huge demand of trained manpower required by this ever expanding industry (Baishya, 2013). There are many aspirants of jobs who are not professionally qualified. The ODL mode provides barrier free learning. In order to meet the industry demands and also to cater to the requirements of barrier free learning of job aspirants, a need was felt to train up human resources through ODL mode (Sharma, 2015). Apprehensions are sometimes expressed on the effectiveness of tourism and hospitality courses offered through ODL mode. The apprehension is mostly whether skill oriented practical training can be really imparted through ODL mode in the tourism and hospitality industry. Sustaining students' interest and motivation level is another issue. Because of this, the effectiveness of imparting tourism and hospitality education through F2F mode and ODL mode may be different (Bajwal, 2011). However, the industry needs to provide good quality service. This is the problem area that this research work seeks to address and desires to make some contribution towards its solution.

2   Review of Literature

A number of studies have been conducted related to the needs of trained and technically qualified manpower for tourism and hospitality sector. The importance of both the F2F and ODL mode of educational interventions with their inherent strengths and weaknesses towards augmenting the trained human resource base has also been highlighted in some of these studies (Lam & Xiao, 2010; Femi & Olatunde, 2010; Bhatnagar, 2011).

Some of the previous studies showed the difference in socio-economic status of F2F learners and ODL learners and their relationship with academic performances (Rao, 2010; Udegbe, 2012). Some attempts were made in the earlier studies to ascertain the role of demographic variables like age, gender, marital status etc. of the participants on the selection of mode and their relationship with the effectiveness of their learning (Saxena, 2000, Gogoi & Hazarika, 2009; Halder, 2012). Some studies have indicated the role of attitude, behavioural and problem solving skills in tourism and hospitality education (Shaw & Williams, 1994; Raybould & Wilkins, 2005; Harkinson & Kim, 2011).

No investigator has studied socio economic status, study habits, attitude of

the learners towards various aspects of learning, challenges faced by the administrators, effectiveness as perceived by the potential employers towards both F2F and ODL mode together for tourism and hospitality courses. The perception needs to be understood for delivery of student support services (Rao 2014). The present study is therefore an attempt toward filling up this research gap and making a contribution towards the solution of the problem.

3   The Research Question, Objectives, Hypothesis and Methodology

Research question: Do the learners of the tourism and hospitality courses have different perceptions on the effectiveness of the courses offered through F2F and ODL mode?

Research Objective: To conduct a comparative study on the perceived effectiveness of the courses amongst the learners of tourism and hospitality courses offered through F2F and ODL mode.

Null Hypothesis [H_0]: "There is no significant difference in the learners' perception on the effectiveness of Face to Face (F2F) and Open and Distance Learning (ODL) mode in hospitality and tourism education".

Alternative Hypothesis [H_1]: "There is significant difference in the learners' perception on the effectiveness of Face to Face (F2F) and Open and Distance Learning (ODL) mode in hospitality and tourism education".

Research Methodology: The study considered passed out participants of tourism and hospitality courses either through F2F or ODL mode and who are employed in Assam only. Efforts were made to elicit information on the perception of the learners about the effectiveness of the courses. This was done with the help of a Questionnaire. Interaction with the placement coordinators in the institutions guided the researchers in selecting the organizations. With that initial lead, snowball sampling was adopted. Ultimately forty five organizations were visited in 2015 for collection of data on learners' perception. Responses could be generated from one hundred and sixty (160) numbers of learners (100 F2F mode and 60 ODL mode) who completed hospitality & tourism related courses.

While selecting the organizations, it was seen that various categories of hotels, restaurants, outdoor caterers, tour operators and travel agents were represented. To that extent the researcher was guided by the principles of judgmental sampling. Probabilistic sampling procedure was not employed in this study owing to the absence of any proper sampling frame for the populations from which such data were being gathered. There remains some apprehensions regarding the employment of such tools as non-probabilistic sampling procedure was used. However, considerable efforts were made in selection of the institutions

and this measure is likely to take care of the deficiencies as may be observed in non-adoption of probabilistic sampling.

