

Structural Equation Model on Tourism Motivations and Intentions towards Disaster Tourism

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ABSTRACT

This study explored tourist motivation and intentions in visiting destinations that were affected by natural disasters. The Philippines is situated along the typhoon belt in the Pacific making it vulnerable to destructive typhoons. Natural disasters often attracted several tourists curious about the situation of a destination with this experience, however, very limited research explores the motivation of tourists in visiting natural disaster-hit destinations. Thus, this study identified intrinsic and extrinsic motivating factors and tourists' experience that influences behavioral intention to visit destinations after a natural disaster and used a quantitative research design with 400 respondents. Data were analyzed using PLS-SEM. From the analysis, the study concludes that intrinsic motivational factors push tourists to visit a destination affected by natural disasters and extrinsic motivational factors significantly impact tourists' decisions to visit these destinations. Furthermore, the three dimensions of the tourist experience: dark experience, engaging experience, and unique learning experience influenced the propensity to visit a destination after a natural disaster. Moreover, intrinsic motivational factors have a significant relationship with the three dimensions of the tourist experience while extrinsic motivational factors established a significant relationship with the unique learning experience.

Keywords: Dark Tourism; Tourism Motivation; Tourist Intentions; Natural Disaster; Intrinsic Motivation; Extrinsic Motivation.

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1. INTRODUCTION

1.1 Rationale

There is a natural human urge to lay eyes upon the worst disasters that have befallen fellow humans or the planet, but when something really big happens, this human urge can be writ large, resulting in something that has taken on the name, "disaster tourism" or "dark tourism" (Hewitt, 2017). This concept is not a new phenomenon; it often mingles with historical interests in a very honest way. To date, this phenomenon in the tourism industry is considered to be the most important economic development and recovery opportunity for many destinations after disaster strikes (Vlamings, 2018). Sharpley (2005) defines the concept as motivated by a fascination or interest in death and or tourism to sites associated with death, whether individual, mass, violent, natural, untimely, and the like.

A growing trend in the visit to destinations associated with disaster tourism is observed, however, it is important to note that disaster tourism is a special type of tourism business that doesn't appeal to everyone but has an important role in delivering information and bringing the past to present (Titta, 2010). On the contrary, Yuill (2003),

Powell, Kennel, and Barton (2017), cited that there is an increasing number of visitors that are interested in sites associated with death and disaster – these sites range from actual locations of dark events to off-site locales that are in some way connected to such an event. To some extent, tourism can work as a mechanism of resiliency that sublimates what the specialists name the notion of transition, which means that are possibilities and capabilities of a community to renovate it after the disaster hits.

In the Philippines, the experience of the strongest typhoon made the country known and awakened the urge of a significant number of populations to witness and see what the country has undergone. People from around the world came to the country to volunteer, help, and share aid with the victims. DOT Regional Director mentioned that years after, volunteers left yet others came back not as volunteers but as tourists' that were curious about how the Region has been doing. To date, various attractions were built to commemorate the disaster that the region experienced and are still attracting several tourists' to remember and learn from the disaster and to see the complete turnaround of Tacloban City after the natural disaster.

With this, the study was proposed to explore the motivations of tourists in visiting destinations affected by natural disasters and further establishes a potential disaster tourism market that may lead to the development and destination marketing. Development that is anchored on the needs of tourists inclined to this niche and providing infrastructure that showcases the totality of the natural disaster. Moreover, with the limitation in literature in this area of study the result will serve as the benchmark in the creation of dark tourism on the natural disaster model which will contribute to a new body of knowledge in the area of tourism. Furthermore, the study findings will serve as insights for tourism leaders, government leaders, and the private sector in the management of the negative effect of disaster and converting it to become a tourism product.

1.2. Research Objective

This study aimed to explore tourist motivation in terms of extrinsic and intrinsic factors in visiting a destination that has been affected by a natural disaster and tried to understand tourist intentions to visit these destinations. The gathered data was used in the formulation of a dark tourism motivation model which can become a basis for the formulation of programs and plans for dark tourism development in a destination that was and can be affected by natural disasters. Specifically, it sought to answer the following questions:

- 1.2.1. What is the level of tourists' motivation in visiting a destination affected by a natural disaster?
- 1.2.2. What was the experience that respondents seek in the kind of distention?
- 1.2.3. What is the behavioral intention of respondents in visiting destinations affected by a natural disaster?
- 1.2.4. Are there significant relations between intrinsic motivation, tourist experience, and behavioral intention?
- 1.2.5. Is there a significant relationship between extrinsic motivation, tourist experience, and behavioral intention?
- 1.2.6. Is there a significant relationship between tourists' experience and behavioral intention?

1.3. Hypothesis

Based on the aforementioned statement, the following hypothesis was formulated and tested in the study:

- 1.3.1. Intrinsic motivation significantly affects a tourist's experience.
- 1.3.2. Intrinsic motivation significantly affects behavioral intention.
- 1.3.3. Extrinsic motivation significantly affects a tourist's experience.
- 1.3.4. Extrinsic motivation significantly affects behavioral intention.
- 1.3.5. Tourists' experience significantly affects behavioral intention.

1.4.Theoretical Framework

The theoretical framework of the study revolved around Sharpley (2005) and Stone's theory: darkness typology and dark tourism spectrum, respectively. Further, the study was mainly anchored on the Push – Pull Factor Compendium theory by Tolman (1959) and later adjusted by Dann (1997).

Sharpley Darkness Typology

Sharpley's (2005) darkness typology is one of the two primary theories related to dark tourism. Sharpley initially considered the work of Rokek (1997) which highlighted the intention of the visit and whether it was based on accidental or interest-based. Sharpley as well made use of Seaton's five categories of thanatourism which led Sharpley to believe there was a continuum of intensity that is dependent on the motives of travelers visiting the site and their levels of interest in death.

