DOI: 10.30519/ahtr.1068444

Advances in Hospitality and Tourism Research (AHTR) 2023
An International Journal of Akdeniz University Tourism Faculty Vol. 11 (1)
ISSN: 2147-9100 (Print), 2148-7316 (Online) 97-119
Webpage: http://www.ahtrjournal.org/

FACTORS THAT INFLUENCE ATTENDANCE, SATISFACTION, AND LOYALTY FOR VIRTUAL EVENTS

Özen KIRANT YOZCU[1]
ISAG - European Business School and Research Centre
ORCID: 0000-0001-5533-8066

Hülya KURGUN
Faculty of Tourism, Dokuz Eylül University
ORCID: 0000-0002-1745-1452

Demet BAĞIRAN ÖZŞEKER
Faculty of Tourism, Dokuz Eylül University
ORCID: 0000-0002-4520-3333

ABSTRACT

This study assessed motivational factors that influence participants to attend to a virtual event and additionally together with these factors, the effect of online content engagement and perceived usefulness through overall satisfaction and future intention which specifically loyalty. Data was collected from attendees of different types of virtual events. Findings revealed that online content engagement, content of the event, being in a global community, meeting like-minded people and professionals, reputation of the event, keynote speakers, and usage of mobile apps are some of the significant factors for attendees` preferences for virtual events. Additionally, it was indicated that overall satisfaction affects future intention (loyalty) while the satisfaction also has a partial mediating effect between relationships of networking, and program and loyalty. It is further revealed, satisfaction acts as a full mediator between online content engagement, as well as perceived usefulness and loyalty. Relying on this outcome, the conclusion of this paper offers valuable recommendations for the event industry which makes this research one of the first studies about virtual events during pandemic period.

Article History
Received 04 February 2022
Revised 24 May 2022
Accepted 17 June 2022
Published online 29 Sept. 2022

Keywords
virtual events
decision making factors
motivations
satisfaction
loyalty

[1] Address correspondence to Özen Kırant Yozcu (Ph.D.), ISAG - European Business School and Research Centre in Business Sciences and Tourism (CICET - FCVC), Porto, Portugal. E-mail: ozen_kirant@yahoo.com

INTRODUCTION

The Meetings, Incentives, Conferences, and Exhibitions (MICE) industry creates revenues indirectly and directly with its multiple effects for diverse industries for instance food & beverage, lodging, attractions, shopping, transportation, and entertainment with addition for employment. Further, the MICE industry produces important revenue per consumer for the hospitality industry (Rittichainuwat et al., 2001). Therefore, this industry is one of the prerequisites in the international market (Hanly, 2012). In this study MICE industry will be referred to *events*.

New technologies, applications and platforms enhance the planning process of the events and describe the needs of them again (Rose & Steinbrink, 2011). For the past 10 years, new technological advancements entered this industry and new management opportunities arised (Sox et al., 2017). These information and communication technologies supported events to transform into online exhibitions (Kharouf et al., 2020). This led to hybrid and virtual events to become new phenomenon in the ecosystem of events (Dolasinski et al., 2020). Sox et al. (2014) have stated the definition of virtual meetings given by the (PCMA) Professional Convention Management Association as, "*digital events, meetings, and learning technologies that include: (streaming media); virtual environments (2D and 3D) such as virtual events, virtual trade shows, conferences, campuses, learning environments; and perpetual (365 days per year) business environments"*. Additionally, Doyle (2013: 1) has made a definition of hybrid events as "*involving a mixture of physical events with elements of a virtual event usually running simultaneously and with overlapping content and interactive elements*". Technological opportunities can propose different alternatives for event planners and attendees through hybrid and virtual meetings (Sox et al., 2017).

There is a need of research on how online experiences are formed and previous studies have stated that online content engagement, effective communications, and consumer interactions are important attributes when analyzing online experiences and the success of organization (Kharouf et al., 2020: 735-736). To understand the effectiveness and impact of the virtual events over attendees, more research are needed to establish relevant knowledge on the subject (Dolasinski et al., 2020). Studies mainly focus on online experiences that are organized by event companies however to understand about hybrid events, the attendee`s interactions should be included in the studies (Simons, 2019).

During the pandemic, according to the report of Event Industry Survey 2021, there are some important results that show the future of event industry (Event Managers Blog, 2021). For prior, there is a loss of business in operation with 76.2%. Second, when companies go back to function in their business environment, 69.3% of managers said events will continue hybrid. Third, 78.1% of managers said their events will shapeshift into the virtual events. Fourth, the biggest challenges for turning into virtual events are engagement (29.1%), lack of tech knowledge (13.0%), and networking (12.4%). Another report from the industry has indicated that adding technical expertise in virtual and hybrid events is one of the important evaluations after pandemic (SITE, 2020).

This study aims to identify attendees' motivational factors to participate a virtual event and the factors that affect their satisfaction level. In addition to evaluate these factors for attendees' loyalty as future intention in particular event, current research tries to find out if satisfaction is a mediating factor for future intention (loyalty).

LITERATURE REVIEW

Factors Influencing Virtual Event Attendance

In the literature on decision making factors for conventions, Oppermann and Chon (1997) have first proposed a model composed of four factors: location, personal & business, intervening opportunities, and association/conference factors. In their model, personal & business factors include finances, schedule, and individual's health. Climate, proximity, destination image, and travel costs are the components of location. Association/conference factors involve peer recognition, professional contacts, and personal interactions. Subsequent studies supported and improved by other researchers. For example, Rittichainuwat et al. (2001) have studied the dimensions of motivational factors for conferences and explained the five leading motivations for conferences such as: (1) interesting conference programs, (2) education, (3) career enhancement, (4) networking and traveling to desirable place. They have also pointed that money, time, and distance are the top three main conference inhibitors.