The dependent variable in this study was effectiveness of hospitality and tourism study through F2F and ODL mode. Parameters taken to find the effectiveness were course content, study materials, practical training, teaching and training experiences and industry specific content. The independent variables in this study were age, gender, marital status and the level of the course undertaken. Cross tabulations were used to establish relationships between different variables. Independent t – test and One-way ANOVA tests were used to establish the significance of the relationships between the variables. The confidence level was set at 0.05 (95%) as recommended for most descriptive researches.

4   Findings

Inferential statistical analysis has been conducted to test the validity of the null hypothesis with the help of Statistical Package for the Social Sciences (SPSS - 16) module in respect of course content, study materials, practical training, industry specificity etc. The findings are presented below.

4.1   One-way ANOVA Test for Age Group and Effectiveness of Course Contents

One-way ANOVA was conducted through SPSS Module -16 to ascertain whether there were significant differences among the means of the respondent learners' rating of the effectiveness of the contents of F2F and ODL courses in tourism and hospitality based on their age groups at $\mu= 0.05$. For this purpose, the latter was taken as the independent variable, while respondents' rating of the contents of the F2F and ODL courses were taken as the test dependent variable.

Table 1 ANOVA- Age group and Effectiveness of Course Contents (F2F mode)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.120	2	.560	2.284	0.107
Within Groups	23.790	97	.245		
Total	24.910	99			

It is noticed the null hypothesis among the above means in case of F2F courses based on their age groups cannot be rejected at $\mu= 0.05$ (*p*-value= 0.107 more than $\mu= 0.05$). This implies that there are no significant differences among

the above means based on their age groups. As such, age may not be an important parameter with respect to learners' rating of the effectiveness of contents of F2F courses. Similarly, one way ANOVA results also indicated that there were no significant differences among the means of effectiveness of course contents of ODL mode based on their age groups (*p*-value= 0.202 more than μ= 0.05). Therefore, age may not be a significant element in case of learners' rating of the contents of the ODL courses. These analyses verify that students' rating of the effectiveness of course contents of both F2F and ODL courses in tourism and hospitality bears a similarity of being independent of their ages. This partly verifies the overall hypothesis that there is no significant difference between F2F and ODL mode of education.

Likewise, One-way ANOVA was carried out to determine whether there were significant differences in the means of the learners' rating of the study materials, practical training, teaching and training experiences and industry specific contents of the courses offered through F2F and ODL modes in Tourism and Hospitality based on their age groups at μ= 0.05. The results of these analyses are discussed in the following sections.

4.2. One-way ANOVA Test for Age Group and Effectiveness of Study Materials

Regarding the effectiveness of Study Materials; the findings for F2F mode based on their age groups cannot be rejected at μ= 0.05 (*p*-value= 0.331 more than μ= 0.05).

Whereas for ODL mode the results indicated *p*-value= 0.367 more than μ= 0.05. Hence, null hypothesis cannot be rejected.

Therefore, it implies that there are no significant differences among the above means based on age groups of scholars in both cases of F2F and ODL modes with reference to the effectiveness of Study Materials.

4.3 One-way ANOVA Test for Age Group and Effectiveness of Practical Training

Again, respondents' rating with regard to Practical Training revealed that for F2F mode its *p*-value= 0.616 more than μ= 0.05. Hence, there are no significant differences among the above means based on their age groups.

However, in case of ODL mode for this parameter of Practical Training the *p*-value= 0.024 is less than μ= 0.05. Therefore, it implies that null hypothesis is rejected in this case.

Table 2 Mean of Effectiveness of Practical Training for Distance Mode (ODL) across the Age of respondent scholars

Age	N	Mean
Below 20 years	1	1.00
Between 20 to 35 years	51	1.71
Between 36 to 50 years	8	2.38

Descriptive statistics in Table 2 indicated that the mean of effectiveness of Practical Training in case of Distance Mode (ODL) is highest for scholars in the age group between 36 to 50 years. However, the same mean is lowest for scholars below 20 years. Therefore, effectiveness of practical training in ODL mode is perceived to be highly important among scholars in the age group between 36 to 50 years. Similar perception regarding practical training in ODL mode is perceived to be less significant among scholars below 20 years.