The shades of darkness typology are considered two primary bases when analyzing dark tourism: the tourist as a consumer and the site or attraction as the object of consumption. Since dark tourism can be considered a function of supply and demand, Sharpley (2005) made use of Holt's (1995) typology of consumption practices framework to analyze the consumption of tourism as a whole. Further, it allowed Sharpley (2005) to transition Holt's (1995) four metaphors to dark tourism. The purest form of dark tourism is the intense fascination with death on behalf of the tourist and an attempt to exploit or profit from this fascination from the supplier or tourism location. The spectrum identified two ends for supplier and demand. These two variations of supply lead to a continuum of purpose which links locations to potential consumers' interest or fascination with death.

Sharpley (2005) determined four shades of dark tourism, as follows: pale tourism – minimal or limited interest in death when visiting sites unintended to be tourist attractions; grey tourism demand – tourists have a fascination with death visiting unintended tourism sites; grey tourism supply – These sites are intentionally developed to exploit death, but attract visitors with some, but no dominant, interest in death; black tourism - identified as pure dark tourism. There is a strong fascination with death, which is satisfied by the purposeful supply of experiences intended to satisfy this fascination.

Stone's Dark Tourism Spectrum

The second primary theory that was related to dark tourism was developed by Stone in 2016 and was cited in the study of Powell and Kennel in 2017. The theory was built around the works of Miles (2002), Sharpley (2005), and Strange & Kempa (2003). It was highlighted that there is a crucial difference between locations associated with death and suffering and those locations that are of death and suffering (Miles, 2002) – with this ideology, Stone (2006) created the dark tourism spectrum with six levels of darkness.

The darkest end is mainly categorized based on real, recent, and actual suffering and death. This was often related to education and commemorative rationale which underpins the establishment of an attraction, very often being the authentic site of the suffering which is visited.

On the other hand, the lighter forms of dark tourism focus on entertainment purposes and were not so much influenced and driven by political ideology. Stone further highlights the seven dark suppliers which fall onto the dark tourism spectrum based on the darkness level: dark fun factories, dark exhibitions, dark dungeons, dark resting places, dark shrines, dark conflict sites, and dark camps of genocide.

Push and Pull Factor Theory

The push-pull factors compendium theory (figure 4) is a theory designed by Tolman in 1959 and later adjusted by Dann in 1977. The push-pull factor theory stands on the idea that a motivated individual will act on psychological or physiological stimuli to satisfy a need or to achieve an anticipated goal (Uysal et. al, 2008). This theory has a significant impact on travel-related decisions. Push factors are based on the needs and want of the individual travelers, considered to be the reasons that people want to leave their residence and escape to the tourist destination. On the other hand, the pull factors were factors that attract a tourist to a specific location; these factors were typically associated with the attractiveness of a location and consisted of tangible assets.

2. METHOD

A descriptive correlational technique of Partial Least Square Modeling was used to examine the degree to which intrinsic and extrinsic motivation is related to tourists' experience. SEM is said to be an appropriate approach to validating the causal relationship between variables and prediction (Espita et. al,2022). An adopted and modified questionnaire subjected to reliability and validity tests was used in gathering data from 400 randomly selected participants who were identified using Slovin's formula – 5% margin of error. The data analysis tools used include weighted mean and partial least square structural equation modeling.

One of the requirements in PLS-SEM was the measurement of the sufficiency of the sample size. The sample size was 410. There are two (2) ways to estimate the sufficiency of the sample size: inverse-square root and Gamma-exponential methods (Kock & Hadaya, 2018). By utilizing WarpPLS version 6.0 (Kock, 2017), a statistical software, with a minimum absolute significant path coefficient of 0.169, a significance level of 0.05, and a power level of 0.80, the inverse-square root method suggested 217 samples while the Gamma-exponential method suggested 203 samples (see Figure 1). Therefore, the sample size of the PLS model must be between 203 to 217. The sample size used in the study is 410, which is sufficient enough to explain the results of the structural model.

Validation and Reliability Testing. To examine the robustness of the measurement model, both reliability and validity tests were conducted. Reliability tests are conducted to measure the quality of the research instrument used in a study. An instrument was said to be reliable if the measures or items for each latent variable are understood in the same way by different participants (Kock, 2017). In the present study, both Cronbach's alpha (CA) and composite reliability (CR) were gauged. The acceptable coefficient for both CA and CR is 0.70 and above (Fornell & Larcker, 1981; Nunnally, 1978; Nunnally & Bernstein, 1994; Kock, 2014; Kock & Lynn, 2012). Moreover, Kock and Lynn (2012) identified a more relaxed criterion for the coefficient of CA and CR which is, one of the two reliability measures should be equal to or greater than 0.70. Based on the coefficients of CA and CR as shown in Table 4, the latent variables intrinsic motivation, extrinsic motivation, dark experience, engaging entertainment, unique learning experience, and behavioral intention are highly reliable.

