
A novel statistical approach to an event management – a study and analysis of a Techfest with suggestions for improvements

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Abstract: Events play a vital role in day-to-day life, either in a casual or a professional manner. Some formal events that occur routinely over a period of time, needs to be successful to become sustainable. Event management strategies vary consistently as the choices of different people and even the same people change as time progresses. Educational institutions showcase their talents by organising annual fests, gather likeminded people from various institutions to exhibit their talents and gain knowledge. These events need to be successful in order to attract audience and sustain over a long time. This study aims to study about various aspects of Anokha 2016, the sixth annual Techfest of Amrita School of Engineering, so as to improve Anokha 2017. The paper investigates various aspects that remained the favourite and also the aspects that were not up to the expectations of the participants, and the suggestions to improve these aspects have also been discussed.

Keywords: event management; Techfest; educational institution; reliability analysis; construct validity; hypothesis testing.

Reference to this paper should be made as follows: Narassima, M.S. and Vasudevan, S.K. (2023) 'A novel statistical approach to an event management – a study and analysis of a Techfest with suggestions for improvements', *Int. J. Advanced Intelligence Paradigms*, Vol. 24, Nos. 1/2, pp.49–69.

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1 Introduction

Events, part of our habitual life dates back to thousands of years (Pernecky, 2015). Events are generally regarded as gathering of different groups of people with a common purpose such as celebration in a locality, a historic occasion, a sporting event, music or cultural events and so on (Event Scotland, 2006). There are always uncertainties associated with every event, with its enormity depending on the complexity of event (Event Scotland, 2006; Ellert et al., 2015). Hence, managing events are of major concern. Event management is one of the rapidly developing areas owing to its strategic ingredient (<https://en.wikipedia.org/wiki/Techfest>). Event management may refer to organising sporting, political, technical, cultural or business events. Managing events differ across various streams of services, for instance, handling services offered by healthcare industry totally contrasts from that of banking or manufacturing industry (<https://en.wikipedia.org/wiki/Techfest>). Hence, event management strategies vary depending on the nature, size and type of event to be organised. One of the common measures to determine the growth rate, success or failure of an event may be determination of number of participants who turn up for subsequently organised events. Whereas, success of an event, qualitatively may be determined by the level of satisfaction and involvement of participants. Hence, it is important to collect feedbacks and suggestions from the participants and guests, as it throws light on the areas to be improved in successive events. Two major concerns for growth of events are sustainability and leadership (Pernecky, 2015; <https://en.wikipedia.org/wiki/Techfest>). Qualitative aspects that constitute the complexity and uncertainty for organising an event include managing uncertainties, risk management, problem solving and so on. Key events have to be largely taken into account, considering every detail that needs to keep the integrity of the event (Ellert et al., 2015). Also, the occurring of such events must reach the target group well before the schedule to enable them to plan accordingly. There is always a resistance offered towards advertisements or promotions, since they consider it as a way of persuading audience (<https://en.wikipedia.org/wiki/Techfest>; Fransen et al., 2015). The hosts/event managers often follow a neutralising tactics to overcome the resistance offered (Fransen et al., 2015). Often people suspect that these promotions tend to create a false image about the existence of necessity to use the products or services offered (Luonila et al., 2015). Hence, the promotions must precisely project the cause, purpose and scheduled activities of the event.

This research intends to present about totality of organising a technical and cultural event in an educational institution. The concepts, concerns and solutions discussed may be of higher relevance to Indian context. Technical or cultural events in colleges are

organised in order to showcase the work done by their students through workshops and exhibitions and to gather like-minded students from other universities so as to enable them to participate in the events of their interest. The grandiosity of the event determines/symbolises the calibre of the students and staff of the host. Hence, universities tend to encourage their students to bring the best out of them. The design of event must be purely based on the target audience (Event Scotland, 2006). All proceedings need to be managed effectively to make the overall event a grand success. External factors such as location, time availability, accessibility, similar happenings or events in surroundings etc. must be taken into account before scheduling the event (Event Scotland, 2006; Event Management Handbook, 2008). Similar events conducted can be analysed to know about the important aspects to be considered, to detect the preferences of participants and to know the practical limitations (Event Management Handbook, 2008). Resource availability is a major aspect to be taken into account as the schedule is based on the available resources such as man power, space, time etc., neglecting resource availability may lead to poor planning which in turn may initiate problems such as, delay in schedule of a workshop or event which also leads to clashes in venues of various events, insufficient space for staying or organising etc., (Event Scotland, 2006; Event Management Handbook, 2008). These issues create a negative impact about the event on the minds' of participants, reducing the overall effectiveness of the event.

2 Theoretical foundation

Any annual event organised broadly shelters technical and cultural events. Technical knowledge and artistic expertise of students and staff are displayed through the technical events, workshops, or competitions hosted. The managerial facets can be mastered through sheer experience, however, there is a scope to improve the managerial skillset by motivation. It is believed that students' perceptions about their own skills can be increased by a good teacher-student relationship (Laura and Kaplan, 2015). Positive teacher-student relationships promotes psychological development of students, which is of high importance as it helps to achieve an overall evolution. An educational institution needs to be able to offer the apt platform for students to improve inter-personal skills (Laura and Kaplan, 2015). This enables students to gain self-confidence to organise and manage events. The roles and responsibilities of members organising must be well defined and made clear (Event Scotland, 2006). They must be aware of their hierarchical position and communicate with other members along the chain to maintain integrity. This would result in an uninterrupted flow of information along various echelons.