4.4. One-way ANOVA Test for Age Group and Effectiveness of Teaching and Training Experience

Likewise, as per the factor Teaching and Training Experience for F2F mode is concerned the p-value= 0.257 i.e. more than µ= 0.05. Hence, the null hypothesis is not rejected.

For ODL mode as far as Teaching and Training Experience factor is concerned the p-value= 0.717 hence, it is more than µ= 0.05. Therefore, the null hypothesis is not rejected here also.

4.5. One-way ANOVA Test for Age Group and Effectiveness of Industry Specific Content

For the dependent variable "Presence of Industry Specific Content in the Course" for F2F mode p-value= 0.898 which is greater than µ= 0.05. Thus, the null hypothesis is redundant here also.

Similarly for ODL mode in case of the dependent variable "Presence of Industry Specific Content in the Course" the p-value= 0.867 which is also more than µ= 0.05. As a result, the null hypothesis is not rejected here too.

4.6. Independent t-test on the basis of Gender and Effectiveness of Course Content

Independent sample t-test was carried out by using SPSS Module - 16 to find out whether there is significant difference between the means of the learners' rating of the effectiveness of course contents of F2F and ODL courses in tourism and hospitality based on their gender at µ= 0.05. So, the gender is taken as the grouping (independent) variable, while respondents' rating of the effectiveness of course contents of the F2F and ODL courses are taken as the

test (dependent) variable.

The results of the above analysis indicates that there is equality in the above means in case of F2F mode based on their gender and hence cannot be rejected at $\mu= 0.05$ (p-value= 0.635 more than $\mu= 0.05$). This implies that there are no significant differences among the above means based on their gender. As such, gender may not be an important consideration with respect to learners' rating of the contents of hospitality and tourism courses in F2F mode. Similarly, results of independent sample t-test indicated that there are no significant differences among the above means of learners' rating of the effectiveness of course contents in ODL mode in tourism and hospitality based on their gender at $\mu= 0.05$ which is less than p-value= 0.220.

Likewise, a series of independent sample t-tests were carried out to determine whether there were significant differences in the means of the learners' rating of the study materials, practical training, teaching and training experiences and industry specific contents of F2F and ODL courses in tourism and hospitality based on their gender at $\mu= 0.05$.

Also, a series of independent sample t-tests were carried out with the same motive with respect to marital status, and the level of tourism and hospitability courses [Diploma and Masters Level] pursued by the respondents. The results of these analyses are discussed in the following sections.

4.7. Independent t-test on the basis of Gender and Study Material

On the subject of effectiveness of Study Materials of hospitality and tourism courses the findings for F2F mode based on the gender of the learners, the null hypothesis cannot be discarded at $\mu= 0.05$ (p-value= 0.449 more than $\mu= 0.05$).

Similarly, for the ODL mode in case of effectiveness of Study Materials of hospitality and tourism courses the findings based on the gender of the learners, the null hypothesis cannot be discarded at $\mu= 0.05$ as p-value= 0.055 which is more than $\mu= 0.05$.

4.8. Independent t-test on the basis of Gender and Practical Training

Independent sample t-test indicated that there are no significant differences among the means of learners' rating of the effectiveness of practical training of F2F courses in tourism and hospitality based on their gender at $\mu= 0.05$ which is less than p-value= 0.322. As such, gender may not be an important consideration with respect to learners' rating of the practical training of the F2F courses.

On the other hand, the same cannot be said about the ODL mode as far

as gender and effectiveness of practical training was concerned. This is because *p*-value= 0.012 in case of Independent sample t-test is less than μ= 0.05.

Descriptive statistics in Table 3 indicates that the mean of effectiveness of practical training in case of Distance Mode (ODL) is higher for female learners in comparison to male learners. Therefore, effectiveness of practical training in ODL mode is perceived to be more important among female learners compared to male learners.

