Dirasat, Human and Social Sciences, Volume **41**, Supplement **1**, 2014

Geotourism: Why Do Children Visit Geological Tourism Sites?

Mamoon Allan *

ABSTRACT

By reviewing the literature, it is evident that previous tourism studies pay little attention to the issue of why children travel to geological tourism sites and this significant issue is still an undeveloped area of study. Therefore, investigating the motivations of children engaging in a geotourism (geology and tourism) experience reflects an urgent need to bridge the gap in the geotourism literature. The purpose of this study is to explore the different motivations behind children visiting the Dead Sea in Jordan in 2012. Quantitative methodology was employed, consisting of a self-administered questionnaire that involved inviting a convenience sample of 147 children aged (14-17) years old visiting the Dead Sea. The results of this study indicated that the major motivation for the respondent in the Dead Sea were 'enjoyment', 'to escape from the pressures of the study', 'friendship' and 'relaxation'. Moreover, the study revealed that most of the respondents had sourced information about the Dead Sea before undertaking their trip. The respondents also identified the Internet as the most frequent source of information to gain necessary information before their visit to the Dead Sea.

Keywords: Geotourism, Motivation, Geosite, Geology, The Dead Sea

INTRODUCTION

Geotourism phenomenon has been found since a long period but the broad recognition of geotourism is novel. According to Hose (2008, p. 37), "The term passed into general usage in the early 1990s, although its ancedents date back to the seventeenth century". However, many countries have increased their concentration on geotourism phenomenon, mostly depending on their geotourism attractions. Dowling and Newsome (2010) posulate that Australia has paid much focus on geotourism and introduced its geotourism attractions as the major tourism attractions in this large country. Consequently, Australia has protected and promoted many iconic geological sites, such as Uluru and Kata Tjuta. International Geotourism's products have grown rapidly. Therefore, geotourism's share of the international tourism market has increased rapidly, especially from the growth in the number of geoparks, for example, the total number of geoparks in the world increased to 87 geoparks in 27 member states by 2011 (GGN, 2011).

Understanding of why tourists travel to specific geological tourism sites in the broader tourism literature is still an undeveloped area of study. Even though the scope of the application of motivation studies in the tourism literature is fertile (Cohen, 1972, 1974, 1979; Plog, 1972; Crompton, 1979; Iso-Ahola, 1982; Dann, 1981, 1983; Bear & Ragheb, 1983; Mill & Morrison, 1985; Fodness, 1994; Kozak, 2004), studies of motivation of tourists undertaking a geotourism experience are infrequent (Allan, 2012). Nevertheless, some studies have investigated the motivation of geotourism's participants (Kim *et al.,* 2008; Allan, 2012). These studies were restricted to the tourists who were aged 18 and above. Studies concentrate on the investigation of the motivation of children undertaking a geotourism experience is rare. Following this, investigating children as tourists is an undeveloped and forgotten area of study, although children being an important segment of the tourism market **(**Cullingford**,** 1995**)**. Moreover**,** tourism researchers rarely give voice to children (Blichfeldt, Pedersen, Johansen, & Hansen, 2010). Therefore, this study will investigate the motivation of children engaging in a geotourism experience in The Dead Sea, Western Jordan.

* Faculty of Archaeology and Tourism, The University of Jordan. Received on 27/12/2012 and Accepted for Publication on 8/9/2013.

LITERATURE REVIEW

Geotourism

Geotourism is essentially 'geological tourism'. The central focus of the geological element is geology and landscape and include both 'form', such as 'landforms, rock outcrops, rock types, sediments, soils and crystals, and 'process', such as olcanism, erosion, glaciationetc (Dowling, 2011, p. 1). According to Hose and Vasiljević, (2012) contemporary geotourism's earlier antecedents in aesthetic, artistic and landscape tourism movements, dating from the nineteenth century. Overall, the tourism literature has two general approaches to the concept of geotourism. First, some arguments (Hose, 1995; Dowling & Newsome, 2006; Joyce, 2006) contend that geotourism is a reflection of the real value of the geological and geomorphic features. Second, others assert that geotourism has a purely geographic theme (Stueve, and others 2002; The Travel Industry of America and National Geographic Traveler Magazine, 2002). This approach is common in the United States of America. Therefore, the geotourism literature requires development from precise background research, for both the theoretical and practical levels.