Several universities have been hosting technical and cultural festivals. But, relatively only a little documentation has been done to analyse about the aspects of improvement for both technical and cultural festivals being conducted. There seems to be a higher degree of importance to analyse the tech-fest completely by hosts in order to find out the areas that need to be addressed to improve the effectiveness of the event. This is possible if the hosts/organisers understand the requirements and expectations of the participants (Event Scotland, 2006). This can be achieved by understanding the mindset of the participants appearing for workshops or events. The host must be able to deliver understandable contents in workshops conducted so as to make the participants understand the theme and purpose of the workshops. The workshops held must be such that they always keep the participants engaged, which would make them in line with the

organisers and would keep the process uninterrupted. Competitions and events held must carry a theme which is beneficial for participants and which has a positive impact on society. This would attract people to attend these events and also motivate them to deliver better as they start thinking of the positive outcomes of the event. Hint of fun can be added along the course of events to keep the process lively, without disturbing the actual progress of events and also keep the participants involved in the event. Centralised management and use of tools help to present better (IBM Corp., 2004). From the Table 1 one can get to know some of the well-known annual fests hosted by universities across India.

Table 1 Reputed annual fests in India

<i>Fest name</i>	<i>Host</i>	<i>Start date</i>	<i>Type</i>
ATMOS	BITS Pilani, Hyderabad Campus	2012	Techno-management
Technika	Birla Institute of Technology, Mesra	2009	
Exodia	Indian Institute of Technology, Mandi	2012	Techno-cultural
Horizon	Indira Gandhi Institute of Technology, Sarang	2013	Techno-cultural
Deep Woods	Madras Christian College (MCC)	1980	Cultural
Tathva	National Institute of Technology Calicut at Kozhikode	2002	Techno-management
Techfest	IIT Bombay	1998	Techfest
Techkriti	IIT Kanpur	1995	Technology and entrepreneurship
Techofes	College of Engineering, Guindy	1948	Social and cultural festival

Though many of the technical, cultural or managerial fests hosted annually are improving, documentation widens the room to identify the areas of improvement, organise events in a better way, and deliver a better service to the participants. This is possible only if the hosts are able to read the minds of participants and act accordingly. There are some notable features and achievements about the fests mentioned above. Deep woods hosts a multi-lingual music show which attracts people from different ethnic backgrounds. MCC, being the host, does not participate in the festival. The fest gathers almost 30000 people from all over India. Techkriti organises a health campaign alongside with the hospitals of Kanpur and Lucknow. Techfest, hosted by IIT Bombay, has been awarded by UNESCO for promotion of technical knowledge and by UNICEF and for social causes. Model United Nations Conference hosted by BITS Pilani, Hyderabad is collaborated with ATMOS. ATMOS encompasses events such as Enigma, Robowars, BITS MUN Hyderabad etc. events such as Gully Cricket, Troubleshooting, Google It, Junkyard wars are some of the noteworthy events of Horizon. The fest attracted more than 500 participants for the treasure hunt; featured music by multiple bands from across the state.

3 Research framework

This research presents about the success of the tech-fest Anokha 2017, considering various aspects of Anokha 2016, the sixth national level Tech-Fest of Amrita School of Engineering. Anokha 2016 was hosted at Amrita University, Coimbatore from 18th to 20th February, 2016, the Tech-Fest comprised of over 100 events. Over 15,000 students participated from more than 300 institutions and universities from India and abroad. Anokha 2016, being the first tech-fest in India with United Nations Academic Impact (UNAI) accreditation, has attracted students from some of the most prestigious institutions in the country such as the IITs, NITs, IIITs, and BITS Pilani. Current year's theme, 'Sustainably Developed Technopolis', was in line with UN Sustainable Developed Goals (SDG). It is noteworthy that students from the US, Indonesia, Cameroon, Morocco and Egypt were also present. A series of workshops and competitions were held across various branches of engineering. Seventy-five competitions and events which included robotics, pitchfest, business, social entrepreneurship, gaming and short film making and 24 workshops such as IBM Bluemix, Mozilla Hackfest, Horner Automation, CANSAT – Satellite Design, RC Aircraft and underwater robotics were some of the major aspects.

Anokha 2017 was hosted from 2nd to 4th March, 2017. The theme of the fest was Innovation, focused for social benefit. The notable events showcased in the fest include 75+ events, 30+ workshops, lecture series of successful people from different paths of life etc. The Techfest also featured Techexpo of Indian air force, Indian army, wildlife photography, Robert Bosch and various departments. Major highlights of the fest were events such as cubing royale, drones competition, quiz and explore the Techexpo. These events provided opportunities for school children to participate. Workshops from Amazon, Mathworks, Cisco, Ansys, National Instruments and IGCAR were noteworthy. Eventide Musical show was an ultimate entertainment which featured renowned playback singers and musicians.