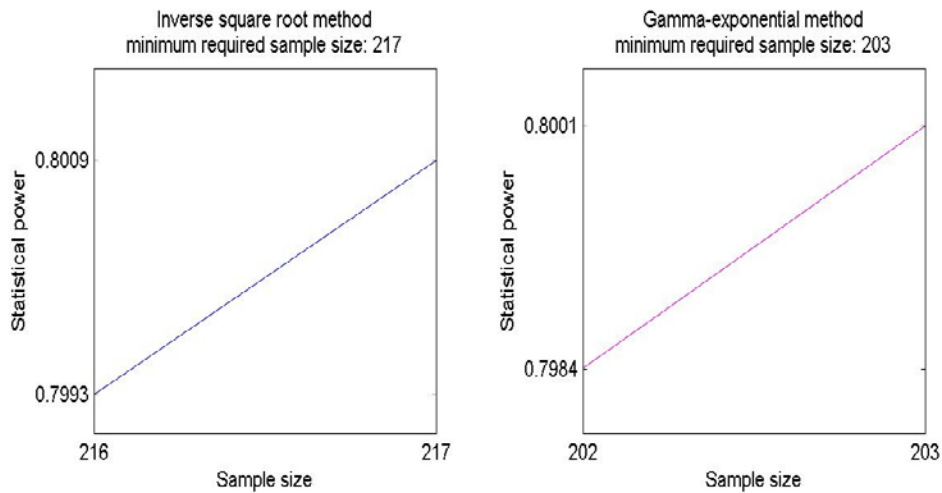


Figure 1. Results of the Sample Size Sufficiency Test

3. RESULT AND DISCUSSION

3.1. Demographic Profile of the Respondents

Table 1 presents the demographic profile of the respondents of the study. 34.1% of the respondents were between 26-30 years, and 50.2% were female with 57.3% single. For educational attainment, 79.5% were College graduates with 41.5% earning 10,001–20,000. Further, 41.25 were first-time visitors in the region and consider themselves explorers.

Table 1. Demographic Profile of the Respondents

Demographic Characteristics	Frequency	Percentage
Age		
18-25	139	33.9
26 – 30	140	34.1
31 – 40	93	22.7
40 – above	38	9.3
Gender		
Male	196	47.8
Female	206	50.2
LGBTQ	8	2.0
Civil Status		
Single	235	57.3
Married	170	41.5
Others	5	1.2
Educational Attainment		
High School	64	15.6
College	326	79.5
Graduate Studies	20	4.9
Income Level		
10,000 and below	120	29.3
10,001 – 20,000	170	41.5
20,001 and above	120	29.3
Frequency of Visit		
First Time	169	41.2
2 nd – 5 th	158	38.5
6 th and above	83	20.2

Classification as Tourists		
Individual Mass Tourist	188	45.9
Explorers	200	48.8
Drifters	22	5.4

3.2. Tourist Motivation to Visit Destinations after Natural Disaster

The analyzed data yield the following results: Table 2. Manifested the intrinsic motivational factors affecting tourists' propensity to visit a destination after a natural disaster. Out of the 30 items presented, 28 reflected a "strongly agree" rating. The majority of the respondents strongly agreed to the following intrinsic motivational factors in visiting a destination after a natural disaster: to increase knowledge about the different attractions in the different destinations with a mean of 3.74; to visit a destination that has experienced natural atrocity with mean of 3.48; and, to gain the opportunity to broaden the horizon and enrich knowledge with mean of 3.59.

This result was supported by the suggested motivations of Dunkley (2005) & Robinson (2015) of factors that might precipitate visits to dark tourism sites were influenced by intrinsic desires or motivations like: the need for validation and the confirmation of events that may have happened, remembrance and empathy when visiting such places and the need for self – discovery and desire to learn.

Intrinsic motivations have a 3.56 overall mean which signifies that these factors influence the respondents' propensity to visit a destination after a natural disaster. These findings were observable in the destination as there was an increase in tourists arrival which is motivated by curiosity about how the destination looks like as compared with what is seen in media flat forms and how the destination recovered and is doing years after the disaster. The DOT Regional Director also emphasized that even if it was negative publicity for the Region as a whole, still it was publicity that made the destination known around the world.

Table 2B showed the extrinsic motivational factors affecting tourists' propensity to visit a destination after a natural disaster. Eighteen out of 20 items were rated as 'strongly agree'. Among the highest mean of the identified factors includes personal safety with a score of 3.71, authentic experience (3.69), and public transportation scored 3.71. In the argument of Zimmerbauer (2011), the image and identity of the place are key factors that are often bigger than the place itself – thus attributes of the destination play a crucial role in attracting tourists. Culter, Carmichael (2010), and Nickerson (2006) further argue that the product which is the destination can be influenced by the perceptions taken from media, product image, previous knowledge, expectation, and the local population – the attitude and sense of place as fostered by the local population has a significant value in the tourists' intention to visit.

The overall mean for extrinsic motivation was 3.57, which denotes that, when respondents visit a destination after a natural disaster, their propensity to visit was strongly fueled by extrinsic motivational factors.

Table 2. Intrinsic and Extrinsic Motivational Factors

A. Intrinsic Motivational Factors	Mean	Interpretation
1. To visit a place that I have not visited before	3.72	SA
2. To experience new and different lifestyles or traditions	3.70	SA
3. To appreciate natural resources	3.76	SA
4. To explore cultural resources	3.70	SA
5. To increase knowledge about different attractions in	3.74	SA

different destinations		
6. To see how people of different cultures live	3.57	SA
7. To have visited a destination that has experienced the natural disaster	3.48	SA
8. To be away from home	3.13	A
9. To relax physically	3.68	SA
10. To participate in new activities	3.49	SA
11. To satisfy the desire to be somewhere else	3.67	SA
12. To sightsee tourist spots	3.76	SA
13. To enhance communication with the local community	3.48	SA
14. To reconnect with spiritual roots	3.18	A
15. To meet new people	3.49	SA
16. To be refreshed emotionally	3.69	SA
17. To increase my social status	3.36	SA
18. To have an enjoyable time with my travel companions	3.61	SA
19. To visit a place that my friends have been to	3.52	SA
20. To visit a destination that would impress my friends and family	3.41	SA
21. To seek solitude in a different destination	3.53	SA
22. To visit friends and relatives	3.39	SA
23. To find thrill and excitement	3.65	SA
24. To gain an opportunity to broaden the horizon and enrich the knowledge	3.59	SA
25. To find a place that can relieve stress	3.69	SA
26. To change pace and get away from routine	3.58	SA
27. To make friends and develop the relationship	3.54	SA
28. To get close to nature and see remarkable scenery	3.68	SA
29. To meet new people with similar interest	3.40	SA
30. To visit a well-recognized place	3.64	SA
Overall Mean	3.56	SA
B. Extrinsic Motivational Factors		
1. The site of the Typhoon Yolanda	3.23	A
2. Media Image of the Destination (during a typhoon and after)	3.22	S
3. Heritage sites	3.51	SA
4. Safe Destination	3.66	SA
5. Affordable Tourist Destination	3.66	SA
6. Culture, Arts, and Traditions	3.59	SA
7. Exotic Atmosphere	3.43	SA
8. Outstanding Scenery	3.63	SA
9. Traditional Food	3.62	SA
10. Value for Money	3.55	SA
11. Museums and Memorials	3.59	SA
12. Public Transportation	3.52	SA
13. Hygiene and Cleanliness	3.69	SA
14. Reliable Travel Arrangement	3.62	SA
15. Quality of Environment	3.68	SA
16. Recreation and Accommodation	3.63	SA
17. Special Tour Promotions	3.59	SA