The referred model of Oppermann and Chon has been studied by Zhang et al. (2007) and they have suggested that 'location factors' should be divided into two subcategories as "attractiveness" and "accessibility". They have also said that the original "intervening opportunities" were replaced by "total cost factor" which include time costs and monetary. On the other

hand, Severt et al. (2007) have studied the factors under five categories according to their importance in attending the conference: (1) networking & fun, (2) convenience of conference, (3) program quality, (4) conference products, and (5) educational benefits. For example, program quality involves such as: (a) business activities, (b) association-related activities, (c) travel opportunities, (d) spouse/family/guest programs, (e) self-esteem enhancement, (f) visiting friends and relatives. Yoo and Chon (2008) have stated another five dimensions for decision making factors for participating to the events: (1) professional & social networking opportunities, (2) destination stimuli, (3) educational opportunities, (4) travelability, finally (5) and safety & health situation. Another supportive study was done by Mair and Thompson (2009) that cost, location, personal & professional development, networking, time & convenience, and health & security were found as the results of dimensions of attendance motivations for events. As a conclusion after an extensive examination of the literature in events, it can be said that motivational factors for attendance can be almost same for different types of events. Besides these motivational factors, attracting attendees has become more difficult in recent years and increasing attendance and forecasting attendance are crucial for the profitability (Tanford et al., 2012). There is a crucial connection between these motivations and satisfaction with these factors during the events so performance of these events is crucial as this could be a key determinant of repeating attendance (Tanford et al., 2012). That`s why significant predictors of future attendances should be studied for the satisfaction of the events.

As technological opportunities become more available, number of virtual and hybrid meeting are increasing. Organizations should provide online content that engage consumers, and this is important to improve the total experience (Calder et al., 2009). This online content gives comprehensive information and provides relation between the consumers anytime (Rose et al., 2011). However few studies have been done in the tourism literature concentrate on hybrid and virtual events (Pearlman & Gates, 2010).

Because of restrictions and lock downs which introduced life of humanity with Covid-19 pandemic, all events have been organized virtually and people started to attend lots of events in a day for business and also for leisure. The increase on the numbers of relatively new way of the events creates importance for understanding and investigating the reasons why people join in different types of events, if they are satisfied or not and also how future participation of attendees can be increased. For

example, Meeting Professional International (MPI) 2020 report, "How to guide virtual events", has stated the guidance for virtual events. These are: (1) virtual events should start with a strategy, (2) services offered by organizations should be given, (3) type of virtual formats should be decided, (4) the success of the program should be measured, (5) and resources that are used or needed for the event (Fryatt et al., 2020). The success of hybrid event depends on the balance between connecting practices, planning, co-creative and leaving space for the attendees to do their own connecting, relating, recruiting and creative practices (Simons, 2019: 157). Findings show that virtual events are innovative and practical methods to effectively meet the needs of organizations (Pearlman & Gates, 2010).

This paper focuses on factors that influence to attend in virtual events so according to literature program content, personal/ professional development, networking, and activities are studied in this paper.

Virtual Event Satisfaction

Satisfaction evaluation is fundamental for the future participation of the attendees to a particular event. Severt et al., (2007) have stated that satisfaction is critical for loyalty and recommendation of the event to the other. They have also said that attendees who are happy with educational benefits are more satisfied and willing to share their event experience with others. In addition to that Jung and Tanford (2017) have found education and networking is the most important drivers for the attendees' satisfaction. They have also stated that convention environment which includes location, venue image, and accessibility are significant predictors of loyalty. However, convention environment attributes are not included in this study since the research is about virtual event satisfaction. Event locations could be replaced by virtual reality and the event experience could be simulated (Wreford et al., 2019). As the conclusion, experiences of attendees play a key role for creating loyalty and satisfaction is a significant determinant of loyalty **(**Kim & Malek, 2017).

Studies have indicated that online content engagement and interactions of attendees are effective attributes while analyzing their online experiences and organizations` success which leads better overall evaluation of the interaction with the organization. According to the study of Kharouf et al. (2020), one of the important factors for the future behavioral intentions of participating events is online content engagement and they also proposed that a good experience gained from virtual event

effects behavioral intentions positively. Online engagement has been explained as *"a psychological state which occurs by virtue of interactive [consumer] experiences with a focal agent/object within a specific service relationship"* (Brodie et al., 2011: 259). Online engagement is important not only create value but also improve attendee's engagement. There are different ways to achieve the virtual experience of attendees including customization, website design, and interactivity (Kharouf et al., 2020), and these features play critical role two-way interaction in events. Furthermore, having attendees engage with the online content is critical to improve the overall experience (Calder et al., 2009). The pandemic has significantly changed the way attendees engage with content and one thing is for certain that changed the possibilities for content and event delivery (Copans, 2021). For example, live polling allows attendees to share their opinions, questions, thoughts with speakers and organizers, they can interact with them that they may not have a chance in the past (Event Managers Blog, 2019). Also, the goals of engagement strategies can be different, for example, association attendees' goals can be collecting continuing education credits for certification, idea-sharing, industry networking, and shopping for new vendors while conference attendees want to gain education and networking contacts (Event Managers Blog, 2019). According to Copans (2020), there are four important tips to improve design elements when creating an event: (1) use backdrops to support cohesion, (2) to support your narrative, use a powerful visual theme, (3) embed speakers within dynamic presentation, and lastly (4) create 3D booth visualization.

According to Talantis et al. (2020), event planners are using cutting edge technologies to keep the attendees engaged and informed which are the gadgets for new technological improvements, mobile devices via mobile apps. After the pandemic, mobile apps have been used in many parts of hospitality industry such as restaurants, hotel reservations etc. In the report of Event Managers Blog (2019), technology should be accessible to all attendees and simplicity and effectiveness are keys to make sure everybody accesses the event by using the technology. In order to be effective and competitive, event technologies such as artificial intelligence, virtual reality, and augmented reality should be used. Luxford and Dickinson (2015) analyze mobile apps` role about the experiential needs of attendees and they have stated that there is a need for user-friendly apps focused on the experience of the events' expectation. With the growing usage of technology within events, the technology acceptance model which has been introduced by Ajzen and Fishbein, (1975) and its variables (e.g. perceived usefulness, attitude toward using technology, perceived ease of use, and behavioral

intention) have been studied widely to assess relationships within the literature (Sox & Campbell, 2018). In the study of Talantis et al. (2020), it has been found that perceived usefulness influences attitude significantly and attitude influences overall conference satisfaction, therefore, event managers should take into consideration the mobile event apps usage while giving the decisions of event technologies. Developing update is a must to make apps valuable tools during the events that increase a satisfactory level of service throughout the whole event experience (Luxford & Dickinson, 2015). The report from Event Managers Blog (2021) has specified that the biggest frustration in the virtual event tech is the inability to match live engagement. So, usage of event technology and engagement are crucial for events success. There should be a reason for the attendees to be in virtual environment.

In this paper, predictors for overall satisfaction of virtual events are divided into three parts: first, the factors for attending an event, second is online content engagement and final one is perceived usefulness. Additionally, overall satisfaction has been held as a mediating factor for future intention (loyalty).

