

Dimensions of Public Participation in Malaysia: A Modified Delphi Study

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ABSTRACT

Public participation in the decision making process is regarded as a crucial practice in sustainable development. The true and authentic practice of public participation can promote mutual understanding between stakeholders and result in success in collaboration strategies. Generally, public participation seeks and facilitates the involvement of relevant groups of people which have an interest in a decision. Tourism development, especially in fragile environments such as protected areas would significantly affect groups of people, including the management, other relevant agencies and local communities. Any planning in fragile areas will need to ensure balance development between fulfilling the requirements for tourism to flourish in the area and caring for the environment. Thus, this study aimed to investigate the determinants of success in public participation with reference to tourism planning in a protected area in Malaysia and to test whether a consensus can be achieved using the technique. A modified Delphi study was performed where the three panels of expert were invited to participate in three-round iterations. The result of the study confirmed that a consensus of opinion between all three panels were indeed possible. The determinants were identified in five dimensions; process, product, institutional, situation specific and human dimensions.

KEYWORDS: public participation, tourism planning, protected areas, modified Delphi study

1. INTRODUCTION

Tourism is known as one of the fastest growing industry in the world. In 2013, UNWTO World Tourism Barometer recorded receipts in destinations worldwide has reached an estimated US\$1159 billion, which was approximately 5% increase from the previous year. Asia and the Pacific are the fastest growing destinations with an increase of receipts by 8% [22]. This promising increase of tourism especially in Asia region has triggered the respective governments and their agencies to continuously plan and prepare for the arrivals of potential tourists. Malaysia is not excluded with many programs being organized and planned under the Ministry of Tourism. For example, the year 2014 is promoted as Visit Malaysia Year with numerous programs being organized to allure tourists to the country. One of our strengths and often marketed as tourists must-see attractions are our precious natural environments which includes the islands, national parks and highlands. Most of these places are designated as protected areas which initially established to protect, conserve and control natural environments. In Peninsular Malaysia, the responsible body for managing protected area is the Department of Wildlife and National Parks, one department under the Ministry of Natural Resource and Environment. However, despite the primary objectives of their establishment as protected areas, many of these protected areas have opened their door to public and eventually promote tourism. The interaction between tourism and conservation are often symbiotic where tourism can encourage the public to become aware of conservation purposes and encourage on-site education. Yet, tourism also has the potential to put some pressure on the natural environment as well. This is because tourism will require certain facilities and infrastructures to be built on-site and this can cause problems especially in fragile areas. Therefore, it is important that planning of any type of tourism in fragile areas such as parks must take into consideration all measures to sustain the natural resources. In sustaining parks and protected areas, good planning and management are thus becoming very important. The emergence of sustainable development concept in early 1990's called for new ways and thinking, which have gained considerable interest since the publication of the Brundtland Report. Since sustainability expresses the idea that people must live within the capacity of their environment to support them,

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this is important to consider, especially in the tourism industry as the industry depends on the maintenance of the environmental qualities [16]. As natural environments such as parks and protected areas are now open to public, the issues related to adopting correct and right ways towards sustainable development have become crucial. One of the concepts of sustainable development is that it requires collective action where inputs from all parties involved and those affected by the development projects must be considered. The local community participation in the planning and management of the tourism area is one of the principles of sustainable tourism [6,7,20]. Local community participation is deemed important and can have significant impacts on the projects and programs developed in a particular area.

The concept of public participation can be loosely described as the involvement of people with a common interest in the process that relates to them. As stated by Awangku Hassanali [1], the word participation implies how and to what extent people are able to share their views, take part in an activity, project, program, decision-making, policy-making and so on. In terms of participation in decision making process, the aim is to achieve consensus through collective decisions. Decision making level of participation marks the commencement of shared responsibilities for outcomes expected. The degree of power and control are exercised by individuals and groups are clearly reflected in the process [5]. This participation level will encourage people to provide ideas and options, often giving opportunities for the people to join in making a decision on the best way forward about the development and the resources that affect them. However, despite the importance of local community participation in planning and management of natural environments, local knowledge and traditional values are often being ignored in sustainable decisions [14]. Since the success in tourism highly depends on the environment, the issues with local community participation should not be taken lightly.