4 Research methodology

4.1 Data acquisition

A questionnaire was framed to collect various information about the host and participants. The questionnaire collected demographic, technical and managerial details and also views about the events and/or workshops attended by the participants (participants include people from host institution and other institutions). The questions about various aspects of Anokha were on a scale of 1 to 5, with 5, 4, 3, 2 and 1 indicating Excellent, Very Good, Good, Average and Needs Improvement respectively. Four constructs were believed to contribute towards the success of the event, namely, Event easiness, Event administration, Event maintenance, Event integrity. Each construct had sub-groups with one or more items in each group. It is always important to calculate the consistency of the questions. Hence, appropriate tests have been carried out to validate the constructs and to check the dependency of hypothesis developed. The statistics of the responses are discussed in the upcoming sections. Also, various aspects of Anokha 2016 and Anokha 2017 have been compared, highlighting the improvements made in the later fest with the help of results gathered from the former fest. (Annexure)

Table 2 Reliability and construct validity

<i>Constructs and items</i>			<i>Factor loading</i>	<i>Eigen value</i>	<i>Cronbach's 'α'</i>
Event easiness	Response elements	Discussion time	0.72	3.935	0.64
		Interaction	0.53		
		Questions answered	0.72		
	Expectations Resources	Expectations	0.71		
		Handouts	0.77		
		Equipment working	0.51		
Event administration	Managerial aspects	Entertainment	0.57	3.838	0.6
		Food	0.79		
		Hospitality	0.69		
	Functional efficiency	Cost	0.83		
		Scheduling	0.58		
	Fulfilment	Overall satisfaction	0.56		
Event maintenance	Grade	Overall rating	0.68	3.482	0.73
	Personnel in charge	Coordinator friendly	0.68		
		Judgment	0.64		
	Event Construction	Presentation relevance	0.57		
		Booklet info	0.66		
	Event structure	0.57			
Event integrity and usefulness	Morality	Instructions	0.72	3.351	0.55
		Individual guidance	0.82		
		Etiquette	0.57		
	Growth	Skill improvement	0.59		

4.2 Reliability and construct validity

In order to examine the reliability of constructs, Cronbach's 'α' values were calculated. Cronbach's 'α' values indicate the intercorrelations among items measuring a single construct (https://en.wikipedia.org/wiki/Cronbach%27s_alpha). From table ##, it is seen that the Cronbach's 'α' values are greater than 0.5, which indicates that the values are acceptable (https://en.wikipedia.org/wiki/Cronbach%27s_alpha; Hung and Jen, 2012). Factor analysis was performed to identify the latent items that load together and their loading patterns (Hung and Jen, 2012; Ma et al., 2016). Constructs or items that load poorly can be dropped as they are considered to have negligible effect on the overall model. When the items are believed to be strongly correlated, oblique rotation is

performed. Else, if the correlations among items are unclear, orthogonal rotation is performed. Henceforth, varimax rotation was performed after extraction (Hung and Jen, 2012). Factor loading for all items are greater than 0.5 (Table 2), which indicates adequate convergence or correspondence between similar constructs. Also, the convergent validity of the measurement model is found to be significant (Hung and Jen, 2012; Ma et al., 2016).

KMO value (Table 3) is greater than 0.5 indicating adequate sustainability. P-value obtained by Bartlett’s Test of Sphericity is less than 0.001, confirming a strong relationship among items.

Table 3 KMO and Bartlett’s test of sphericity

<i>Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy</i>		<i>0.930</i>
Bartlett’s test of sphericity	Approx. chi-square	3,989.79
	df	231
	Sig.	0.000

4.3 Hypothesis testing

Figure 1 has got the four constructs which are believed to result in success of an event represented. The intercorrelations between these constructs were tested using chi-square test. Chi-square test is one of the powerful methods to determine the interdependency between the constructs/ parameters (Schay, 2007; Soong, 2004). The following were the tested hypothesis:

- H1 Event administration → event integrity.
- H2 Event administration → event maintenance.
- H3 Event easiness → event integrity.
- H4 Event easiness → event administration.
- H5 Event easiness → event maintenance.
- H6 Event maintenance → event integrity.

Figure 1 Developed constructs and hypothesis

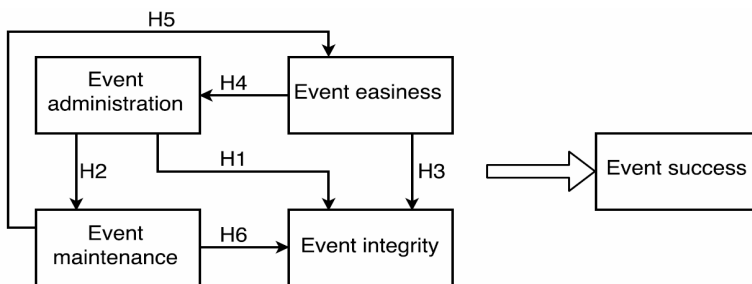


Table 4 Cross tabulation – H1 and H2

		Integrity			Maintenance			Total		
		Good	Average	Poor	Good	Average	Poor			
Administration	Good	Count	230	152	31	413	240	153	20	413
		Expected count	147.0	200.3	65.7	413.0	150.3	210.0	52.7	413.0
	Average	Count	192	374	119	685	191	411	83	685
		Expected count	243.8	332.3	108.9	685.0	249.3	348.3	87.4	685.0
	Poor	Count	19	75	47	141	20	66	55	141
		Expected count	50.2	68.4	22.4	141.0	51.3	71.7	18.0	141.0
Total	Count	441	601	197	1,239	451	630	158	1,239	
	Expected count	441.0	601.0	197.0	1,239.0	451.0	630.0	158.0	1,239.0	