Future Intention (Loyalty) for Virtual Events

Positive relationship between customer satisfaction and loyalty has been studied in several research (Severt et al., 2007; Jung & Tanford, 2017). Satisfied attendees are awaited to take part in word-of-mouth communication and establish their loyalties (Antanassopoulos et al., 2001). This led to idea that word-of-mouth (WOM) should be one of two primary loyalty indicators (Tanford et al., 2012). In addition to this in the study of Wan and Chan (2011), revisit and recommendation to others are included under the loyalty. In another study for loyalty, Kim et al. (2012) have explained that functional value (price/value for money) has an effect in explaining satisfaction and behavioral intentions. These functional value criteria are also used for this study. Lee and Black (2009) have said that an important forecaster of loyalty was satisfaction. Hahm et al. (2016) pointed out, satisfaction was a mediating factor between future intentions and sense of community. Kim and Malek (2017) have found an important relationship between satisfaction and loyalty of attendees. Tanford et al. (2012) have examined the loyalty drivers and their findings revealed that the emotional commitment, types of switching costs, switching intention, negative word of mouth, behavioral loyalty, and willingness to pay more are the predictors of loyalty. Some of the questions from their studies were borrowed for the usage for the current research's scope. Most of the events turn into virtual

and hybrid after pandemic which means satisfaction and loyalty will be the top concerns for the future of events. As Franceschini (2021) has cited from the report of Future of the Event Industry, the professionals from the industry will still focus on the attendee experience and try to be attendee-centric for the event success. Therefore, it is critical to examine the relationship between satisfaction and loyalty in virtual events.

After the conduction and assessment of the existed literature, the proposed conceptual model has shown in Figure 1 which explains the factors influencing the virtual event attendees' decision and their satisfaction level that effect future intension and loyalty.

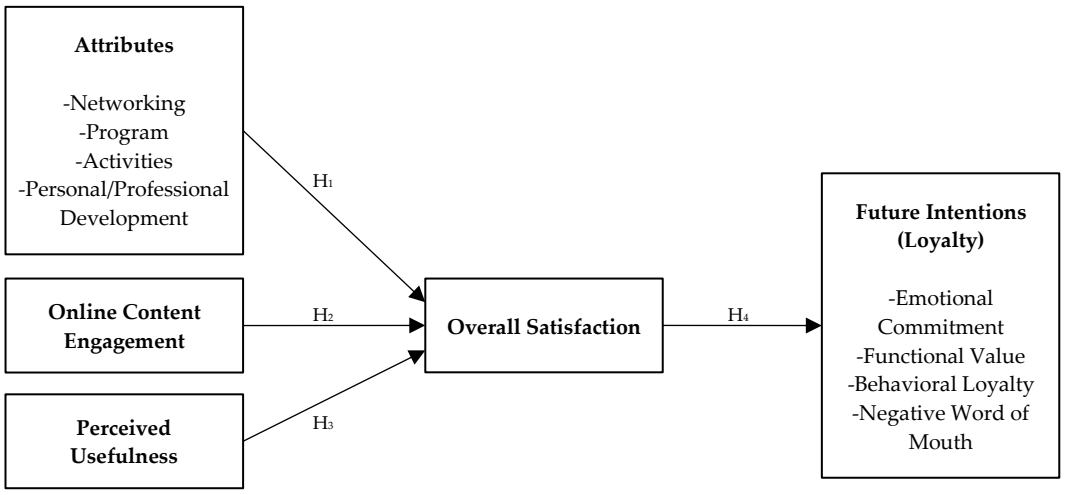

Figure 1. *The Study's Conceptual Model*

The hypotheses are stated below:

H_1: Attributes (networking, program, activities, and personal & professional development) have an effect on the overall satisfaction.

$H1_a$: Networking has an effect on the overall satisfaction.

$H1_b$: Program has an effect on the overall satisfaction.

$H1_c$: Activities has an effect on the overall satisfaction.

$H1_d$: Personal and professional development have an effect on the overall satisfaction.

H_2: Online content engagement has an effect on the overall satisfaction.

H_3: Perceived usefulness has an effect on the overall satisfaction.

H_4: Overall satisfaction is a mediating factor between attributes, online content engagement, perceived usefulness, and future intention (loyalty).

METHODOLOGY

The questionnaire was created with inclusion of scales from previous research from the literature review by taking into consideration of virtual event experiences. It composed of the statements such as: (1) factors for overall satisfaction of virtual events (attributes, online content engagement and perceived usefulness), (2) the future intention (loyalty) for the particular event, (3) overall satisfaction with the event, (4) demographics of attendees.

The appropriateness of the statements in the questionnaire was discussed with six sector professionals in virtual event industry. Three of them are founders and have an expertise in virtual/hybrid events. Two of them are founders of a destination management company and organize meetings, incentives, and special events. The other one is the founder and specially organizes congresses and conferences. All professionals work for MICE industry over 20 years.

In the first part of the questionnaire, motivational factors for attending an event (attributes) were measured by 20 items that had been selected from the previous literature (Mair and Thompson, 2009; Tanford et al., 2012; Mair et al., 2018). Respondents were asked to answer each question on a 7-point scale ranging from 1 (extremely low) to 7 (extremely high). In the second part perceived usefulness were measured by 4 items (Talantis et al., 2020) and online content engagement were measured by 3 items (Kharouf et al., 2020) using a 7-point scale ranging from 1 (very strongly disagree) to 7 (very strongly agree). In the third part of the questionnaire, the future intention and loyalty for the particular event were measured by 11 items (Kim et al. 2012; Tanford et al. 2012) using a 7-point scale ranging from 1 (very strongly disagree) to 7 (very strongly agree). In the fourth part of the questionnaire, overall satisfaction with the event were measured by 3 items (Talantis et al. 2020) using a 7-point scale ranging from 1 (very strongly disagree) to 7 (very strongly agree).

Research Group and Data Collection Procedure

There is a difficulty in determining the size of the population. For this reason, to determine the research group of the study, the agencies that

organize virtual events in Turkey were examined. Only two of them agreed to apply the survey to the participants of their virtual events. The research group of the study was formed from the volunteers in these virtual events. The size of the research group was determined by the general rule that the sample size should be five times the number of items or the number of observed variables, which is recommended for validity and reliability analyses (Büyüköztürk, 2002; Child, 2006; Doğan & Başokçu, 2010). In the questionnaire, there were 41 statements which means the number of 205 participants would be sufficient. At the end of the data collection process, 229 completed responses were used after the erasing of inaccurate questionnaires.