18. Personal Safety	3.71	SA
19. Authentic Experience	3.69	SA
20. Culture and Religion	3.62	SA
Overall Mean	3.57	SA

Legend: 1.00 – 1.75: strongly disagree; 1.76 – 2.50: disagree; 2.51 – 3.25: agree; 3.26 – 4.00: strongly agree. SA – strongly agree; A – Agree.

3.3. Tourists' Experience in the Destination after Natural Disaster

The study identified three dimensions of tourists' experience which were measured and analyzed: dark experience, engaging experience, and unique learning experience.

Table 3 presents the mean results among the factors that defined dark experience. Four of the 8 items were rated by the respondents as strongly agreeing with the highest mean of 3.78 agreeing with the statement that there's an interest to visit such a destination to contemplate fate. The overall mean rating of 3.22, which a description of "agree" indicated that dark experience was a factor considered when visiting a destination that's affected by a natural disaster.

Table 3B detailed, engaging experience as a factor in seeking a destination after a natural disaster. All 8 items were rated by the respondents as strongly agreeing with an overall rating of 3.40. The result signified that engaging experience strongly influences respondents' propensity to visit a destination after a natural disaster.

Table 3C displayed unique learning experience as a dimension of tourist experience – all 9 items were rated by the respondents as strongly agreeing with the highest mean agreeing on the notion that tourists tend to visit destinations after a natural disaster as these destinations offer a different experience. The overall mean of unique learning experience factors was 3.60, which indicated that unique learning experience strongly contributes to the tourist experience in the destination.

Table 3. Tourists' Experience in the Destination after Natural Disaster

Tourists' Experience Dimensions	Mean	Interpretation
Dark Experience		
1. I want to visit this kind of destination to gain an understanding of the things that survivors experienced during the natural atrocity	3.34	SA
2. I want to visit this kind of destination to learn about how the victims survived the natural atrocity	3.26	SA
3. I want to visit the destination to satisfy my curiosity about how the victims died through memorials and museums	3.14	A
4. I want to visit the destination to witness the act of death and dying through memorials and museums	3.06	A
5. I want to visit the destination to personally see the wreckage or debris of the natural atrocity	3.23	A
6. I want to visit the destination to be able to connect with the survivors of the natural atrocity	3.20	A
7. I want to visit the destination to see how the natural atrocity is packaged for tourists to see its effect on the destination as a whole.	3.30	SA
8. I want to visit the destination to contemplate fate and the disaster sites	3.78	SA

Overall Mean	3.22	A
Engaging Experience		
9. I want to visit the destination to see the improvements in tourism infrastructure after the natural atrocity	3.62	SA
10. I want to visit the destination to see the improvements in the lives of the survivors of the natural atrocity	3.52	SA
11. I want to visit the destination to be reconnected with the individuals that were somehow associated with the natural atrocity	3.31	SA
12. I want to travel to the destination so I can meet people who are interested as well with dark tourism and natural atrocity	3.26	SA
13. I want to travel to the destination to witness the current situation as seen on television and other media sources	3.38	SA
14. I want to visit the destination to understand how the picture of the natural atrocity is presented to be understood by tourist	3.35	SA
15. I want to visit the destination to seek out stories and attractions without the encouragement of mainstream media.	3.32	SA
16. I want to travel to the destination and experience the changes brought about by the natural atrocity	3.39	SA
Overall Mean	3.40	SA
Unique Learning Experience		
17. I want to visit the destination as it offers a different experience	3.68	SA
18. I want to visit the destination as it is new and uncommon	3.66	SA
19. I want to visit the destination and see pieces of evidence of the natural atrocity	3.60	SA
20. I want to visit the destination as it can give a new and different perspective	3.63	SA
21. I want to visit the destination as it allows me to have a unique learning experience	3.66	SA
22. I want to visit the destination to gain knowledge on how the place recovered from the natural atrocity	3.58	SA
23. I want to witness the current situation of the destination.	3.53	SA
24. I want to visit the destination to understand the difficulties and challenges in rebuilding the place after the natural atrocity.	3.56	SA
25. I want to visit the destination to observe the development brought about by the government, private entities, NGOs, and foreign organizations.	3.52	SA
Overall Mean	3.60	SA

Legend: 1.00 – 1.75: strongly disagree; 1.76 – 2.50: disagree; 2.51 – 3.25: agree; 3.26 – 4.00: strongly agree. SA – strongly agree; A – Agree

3.4. Behavioral Intention to Visit Dark Tourism Destination after Natural Disaster

Table 4 presents the rating for the behavioral intention of tourists to visit a destination after a natural disaster – five out of six items were rated by the respondents as strongly agree. The highest average mean of 3.40 shows positive intentions to revisit Region 8 and see the progress, it has in the next 15 years. The overall rating of 3.40 indicated that respondents have strong intentions to visit dark tourist destinations after a natural disaster. These results were supported by the study of Marcel (2013) which notes that people have always been pulled by sites where tragedies and disasters have occurred which later suggested that the sites of dark tourism attract a considerable number of people.