Table 5 Cross tabulation – H3 and H4

		Integrity			Administration			Total		
		Good	Average	Poor	Good	Average	Poor			
Easiness	Good	Count	277	145	33	455	242	195	18	455
		Expected count	161.9	220.7	72.3	455.0	151.7	251.6	51.8	455.0
	Average	Count	139	396	95	630	150	401	79	630
		Expected count	224.2	305.6	100.2	630.0	210.0	348.3	71.7	630.0
	Poor	Count	25	60	69	154	21	89	44	154
		Expected count	54.8	74.7	24.5	154.0	51.3	85.1	17.5	154.0
	Total	Count	441	601	197	1,239	413	685	141	1,239
		Expected count	441.0	601.0	197.0	1,239.0	413.0	685.0	141.0	1,239.0

Table 6 Cross tabulation – H5 and H6

	Easiness			Integrity			Total
	Good	Average	Poor	Good	Average	Poor	
Maintenance							
Good	Count	275	153	23	256	168	451
Expected count		165.6	229.3	56.1	160.5	218.8	451.0
Average	Count	157	401	72	164	367	630
Expected count		231.4	320.3	78.3	224.2	305.6	630.0
Poor	Count	23	76	59	21	66	158
Expected count		58.0	80.3	19.6	56.2	76.6	158.0
Total	Count	455	630	154	441	601	1239
Expected count		455.0	630.0	154.0	441.0	601.0	1239.0

Tables 4, 5 and 6 represent the results of Chi-square tests. The values of “Expected count” displays the values which would be obtained in “Count” rows if there was no dependence or relationship between the measured constructs. To pass the crosstab examination of Chi-square test, the percentage of cells with expected count less than 5 should be less than 20% of overall cells. As expected, there were no cells with values of expected count less than 5 in all tested hypothesis. Hence, all the tested hypothesis passed the Chi-square crosstab analysis, which indicated a dependence between all the mentioned constructs. The results of the tests prove that the constructs and developed hypothesis are valid and provide the confirmation to proceed for analysing the results (Narassima et al., 2017).

5 Results and discussion

5.1 Demographic analysis

This section compares various aspects of Anokha 2016 and Anokha 2017 and provides suggestions on how to improve the effectiveness of an event based on the responses of participants collected during the previous happenings of the event. Table 7 presents the ratio of respondents from host and guest institutions. It is evident that the majority of the population are from the host college. The ratio of host and guest participants is almost the same in both the editions of the Techfest.

Table 7 Ratio of respondents

	2016		2017	
	Count	%	Count	%
Amrita	767	61.90	746	61.45
Others	472	38.10	468	38.55
Total	1,239	100	1,214	100

5.2 Source of awareness about the Techfest

Any event or happening needs to reach the target group of people in order to make them aware about the occurrence of such an event. Hence, it is important to take necessary measures to inform the people by proper and effective means. The information must make people clear about the happenings of the event to enable them to decide accordingly. Also, the promotions should be perfect such that they do not craft false promises/ assumptions in minds of people. It is important that the occurrence of the events reach people well in advance which would allow them to make necessary arrangements. Main sources which are used to create awareness about the Techfest are:

- 1 Anokha desk setup in various colleges (where people from the host institution educate other institution students about the Techfest)
- 2 newspaper
- 3 social networking.

Apart from these, participants of previous editions of the Techfest play a major role in spreading awareness about the event. It is a positive sign since the ‘Past participants of Anokha’ have contributed significantly towards creating awareness which depicts that the participants are satisfied with the event. In both editions, Anokha desks have been the most effective means, which has significantly improved its effectiveness in attracting people towards the Techfest. This is evident from Figures 2 and 3 as there is an increase from 38% (in 2016) to 50.53% (in 2017). Awareness created through friends and participants of Anokha have also been effective in both editions. Social networking has only contributed around 3% in both editions, which is a relatively lower value. Social media is one of the powerful and fastest means of spreading the information around the globe. Less numbers reveal that the social networks have been underutilised.

Figure 2 Source of awareness about Anokha 2016 (see online version for colours)

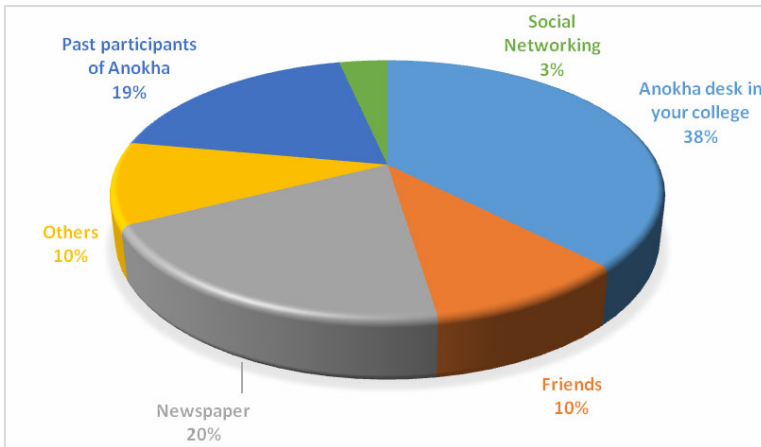
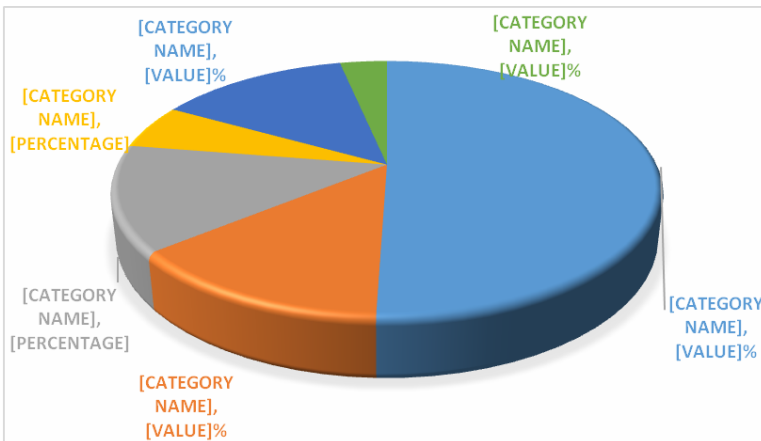


