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# TOURISM EVENT: PERCEPTIONS ON THE CRITICAL INDICATORS OF CLIMATE VARIABILITY AND CHANGE IN MALAYSIA

#### Nurhazani MOHD SHARIFF\*

University Utara Malaysia, School of Tourism, Hospitality & Event Management, COLGIS, 06010, Sintok, Kedah, Malaysia, e-mail: hazani@uum.edu.my

#### Azlan ZAINOL ABIDIN

University Utara Malaysia, School of Languages, Civilization & Philosophy, CAS, 06010, Sintok, Kedah, Malaysia, e-mail: azlan@uum.edu.my

#### Ahmad Edwin MOHAMED

University Utara Malaysia, School of Tourism, Hospitality & Event Management, COLGIS, 06010, Sintok, Kedah, Malaysia, e-mail: edwin@uum.edu.my

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**Abstract:** The main purpose of the study was to investigate the perceptions on critical indicators of climate variability and change in the context of tourism event. Four indicators were identified namely, awareness and information sharing, policy and regulatory framework, added economic value and effective communication. To further explore and understand the perceptions, the method of the study involved a number of 57 event program students at the University Utara Malaysia as respondents. The findings indicated that they highly agreed to all four indicators as vital indicators of climate variability and change which need to be taken into account during conducting the tourism event. The findings highlighted that the effective communication is perceived as the most critical indicator whilst the added economic value is perceived as the least indicator of climate variability and change. The study suggested that further research should be undertaken with more number of respondents and also investigating the event organizers' perceptions on the critical indicators due to the fact that they are business oriented and would significantly consider the impacts of the event during climate variability and change.

Key words: Tourism event, critical indicators, climate variability and change, perceptions

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<sup>\*</sup> Corresponding author

#### **INTRODUCTION**

Event or special event is defined by Getz (2005) as a one-time or infrequently occurring event outside the normal range of choices or beyond everyday experiences. According to Roche (1994), a special event refers to a large-scale leisure event that is held over a relatively short period, but has long-term consequences for the destination. Additionally, Getz (2005) has also developed a typology of tourism event, which includes touring attractions and community festivals as well as business, sports, education, religious, and political events. Further, he stressed that local events that chiefly draw residents and local people are at the bottom of the hierarchy, whereas regional events with drawing power to entice both local residents and overseas visitors are on the middle of the scale. The importance of climate variability and change to tourism event has been highlighted in several literatures, in fact several studies on climate variability and change have indicated that they appear to be low levels of concern and little evidence of long-term strategic planning in anticipation of future changes in climate particularly in the context of tourism stakeholders decision making such as investors, insurance companies, tourism enterprises, governments, and tourists (Elsasser & Bürki, 2002; Gossling & Hall, 2006; Scott, 2006; Becken & Hay, 2007). Kaján & Saarinen (2013) highlights that more studies have focused over the past 15 years on the issue of adaptation of climate change in tourism. Additionally, a study related to climate change in the aviation industry has noted that climate change might influence the decisions to take holidays by air (Dickinson et al., 2013).

### **Problem Statement**

Even though the perceptions of climate variability and change impacts in a region are often heavily influenced by the nature of media coverage, the response of tourists to the complexity of destination impacts will reshape demand patterns and play a vital role in the eventual impacts of climate change on the tourism industry. In Malaysia, the climate variability and change would raise the temperature up to 2°C and with more extreme hydrological conditions such as higher maximum and minimum of rainfall and river flow (Tiong, 2009).

These would significantly lead to water sufficiency, food security, economic loss and infrastructure construction. Even though there are few studies on climate variability and change in the tourism industry, limited studies on tourism event have been conducted. Therefore, it is vital particularly to investigate the critical indicators which might influence the success of tourism event during climate variability and change.

#### **Research Objective**

The main purpose of the study was to investigate the perceptions on critical indicators of climate variability and change in the context of tourism event. Four indicators were identified namely; awareness and information sharing, policy and regulatory framework, added economic value and effective communication.

### LITERATURE REVIEW

Changes in temperatures and other climatic features will vary globally (IPCC 2007). It is very likely that hot extremes, heat waves and heavy precipitation events will continue to become more frequent. Another study by Tol (2007) and Gossling et al. (2008) have considered the effect on tourist flows of more specific variables related to (but not part of) climate change, such as the air transport eco-tax. Most research concludes that climate is an important consideration for tourists' destination decisions and climatic variables can explain tourists' flows. Glover (2010) has studied on the factors that most strongly related to Kaizen event sustainability and found that Kaizen Event Characteristics, Work Area Characteristics, and Post-Event Characteristics are

indicators to Kaizen event Sustainability Outcomes. Additionally, a study has been conducted by Schütter (2010) on the success factors of a leading meeting industry destination. The findings identified several general success factors which include easy accessibility; good infrastructure in terms of meetings facilities, public transportation and accommodation; branding and right image building of a destination; good marketing activities; beneficial networking possibilities; attractive cultural offer; stability, security and quality of living of the destination; understanding of association patterns and to be home to corporate headquarters.