Table 4. Behavioral Intention to Visit Dark Tourism Destination after Natural Disaster

Behavioral Intention	Mean	Interpretation
1. I intend to select Region 8 as my travel destination.	3.45	SA
2. I will revisit Region 8 and see the progress it has in the next 5 years.	3.40	SA
3. I want to visit a natural atrocity location in the next 12 months, aside from the natural atrocity location in Region 8.	3.30	SA
4. I want to visit the most recent natural atrocity location in the country in the next 12 months.	3.26	SA
5. I would recommend visiting the most recent natural atrocity location I visited with a friend or family member.	3.25	A
6. I would recommend other destinations affected by natural atrocity to a family member or friends.	3.26	SA
Overall Mean	3.40	SA

Legend: 1.00 – 1.75: strongly disagree; 1.76 – 2.50: disagree; 2.51 – 3.25: agree; 3.26 – 4.00: strongly agree. SA – strongly agree; A – Agree

3.5. Model Fit and Quality Indices

Table 5 displays the model fit and quality indices of the PLS structural model. The assessment involved the evaluation of the model fit with the data (Kock, 2017). To assure the fit of the structural model, the coefficients of average path coefficient (APC), average r-squared (ARS), and average adjusted r-squared) must have p-values equal to or lower than 0.05 (Kock, 2011). Since APC, ARS, and AARS were within the acceptable threshold, therefore, the model fit with the data

Concerning average block variance inflation factor (AVIF) and average full collinearity VIF (AFVIF), the coefficients were ideally equal to or lower than 3.3. A more acceptable criterion was AVIF and AFVIF must be equal to or lower than 5.0 (Kock & Lynn, 2012). With AVIF = 1.485 and AFVIF = 1.820, both indices were within the acceptable ranges.

In terms of Tenenhaus good of fit (GoF), an index of the explanatory power of the structural model (Tenenhaus, Vinzi, Chatelin, & Lauro, 2005), the following criteria were used: small if the coefficient was greater than or equal to 0.1; medium if it is greater than or equal to 0.25; and large if the value was greater than or equal to 0.36 (Wetzels, Odekerken-Schröder, & Van Oppen, 2009). The Tenenhaus GoF = 0.359 signifies that the explanatory power of the structural model is large.

Table 5. Model Fit and Quality

Model Fit and Quality Indices	Coefficient
APC	0.184, $p < 0.001$
ARS	0.223, $p < 0.001$
AARS	0.218, $p < 0.001$
AVIF	1.485
AFVIF	1.820
Tenenhaus GoF	0.359

3.6. Structural Model Analysis or the Relationship between Motivational Factors, Tourists' Experience, and Behavioral Intentions

Table 6 presents the direct effect of the path coefficients of the disaster tourism motivation structural model (see figure 2). Analysis of the data showed that intrinsic motivation was significantly related to dark experiences with a β value equal to 0.169, $p < 0.001$. The path coefficient was positive which signifies that, when the level of intrinsic motivation of the respondents rises, their propensity to seek dark experiences also increases with a small effect size with an f^2 value equal to 0.033. Furthermore, intrinsic motivation was also found to be significantly and positively affecting engaging experience with β value equal to 0.249 and p -value < 0.001 . This means that, when the level of intrinsic motivation of the respondents rises, their propensity to seek engaging experiences also rises with a small effect size, f^2 value equal to 0.071. In terms of the relationship between intrinsic motivation and unique learning experience, the results revealed that the relationship was significantly and positively related with β value equal to 0.377 and p -value < 0.001 . As the level of intrinsic motivation of the respondents rises, their propensity to seek unique learning experiences heightens with a medium effect size with an f^2 value equal to 0.212.

Contrary, intrinsic motivation was found to be insignificantly related to behavioral intentions with a β value equal to 0.008, and a p -value equal to 0.438. This suggests that intrinsic motivation is not a factor that drives tourists to purchase destinations or visit a destination that has been affected by a natural disaster.

These results further signify that as tourists seek to experience dark, engaging, and unique learning experiences upon visiting disaster-hit destinations they feel a sense of autonomy in the experience which leads to personal satisfaction and pleasure. This is supported by the study of Anson T.H., et. al (2018) which highlights that intrinsic motivation among tourists motivates them to behave because of autonomy, personal satisfaction, pleasure, and a high level of self-determination without the controlling force externally. Moreover, disaster-hit destinations give tourists a purpose that is not apart from itself which can be considered in terms of pleasant or unpleasant experiences as intrinsic motivation is associated with autotelic, hedonic, and experiential factors that drive travel (Mokhtarian, P., et. al. 2015).

In terms of extrinsic motivation, data analysis showed that extrinsic motivation is insignificantly related to dark experience with β value equal to -0.073, p -value equal to 0.069, and engaging experience with β value = 0.066 and p -value = 0.088. The results imply that extrinsic motivation has nothing to do with the respondents' propensity to seek dark experiences and engaging experiences. Further, this signifies that participation in tourist activities that will lead to a dark and engaging experience will not meet any external goal for tourists.

On the other hand, extrinsic motivation was found to be significantly and positively related to the unique learning experience with a β value equal to 0.285 and a p -value of < 0.001 . This means that, as extrinsic motivation rises, the propensity of the

respondents to seek unique learning experiences also augments, with a medium effect size and f^2 value = 0.151.