Table 3 Mean of Effectiveness of Practical Training for Distance Mode (ODL) across Gender of the Respondents

Gender	N	Mean
Male	39	1.62
Female	21	2.10

4.9. Independent t-test on the basis of Gender and Teaching and Training Experience

Likewise, the findings for F2F mode with respect to the factor teaching and training based on their gender indicate the null hypothesis cannot be discarded at μ= 0.05 (*p*-value= 0.535 more than μ= 0.05).

Again for the ODL mode for the issue of teaching and training, the findings based on the gender of the learners indicate the null hypothesis cannot be discarded at μ= 0.05 as *p*-value= 0.531 which is more than μ= 0.05.

4.10 Independent t-test on the basis of Gender and Industry Specific Content

As regards to Industry Specific Content based on their gender the independent t-test confirm the *p*-value= 0.132 which is more than μ= 0.05 and hence null hypothesis cannot be rejected for F2F mode.

Regarding the ODL mode for Industry Specific Content based on their gender the independent t-test substantiate the *p*-value= 0.926 which is more than μ= 0.05 and hence null hypothesis cannot be discarded.

4.11 Independent t-test on the basis of "Marital Status" of the Respondents

The "Test Variables" taken are on effectiveness of the following factors about the hospitality and tourism courses delivered either through F2F or ODL modes:
  (i)   Effectiveness of the Course Contents
  (ii) Effectiveness of the Study Materials
  (iii) Effectiveness of Practical Trainings
  (iv) Teaching and Training Experiences
  (v)   Industry Specific Contents

The "Group Variable" is taken as "Marital Status" where 1= Married and 2= Unmarried.

The findings are as follows.

4.12 Independent t-test on the basis of "Marital Status" and Effectiveness of Course Content

In case of "effectiveness of course contents" for Regular Mode [F2F] of hospitality and tourism course the null hypothesis is rejected at μ= 0.05 (*p*-value= 0.020 being less than μ= 0.05). This implies there are differences between the above means based on their marital status.

Course Content for Regular Mode (F2F) : Descriptive statistics in Table 4 indicates that the mean of effectiveness of course content in case of regular mode (F2F) is higher for unmarried learners in comparison to married learners. This indicates that for unmarried scholars, effectiveness of course contents in F2F mode is more important compared to married learners.

Table 4 Mean of Effectiveness of Course Content through F2F mode across Marital Status of the Respondents

Marital Status	N	Mean
Married	13	1.23
Unmarried	87	1.57

As for the "effectiveness of the Course Contents" for Distance Mode (ODL) of hospitality and tourism course based on their marital status, the null hypothesis cannot be discarded at μ= 0.05 as *p*-value= 0.101 which is more than μ= 0.05.

4.13 Independent t-test on the basis of "Marital Status" and Effectiveness of Study Materials

Regarding effectiveness of the Study Materials, the findings and its related interpretation are as follows:-

Here again, it is observed that null hypothesis cannot be rejected at μ= 0.05 (*p*-value= 0.287 being more than μ= 0.05) for the F2F mode.

In the same way, for ODL mode, it is observed that at μ= 0.05 (*p*-value= 0.264 being more than μ= 0.05) the null hypothesis cannot be abandoned for the factor "effectiveness of Study Materials" with respect to the Marital Status of the respondents.

4.14 Independent t-test on the basis of "Marital Status" and Effectiveness of Practical Training

For the factor "effectiveness of practical training" the observations and its corresponding findings are enlisted below.

The null hypothesis with reference to "effectiveness of practical training" vis-à-vis marital status of the respondents from F2F mode stood valid as at $\mu= 0.05$ the *p*-value= 0.153 which is more than $\mu= 0.05$.

In case of ODL mode, the findings suggested that the null hypothesis was redundant at $\mu= 0.05$ (*p*-value= 0.021 less than $\mu= 0.05$). This implies there are differences among the above means based on their marital status while considering the "effectiveness of Practical Training".

Descriptive statistics in Table 5 indicated that the mean of effectiveness of practical training in case of distant mode (ODL) is higher for married learners in comparison to unmarried learners. This indicates that for married learners, effectiveness of practical training in ODL mode is more important compared to unmarried learners.