Public participation has the potential to encourage knowledge transfers between the park management and local community and thus provide mutual understanding between all the stakeholders. In Malaysia, public participation is very much in its infancy stage. There were quite a number of literatures indicating barriers towards a true and effective practice of public participation locally. For example, Wong [23] mentioned the top down approach in the Malaysia planning system has done very little towards encouraging the public to participate. Most of the time, the decisions on what to provide for tourists were already being made by top management. In addition, the practice was often tokenism in nature and often mentioned on paper, but the execution was not done properly or at all [3]. A much recent literatures on the issue in Malaysia mainly focused on barriers towards public participation [4,11,12,18] and this has created an obvious gap in literatures. In order to realize the concept of sustainability in resource management and tourism development in natural areas, it is imperative that the management of local community participation gives considerable attention. To do this, it is crucial that a thorough understanding on what makes a successful community participation to be investigated. Thus, this study was motivated by the lack of evidence from the literatures on the determinants of successful public participation in Malaysia. Since this study was one of the first kind to be conducted in Malaysia, it is decided that a study need to include a panel of experts to identify the determinants of successful public participation. Therefore, the study employed a group of key persons in respective organizations with the interest in protected area management in Malaysia. These were individuals either directly involved in policy making and has the ability to influence the decisions or has acquired the knowledge and experience with regards to development in protected areas. By means of a Delphi methodology, the present study aimed to provide such overview by (1) identifying the determinants agreed by participants as important towards public participation success and (2) to determine the consensus level among the experts on the subject being studied. These determinants were constructed in five dimensions based on the findings from previous literatures. The determinants from previous researches by [24,19,13] were studied and then carefully selected to include in the questionnaire. They were grouped and any redundancy was eliminated. Another dimension was introduced in the present study based on findings by Charles and Wilson [2]. As a result, there were 5 dimensions of determinants used in the present study. The dimensions were process-related which addresses how collaboration is structured and conducted, product dimension which indicate the desired outcome of any projects or developments, institutional dimension which addresses situations that can provide important support for collaboration efforts, situation specific which indicate the factors that are specific to a particular situation/sites/communities and human dimension which addresses the social, cultural, economic and institutional factors that define human values and aspirations.

A modified Delphi study was considered most appropriate for this kind of research that requires a consensus of experts in the field under study. Delphi study involves a set of procedure for eliciting and refining opinions of a group of experts without having the experts together face to face, to avoid personality pressures and other related complications. For the purpose of this study, the guidelines outlined by [15] were carefully

followed. The experts were divided into panels; government, academician and non-governmental organizations. The organizations chosen were identified through planning documents and recommendations from an interview done with respective personnel in Department of Wildlife and National Parks. A careful procedure for selecting experts involved identifying relevant disciplines or skills; academicians, practitioners and government officials in relevant organizations. The individuals were then contacted via email and telephone calls and where they were invited to participate. In cases where the individuals denied the request, they were asked to nominate other experts within their organization. For all three panels of experts, the target size for each panel was between 6-12 persons. Since Delphi study does not depend on a statistical sample to be representative of any population [15], thus the number of participants were basically depend on how many experts and nominations were received from each organization.

2. RESEARCH METHODOLOGY

First round: A three round Delphi study was conducted to assess the sort of agreement on determinants of successful public participation. While the majority of round one Delphi study started with open ended questions, there are exceptions to present the participants with a structured questionnaire. According to [8] such modification is acceptable based on extensive review of literature. This is considered appropriate when there are availability of usable information concerning the issue on target [9]. Based on previous literatures and researches as mentioned earlier, there were 40 determinants in 5 dimensions used in the study. The participants were asked to rate based on a 5 point Likert scale ranging from strongly disagree (1) to strongly agree (5). A blank spaces were provided at the end of each question to encourage the participants to write any modifications, refinement and addition of determinants they felt necessary with regards to participation in Malaysia. A set of questionnaire were either emailed or personal hand in to the participants and on average the experts took one month to complete the questionnaire and returned them for analysis. The table below indicates the percentage of experts for each panel.

Table 1: Panel of experts

Panel	No of experts	Percentage
Government agencies	12	41.4
Non governmental agencies	6	21.0
Academician	11	37.6
Total	29	100.00

Second round: A new set of questionnaire was developed for round two where the experts were requested to re-assess and re-evaluate their answers in round two based on the results from round one. Additionally, new determinants introduced by the panel of experts from round one were also presented in the questionnaire in round two. However, in round two, a couple of experts were excluded from the Delphi study due to the large variance in the mean value on the dimensions when compared to overall mean scores of the expert panels in the study.