Figure 3 Source of awareness about Anokha 2017 (see online version for colours)



5.3 Summary of scores

From the Figures 4 and 5, it is clear that only a minor portion of the participants are unsatisfied with the event. This is evident from the graph which shows peak values for ‘average’ score for all constructs, for both hosts and guests. Number of people with scores ‘good’ are also relatively higher. Though the number of participants with scores ‘poor’ are lesser, there is always a necessity to address the issues faced by participants, which results in low scores for the constructs. “Event integrity” construct has the highest number of people with score ‘poor’. The items covered in this construct are about the morality of the events and overall development attained by the individuals. This score being less, tells that issues such as individual guidance provided to the individuals, instructions given in events and workshops, and etiquette followed should be improved. Also, it is the responsibility of the hosts to make sure that the participants are benefited from the events and workshops they attend.

Figure 4 Scores for constructs (guests) (see online version for colours)

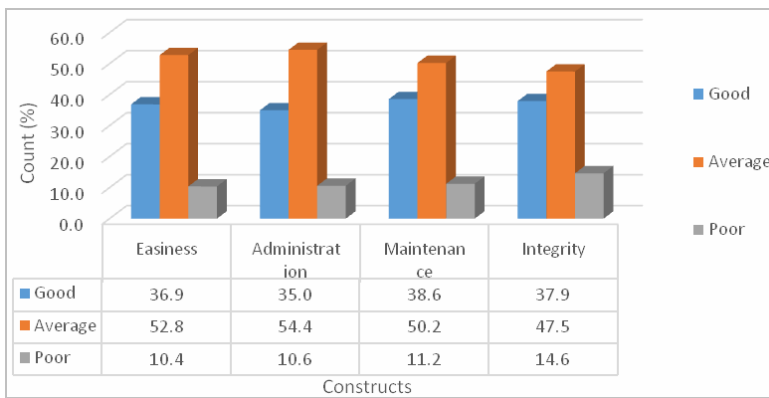
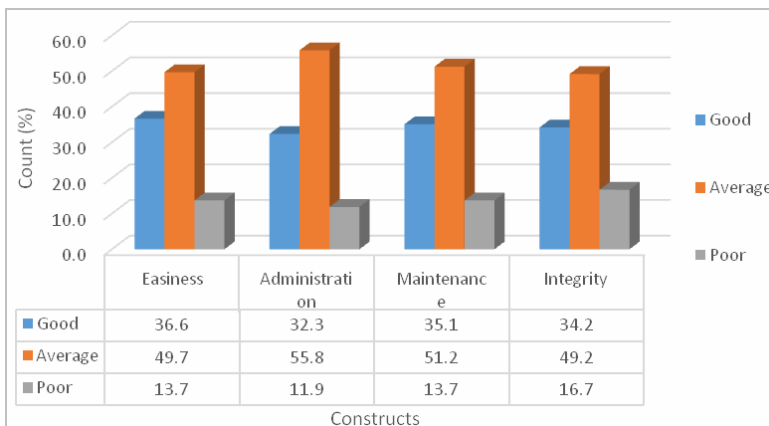


Figure 5 Scores for constructs (hosts) (see online version for colours)



In order to identify the aspects having high and low scores, so as to improve the effectiveness, four categories have been considered in order to evaluate the performance of various aspects of the Techfest, which have been explained through four tables.

It is clear from Table 8 that cost has been a major concern for guests as well as the hosts. Duration of the workshop are subject to many constraints, some of which include the availability of the trainer/ coordinator, venue, content planned for the workshop/event, etc. Objectives met after the workshop has a lower score for guests which may be because of a misconception about the workshop/event by the participants. This can be improved by enhancing the clarity provided by advertisements and the public Relations teams. Transportation, undoubtedly has a lower score for guests than hosts as the later are clear of the venue locations. This is an important aspect to be considered as the guests find it difficult to locate the corresponding sites. This can be improved by integrating the Anokha app with a map displaying various venues or by providing a map, displaying all necessary information about events or workshops.