Table 5 Mean of Effectiveness of Practical Training Distance Mode (ODL) across Marital Status of the Respondents

Marital Status	N	Mean
Married	17	2.12
Unmarried	43	1.65

4.15 Independent t-test on the basis of "Marital Status" and Effectiveness of Teaching and Training Experience

The survey result of the relation of test variable "Effectiveness of Teaching and Training Experience" with that of group variable "Marital Status" is depicted below for the F2F mode in hospitality and tourism course:

Table 6 Independent Samples Test- Marital Status and Effectiveness of Teaching and Training Experience for F2F Mode

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Differ-ence	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Effectiveness of Teaching and Training Experience	Equal variances assumed	2.689	.104	2.031	98	.045	.332	.164	.008	.657
	Equal variances not assumed			1.403	13.318	.183	.332	.237	-.178	.843

Here null hypothesis is rejected at μ= 0.05 (*p*-value= 0.045 less than μ= 0.05). It implies that there is a significant difference between the means of married and unmarried group.

Descriptive statistics in Table 7 indicates that the mean of effectiveness of practical training in case of regular mode (F2F) is higher for married learners in comparison to unmarried learners. This indicates that for married learners, effectiveness of teaching and training experience in F2F mode is more important compared to unmarried learners.

Table 7 Mean of Effectiveness of Teaching and Training Experience in F2F mode across Marital Status of the Respondents

Marital Status	N	Mean
Married	13	1.77
Unmarried	87	1.44

Again, for ODL mode as far as teaching and training experience factor is concerned, the *p*-value= 0.145 hence it was more than μ= 0.05. Therefore, the null hypothesis cannot be rejected and remains valid.

4.16 Independent t-test on the basis of "Marital Status" and Presence of Industry Specific Content in the Course

The t-test conducted for "Presence of Industry Specific Content in the Course" gives the following results for F2F mode and ODL mode with reference to the Marital Status of the respondents of hospitality and tourism courses.

In the case of F2F mode, the null hypothesis is not rejected as at μ= 0.05 (*p*-value= 0.609 being more than μ= 0.05) for the "Presence of Industry Specific Content in the Course" vis-à-vis marital status.

For ODL mode in case of the test variable (dependent factor) "Presence of Industry Specific Content in the Course" in relation to that of the group variable (independent factor) marital status of the respondent learners the null hypothesis cannot be discarded at $\mu= 0.05$ as *p*-value= 0.491 which is more than $\mu= 0.05$.

4.17 Independent t-test on the basis of level of the Hospitality and Tourism Course undertaken by the Respondents

In this section the validity of the null hypothesis has been discussed depending upon the outcome of the independent t-test results. The "test variables" for the t-test remained same as spelt out earlier. The "group variable" is the level of the hospitality and tourism course that the respondents undertook. Keeping in view that the maximum number of respondents in the ODL mode are either enrolled in Diploma or Master levels; hence these two levels are selected for running the test.

4.18 Independent sample t-test on the basis of level of the Hospitality and Tourism Courses and Effectiveness of Course Contents

Following are the findings for the "test variable" of "Effectiveness of Course Contents" under both Regular (F2F) and Distance (ODL) modes for Diploma and Master Level courses in hospitality and tourism course.

It is observed that at $\mu= 0.05$ (*p*-value= 0.022 being less than $\mu= 0.05$) the null hypothesis be rejected for the factor "effectiveness of Course Content" with respect to the Diploma Level for hospitality and tourism courses.

Descriptive statistics in Table 8 indicates that the mean of effectiveness of Course Contents is higher under distance mode (ODL) of Diploma Level courses in hospitality and tourism course. This indicates that effectiveness of Course Contents is higher under Distance Mode (ODL) than Regular (F2F) Mode of Diploma Level courses in hospitality and tourism.

Table 8 Mean of Effectiveness of Course Contents under Diploma Level Courses in Hospitality and Tourism

Diploma Level Course	N	Mean
Regular	33	1.36
Distance	43	1.63

However, in case of Masters Level in courses of hospitality and tourism; null hypothesis cannot be rejected at $\mu= 0.05$ (*p*-value= 0.585 being more than

$\mu= 0.05$).