There are many definitions of the word 'geotourism', and the theoretical framework for the study of geotourism has varied accordingly. The two main backgrounds for defining the concept of geotourism lie in the fields of geology and geography (Allan, 2012). However, the first attempt to define geotourism was introduced by Hose at the beginning of the 1990s. He has made many revisions to his definition since 1995 (Hose, 2007). Accordingly, Hose (2008, p. 37) defined geotourism as:

The provision of interpretative facilities and services to enable tourists to acquire knowledge and understanding of the geology and geomorphology of a site (including its contribution to the development of the Earth Sciences) beyond the level of mere aesthetic appreciation.

Elsewhere, Dowling and Newsome (2010, p 231) defined geotourism as "a form of natural area tourism that specifically focuses on geology and landscape. It promotes tourism to geosites and the conservation of geo-diversity and an understanding of earth sciences through appreciation and learning. This is achieved through independent visits to geological features, use of geo-trails and view points, guided tours, geo-activities and patronage of geosite visitor centres".

The International Congress of Geotourism, under the patronages of UNESCO occurred in the Arouca Geopark (Portugal) in 2011, declared that geotourism can be defined as "tourism which sustains and enhances the identity of a territory, taking into consideration its geology, environment, culture, aesthetics, heritage and the well-being of its residents" (The International Congress of Geotourism, 2011). However, the main objective of this declaration is that to employ 'the broader definition' of geotourism with a primary focus on the geology.

Geotourism concept is different in the United States of America, which bases its definition on 'geographical' features. A study by The Travel Industry Association of America (TIA) and The Research Department of the website of the National Geographic (2009), this comment follows as the definition of geotourism:

Geotourism incorporates the concept of sustainable tourism — that destinations should remain unspoiled for future generations — while allowing ways to protect a place's character. Geotourism also takes a principle from its ecotourism cousin — that tourism revenue should promote conservation — and extends it to culture and history as well, that is all distinctive assets of a place.

Based upon the different geotourism definitions in the pertinent literature, it could be argued that geotourism has these common features:

- It has based on the abiotic features (non-living things);
- The geological and geomorphological features and different land surfaces are the main tourism attractions of geotourism activities;
- It is a responsible, sustainable and natural tourism that is based on the environmental awareness and the appreciation of the geoheritage;
- Education and knowledge gain are essential components of the geotourism experience. Thus, the purpose of the geotourism experience is not only enjoying the natural views, but also, acquiring the knowledge about the formation of geological tourism sites and its different processes;
- It requires different tourism services, facilities, and infrastructure as any different tourism type;
- It can play a vital role in enhancing the wellbeing of the local communities adjacent the geological tourism sites and provide opportunities for them to participate in the tourism development (Sadry, 2009; Dowling, 2011; Allan, 2012).

Geoparks and geosites

UNESCO has contributed to the foundation of standards for the establishment of a list of global geoparks. The early debate on the geopark and geosite was taking place in 1996; therefore, UNESCO and the International Union of Geological Sciences (IUGS) introduced the concept of a geosite in that year. These two organizations established the programs "Geosite and Geopark" to develop their growth in rural and regional settings (Tapiador, 2007). According to El Wartiti *et al.* (2008, p. 415), a geosite can be defined as:

A site or an 'area', a few square meters to several square kilometers in size, with geological and scientific significance, whose geological characteristics (mineral, structural, geomorphic and physiographic) meet one or several criteria for classifying it as outstanding (valuable, rare, vulnerable, endangered).

Whereas, UNESCO's Global Geoparks Network (2006) has defined a geopark as:

A nationally protected area containing a number of geological heritage sites of particular importance, rarity, or aesthetic appeal. These Earth heritage sites are part of an integrated concept of protection, education, and sustainable development. A Geopark achieves its goals through a three-pronged approach: conservation, education and geotourism.

However, Tapiador (2007) postulates that the difference between a geosite and geopark is that a geosite is "a small-sized place of geological heritage," while a geopark is a large-scale site that may comprise other kinds of attraction and heritages, such as the archaeological, ecological, historical and cultural.

The establishment of a geopark is not only critical for developing the different types of geotourism activities, but also it can boost the local economy by increasing the employment opportunities for the local groups, developing the different sorts of productions of the local groups, and supporting sources of income for places nearby geoparks (Farsani *et al.*, 2010).

Motivation of geotourism participants

Broadly speaking**,** motivation is "a state of need, a condition that exerts a 'push' on the individual toward certain types of action that are seen as likely to bring satisfaction" (Moutinho, 1987, p. 16). More specifically, Dann (1981) reviewed the pertinent literature on tourism motivations and suggested that the concept of 'tourism motivation' could be defined as "a meaningful state of mind which adequately disposes an actor or group of actors to travel, and which is subsequently interpretable by others as a valid explanation for such a decision" (p. 205).