The collection of questionnaires started at the beginning of March 2021 and accomplished until the end of May 2021. During the data collection dates, the questionnaire was sent to participants following the end of their virtual events. Types and number of included events consist of events like one international medical conference, hotel linkage summit (international), international tourism conference; one national medical conference and a special event world coffee day. Most of the participants were Turkish, while some participants were from Germany, USA, Portugal, UK, and Cyprus.

Data Analysis

In the study, exploratory factor analysis (EFA) and reliability analysis were performed with the SPSS 23.0 program. Cronbach's alpha internal consistency ecoefficiency was calculated for reliability analysis. Exploratory factor analysis was applied to estimate the construct validity of the scale with items that have factor loads above .50 were evaluated. Kaiser-Meyer-Olkin (KMO) Sample Adequacy Test and Bartlett's Test of Sphericity were applied to determine the suitability of the data for EFA. In EFA, a correlation matrix was used to determine the relationships between variables. As recommended in the literature the correlation matrix for correlation coefficients over .30 were inspected (Tabachnick and Fidell, 2001).

Within the scope of construct validity, discriminant validity and convergent validity measures were examined. The discriminant validity of constructs was evaluated using Fornell and Larcker's (1981) method. Statistically significant large factor loads were examined for convergent validity (Anderson & Gerbing, 1988; Marriott & Williams, 2018).

To analyze the mediating role of satisfaction in the relationship between the independent variables and future intention and loyalty dimensions the SPSS program and the bootstrap method of Preacher and Hayes (2004) (PROCESS, Model 4) were used. Moreover, one-way ANOVA and independent sample T test were used to analyze the differences between the responses according to demographic attributes. In order to assess the suitability of parametric statistical analyses to the data, Shapiro-Wilk's test of normality and Levene's test of homogeneity of variance were conducted.

RESULTS

Demographic Profile Analysis

Analyzing respondents` demographic profile (N=229), descriptive statistics were used, and their gender, age, education, and occupation states were collected. The participants were composed of 112 (48.9%) males and 114 (49.8%) females, major part of female respondents ages were between 35 and 44 (27.5%). Categorization of other ages were 18-24 (10.9%), 25-34 (22.3%), 45-54 (26.2%), and 55 and above (13.1%). The analysis revealed that 33.2% of the respondents work in tourism, 27.9% were in academy and education, 14.4% were in engineering, 4.4% were in marketing, 13.1% were in health and medicine, and 7% were in event management. In terms of education, which is another demographic feature, 41% of the respondents have a bachelor's degree, 29.3% a doctorate degree, 21% a master's degree, 4.8% an associate degree and 3.9% a high school degree.

Validity and Reliability of the Scale

EFA was conducted to examine the construct validity and to find out whether the items measure the same construct or concept (Büyüköztürk, 2002). The principal component method and varimax rotation were applied for the factors which influence to attend in virtual events that consisted of 20 items. The result of this analysis showed that four fundamental dimensions (sub-factors) explain the variance at 65.05% (Table 1). Items which had factor loadings lower than 0.50 and items load to more than one factor with a loading score of equal to or greater than 0.50 on each factor were removed from the analysis. By omitting 3 items, the cleanest rotated solution was received. 0.860 was obtained from sampling measuring of The Kaiser–Meyer–Olkin, and Sphericity Test of Bartlett's was significant ($p<0.000$). Reliability coefficients range from 0.72 to 0.88 that is sufficient for the standards of this type of research (Nunnally, 1967).

Table 1. *Exploratory factor analysis for the factors influence to attend in virtual events*

Factors	Factor Loadings	Mean	Eigenvalue	Explained variance (%)	Cronbach's alpha	Composite Reliability
Networking			6.685	39.324	.880	.874
Attending workshops and gaining information	.517	5.2222				
Self-esteem enhancement	.656	5.0829				
Creating professional contacts	.804	5.2315				
Being in global community	.770	5.4491				
Making new friends	.716	3.9116				
Meeting new professionals	.770	5.1806				
Meeting like-minded people	.687	5.3410				
Program			2.003	11.782	.811	.903
Interesting topic	.795	6.1136				
Content of the event	.791	6.3122				
Learning about new subjects	.708	6.2442				
Learning about new research	.723	6.1000				
Activities			1.283	7.547	740	.973
Reputation of the event	.585	5.6455			.	
Keynote speakers	.771	4.8073				
Quality of virtual exhibitions during break times	.769	3.5972				
Social programs	.677	4.0913				
Personal /professional development			1.088	6.398	.720	.803
Fulfilling job description	.864	6.1697				
Professional advancement	.605	6.0880				
Total variance explained				**65.050**		

11 items were analyzed by factor analysis related to 'future intention and loyalty for the particular event' showed that four fundamental dimensions (sub-factors) explain the variance at 76.513%. By omitting one item, the cleanest rotated solution was received. Sampling measuring of The Kaiser–Meyer–Olkin was 0.812, and Sphericity Test of Bartlett's was significant ($p<0.000$). The reliability coefficient ranges from 0.79 to 0.87 that is sufficient for the standards for such research as presented in Table 2.

In the study, construct validity measures (discriminant validity and convergent validity) were examined in Table 1, Table 2, and Table 3. To ensure convergent validity of constructs, individual item loadings must be above 0.50 while 0.70 indicates perfect validity (Anderson & Gerbing, 1988; Marriott & Williams, 2018). In addition, Average Variance Extracted (AVE) scores must be above 0.50 to ensure construct validity. The discriminant validity of constructs was analyzed according to the Fornell and Larcker's (1981) method. According to this method, the AVE of each construct was compared with the squared correlation coefficients for the corresponding constructs. If the AVE for each construct is greater than the square of the corresponding inter-construct correlation coefficients, discriminant validity

is supported. The results showed that all constructs had discriminant validity.