Hence, it can be concluded that for the learners, the course content in master level are effective for both F2F and ODL modes.

4.19 Independent t-test on the basis of level of the Hospitality and Tourism Courses undertaken by the Respondents and Effectiveness of Study Materials

The findings of the survey when analysed revealed that the null hypothesis cannot be rejected for the factor "effectiveness of Study Materials" at $\mu= 0.05$ as *p*-value= 0.784 which is more than $\mu= 0.05$ for the Diploma Courses in hospitality and tourism.

Even for the Master Level courses too, null hypothesis cannot be discarded at $\mu= 0.05$ as *p*-value= 0.121, which is more than $\mu= 0.05$.

Hence, it indicates that the "effectiveness of Study Materials" for both the Diploma and Master Level's courses in hospitality and tourism are accepted by the respondent learners.

4.20 Independent t-test on the basis of level of the Hospitality and Tourism Course undertaken by the Respondents and Effectiveness of Practical Training

The survey findings for "effectiveness of practical training" in both Diploma and Master Level's in hospitality and tourism are as follows:

As results revealed the null hypothesis for the Diploma Courses in tourism and hospitality could not be rejected at $\mu= 0.05$ as *p*-value= 0.173 which was more than $\mu= 0.05$.

In case of Master Level of tourism and hospitality courses also; the null hypothesis cannot be rejected with *p*-value= 0.106 which is more than $\mu= 0.05$ for the factor "effectiveness of practical training."

Hence, in both cases of Diploma and Master Level's on tourism and hospitality courses, the "effectiveness of practical training" is found to be adequate by the respondent learners.

4.21 Independent t-test on the basis of level of the Hospitality and Tourism Course undertaken by the Respondents and Effectiveness of Teaching and Training Experience

Now, the findings of the survey on the test variable "effectiveness of Teaching and Training Experience" vis-à-vis group variable the level of the course in hospitality and tourism are as follows.

The null hypothesis cannot be discarded here also for the Diploma Level course at $\mu= 0.05$ as the *p*-value= 0.121 which is more than $\mu= 0.05$.

But for Master Level course as far as teaching and training experience factor is concerned the *p*-value= 0.011 hence it is less than $\mu= 0.05$. Therefore,

the null hypothesis is rejected in this case.

Descriptive statistics in Table 9 indicates that the mean of effectiveness of teaching and training experience is higher under distance mode (ODL) of Master Level courses in hospitality and tourism course.

Table 9 Mean of Effectiveness of Course Contents under Diploma Level courses in Hospitality and Tourism

Master Level Course	N	Mean
Regular	11	1.73
Distance	17	2.18

4.22 Independent t-test on the basis of level of the Hospitality and Tourism Course undertaken by the Respondents and Presence of Industry Specific Contents

Lastly, the responses for the test variable "Presence of Industry Specific Contents in the Course" throw up following observations that can be interpreted as follows:

Null hypothesis for Diploma Level courses in tourism and hospitality for the above variable cannot be rejected at $\mu= 0.05$ as *p*-value= 0.074 which is more than $\mu= 0.05$.

Similarly, for Master Level courses null hypothesis cannot be rejected; in this case at $\mu= 0.05$ as *p*-value= 0.394 and it is more than $\mu= 0.05$.

4.23 Discussion

It was therefore observed that out of 40 tests of the null hypothesis using two types of tests e.g. One-way ANOVA and Independent t-test conducted through SPSS Module – 16; the null hypothesis cannot be rejected except for 7 tests (i.e.17.5%).

5   Conclusion

An overall analysis of the null hypothesis adopted for this research that there is no significant difference in the effectiveness of F2F and ODL mode of education in hospitality and tourism education stands good.

The tourism and hospitality industry in India is going through an interesting phase. One of the major reasons for the increase in demand for hotel rooms in the country is the boom in the overall economy and high growth in sectors like information technology, telecom, retail and real estate. Rising stock market and new business opportunities are also attracting hordes of foreign investors

and international corporate travellers to look for business opportunities in the country.