Third round: In the third round, the results from round two were presented to the experts and again they were requested to re-evaluate and re-assess their answers from the previous round. In this round only 26 experts participated due to the withdrawal of one expert in round two.

Data analyses: Since the first round began with a structured questionnaire, thus statistical analysis can be performed. For Delphi study, mean and standard deviation is often used to make the results easily comprehensible for the reader. The same approach was employed in the present study. In addition, Kendall W coefficient of concordance was also conducted to determine the level of consensus among the experts in this study. This non-parametric statistic regarded as the most widely recognized test of agreement for non-parametric rankings [15]. The interpretations range from 0.1 which indicate very weak agreement to 0.9 which indicate unusually strong agreement. Based on the guidelines by Schmidt [17] once the value of W reaches 0.7 (strong agreement) a conclusion can be drawn that a satisfactory agreement is achieved. In round one, some of the experts have made some comments and suggestions to include new additional determinants. The written words and sentences were carefully examined and discussed by the researcher and grouped into similar themes and meanings.

Data analyses in round two and three were conducted similarly as in round one. Mean and standard deviations were presented in questionnaire in both rounds. Kendall W coefficient of concordance was conducted again to determine the consensus level among the experts.

3. RESULTS

Mean results for round one, two and three.

Table 2: Mean results

DIMENSIONS/Attributes	Round 1		Round 2		Round 3	
	Mean (N=29)	Std. Deviation (N=29)	Mean (N=27)	Std. Deviation (N=27)	Mean (N=26)	Std. Deviation (N=26)
PROCESS DIMENSION						
Clearly explained outcome	4.75	0.43	4.92	0.26	4.96	0.19
Clearly identified objectives	4.68	0.54	4.85	0.36	4.96	0.19
Agenda not influenced by politician/interest group	4.68	0.47	4.81	0.39	4.92	0.27
Leadership and dedication	4.65	0.55	4.77	0.42	4.92	0.27
Involved as part of responsibility	4.65	0.55	4.22	0.42	4.19	0.40
Sense of ownership	4.65	0.48	4.77	0.42	4.88	0.32
Commitment by participant to success	4.65	0.48	4.74	0.44	4.84	0.36
Opportunity to learn	4.62	0.49	4.81	0.39	4.88	0.32
Information sharing and joint fact finding	4.58	0.56	4.70	0.46	4.84	0.36
Encourage communicate	4.58	0.56	4.77	0.42	4.88	0.32
Ensure concerns being heard	4.58	0.50	4.70	0.46	4.92	0.27
Encourage social networking	4.58	0.50	4.81	0.39	4.88	0.32
Inclusive problem solving	4.55	0.50	4.77	0.42	4.88	0.32
Ensure proper access for public	4.55	0.50	4.85	0.36	4.92	0.27
Help build relationship	4.48	0.57	4.07	0.26	4.03	0.19
Ensure interest are represented	4.48	0.63	4.70	0.46	4.92	0.27
Presence of management/decision makers rep	4.24	0.95	4.14	0.36	4.11	0.32
Available current and reliable info	4.48	0.50	4.74	0.44	4.84	0.36
Fairness to all participants	4.27	0.75	4.88	0.32	4.96	0.19
Distribute materials beforehand	4.20	0.49	4.11	0.32	4.07	0.27
Good interpersonal skills	4.17	0.75	4.22	0.42	4.15	0.36
Ensure input reflected in document/decision	4.13	0.51	4.70	0.46	4.80	0.40
Use facilitators	4.06	0.59	4.18	0.39	4.11	0.32
All participants share problems	3.89	0.67	3.33	0.48	3.03	0.19
Content of report easy to understand*			4.66	0.48	4.80	0.40
Frequent meetings*			4.29	0.46	4.07	0.27
Opportunity to be present to all*			3.85	0.66	3.11	0.32
PRODUCT DIMENSION						
Development plans well implemented	4.68	0.47	4.81	0.39	4.92	0.27
Development plans well written	4.37	0.49	4.66	0.48	4.92	0.27
Development plans politically acceptable	3.96	0.56	3.96	0.19	4.07	0.27
INSTITUTIONAL CONTEXT						
Perceived legitimacy	4.41	0.50	4.77	0.42	4.96	0.19
Provisions of funds and grants	4.24	0.68	4.55	0.50	4.76	0.42
Access to technology assistance	4.06	0.65	4.14	0.36	4.07	0.27
HUMAN DIMENSION						
Deal with displacement	4.72	0.52	4.66	0.48	4.84	0.36
Consider potential costs and benefits	4.68	0.54	4.70	0.46	4.96	0.19
Acknowledge unique social/ecological context	4.65	0.55	4.81	0.39	4.92	0.27
Supplement of people-oriented info	4.48	0.68	4.14	0.36	4.15	0.36
Establish rapport beforehand*			4.51	0.50	4.76	0.42
SITUATION SPECIFIC						
Trust among participants	4.75	0.43	4.74	0.44	4.96	0.19
Respect among participants	4.68	0.54	4.77	0.42	4.96	0.19
Participants have common visions	4.51	0.57	4.62	0.49	4.92	0.27
Shared sense of place	4.37	0.67	4.59	0.50	4.73	0.45
Perceived interdependence	3.89	0.67	3.66	0.48	3.07	0.27
Must establish personal relationship	3.68	0.66	3.51	0.50	3.03	0.19