Table 2. *Exploratory factor analysis for the future intention and loyalty for the particular event*

Factors	Factor Loadings	Mean	Eigenvalue	Explained variance (%)	Cronbach's alpha	Composite Reliability
Emotional commitment			4.164	41.638	.868	.883
I would continue to attend this event, even if it raised its registration fee OR even if it will have a registration fee	.631	4.2028				
My participation in this event has a great deal of personal meaning to me.	.823	4.5869				
I feel emotionally attached to this event	.895	3.8585				
I consider myself to be a loyal customer of this event.	.870	3.8962				
Functional value			1.324	13.237	.872	.944
The event offered value for the money. (Please answer if you paid a registration fee for the event	.911	4.3368				
It was a good event for the money. (Please answer if you paid a registration fee for the event	.894	4.4494				
Behavioral loyalty			1.154	11.542	.816	.972
How likely are you to recommend this event to others?	.853	5.7196				
How likely are you to attend this event next time?	.798	5.8710				
Negative word of mouth			1.010	10.097	792	.811
I will tell other people not to attend this event next time.	.820	3.8519				
I have complained to other people about this event.	.665	1.5472				
Total variance explained				**76.513**		

Table 3. *Correlation and AVE*

Factors	1.	2.	3.	4.	5.	6.	7.	8.
1. Networking	1							
2. Program	.493**	1						
3. Activities	.659**	.357**	1					
4. Personal/ Professional development	.387**	.454**	.259**	1				
5. Negative word of mouth	.145*	.080	.099	.102	1			
6. Emotional commitment	.459**	.311**	.354**	.069	.053	1		
7. Behavioral loyalty	.489**	.548**	.347**	.221**	.034	.518**	1	
8. Functional value	.309**	.311**	.215**	.027	.034	.411**	.385**	1
AVE	**.50**	**.57**	**.50**	**.56**	**.56**	**.66**	**.68**	**.81**

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

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

Hypothesis Results

In order to analyze the hypothesis of the study, the regression analysis was conducted with the stepwise technique. The direct effects of motivational factors to attend an event over dependent variables (*'As a whole, I am happy with the event.', 'Overall, I am satisfied with the event', 'I believe I did the right thing by attending this event'*) were examined. Four factors were included into the regression model: networking, program, personal & professional development, and activities. The result of the regression analysis is shown in Table 4. Two factors (networking and program) explain the overall satisfaction with the event at about the 23% level while the regression model is applied. The standardized estimates (beta coefficients) of each variable indicate its relative importance in explaining the overall satisfaction of the participants. In this model, the standardized estimate of 'program' suggests that this variable is positively related to the 'overall satisfaction with the event' and is the most important factor in explaining the dependent variable (β=.305). Additionally, 'networking' is positively related to the dependent variable (β=.262).

Table 4. *Direct effect verification*

Hypothesis	Decision	β	t	Sig.	VIF	F	Adjusted R^2
H1a: Networking → Overall satisfaction	Supported	.262	3.925	.000	1.321		
H1b: Program → Overall satisfaction	Supported	.305	4.572	.000	1.321		
H1c: Activities → Overall satisfaction.	Not Supported	.020	.263	.793	1.772	35.677	.233
H1d: Personal and professional development → Overall satisfaction.	Not Supported	-.088	-1.329	.185	1.318		
H2: Online Content Engagement → Overall satisfaction	Supported	.796	19.834	.000	1.000	393.406	.632
H3: Perceived Usefulness → Overall satisfaction	Supported	.562	10.233	.000	1.000	104.705	.313

The results of regression analysis to examine the direct effects of online content engagement and perceived usefulness on 'overall satisfaction' are presented in Table 4. The standardized estimate of 'online content engagement' suggests that this variable is positively related to the 'overall satisfaction with the event' (β=.796). Similarly, 'perceived usefulness' is positively related to the dependent variable (β=.562).

According to H4, to understand the mediating role of satisfaction in the relationship between the independent variables (factors affecting participation in virtual events, online content engagement, and perceived usefulness) and future intention and loyalty dimensions, SPSS program and

the bootstrap method of Preacher and Hayes (2004) (PROCESS, Model 4) were used. According to Baron and Kenny (1986), three criteria should be met in order to explain mediating effect: (1) the independent variable must have an effect on the mediating variable, (2) the independent variable must have an effect on the dependent variable, (3) when both the mediator variable and the independent variable enter the regression analysis simultaneously, significant relationship that existed between the dependent and independent variable should lose its significance or the previous level of significance should decrease. If the relationship between the independent and dependent variables ceases to be significant when the mediating variable enters the model, a complete mediator model can be mentioned. If there is a decrease in the level of significance of the relationship between independent and dependent variables, a partial mediator model can be mentioned (Baron & Kenny, 1986: 116).

In the study, the direct effects of the independent variables and the mediating variable (overall satisfaction) on the dependent variable (future intention and loyalty) were analyzed. After that, the mediating effect was analyzed with the reference of the conceptual model. As a result of regression analysis, only networking and program dimensions had a significant effect on overall satisfaction and loyalty. In addition to this, online content engagement and perceived usefulness factors also had significant effects on overall satisfaction and loyalty, so all these variables were included in the mediation analysis.

To test the mediation effect, 5000 resampling option was preferred with the bootstrap technique in the analysis. Total, direct, and indirect effect values and bootstrap confidence intervals of the mediation effect are given in Table 5.

First the mediating role of 'overall satisfaction' between the independent variable (networking) and the dependent variable (loyalty) was analyzed. The total effect value was found to be .4586, the direct effect value was .1873, the indirect effect value was .2803, and the bootstrap confidence intervals (BootLLCI and BootULCI) were .1825 to .3732. After the mediating variable was included in the analysis, the significance level (β=.4586, p=.000) regarding the effect of the independent variable (networking) on the dependent variable changed slightly (β=.1873, p=.001) that showed the partial mediation effect in the analysis. As a conclusion, the mediation effect was significant because the confidence intervals did not contain zero (shown in Table 5).

Table 5. *Mediating analysis*

Hypothesis		(β)	SE	F	t	p	R^2	LLCI - ULCI		Decision
$H4_a$: NET → OS→ LO	NET → OS	.4225	.0633	44.5846	6.6772	.0000	.1758	.2978	.5472	Supported
	NET → LO	.4586	.0590	60.4901	7.7775	.0000	.2245	.3424	.5749	
	NET → LO	.1873	.0472	151.4223	3.9694	.0001	.5928	.0943	.2803	
	OS → LO	.6423	.0468		13.7179	.0000		.5500	.7346	
$H4_b$: PRG → OS→ LO	PRG → OS	.4745	.0642	54.5535	7.3860	.0000	2070	.3478	.6011	Supported
	PRG → LO	.4223	.0628	45.1524	6.7196	.0000	.1777	.2984	.5462	
	PRG → LO	.1016	.0511	137.9423	1.9867	.0483	.5701	.0008	.2025	
	OS → LO	.6759	.0490		13.7811	.0000		.5792	.7726	
$H4_c$: OCE → OS→ LO	OCE → OS	.8012	.0418	366.6174	19.1473	.0000	.6369	.7187	.8837	Supported
	OCE → LO	.5907	.0527	125.4549	11.2007	.0000	.3751	.4868	.6947	
	OCE → LO	.0377	.0734	133.7370	.5131	.6085	.5625	-.1071	.1824	
	OS → LO	.6903	.0731		9.4405	.0000		.5461	.8344	
$H4_d$: PU → OS→ LO	PU → OS	.5724	.0575	99.0615	9.9530	.0000	.3216	.4590	.6858	Supported
	PU → LO	.4358	.0599	52.8913	7.2726	.0000	.2020	.3177	.5539	
	PU → LO	.0347	.0540	133.9089	.6433	.5207	.5629	-.0717	.1411	
	OS → LO	.7007	.0535		13.1043	.0000		.5953	.8061	