As the conventional F2F mode of tourism and hospitality courses failed to cope up with the growing demand of trained manpower, the alternative avenue of open and distance learning (ODL) for the hospitality and tourism industry is the best option. Hence, the challenges for hospitality and tourism educators is to find a dependable alternative to respond to the external environment of shortages of trained qualified manpower through both the modes in a manner that it best meet the needs of the national priorities, industry and students. Towards this goal, the beacon of hope seems to be ODL mode as its effectiveness is proved in the overall analysis, where the null hypothesis adopted for this research showed no significant difference between F2F and ODL mode of education in different level of courses offered in hospitality and tourism.

References:

Adoye, A. F. & Salawu, I. O. (2010). Learners' Choice and Perception of Distance Learning Degree Programme of the National Open University of Nigeria, *Indian Journal of Open Learning.* Retrieved from http://ignouline.ac.in/iojp/.../archive

Baishya, A. (2013). *Entrepreneurships in Hospitality Industry in Assam: Study and Prospects,* Unpublished paper, Gauhati University, Guwahati.

Bajwa, N., Gujjar, A. A., Shaheen, G. & Ramzan, M. (2011, July). A comparative study of the study habits of the students from formal and non-formal systems of education in Pakistan, *International Journal of Business and Social Science. 2 (14).* 175-186. Retrieved from http://ijbssnet.com/journals/Vol._2_No._14;_July_2011/20.pdf

Bhatnagar, S.K (2011). *Friendly and generous reception and entertainment of guest,* Front Office Management, Frank Bros & Company.

Gogoi, M. & Hazarika, M. (2009). Awareness and Attitude of the College Students Towards Open and Distance Learning*, Journal of All India Association for Educational Research. 21, (2).* Retrieved http://www.aiaer.net/ejournal/vol21209/8.Gogoi%20&%20Hazarika.pdf

Halder, U. K. (2001). A Study on Distance Learners' Attitude towards Distance Education*, Indian Streams Research Journal, 2 (7).* DOI: 10.9780/22307850

Harkison, T., Poulston, J. & Kim, J. H. G. (2011). Hospitality Graduates and Managers – The Big Divide. *International journal of Contemporary Hospitality Management, 23(3),* 377-392.

Lam, T., & Xiao, H. (2010). *Exploring Chinese Tourism Curriculum – A Case Study of Gulin Institute of Tourism.* Retrieved from http:// eprints.bournemouth.ac.uk

Mugenda, A. and Mugenda, O. (2003). *Research Methods: Quantitative and Qualitative Approaches.* Nairobi: African Centre for technology Studies.

Rao, G. & Vijaye, S. (2010). Socio Economic Impact on the performance of Distance Learners: A case study of IDOL, University of Mumbai. *International Research Journal, 1(14)*

Rao, S. R. (2004). *Administration of Student support services in distance education: A case study of Dr. B.R. Ambedkar Open University.* Unpublished Thesis, University of Hyderabad, Hyderabad. Retrieved from http://vidhyanidi.org.in

Raybould, M. & Wilkins, H. (2005). Over qualified and under experienced – Turning Graduates into Hospitality Managers. *International Journal of Contemporary Hospitality Management, 17(3)*, 203-216.

Saxena, A. (2000). *The Distance Learner - A Sketch from India,* ICDE Asia Souvenir, New Delhi, India: IGNOU.

Sharma. K. (2015), Are we ready for the boom? *Hospitality Bizz, December 16-31, (7).*

Shaw. G. and Williams, A. M. (1994). *Critical Issues in Tourism: A Geographical Perspective.* Oxford, UK : Basil Blackwell. p 280.

Udegbe B. (2012). Attitudes of Prospective Human Resource Personnel towards Distance Learning Degrees. *Online Journal of Distance Learning Administration, 15 (1).* Retrieved from http://www.westga.edu/~distance/ojdla/spring151/udegbe.html

UNWTO Annual Report 2015 (2015). Retrieved from http:// scribd.com/.../ UNWTO-Annual-Report-2015