However, it is well accepted that the reason why people travel to an exact site is critical to people involved in tourism. What motivates people participating in different kinds of behaviour has occupied researchers and scholars long before it was explored in the tourism domain (Page & Connell, 2006). Following this, a large amount of literature has been written on tourist motivation in recent decades and it is omnipresent in tourism studies (Singh, 2008). Tourist motivation is a 'hybrid concept' (Pearce & Butler, 1994, p. 113), being subject to tourist motivation theories which are peculiar and a mix up of the other contributions from the adjacent sciences. So far the literature indicates that there is no agreement on which theoretical approach to apply while investigating the tourists' motivations (Holden, 2005). According to Pearce and Butler (1994, p. 116), the task of tourist behaviour theories is to demonstrate the affluent areas of tourist needs, as a source of information for researchers to employ in their specific investigations of "satisfaction, decision making and marketing". Motivation has been regarded as the most important and complicated part of tourism demand. It is also considered a most central and critical issue in tourism studies. If there is no motivation in tourism, demand will not happen (Sharpley, 2006).

A considerable amount of studies in the tourism literature has applied the 'push' and 'pull' factors theories (Dann, 1977, 1981; Crompton, 1979; Mansfeld, 1992; Zhang & Lam, 1999; Goossens, 2000; Jang & Cai, 2002). According to Khunou *et al.* (2009), push factors represent important part in formation a demand for different tourism activities and the tourists' needs push them to undertake their tourism journeys, whereas other factors pull them to travel to specific sites or countries. Dann (1981) indicated that Destinations 'Pull' in reaction to motivation 'Push'. Goossens (2000) indicated that these push and pull factors mostly react to people emotion. Consequently, push factors react to the emotional needs whilst pull factors respond to emotional benefits.

- Nickerson and Jurowski (2001) argued that very few studies have explored the children's preferences for tourism and most of the tourism studies of family vacations concentrate on the role of parents in the vacation decision making and neglect the role of their

children. Larsen & Jenssen (2004) argue that there is no research on the motivation for school trips in the tourism literature, even though such tours are purposeful. In any event, children are an important component of the geotourism market segment. Joyce (2006) recognized that school students are one part of the geotourist group; and Hose (2008) included children in the educational category of geotourists.

RESEARCH DESIGN

Study area

Geologists have focused on the Dead Sea for more than 150 years (Horowitz, 2001). The Dead Sea has many distinctive geological features. As the Dead Sea is relatively more than 400 meters below sea level, it is considered that its water is the most salty on the earth (31.5%). However, the probable age of this unique sea is between 70,000 and 12,000 years (Bowen & Jux, 1987). The Dead Sea fault system is connected with the highest concentration of earthquakes in the area. Several destructive earthquakes have happened during different historical times, the majority of them were documented in the Bible and late Roman and different Arabic sources (Al-Zoubi, Abu-Hamatteh, & Abdealkaderer, 2006).

According to the Jordan Tourism Board (2010), the main tourism attraction of the Dead Sea is the distinctive hot, relaxing, high salty water, which is ten times saltier than other seawater in the world. Additionally, this water is full of significant minerals such as, magnesium, sodium, potassium and bromine. Interestingly, this unique water attracted many famous people in ancient times, such as King Herod and Queen Cleopatra (Jordan Tourism Board, 2010. Asmar and Ergenzinger (2004) indicate that because of the nature of the Dead Sea as a terminal lake, it has a serious threat. Decline rate in the water level of the Dead Sea is approximately one meter per year. Thus, there are different potential projects to move water from the Red Sea to the Dead Sea.

The main tourism activities in the Dead Sea area are experiencing the wonders of one of the most extraordinary natural and spiritual landscape in the world, recreation and beauty, and wellness spa (Jordan Tourism Board, 2011). Accordingly, the management of the site offers many kinds of interpretation in the exhibition at the museum in the Panoramic Complex. This permanent exhibition displays the different features of the area, such as its geological, ecological, archaeological and historical features. The exhibition includes four sections: Origins of the Dead Sea, Eco-system, Man and the Dead Sea, and Will the Dead Sea Really Die? Panels, videos and different kinds of interpretation are used in the museum to provide clear ideas about the formation of the area and to enhance the awareness about the conservation efforts to save it. An intensive education program was conducted in the Panoramic Complex to explain and interpret the differences between its water and the fresh water for different students (RSCN, 2010). According to the statistics of the Ministry of Antiquities and Tourism (MOTA) in Jordan (2013), the Dead Sea area includes 8 hotels and 12 tourist shops. Additionally, the number of tourists visiting it was 41.669 and the number of tourist nights there was 116.796 from January to June in 2013.