Previously, Burger and Saayman (2009) have conducted a study in South Africa on the key success factors in managing conference centre. It is highlighted in their study thar six factors show some similarities to similar research conducted in other sectors of the tourism industry namely activities and layout, marketing, operational aspects, planning, design and evaluation and human resources. Cashman et al. (2012) have concluded in their study that climate change had increased the operating costs and competition of water resources for tourism in Barbados.

### **METHODOLOGY**

For the purpose of investigating the perceptions of critical indicators of climate variability and change, the study was targeted to final year students from the Event Management Program, School of Tourism, Hospitality and Event Management at the Universiti Utara Malaysia. They were selected based on the fact that all final year students taking Event Management Program had conducted at least an event as their projects. Hence, they had been exposed to the critical indicators. There were a total of 57 final year students taking Event Management Program by December 2017. The questionnaire for this study was adopted and adapted from previous literature relating to the topic for instance Cserháti and Polák-Weldon (2010), Burger and Saayman (2009) and Glover (2010). Data gained from the survey were analysed for descriptive statistics using a Statistical Package for Social Sciences, version 19.0 created by SPSS.

# FINDINGS

### The Respondents' Profiles

Most of the respondents had conducted less than 3 projects in a year (49.1%) and only few had conducted between 3 to 5 projects in a year (22.8%). Majority of them had conducted an educational project in tourism (42.1%) with only a small proportion conducted a project on training (3.5%). The findings also indicated that most of the respondents had participated in a team consisted of more than 10 people (70.2%). Majority of the respondents also stated that they had managed tourism project of less than 1 year (78.9%) and the remaining had experienced in managing the project between 1 to 5 years (21.1%).

### Perceptions on the Awareness and Information Sharing

All the six items of awareness and information sharing were highly agreed by the respondents as critical indicator of climate variability and change to tourism event (Table 1). Majority of the respondents agreed (45.6%) and strongly agreed (40.4%) that it is vital to inform the participants regarding the potential benefits of the tourism event. In fact, most of them also agreed that it is vital to educate the participants of the potential benefits (56.1%). The findings also noted that majority of the respondents agreed (59.6%) that having an efficient information exchange system for the tourism event is important during climate variability and change. Only few respondents slightly disagreed that it is vital to focus on the establishment of low cost (5.2%) and high benefit utility sharing (2.0%). Figure 1 presents the distribution of the findings based on histogram chart.

<b></b>	Table 1. Awareness and Information Sharing       Items     Percentage (%)				
No.	Items		~ 1		
_		Disagree	Neutral	Agree	Strongly Agree
1	Informing the participants regarding the potential benefits that can be achieved.	0	14.0	45.6	40.4
2	Educating the participants of the potential benefits that can be achieved.	0	12.3	56.1	31.6
3	Vital to have an efficient information exchange system.	0	19.3	59.6	21.1
4	Vital to focus on the high benefit utility sharing.	2.0	26.0	50.9	21.1
5	Vital to implement a transparent information exchange system.	0	36.8	50.9	12.3
6	Vital to focus on the establishment	5.2	40.4	40.4	14.0



**Table 1.** Awareness and Information Sharing

Figure 1. The Histogram Chart on the Awareness and Information Sharing

### **Perceptions on the Policy and Regulatory Framework**

The findings further indicated that all the four items of policy and regulatory framework were positively perceived by the respondents as critical aspects of climate variability and change to tourism event (Table 2). Most of the respondents agreed that it is vital to create appropriate conditions (66.7%) and to identify opportunities (63.0%) for tourism event through the policy intervention. Only few of the respondents disagreed with both statements. Additionally the respondents also agreed that the implementation of policies and rules and also the enforcement of environmental laws are important for tourism even during climate variability and change (44.0%). Figure 2 presents the distribution of the findings based on histogram chart.

of low cost.

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No.	Items	Percentage (%)			
		Disagree	Neutral	Agree	Strongly Agree
1	Implementation of the policies and rules of organization.	1.0	16.0	44.0	39.0
2	Enforcement of environmental laws by the government agencies.	3.0	18.0	44.0	35.0
3	Opportunities identification through policy intervention.	2.0	14.0	63.0	21.0
4	Creation of appropriate conditions through policy intervention.	3.5	15.8	66.7	14.0

Table 2. Policy and Regulatory Framework



Figure 2. The Histogram Chart on the Policy and Regulatory Framework

No.	Items	Percentage (%)			
		Disagree	Neutral	Agree	Strongly Agree
1	Involvement of other parties.	3.5	19.3	43.9	33.3
2	Organizer willingness to invest time.	3.5	21.1	45.6	29.8
3	Organizer willingness to invest other resources.	3.5	26.3	38.6	31.6
4	Organizer willingness to invest money.	7.0	33.3	35.1	24.6

Table 3.	Added	Economic	Value
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# Perceptions on the Added Economic Value

Further, Table 3 depicts the findings regarding added economic value as critical indicator of climate variability and change to tourism event. The findings noted that most of the respondents agreed that the tourism event organizer willingness to invest time would add economic value to the program (45.6%). Similarly, most of them also agreed

that the involvement of other parties in the tourism program is vital in adding economic value to the program during the climate variability and change. Figure 3 presents the distribution of the findings based on histogram chart.