These results further signify that in the three identified dimensions of tourist experience only the unique learning experience has a significant effect on extrinsic motivation. This denotes that a unique learning experience that is derived from visiting a disaster-hit destination can give tourists positive rewards in the form of knowledge acquired through experience during the visit. Extrinsic motivation is determined by the external force of positive reward (Anson T.H., et. al, 2018)

In contrast, extrinsic motivation was found to be insignificantly related to the behavioral intention with β value = 0.023 and p-value = 0.323. This signifies that extrinsic motivation is not a factor of behavioral intention.

The results also revealed that dark experience significantly affects behavioral intention with β value = 0.554 and p-value < 0.001. The beta coefficient is positive, which indicates that, when respondents seek a dark experience, their tendency to visit a destination after a natural disaster heightens, with a medium effect size and f^2 value = 0.330. Additionally, the unique learning experience was also found to be significantly and positively related to the behavioral intention with β value = 0.203 and p-value < 0.001. This suggests that when respondents look for a unique learning experience, their inclination to visit a destination after a natural disaster rises, with a small effect size and f^2 value = 0.064.

On the contrary, the engaging experience was found to be insignificantly related to the behavioral intention with β value = 0.013 and p-value = 0.393. This means that engaging experience does not contribute to the behavioral intention of the respondents.

Table 6. Variables Direct Effect

Hypothesis	Path Coefficient	Standard Error	f^2	p-value	Interpretation
IM → DE	0.169	0.048	0.033	<0.001	Significant
IM → EE	0.249	0.048	0.071	<0.001	Significant
IM → ULE	0.377	0.047	0.212	<0.001	Significant
IM → BI	0.008	0.049	0.001	0.438	Non - Significant
EM → DE	-0.073	0.049	0.010	0.069	Non – Significant
EM → EE	0.066	0.049	0.014	0.088	Non – Significant
EM → ULE	0.285	0.048	0.151	<0.001	Significant
EM → BI	0.023	0.049	0.002	0.323	Non – Significant
DE → BI	0.554	0.046	0.330	<0.001	Significant
EE → BI	0.013	0.049	0.005	0.393	Non – Significant
ULE → BI	0.203	0.048	0.064	<0.001	Significant

IMF = intrinsic motivational factors; EMF = extrinsic motivational factors; DE = dark experience; EE = engaging experience; ULE = unique learning experience; BI = behavioral intention. f^2 is the Cohen's (1988) effect size: 0.02 = small, 0.15 = medium, 0.35 = large. SE = standard error, β = standardized path coefficient

3.7. Moderating Effect of Demographic Profile of the Relationship between Tourists' Experience and Behavioral Intention

Table 7 presents the moderating effects in the structural model. Analysis of the data showed that, among the demographic factors acting as moderators on the relationship between dark experience and behavioral intention, only gender showed a moderating effect with β value = 0.095, p-value = 0.026. The moderating effect is positive, this signified that gender: male vs female vs LGBTQ increase the relationship between dark experience and behavioral intention, with a small effect size and f^2 value = 0.021.

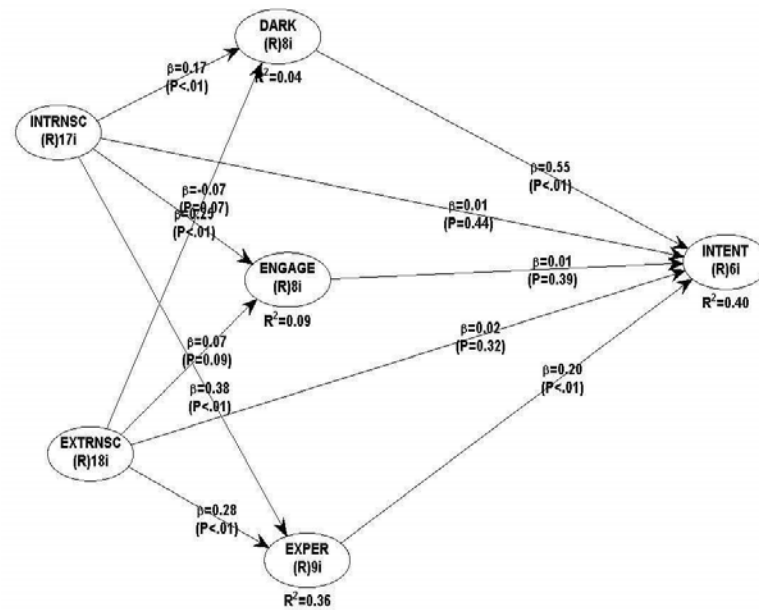


Figure 2. Disaster Tourism Motivation Model

On the other hand, between the relationship between engaging experience and behavioral intentions, age is found to have a moderating effect with β value = -0.084 and p-value = 0.043. The beta coefficient is negative, indicating as the age of the respondents increases, the relationship between engaging experience and behavioral intention decreases, with a small effect size and f^2 value = 0.012. These claims were supported by an article in Globtrender.com, giving emphasis that travels trends and priorities among generations vary. Most of the respondents of the study are from ages 18 to 30 comprising 68% and this age range belongs to the millennial generation which takes more trips per year than other generations and has a broad range of interests focusing more on exploring the outdoors and is highly influenced by articles and publicity about destinations mostly opts for off the beaten path locations and is most likely to try everything they found fascinating (Shamis, 2010), they want to explore the world around them and discover novelties (Bergh & Behrer, 2011).