Table 8 Mean values of aspects with least scores given by guests and the corresponding scores of hosts for same aspects

<i>Mean</i>	<i>Others</i>	<i>Amrita</i>
Cost	3.191	3.188
Duration	3.210	3.270
Objectives met	3.218	3.254
Transportation	3.248	3.316
Expectations	3.252	3.231

Table 9 displays the aspects having maximum scores by guests and the corresponding scores of hosts. Five highly rated aspects have higher scores by guests than by hosts which is a positive sign considering the success of the event. Though a Techfest, Anokha entertains the crowd by various fun events, cultural events and eventide. Also, Domain knowledge of the trainers conducting workshops are never compromised on any basis. Effectiveness of learning improves as the relationship between the tutor and the audience develops. This seems to be true from the scores attained for friendliness of the coordinators and their interaction with the participants/listeners.

Table 9 Mean values of aspects with highest scores given by guests and the corresponding scores of hosts for same aspects

<i>Mean</i>	<i>Others</i>	<i>Amrita</i>
Entertainment	3.490	3.301
Domain knowledge	3.490	3.252
Coordinator friendly	3.480	3.336
Interaction	3.470	3.295
Overall skills	3.460	3.304

It is evident from Table 10 that the hosts are not satisfied with the structuring of events, which may be because of the gap between planning and execution. This may also be due to the high expectations the host university participants had on their event coordinators. Food and cost always have higher expectations. There is always a level of compromise required with the quality of any aspect, may it be food, event or a workshop. I.e. quality

decreases with cost. This is one of the main reasons for a lower score for cost, and higher scores for aspects related to event coordinators/ workshop trainers. Guests may be unaware of the stringent norms followed by the host institution (Amrita University) with regard to its food. The institution prohibits non-vegetarian food, drinks with high amount of preservatives and boozy foodstuff.

Table 10 Mean values of aspects with least scores given by hosts and the corresponding scores of guests for same aspects

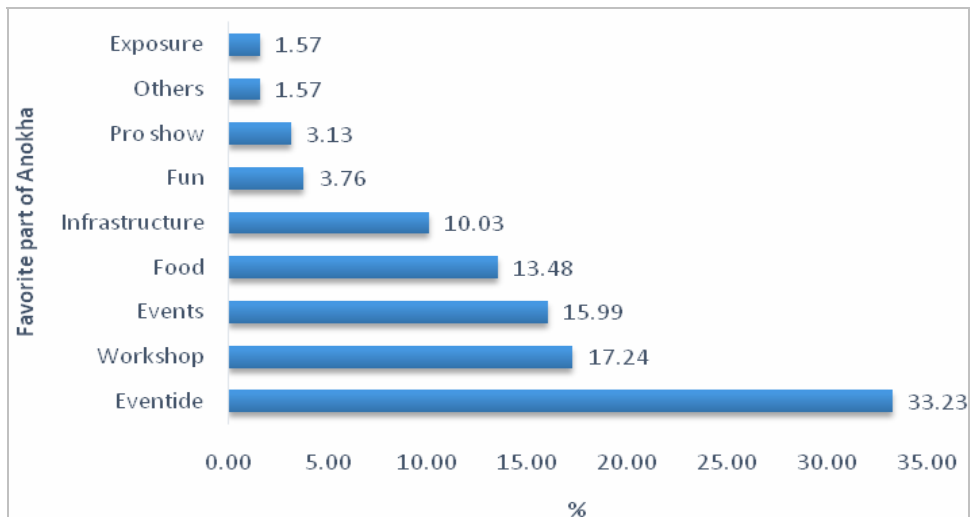
<i>Mean</i>	<i>Amrita</i>	<i>Others</i>
Cost	3.188	3.190
Overall rating	3.207	3.280
Event well structured	3.210	3.290
Food	3.220	3.340
Instruction	3.227	3.310

Table 11 shows that the assistance provided during workshop are good enough as the supporting aspects such as the ‘booklet info’, ‘questions answered’, ‘equipment working’ and ‘audio – visuals aids’ have higher scores. It is also noticeable that these scores are almost the same for the hosts as well as the guests.

Table 11 Mean values of aspects with highest scores given by hosts and the corresponding scores of guests for same aspects

<i>Mean</i>	<i>Amrita</i>	<i>Others</i>
Booklet info	3.353	3.330
Questions answered	3.349	3.360
Equipment working	3.349	3.330
Registration	3.344	3.340
Audio – visual aids	3.344	3.440

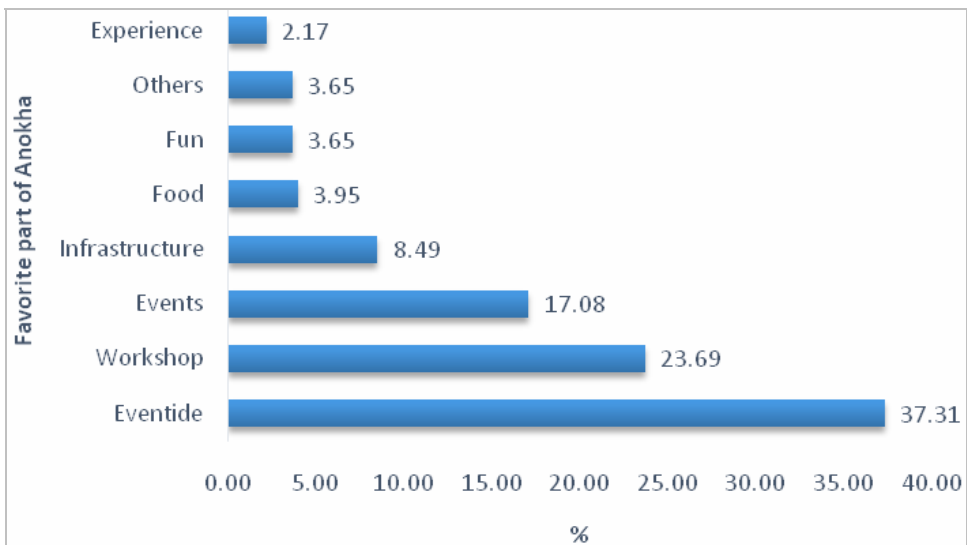
Figure 6 Favorite part of Anokha vs. % respondents (2016) (see online version for colours)