Figure 3. The Histogram Chart on the Added Economic Value



Figure 4. The Histogram Chart on the Effective Communication

# **Perceptions on the Effective Communication**

Further, Table 4 presents the findings of three aspects in the effective communication. It can be seen that majority of the respondents strongly agreed that event

organizer should provide clear communication objectives and have constant communication during the climate variability and change (49.1%). Additionally, the findings also indicated that most of the respondents strongly agreed that using formal and frequent communication tools is important during the climate variability and change (33.3%). Figure 4 presents the distribution of the findings based on histogram chart.

	Table 4.	Effective Collin	funcation		
No.	Items	Percentage (%)			
		Disagree	Neutral	Agree	Strongly Agree
1	Providing clear communication objectives.	3.5	7.0	40.4	49.1
2	Having constant communication.	0	14.0	37.0	49.0
3	Using formal and frequent communication tools.	5.3	22.8	38.6	33.3

Гable 4.	Effective	Communica	tion
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### **Overall Perceptions on the Critical Indicators**

Table 5 depicts the findings of the mean value for all the four indicators. It was noted that the effective communication derived as the most critical indicator of climate variability and change to tourism event (m = 4.2281) whilst the added economic value derived as the least critical indicator (m = 3.9605).

Table 5. Mean Value of the Critical Indicators				
<b>Critical Indicators</b>	Mean Value			
Effective communication	4.2281			
Policy and regulatory framework value	4.0570			
Awareness and information sharing	3.9620			
Added economic value	3.9605			

### DISCUSSION

The findings have fulfilled the main objective of the study as stated in the earlier part of the report. It can be concluded that four major aspects are significantly considered by the respondents as critical indicators of climate variability and change to tourism event namely awareness and information sharing, policy and regulatory framework, added economic value and effective communication. The findings of the study showed that the most critical indicator is the effective communication, followed by the policy and regulatory framework and the awareness and information sharing. The added economic value is considered by the respondents as the least indicator which may also provide greater impact to tourism event.

During an event, it is important to consider the effective communication among all the stakeholders involved in the event program. The study significantly found that effective communication is essential for successful event during the climate variability and change. This is in line with previous study by Cserháti and Polák-Weldon (2010) which indicated that cooperation and communication among the stakeholders are two important aspects in determining the successful of sporting event.

The current study also indicated that the policy and regulatory framework is another critical indicator of climate variability and change to tourism event. As highlighted by Gibbs and Deutz (2007), the factor should be designed and implemented to play an enabling role in determining the success of an event thus in relation to the current study, this factor is considered essential particularly to the event organizer in order to plan and manage the event programs during climate variability and change. The policy makers should set standard regulations or principles which must be followed by the event organizer to avoid unnecessary situation which usually may happen during climate variability and change. In line with the study by Sakr et al., (2011), the factor plays vital role in determining the success of environmental strategies based on innovative policy tools for the eco-industrial park in Egypt.

Additionally, the awareness and information sharing which derived as the third vital indicator is also significant to the previous study by Sakr et al., (2011). The indicator is found to play important role not just among the participants but also to the audience so that any impacts which may occur during the climate variability and change would be alert and further problems could be avoided. Also in line with Lowe (2001) suggestion, the awareness and information sharing cound be performed through networking with key individuals and organizations, conducting workshops or conferences and having informative websites. More, the awareness and information sharing is also essential as it would assist the company to find suitable business and sharing of tools and resources within the community (Heeres et al., 2004).

Consistent to the study by Sakr et al., (2011) which indicated the added economic value as the second important critical factors for eco-industrial park, it is also seen as another vital critical indicator to successful event programs in tourism during climate variability and change. Even though it was considered as the least critical indicator, it is still considered as important aspect which need to be gained by all the parties involved including trust and cooperation (Gibbs & Deutz, 2007). In the case of the current study, the added economic value can also be gained through the fund sponsored by the university since most event programs were related to the students activities within the university itself.

### **Implications of the Study**

The findings would assist the stakeholders particularly the event organizers in the tourism industry to have better information regarding the critical indicators of climate variability and change which may provide greater impacts to the event programs. Identification of four major critical indicators namely the awareness and information sharing, policy and regulatory framework, added economic value and effective communication would significantly guide the event organizers to plan and manage better event programs in tourism particularly in preparing for the event participants and audiences.

# Limitations and Directions for Future Research

The study only focused on the students of Event Program with the assumption that they had conducted several event programs related to tourism. More, the study was only limited to the students conducting event programs in tourism surrounding the campus of Universiti Utara Malaysia. Other stakeholders' perceptions such as the event organizer and the tourism planners should be taken into account for further study in order to have better understanding regarding the critical indicators.

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