Lastly, the relationship between the unique learning experience and behavioral intention is moderated by gender, income, and tourist classification. As for the gender: male vs female vs LGBTQ, the moderation effect is positive with β value = 0.125 and p-value = 0.005 which means that gender increases the relationship between the unique learning experience and behavioral intention, with a small effect size and f^2 value = 0.023. Further, income has a negative moderating effect between the unique learning experience and behavioral intentions with β value = -0.107 and p-value = 0.014 – this means that as income increases the relationship between the two variables weakens. Thus when respondents have higher income, their propensity to seek for destination after a natural disaster as a result of a unique learning experience decreases. Vice versa, as their income decreases, their propensity to look for a destination after a natural disaster due to unique learning experiences increases. These claims are supported by the study of Djeri et. al(2014) which concludes that the level of income is recognized as a key external factor in tourists' decisions and choice of tourism destination. Furthermore, tourist classification has a negative moderating effect between the unique learning experience and behavioral intention with β value = -0.100 and p-value = 0.021, this denotes that tourists classification: individual mass tourist vs explorers vs drifters

strengthen the positive relationship between the unique learning experience and behavioral intention, with a small effect size and f^2 value = 0.009.

Table 7. Moderating Effects of Demographic Profile of Respondents

Hypothesis	Path Coefficient	Standard Error	f^2	p-value	Interpretation
H6a. DE → BI					
Age	0.039	0.049	0.012	0.213	Non – significant
Gender	0.095	0.049	0.021	0.026	Significant
Civil Status	-0.036	0.049	0.014	0.232	Non – significant
Educational	-0.038	0.049	0.010	0.221	Non – significant
Income	0.043	0.049	0.002	0.193	Non – significant
Frequency of Visit	-0.031	0.049	0.003	0.265	Non – significant
Classification	0.024	0.049	0.005	0.313	Non – significant
H6b. EE → BI					
Age	-0.084	0.049	0.012	0.043	Significant
Gender	-0.052	0.049	0.008	0.147	Non – significant
Civil Status	-0.034	0.049	0.006	0.242	Non – significant
Educational	0.061	0.049	0.006	0.107	Non – significant
Income	-0.027	0.049	0.009	0.290	Non – significant
Frequency of Visit	0.026	0.049	0.002	0.301	Non – significant
Classification	-0.026	0.049	0.003	0.297	Non – significant
H6c. ULE → BI					
Age	-0.068	0.049	0.010	0.082	Non – significant
Gender	0.125	0.049	0.023	0.005	Significant
Civil Status	-0.028	0.049	0.005	0.283	Non – significant
Educational	0.033	0.049	0.003	0.249	Non – significant
Income	-0.107	0.049	0.009	0.014	Significant
Frequency of Visit	0.061	0.049	0.013	0.106	Non – significant
Classification	-0.100	0.049	0.009	0.021	Significant

3.8. Limitations and Concluding Summary

This study has potential limitations. The study may be received on a negative note, especially by traditional individuals as tagging a destination as a disaster tourism destination may pose a negative connotation. Furthermore, the study mainly focused on motivations and intentions, other variables may be considered to explore further the disaster tourism market.

The study concludes that the identified intrinsic motivational factors influence the tourists' propensity to visit a destination after a natural disaster and an extrinsic motivational factor strongly fuels the tourists' intentions to visit the destination. Further, the three dimensions of the tourism experience: dark experience, engaging experience, and unique learning experience are factors that strongly influence tourists' propensity to visit a destination that is affected by natural disasters. Furthermore, when the level of tourists' intrinsic motivation rises, their propensity to seek dark experiences, engaging experiences, and unique learning experiences also increases. In terms of extrinsic motivation, when the level of extrinsic motivation rises the tourists' propensity to seek unique learning experiences also augments. Moreover, as tourists seek dark experience and unique learning experience their inclination to visit the destination after the natural disaster also rises. Furthermore, the relationship between dark experience and

behavioral intention is moderated by the gender of respondents, thus gender increases the relationship between dark experience and behavioral intention. For the moderating effect of demographic profile, it concludes that gender affects the relationship between dark experience and behavioral intention, while age can moderate the relationship between engaging experience and behavioral intention. Lastly, the unique learning experience and behavioral intentions of tourist is affected by age, income, and classification.

REFERENCES

- [1] Al-Haj Mohammad, B., Mat Som, A. (2010). *An analysis of push and pull travel motivations of foreign tourists to Jordan*. International Journal of Business and Management, 25 (12).
- [2] Allman, H. (2017). *Motivations and intentions of tourists to visit dark tourism locations*. Iowa State University Capstone.
- [3] Anson, T.H., Chow, A., Cheung, L., Liu, S. (2018). *Self-determined travel motivation and environmentally responsible behavior of Chinese visitors to national forest protected areas in South China*. Global Ecology and Conservation, (16).
- [4] Biran, A. and Hyde, K.F. (2013). *New perspectives on dark tourism*. International Journal of Culture, Tourism and Hospitality Research, 7 (3), 191 – 198.
- [5] Biran, A., Liu, W., Li, G., & Eichhorn, V. (2014). *Consuming post-disaster destinations: The case of Sichuan, China*. Annals of Tourism Research, 41, 1 -17.
- [6] Brown, J. (2013). *Dark tourism shops: Selling dark and difficult products*. International Journal of Culture and Tourism and Hospitality Research, 7 (3), 272 – 280.
- [7] Carretero, M., Izquierdo, C., Arranz, A. & Pinto, J. (2017). *Language tourism destinations: A case study of motivations, perceived value, and tourists' expenditure*. Journal of Culture Economy, 41, 155 - 172
- [8] Cheal, F., & Griffin, T. (2013). *Pilgrims and patriots: Australian tourist experiences at Gallipoli*. International Journal of Culture, Tourism and Hospitality Research, 7 (3), 227 – 241.
- [9] Coast, A. & Ferguson, S. (2013). *Rubbernecking or rejuvenation: Post-earthquake perceptions and the implications for business practice in a dark tourism context*. Journal of Research for Consumers, 23, 32 - 64
- [10] Connell, J. (2017). *Shining light on the darkness. Placing tourists within North Korean tourism. Comment on: desiring the dark: a taste for the unusual in North Korean tourism*. Current Issues in Tourism, 20 (4), 356 – 362.
- [11] Cuka, P., & Chovancova, J. (2013). *Outline of development and current issues of dark tourism in the world and Slovakia*. Current Issues of Tourism Research, 3 (1) 4 – 11.
- [12] Cutler, Q. & Carmichael, B. (2010). *The dimensions of the tourist experience*. The Tourism and Leisure Experience: Consumer and Managerial Perspective, 3 – 26. Bristol: Channel View Publication.
- [13] Dunford, M., & Li, L. (2011). *Earthquake reconstruction in Wenchuan: Assessing the state overall plan and addressing the forgotten phase*. Applied Geography, 33 (3), 998 – 1009.
- [14] Dunkely, R., Morgan, N., & Westwood, S. (2011). *Visiting the trenches: Exploring meanings and motivations in battlefield tourism*. Tourism Management, 32 (4), 860 – 868.