5.4 Favorite part

It is always worthy as a host to know about the success of an event held. Hence, the participants were asked to express their reviews about the Techfest, mentioning their favorite part of the Techfest and also the areas that they feel could have been better/ could be improved. Figures 6 and 7 show the favorite areas of participants of Anokha 2016 and Anokha 2017 respectively. Eventide has been the most favorite show on both editions with 33.23% and 37.31% in 2016 and 2017 respectively. Workshops have become more favorite among the participants which is an indication of the success of the Techfest. Host institution also offers one of the best infrastructures in all respects. There are a few other areas that have remained favorite among the participants, which are discussed. Meeting knowledgeable trainers and participants from various backgrounds provides opportunities to explore and get to know about different streams. The host university provides an ambient atmosphere which provides as comfortable stay for the guests. Some of the participants felt good about the participation, which indicates the good mindset of participants. Winning and losing is part of all events; participation matters more than winning. Losing is an experience which helps the participants to improve their performance in subsequent attempts.

Figure 7 Favourite part of Anokha vs. % respondents (2017) (see online version for colours)

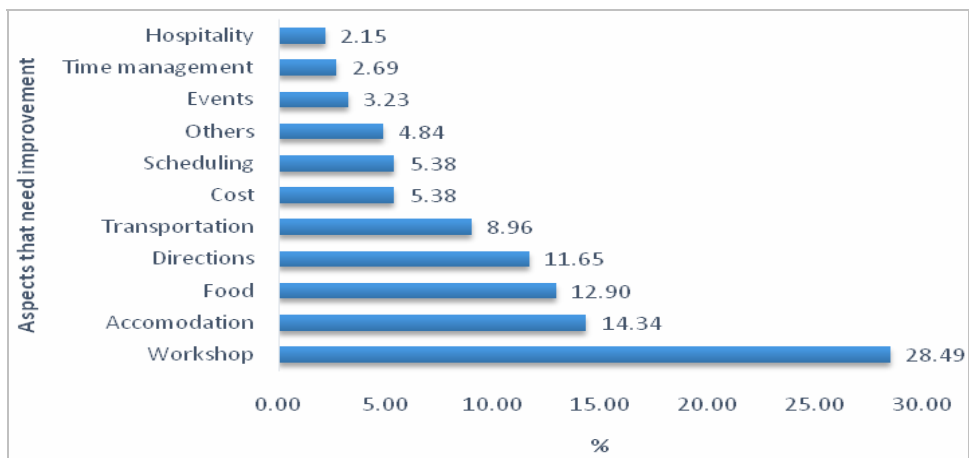


5.5 Aspects that need improvement

It is always important to study about the aspects that need improvement in order to rectify the shortcomings of all events and workshops. This will result in betterment of all rectified events in forthcoming editions of the Techfest. Hence, such areas have been identified, which serve as inputs for organising events and workshops for subsequent editions of the Techfest. Surprisingly, from the figures 8 and 9, it is clear that 28.49% and 29.81% of people have suggested improvements for workshops. It is clear that opinions of different people about same events differ, as workshops remain favourite among

considerable proportion of people whereas workshops top the list among the aspects that need improvement. People felt that the accommodation facilities and ease of reaching the allocated rooms can be improved. Accommodation facilities have been tremendously upgraded in Anokha 2017 such that not even a single participant found it difficult to reach the allocated rooms. Time management has been a concern for the participants, however the Anokha team has been constantly working to manage the events held such that participants are allowed to attend maximum number of workshops. Yet, there are clashes among certain events and/ or workshops as the Techfest happens only for three days. A large number of events and workshops need to be scheduled across various venues within these three days. Probably, scheduling can be improved by identifying the similar workshops are held so as to schedule them in various durations to allow audience to attend maximum workshops in their desired area. Finding directions and locating their destinations have been one of the notable concerns for participants in Anokha 2016. The Anokha team has worked to improve this area by providing proper guidance to participants and by improving the transportation facilities to aid the participants reach various places within the campus without much difficulties.

Figure 8 Aspects that need improvement (2016) (see online version for colours)



Since it is very important to improve the effectiveness of the Techfest in all aspects, the areas that require improvement have been specifically discussed. Table 12 elucidates about the different concerns for the participants in various areas.