Bootstrapping Results for Indirect Effects

	Effect	Boot SE	Boot LLCI	Boot ULCI
$H4_a$: NET → OS→ LO	.2803	.0480	.1825	.3732
$H4_b$: PRG → OS→ LO	.3201	.0586	.2027	.4350
$H4_c$: OCE → OS→ LO	.5734	.0638	.4564	.7093
$H4_d$: PU → OS→ LO	.4136	.0527	.3153	.5187

Note: networking (NET); program (PRG); online content engagement (OCE); perceived usefulness (PU); loyalty (LO); overall satisfaction (OS)

Second, the mediating role of 'overall satisfaction' between "program" and "loyalty" was analyzed (Table 5). The total effect value was found to be .4223, the direct effect value was .1016, the indirect effect value was .3201, and the bootstrap confidence intervals (BootLLCI and BootULCI) were .2027 to .4350. After the mediating variable was included in the analysis, the significance level (β=.4223, p=.000) regarding the effect of the independent variable (program) on the dependent variable changed slightly (β=.1016, p=.0483) that showed a partial mediation effect in the analysis. It was concluded that the mediation effect was significant because the confidence intervals did not contain zero.

Third, mediating role of 'overall satisfaction' between the "online content engagement" and "loyalty" was analyzed (Table 5). The total effect value was found to be .5907, the direct effect value was .0377, the indirect effect value was .5734, and the bootstrap confidence intervals (BootLLCI and BootULCI) were .4564 to .7093. Since the significance level (β=.8012, p=.000) regarding the effect of the independent variable (Online content engagement) on the dependent was completely disappeared (β=.0377, p=.6085) when the mediating variable was included in the analysis, it was determined that there was a full mediation effect. In conclusion, the

mediation effect was significant because the confidence intervals did not contain zero.

Fourth, the mediating role of 'overall satisfaction' between "perceived usefulness" and "loyalty" was analyzed (Table 5). The total effect value was found to be .4358, the direct effect value was .0347, the indirect effect value was .4136, and the bootstrap confidence intervals (BootLLCI and BootULCI) were .0527 to .3153. Since the significance level (β=.5724, p=.000) regarding the effect of the independent variable (perceived usefulness) on the dependent was completely disappeared (β=.0347, p=.5207) when the mediating variable was included in the analysis, that showed full mediation effect in the analysis. It was concluded that the mediation effect was significant because confidence intervals did not contain zero.

One-way ANOVA was used for analyzing generational comparison. ANOVA test results show that there is a difference between the responses given to the "networking and functional value dimensions" according to age groups. Tukey test results reveal that there is a statistically significant difference between the age group of 18-24 (mean=5.5806) and age group of 45-54 (mean= 4.7616) in the responses to the networking dimension. Age group of 35-44 (mean=4.8302) and age group of 45-54 (mean= 4.0343) differentiates in the responses to the functional value dimension.

ANOVA test results show that there is a difference between the responses given to the "networking and activities dimensions" according to education. Tukey test results reveals that there is a statistically significant difference between bachelors' degree (mean= 5.2909) and doctorate (mean= 4.7569) education groups in the responses to the networking dimension, and bachelors' degree (mean= 4.7866) and doctorate (mean= 4.1470) education groups in the responses to the activities dimension.

Independent sample T test results are presented in Table 6 and reveal that there are differences between the responses given to the networking, activities, and negative word of mouth dimensions according to gender.

Table 6. *Results of Independent Sample T test*

	F	**t**	**df**	**Sig.**	**Mean Difference**
Networking	1.377	2.519	224	.012	.40320
Activities	1.517	2.371	224	.019	.40245
Negative word of mouth	.078	-3.025	224	.003	-.53003

While the average of women's responses to the networking dimension is 5.2636, it is 4.8604 for men; the average of women's responses to the activities dimension is 4.7364, it is 4.3339 for men; the average of the answers given by the women to the negative word of mouth dimension is 2.4329 while it is 2.9629 for the men.

DISCUSSION AND CONCLUSION

This study has provided important insights for the factors affect attendees' decisions to participate in virtual event and also factors that influence their satisfaction and future intention such as loyalty. Four factors that influence attendance to the events have been studied for the first part of the research: networking, program, activities, and personal/professional development. These factors have been supported by different researchers such as Oppermann and Chon (1997), Rittichainuwat et al. (2001), Severt et al. (2007), Yoo and Chon (2008), and Mair and Thompson (2009). However, the current study has been done with a new perspective by taking into consideration of virtual events. Studying virtual events is a new topic in the event industry so the results of this study have key outcomes for both tourism literature and industry.

In the first part of the study, cruciality of networking for attendees' decisions were studied and two attributes, "being in global community" and "meeting like –minded people", were found as the most important factors that affect their preferences. Making new friends was not an effective factor for them which is an interesting result when considering virtual events. In the study, content of the event had the highest score in the evaluation of the event program. Additionally, attendees stated learning new subjects are important when they joined in virtual event. While analyzing the activities of virtual event, reputation was the most important motivator for attendees besides keynote speakers were still attracts attendees' choice. Therefore, it would have been appropriate to say attendees do not only want to learn new subjects but also they take into consideration the reputation and the keynote speakers of the events. This could be interpreted that it is undesired to waste time with unnecessary topics as lots of virtual events were organized during pandemic period. It was clearly understood that they cared about their professional advancement and also enforced their job description.

In the second part of the study for the future attention and loyalty of the attendees: emotional commitment, functional value, behavioral loyalty, and negative word of mouth were analyzed as supported by the study of

Tanford et al. (2012). According to the results, attendees had stated that participating a virtual event had a great deal of personal meaning to them and besides although most of the events were organized free of charge they had specified that they could pay a registration fee under any circumstances. Consistent with the answers of attendees, money paid for the event was also an important issue for their preferences. Attendees had stated that they were not complaining about the event which means negative word of mouth ratio was very low and this effects positively to their behavioral loyalty that led them to attend the event again in the future and recommend to others.