METHODOLOGY

Quantitative methodology was employed, consisting of a self-administered questionnaire that involved inviting a convenience sample of 147 children visiting The Dead Sea, in 2012. The surveys were written in Arabic and the age category for children was 14-17 years old. The rationale behind choosing this age category is that children at this age's range have well developed and stabilized cognitive functioning and they are treated more or less as adults in questionnaire completion (Borgers, 2000). This study applied scale antecedently examined in the literature (the Leisure Motivation Scale (LMS 28), which was developed by Pelletier and others, 1989). Following this, the design of the questionnaires was based on the main constructs that were applied by Allan (2012) to investigate the motivations of adult tourists engaging in a geotourism experience in Crystal Cave and The Pinnacles in Australia as well as Wadi Rum and the Dead Sea in Jordan. The motivations scale includes six subscales: gaining knowledge, enjoyment, relaxation, experience sense of wonder, escape, and motivation toward friendship. A five point Likert-type scale was used to respond to the items. The scale ranged from 'strongly disagree' (1) to 'strongly agree' (5).

The researcher paid further attention to simplify the questions of the current questionnaire. According to Borgers (2000), while preparing the questionnaire for children, it is advisable to take into account that both instructions and questions should be simple, clear and unambiguous

In this study, an onsite intercept questionnaire was administered. The data were collected at the Panoramic Complex and other tourism attractions in the Dead Sea

area. All the sampled children were asked to participate in the on–site questionnaire after the researcher had explained the purpose and significance of the study. Based on their agreement, the children were given a copy of the questionnaire to fill out and return when they left the Dead Sea. However, the researcher handed the questionnaire directly to the respondents. The rationale behind this procedure is that it enhances the personal contacts between the researcher and the potential respondents and improves the likelihood that it will be completed and returned to the researcher (Jennings, 2010). Despite the potential completion time of the questionnaire was 15 minutes; the children were left to fill out the questionnaire at their leisure. The data collected from the convenience sample was entered into the software package SPSS (Statistical Package for the Social Sciences Version 17) and frequencies and cross tabulations were performed (Jennings, 2010). However, the Cronbach's Alpha (to assess the reliability of the intrinsic motivation scale) for the 12 motivations items ranged from (.734) to (.802).

RESULTS

Of the 147 children surveyed at the Dead Sea, 76 (51.7%) were male, 71 (48.3%) female (Table 1). Most of the respondents were 14 years old (30.8%) and only (19.2%) their age are 16 years old.

Table 1. Demographic variables of the respondents at the Dead Sea

Demographic Items	Value	Percent
Gender	Male	51.7 %
	Female	48.3 %
Age (Years)	14	30.8 %
	15	19.9 %
	16	19.2 %
	17	30.1 %

Overall, most of the respondents (107) had sourced information about the Dead Sea before visiting it. The results of the usage of source information indicate that the internet (79.4%) is the most frequent source of information employed by the respondents to learn more about the Dead Sea before their visit to the site. Whereas, only (.7%) were relied on their personal experience and the Television (Figure 1).