(Scale: 1= strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree)

The results for round one was analyzed with rating value ranging from 4.75 the highest to 3.68 the lowest. The top three determinants were *clearly explained outcome, deal with displacement and trust among participants*. There were four determinants scored lowest value. They were *must establish personal relationship, all participants share problems, development plans politically acceptable and perceived interdependence*. The lowest determinants scored below than 4.0 which indicate they were neutral agreement. This meant that experts were not determined that these determinants would have an important effect towards on public participation success. A Kendall's W Coefficient of Concordance test were carried out to determine the consensus level in the first round. There was a lack of agreement between expert panels. Statistics showed that Kendall's W value of 0.206 ($X^2=233.063$, df 39, $p\leq 0.000$). This value indicates a weak agreement between all the experts. However, since this was the first round of the agreement for importance, thus it was expected that there was a lower consensus among the expert panels.

In round one, some of the experts suggest new determinants to be considered and introduced as determinants in the dimensions of public participation. After discussions and interpretations were done by the researcher on the reasons and remarks made by the experts, the three determinants added to questionnaire in round two were shown above which indicated by *. The introduction of the new determinants was seen as an interesting and valuable addition to the lists of existing ones. The determinant *opportunity to be present to all* augers with Principle 10 in the Rio Declaration on Environment and Development 1992 which explicitly state each individual shall have appropriate access to information concerning the environment they lived in, any activities in their communities and an opportunity to participate in the decision making process [21]. New determinant, *frequent and proper scheduled dialogue sessions* was somehow supporting the first new determinant suggested. Creating awareness among the local community on the importance of taking part in the decision making process is probably not an easy task; the experts felt that proper scheduled or frequent dialogue sessions could instill interest among the public to participate effectively. Another addition suggested was the determinant *content written in easy to understand language*. Even though the panel of experts were well-educated and well experienced individuals, they were still concerned about how reports are written and it is important that is must be prepared in languages easy to understand. The issue with language use in reports and framework of sustainability utilized by local authorities was found to be a major concern in Malaysia in a study conducted by Mariana et. Al., [10] where they suggested that work must be done to improve the language and communication use in public participation to facilitate fuller sharing of concepts and values. The last addition made to the list of determinants was *establishing rapport between management and the public*. This was mentioned by one expert panel that it was very important to start collaboration on important matters such as participating in the decision making process with a good understanding between all parties involved.

The results in round two showed further improvements in many of the determinants across all five dimensions. Rating value for most of these determinants have increased ranging from 4.92 the highest to 3.33 the lowest. Five determinants still scored lower value compare to others and fall under a neutral agreement. These were *opportunity to be present to all, all participants share problems, development plans politically acceptable, perceived interdependence and must establish personal relationship*. Basically, these were the same determinants scored less in the previous round. There was an increase in consensus observed in this round. Kendall's W value improved to 0.433 ($X^2=502.336$, df 43, $p\leq 0.000$). Since this was the second round where the rating is involved, thus it was expected that there will be improved consensus among the experts.

Further improvements in term of mean value were observed in the third round. The rating value of their agreement was improved significantly with 4.96 as the highest mean value. The lowest recorded a further decrease with 3.03. The determinants that scored highest mean value were *clearly explained outcome, clearly identified objectives, fairness to all participants, perceived legitimacy, consider the potential costs and benefits, respect among participants and trust among participants*. On the other hand, determinants with lowest mean value were *opportunity to be present to all, all participants share problems, perceived interdependence and must establish personal relationship*. The result from round three also showed an improving consensus in rating the determinants. The Kendall 's W Coefficient of concordance value improved from the previous round to 0.711 ($X^2=794.616$, df 43, $p\leq 0.000$). With Kendall's W value above 0.7 this showed a strong consensus among the experts in the study and thus concluded that rating rounds for all the determinants has completed.