In the study, regression analysis was used to evaluate which factors affect the overall satisfaction and loyalty of the event. Results were shown that the specific motivational factors like networking and program of the event, online content engagement, and perceived usefulness had significant effect on overall satisfaction and loyalty. In the literature part it was supported that an online content improves the overall experience (Calder et al., 2009). In addition, Event Managers Blog (2019) report confirmed the importance of the online content in the future of event industry. Furthermore, Kharouf et al., (2020) stated the significant effect of online content engagement for the loyalty. In consistent of the conceptual model, the research's regression analysis explained the mediating role of satisfaction in the relationship between the factors affecting participation in virtual events and behavioral loyalty. The results of the regression analysis to determine the mediating role of overall satisfaction between independent variables (networking, program, online content engagement, and perceived usefulness) and dependent variables (future intention and loyalty) were significant.

According to the results of ANOVA tests, there was an important difference between the age groups` responses to the networking and functional value dimensions. For example, the mean of the age group of 18-24 was 5.58 however the mean of the age group of 45-54 was 4.76. This shows the youngest group gave more importance to networking dimension. In addition to this, responses of the age group of 35-44 (mean: 4,83) gave more attention to the functional value than the age group of 45-54 (mean: 4.03).

There was also a difference between the responses given to the "networking and activities dimensions" according to education. The participants who had bachelors' degree gave more importance both networking (mean: 5.2909) and activities dimensions (mean: 4.7866) than

doctorate degree participants (networking dimension's mean: 4.7569; activities dimension's mean: 4.1470).

Practical Implications

It is important to specify that this research has valuable suggestions through event industry professionals as the reports have stated that after pandemic virtual and hybrid events will continue. Especially event planners should be aware of the importance of online content engagement and the program for the satisfaction of the attendees. If a content of the program and the topic is interesting and consists of new subjects, then attendees will be content and satisfied. Event planners should also take into consideration of the reputation and keynote speakers.

In the research results it is found that in virtual events, quality of virtual exhibitions during break times is not as important as it is in face-to-face events. According to the results, attendees have stated that they enjoy following the event online and find mobile apps useful at virtual events. They also say that mobile apps enhance the quality of virtual events and increase productivity. That`s why it can be recommended that instead of spending money for virtual shows and exhibitions during break time of the event, planners should make investment to technological part.

Networking is always an important motivator for the attendance of the face-to-face events. It is also the same in virtual events especially being in a global environment is the top driver in networking. Attendees do not care that much about making new friends in virtual world but they care about meeting like- minded people, new professionals and creating professional contacts. Business events can continue virtual and hybrid however, future of being social in virtual events can be a question for the event planners.

Another important issue should be inferred from the study that attendees could pay registration fee if they are satisfied with the event content. Also, if their future intention and loyalty is high, they will attend and recommend the event for the next time. Among the various event topics, it is grueling to catch the attention of attendees and create loyalty. This is an important finding for the event planners.

As a conclusion, this research is one of the first studies that has been done during the pandemic period about the virtual events. During this period, most of the people have attended lots of events and it seemed

needed to make an evaluation of attendees' satisfaction level and their intention to future events and loyalty.

Future Research and Limitations

The study had limitations that should be taken into consideration for future research in event industry. The sample size could include more participants as the survey was distributed in lots of different types of events. Especially the researchers tried to reach the attendees during the event or right after the event. The survey sent to them via email after the event many times, but some of the attendees did not fill out the survey. Another important limitation was researchers tried to investigate specific national and international events to evaluate the satisfaction level, however they could not get the permission from the owner of the event. It was clearly understood that for the future research, qualitative methods should be assigned to create an extensive understanding about virtual and hybrid events, for example, making interviews with industry professionals.

REFERENCES

Ajzen, I., & Fishbein, M. (1975). A Bayesian analysis of attribution processes. *Psychological Bulletin*, *82*(2), 261.

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modelling in practice: A review and recommended two-step approach. *Psychological Bulletin, 103*, 411–423.

Antanassopoulos, A., Gournaris, S. P., & Stathakopoulos, V. (2001). Behavioral response to customer satisfaction: An empirical study. *European Journal of Marketing, 35*(5/6), 687–708.

Baron, R. M. & Kenny, D. A. (1986). "The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations". *Journal of Personality and Social Psychology, 51*(6), 1173-1182.

Brodie R. J., Hollebeek, L. D., Juric′, B. & Ilic′, A. (2011). Customer engagement: Conceptual domain, fundamental propositions, and implications for research. *Journal of Service Research, 14*(3) 252-271.

Büyüköztürk, Ş. (2002). Faktör analizi: Temel kavramlar ve ölçek geliştirmede kullanimi. *Kuram ve Uygulamada Eğitim Yönetimi, 32*(32), 470-483.

Calder, B. J., Malthouse, E. C., & Schädel, U. (2009). An experimental study of the relationship between online engagement and advertising effectiveness. *Journal of Interactive Marketing, 23*(November), 321–331.

Child, D. (2006). The essentials of factor analysis. Continuum: London.

Copans, V. (2021). What is 365 engagement and how will it impact events?. Retrieved on September 01, 2021 from https://www.eventmanagerblog.com/365-virtual-event-engagement

Copans, V. (2020). Ways to leverage virtual event design to increase engagement. Retrieved on September 01, 2021 from https://www.eventmanagerblog.com/virtual-event-design-for-virtual-engagement

Doyle, M. (2013). Virtual event definitions. Virtual Edge Community. Retrieved on August 01, 2021 from www.virtualedge.org/page/virtual-event-definition

Dolasinski M. J, Roberts, C., Reynolds, J., & Johanson, M. (2020). Defining the field of events. *Journal of Hospitality & Tourism Research, 20*(5), 1-20.

Doğan, N., & Başokçu, T. (2010). İstatistik tutum ölçeği için uygulanan faktör analizi ve aşamalı. *Eğitimde ve Psikolojide Ölçme ve Değerlendirme Dergisi, 1*(2), 65-71.