- [15] Espita, K. & Guhao, E. (2022). *A structural equation model on knowledge management performance in higher education institutions in Region VIII*. Review of Integrative Business and Economics Research, 11 (2), 95-114.
- [16] Farmaki, A. (2013). *Dark tourism revisited: Supply, demand conceptualization*. International Journal of Culture, Tourism and Hospitality Research, 7(3), 281 – 292.
- [17] Gridnevskiy, K., Nawjin, J., Ondrej, M. Y. (2015). *Holocaust concentration camp memorial sites: An exploratory study into an expected emotional response*. Current Issues in Tourism, 1 – 16.
- [18] Han, H., Kim, W., & Kiatkawsin, K. (2013). *Emerging youth tourism: Fostering young travelers' conservation intentions*. Journal of Travel and Tourism Marketing, 34, (7), 905 – 918.
- [19] Handayani, B., Seraphin, H., & Korstanje, M. (2019). *Dark Tourism in the Philippines Islands*. Special Interest Tourism in Southeast Asia: Emerging Research and Opportunities, 1, 20
- [20] Hartmann, R. (2014). *Dark tourism, thanatourism, and dissonance in heritage tourism management: New directions in contemporary tourism research*. Journal of Heritage Tourism, 2 (6), 166- 182.
- [21] Isaac, R., & Cakmak, E. (2014). *Understanding visitor's motivation at sites of death and disaster: The case of former transit camp Westerbork, The Netherlands*. Current Issues in Tourism, 17 (2), 164 – 197.
- [22] Isaac, R., & Cakmak, E. (2016). *Understanding the motivations and emotions of visitors at Tuol Sleng genocide prison museum (s-21) in Phnom Penh, Cambodia*. International Journal of Tourism Cities, 2 (3), 232- 247.
- [23] Johnston, T. (2013). *Mark Twain and the innocents abroad: Illuminating the tourist gaze on death*. International Journal of Culture, Tourism and Hospitality Research, 7 (3) 199 – 213.
- [24] Kang, E. J., Scott, N., Lee, T.J. and Ballantyne, R. (2012). *Benefits of visiting a dark tourism site: the case of the Jeju April 3rd peace park Korea*. Tourism Management, 33 (2), 257 – 265.
- [25] Kassean, H., & Gassita, R. (2013). *Exploring tourists' push and pull motivations to visit Mauritius as a tourist destination*. African Journal of Hospitality, Tourism and Leisure, 2 (3)
- [26] Mai, N. K., & Huynh, T. (2014). *The influences of push and pull factors on the international leisure tourists' return intention to Ho Chi Minh City, Vietnam – A mediation analysis of destination satisfaction*. International Journal of Trade, Economics, and Finance, 5 (6), 490 – 496.
- [27] Mileva, S. (2018). *Potential for development of dark tourism in Bulgaria*. International Journal of Tourism Cities, 4 (1), 22 – 39.
- [28] Nawjin, J., Ondrej, M. Y. & Deborah, K. (2012). *How do we feel on vacation? A closer look at how emotions change throughout a trip*. Journal of Travel Research, 52 (2), 265 – 274.
- [29] Podoshen, J. (2013). *Dark tourism motivations: Simulation, emotional contagion, and topographic comparison*. Tourism Management, 35, 263 – 271.
- [30] Powell, R., Kennel, J., & Barton C. (2018). *Europe's tourism cities, based on the analysis of DMO websites*. International Journal of Tourism Cities, 4 (1), 4 – 21
- [31] Rittichainuwat, B. N. (2013). *Tourists and tourism suppliers' perceptions toward crisis management on tsunami*. Tourism Management, 34, 112 – 121.
- [32] Riri, R., et. al (2012). *Exploring Indian tourists' motivation and perception of Bangkok*. Tourismos: An International Multidisciplinary Journal of Tourism, 7 (1), 61 – 79.

- [33] Simkova, E., & Jindrich, H. (2014). *The motivation of Tourism Participants*. Social and Behavioral Sciences, 159, 660 – 664.
- [34] Stone, P. R. (2012). *Dark tourism and significant other death: Towards a model for mortality and mediation*. Annals of Tourism Research, 39 (3).
- [35] Stone, P. R. (2013). Dark tourism scholarship: A critical review. International Journal of Culture, Tourism and Hospitality Research, 7 (3), 307 – 318
- [36] Tan, G., & Lim, S. (2018). *The pearl of the orient is a dark tourist destination in Malaysia*. International Journal of Tourism Cities, 4 (1), 68 – 80.
- [37] Yiamjanya, S., & Wongleedee, K. (2014). *International tourists' travel motivation by push-pull factors and the decision-making for selecting Thailand as a destination choice*. International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering, 8, (5).
- [38] Yousaf, A., Amin, I., Santos, J. (2018). Tourist's motivations to travel: A theoretical perspective on the existing literature. Tourism and Hospitality Management, 24 (1), 197 – 211.