4. DISCUSSION

The present study aimed to provide such overview by (1) identifying the extent to which the participants agree on the determinants and (2) to determine the consensus level among the experts on the subject being

studied. The Delphi technique, a qualitative research approach was used for this exploratory study. Local experts from various disciplines related to tourism planning and park management were identified and participated in three rounds of the Delphi technique. However, certain limitations are commonly associated with any research effort, and are worthy to mention. For instance, the individuals participating in this investigation represented by only selected organizations and each subject possessed varying levels of background and experience thus the results may have been different.

A comparison of the results of this study to the findings of previous studies conducted in forest and natural environment management finds distinct similarities. The selected attributes for public participation in Malaysia were priority indicators of successful public participation, comprising most of the components suggested by Yaffee et al [24] in their summary and analysis of factors that promote bridging in ecosystem management. In their summary, they identified three dimensions; situation specific, process related and institutional context with seventeen attributes were found to be important in promoting bridging and crucial to the success of the collaboration. These augurs with the findings in this study where all three dimensions with some modifications in attributes were selected as important by the expert panels. Product dimension with three attributes were found to be equally important to consider as well. This was similar to findings by McCool and Guthrie [13] which identified two dimensions; process and product to be important dimensions of successful public participation. To answer the first objective, the investigation concluded that 40 determinants in 5 dimensions were regarded as important towards successful public participation in Malaysia. These determinants were selected as they scored 4.0 point and above which extend as agree in importance ratings by the panel of experts.

An increasing value of Kendall W Coefficient of Concordance from 0.206 in round one to 0.711 in round three is the evidence of their argument and answers the second objective of this paper. The agreement between the expert panels was measured by the Kendall's W Coefficient of Concordance. Round one started with the rating procedure where the result yielded a low level value of Kendall's W Coefficient of Concordance (0.206). This indicates a lack of agreement between expert panels in their agreement on the attributes. In this round, the expert panels were encouraged to write any modifications or even new ideas with regard to attributes that they regarded important with reference to local context. The result for round two had shown improvement in terms of agreement rating between the expert panels. There were changes in positions, however the overall majority of the attributes resulted in improving mean value. The Kendall's W Coefficient of Concordance improved to 0.433, but this is not enough to stop the iterative process which needs a degree of consensus among expert panels more than 0.7 [17]. Hence, the process continued to round three where the result showed an improvement to 0.711. The strong consensus indicated in round three justify the decision to stop the iterative rounds for Delphi study.

This study has included a new dimension which has been introduced by Charles and Wilson [2]. While their study was focused on marine protected areas, the findings in this study also suggested that the human dimension is another important dimension in public participation. The result indicated that five attributes under this dimension have a sound mean value throughout the rounds, thus concluded that these attributes were agreed as important by the expert panels. In addition, new attributes were discovered from the exercise. This is seen as a very important contribution made from the study where attributes specifically related to Malaysia were identified. The exercise has allowed the expert panels to share their views and ideas and thus suggest new attributes to be considered.

5. CONCLUSION

Public participation practice need to be properly conducted and managed in order to ensure its reliability as one of the principle in sustainable development. In tourism, especially it is utmost important to ensure that every level of stakeholders would have the opportunity to be present, especially in the decision making process to facilitate the practice of sustainable tourism. While it was evident in many previous literatures that the public in Malaysia were not actively participate in the planning process, this issue should not be taken lightly, especially in managing fragile areas. Thus, this study has contributed in terms of providing an exploratory towards the determinants to success of public participation. The five dimensions were found to be of equal importance with 40 determinants to be included in consideration to public participation. In addition, the study also found that consensus among the panels of expert could be established, albeit only with revised and addition of existing and new determinants perceived by the panels as being important in today's practice of public participation in protected areas locally.

While this study was exploratory in nature to firstly identify the determinants of success in public participation according to experts, the second part of the research will involve a field survey which will include

a larger participant at a chosen protected area in Malaysia. The second part of the research will verify the findings from the Delphi study and thus enhance the findings of the overall research.

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