Event Managers Blog. (2021). State of the event industry survey 2021 – Q1. Retrieved on September 1, 2021 from https://www.eventmanagerblog.com/state-of-the-event-industry-update/

Event Managers Blog. (2019). The new rules of attendee engagement, powering the audience voice. Retrieved on September 1, 2021 from https://www.eventmanagerblog.com/attendee-engagement-2020

Fryatt, J., Garriga, R., Janssen, R., John, R. & Smith, S.J. (2020). How to Guide: The strategic value of virtual meetings and events. *Meeting International Professional Foundation*. Retrieved on March 20, 2021 from https://www.mpi.org/docs/default-source/covid-19/virtual-meetings_howto.pdf?sfvrsn=eb1bfad3_2

Franceschini, M. (2021). The future of event industry 2021 Outlook. Retrieved on September 13, 2021 from https://www.eventmanagerblog.com/the-future-of-the-event-industry-2021-report

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39 –50.

Hanly, P. A. (2012). Measuring the economic contribution of the international association conference market: An Irish case study. *Tourism Management*, *33*(6), 1574-1582.

Hahm, J., Breiter, D., Severt, K., Wang, Y., & Fjelstul, J. (2016). The relationship between sense of community and satisfaction on future intentions to attend an association's annual meeting. *Tourism Management, 52*, 151–160.

Jung, S., & Tanford, S. (2017). What contributes to convention attendee satisfaction and loyalty? A meta-analysis. *Journal of Convention & Event Tourism, 18*(2), 118-134.

Kharouf, H., Biscaia, R., Garcia-Perez, A., & Hickman, H. (2020). Understanding online event experience: The importance of communication, engagement and interaction. *Journal of Business Research, 121*, 735-746.

Kim, W., & Malek, K. (2017). Understanding the relationship among motivation to attend, satisfaction, and loyalty of medical convention attendees. *Journal of Convention & Event Tourism*, *18*(4), 1-18.

Kim, S., Lee, J. S., & Kim, M. (2012). How different are first-time attendees from repeat attendees in convention evaluation?. *International Journal of Hospitality Management*, *31*, 544-553.

Lee, J., & Black, K.-J. (2009). An examination of attendee brand loyalty: Understanding the moderator of behavioral brand loyalty. *Journal of Hospitality & Tourism Research*, *33*(1), 30–50.

Luxford, A., & Dickinson, J. (2015). The role of mobile applications in the consumer experience at music festivals. *Event Management, 19*(1), 33–46.

Mair, J., & Thompson, K. (2009). The UK association conference attendance decision making process. *Tourism Management, 30*(3), 400–409.

Mair, J., Lockstone-Binney, L. & Whitelaw, P. A. (2018). The motives and barriers of association conference attendance: Evidence from an Australasian tourism and hospitality academic conference. *Journal of Hospitality and Tourism Management, 34*, 58-65.

Marriott, H. R., & Williams, M. D. (2018). Exploring consumers perceived risk and trust for mobile shopping: A theoretical framework and empirical study. *Journal of Retailing & Consumer Services*, *42*(1), 133-146.

Nunnally, J. C. (1967). Psychometric Theory. 1st ed., New York: McGraw-Hill.

Oppermann, M., & Chon, K. S. (1997). Convention participation decision-making process. *Annals of tourism Research*, *24*(1), 178-191.

Pearlman, D.M., & Gates, N.A. (2010), Hosting business meetings and special events in virtual worlds: A fad or the future?. *Journal of Convention & Event Tourism, 11*(4), 247-265.

Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers, 36*, 717–731.

Rittichainuwat, N.B., Beck, J. A., & Lalopa, J. (2001), "Understanding motivators, inhibitorsand facilitators of association members in attending international conferences". *Journal of Convention and Exhibition Management, 3*(3), 45-62.

Rose, N., & Steinbrink, S. (2011). Real and virtual meetings technology. *Phocuswright Innovation Edition*, 1–14.

Rose, S., Hair, N., & Clark, M. (2011). Online customer experience: A review of the business-to consumer online purchase context. *International Journal of Management Reviews, 13*(1), 24–39.

Severt, D., Wang, Y., Chen, P., & Breiter, D. (2007). Examining the motivation, perceived performance, and behavioral intentions of convention attendees: Evidence from a regional conference. *Tourism Management, 28*(2), 399–408.

Simons, I. (2019). Events and online interaction: the construction of hybrid event communities. *Leisure Studies, 38*(2), 145-159.

Sox, C., & Campbell, J. (2018). Virtually impossible? Assessing factors for technology acceptance within the meeting environment. *Event Management, 22*(4), 655–670.

Sox, C. B., Campbell, J. M., Kline, F. S., Strick, S. K., & Crews, T.B. (2017). Virtual and Hybrid Meetings: Gaining Generational Insight from Industry Experts, *International Journal of Hospitality & Tourism Administration, 18*(2), 133-170.

Sox, C. B., Crews, T.B., & Kline, F. S. (2014) Virtual and Hybrid Meetings for Generation X: Using the Delphi Method to Determine Best Practices, Opportunities, and Barriers, *Journal of Convention & Event Tourism, 15*(2), 150-169.

Society for Incentive Travel Excellence (SITE). (2020). Incentive Travel Industry Index 2020 Survey Highlights. Retrieved on September 9, 2021 from https://www.siteglobal.com/siteindex

Tabachnick, B.G. & Fidell, L.S. (2001). Using Multivariate Statistics. 4th Edition, Boston: Allyn & Bacon.

Tanford, S., Montgomery, R., & Nelson, B. K. (2012). Factors that influence attendance, satisfaction, and loyalty for conventions. *Journal of Convention & Event Tourism, 13*(4), 290-318.

Talantis, S., Shin, Y. H., & Severt K. (2020). Conference mobile application: Participant acceptance and the correlation with overall event satisfaction utilizing the technology acceptance model (TAM). *Journal of Convention & Event Tourism, 21*(2), 100-122.

Yoo, J. J. E., & Chon, K. (2008). Factors affecting convention participation decision-making: Developing a measurement scale. *Journal of Travel Research*, *47*(1), 113-122.

Wreford, O., Willams, N.L., & Ferdinand, N. (2019). Together Alone: An Exploration of the Virtual Event Experience. *Event Management, 23*, 721- 732.

Wan, Y. K. P., & Chan, S. H. J. (2011). Factors that affect the levels of tourists' satisfaction and loyalty towards food festivals: a Case Study of Macau. *International Journal of Tourism Research, 15*, 226–240.

Zhang, H. Q., Leung, V., & Qu, H. (2007). A refined model of factors affecting convention participation decision-making. *Tourism Management, 28*(4), 11- 23.