Time duration for which the workshops are conducted depend on some important factors such as the content prepared/allocated for the workshop, availability of trainer etc. This may be slightly altered if the participants and trainer are mutually willing during the course of the workshop. However, the schedules are prepared for workshops based on the content to be delivered and exchanged. Continuous lectures delivered makes it difficult for some of the participants to grasp the contents taught. Smaller departments are concerned about workshops in their areas. This is an area to be improved as there are several areas that require attention apart from the existing workshops. Workshops for even minor streams can be introduced based on the interest of audience. A survey would be helpful to identify some streams in which the audience are willing to attend a workshop. Also, the information provided about the workshops should be easily

interpretable. Awareness about happening of events with timings and venue need to reach more participants. This is achievable by placing boards on different locations within the campus where people gather, such as the workshop venues, food stalls, reception etc. cost has been one of the major concerns for the participants, which as discussed earlier is a quality determining factor. Proper food facilities are to be arranged for the host institution students and volunteers. Amrita aims at bringing high quality trainers with superior content, due to which the cost increases. Adding information about the cost of workshops, timing and venues in Anokha website and app may provide clarity for the participants to decide about the workshops and events that they can attend during the Techfest.

Figure 9 Aspects that need improvement (2017) (see online version for colours)

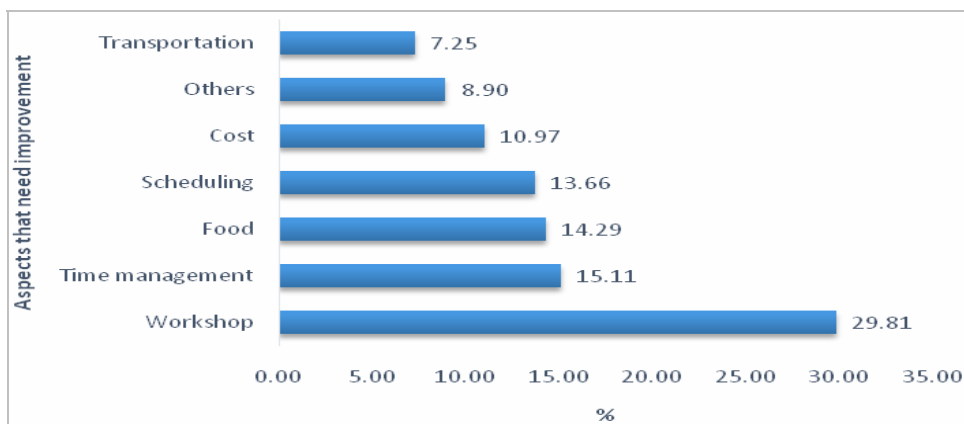


Table 12 Aspects to be improved in different areas

<i>Area</i>	<i>Aspects to be improved</i>
Workshop	Lack of time More interesting workshops A detailed explanation about specifications of workshops Continuous work makes it difficult to cope up Training is more important than competition More interactive and slow explanation Need more workshops for smaller departments
Events	Clear about the happenings of the event Awareness about happening of events
Cost	Reduce the cost of food Reduce the fee for workshops Information about cost can be added in website
Scheduling	Avoid clashing of workshops and events
Transportation	Transport facility to the campus
Food	Mess facilities to be improved for the host institution students

6 Conclusions

This study exposes the necessity to track the happenings of the event (Techfest in this context), in order to maintain the credibility of the Techfest and also to sustain the event successfully. Many efforts have been taken during and post the happening of Anokha 2016 to study the mindset of the participants from both the host and guest institutions. Better results can be obtained by studying the entire system using simulation techniques. By simulating the entire process, it is possible to identify the areas of improvement and find alternate ways to improve the overall performance of the system (Vasudevan et al., Forthcoming) Usage of fuzzy logic can be also be tried (Sharma et al., Forthcoming). The system under consideration, if bigger, requires more time to be studied and designed fully. Firstly, before analysing the data gathered, essential tests to validate the reliability and interdependency among the developed constructs were performed. The constructs were all found to be reliable from the tests, after which the analysis were performed.

The demography analysis showed that the host: guest ratio remained almost the same for both the editions of the Techfest. Then, by analysing the sources from which the participants become aware of the Techfest, it was found that the Anokha desks in various colleges have played a vital role in spreading awareness about the happening of such an event. They have contributed 38% and 50.53% for creating awareness about Anokha 2016 and Anokha 2017 respectively. Newspapers and past participants of Anokha have also played a vital role in spreading information about the Techfest. From the mean values of scores for each of the constructs, it is evident that only a minor proportion of the participants feel poor about the different aspects of the Techfest, which is still an important concern to be addressed. Information about the favorite parts of the Techfest and the areas that the participants feel can be improved were collected to improve the effectiveness of the different areas. Eventide remained the most favourite among 33.23% and 37.31% of the participants during Anokha 2016 and Anokha 2017 respectively. The data gathered about the areas that require improvement helps the hosts to understand from participants' point of view, the various aspects of the Techfest and their shortcomings. The possibilities to improve those aspects were also discussed.

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Website

<https://en.wikipedia.org/wiki/Techfest>

An article on Cronbach's alpha [online] https://en.wikipedia.org/wiki/Cronbach%27s_alpha

Annexure

Questionnaire

Personal information

UG/ PG:

Insider/others:

How did you come to know about Anokha?

- a Anokha desk in our college
- b Past participants of Anokha
- c Friends
- d Newspaper
- e Social networking
- f Others

Technical information

What was your favorite part of Anokha?

Aspects to improve:

Rate the following questions appropriately:

	<i>Excellent</i>	<i>Very good</i>	<i>Good</i>	<i>Average</i>	<i>Needs improvement</i>
Fulfillment of objectives					
Domain knowledge of trainer					
Interaction during the course of event/workshop					
Level of judgment					
Cost					
Ease of transportation					