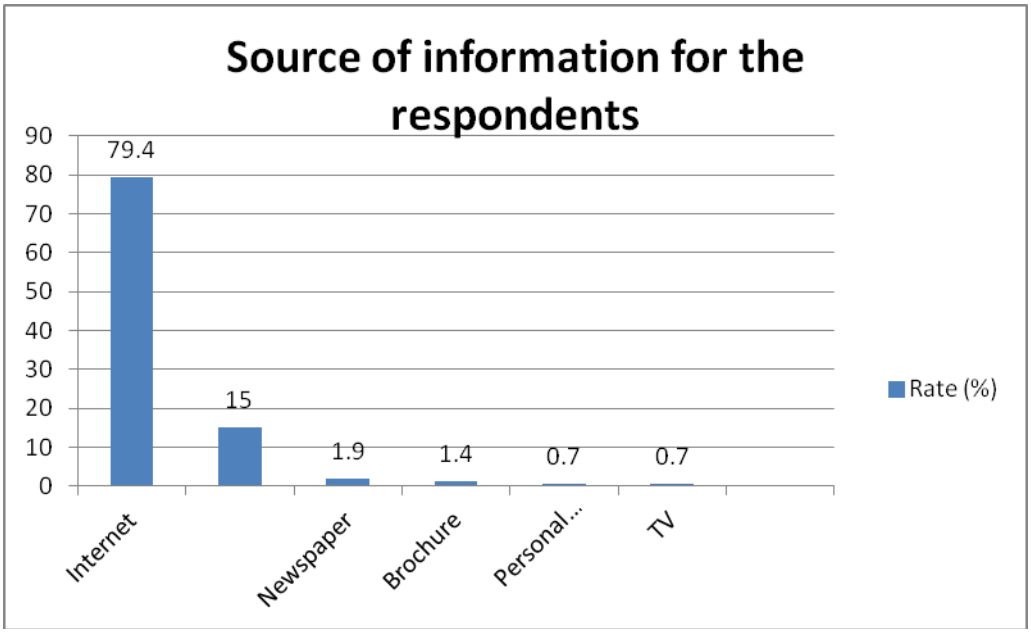

Figure 1. Source of information for the respondents

Table 2 shows the mean scores and standard deviations of the motivation variables, namely, knowledge, relaxation, escape, enjoyment, friendship, and sense of wonder, for the research cohort at the Dead Sea. The mean score of the motivation ranged from the lowest mean score (2.65) to the highest mean score (4.58). The main factors of intrinsic motivation behind visiting the Dead Sea were to 'Enjoyment' (M= 4.33,

SD= 1.47), 'To escape from the pressures of study' (M= 4.26, SD= 2.03), 'Relaxation' (M= 3.98, SD= 1.95) and 'sense of wonder' (M= 3.91, SD= 1.32). Friendship (M= 3.51, SD= 1.73).

Table 2. The Results of Motivation Measurement for the Respondents

Measures	Mean	SD	Number of responses (n = 147)
Knowledge	**3.47**	**1.86**	**144**
To learn new things	3.57	1.06	146
To increase my knowledge	3.34	1.29	145
Relaxation	**3.98**	**1.55**	**144**
To relax and rest	4.24	1.09	144
To refresh my mental and physical state	3.70	1.18	146
Escape	**4.26**	**2.03**	**146**
To escape from the daily life routine	4.14	1.00	146
To escape[e from the pressures of study	4.38	1.23	147
Enjoyment	**4.33**	**1.47**	**146**
It is exciting	4.06	1.03	147
To have fun	4.58	.836	146
Friendship	**3.51**	**1.73**	**144**
To meet people with similar interests and hobbies	4.35	.931	145
To travel with friends and my family	2.65	1.33	146
Sense of Wonder	**3.91**	**1.32**	**146**
Because it is an exotic place	4.14	1.00	146
To explore new places	3.66	1.19	147

DISCUSSION

The main purpose of this study was to investigate the motivations of children undertaking a geotourism experience in the Dead Sea in Jordan. It also investigates the source of information have been used by respondents to plan their trip to the site. Following this, the quantitative results indicate that the the primary source of information for respondents in the Dead Sea was the Internet. This support previous research, which suggested that the main source of influential information for prospective geotourisms' participants is the internet (Allan, 2012). The study shows that most children prefer to use at least one information source about the site before visiting it**.** Furthermore, the evidence obtained by this research suggests that the Internet plays a vital role in the manner by which children learn about targeted geological tourism sites before their visit. Thus, all manner of those involved in promoting geological sites should take into account that the Internet and its applications while developing marketing and communication strategies for such tourists. Tjostheim *et al.* (2007) argue that the Internet is used largely in the tourism industry as a source of information because it can save time and costs in addition to providing comprehensive and customized content of proposed tourism destinations for it. The utilization of the Internet throughout the world has grown rapidly. It is estimated that there are approximately 2,095,006,005 worldwide Internet users representing 30.2% of the world's total population (The Internet World Stats, 2011).

In terms of tourism motivations, the results reveal that the main motivations of children at the Dead Sea were:

- **Enjoyment,**
- **To escape from the pressures of study,**
- **Sense of wonder,**
- **Relaxation, and**
- **Friendship.**

This study produced results, which do not accord with the findings of previous studies in this field, which have suggested that the main intrinsic motivations for the adult geotourisms' participants were escape from the bustle and hustle of the daily life**,** relaxation, enjoyment, sense of wonder, and knowledge gain (Allan, 2012). However, the present findings seem to be consistent with other research in tourism literature which found enjoyment is one of the traditional motivational factors of the tourism experience (Loker & Perdue, 1992; Kau & Lim, 2005; Kim & Prideaux, 2005). In the geotourism context, some studies have suggested that an enjoyment is an essential part of a geotourism experience (Joyce, 2006; Hose, 2008; Kim *et al.*, 2008; Dowling & Newsome, 2010). The escape factor is represented as one of the central and crucial motivations in tourism literature (Dann, 1977). The findings of this study corroborate the thoughts of Qiumei and Zhenzjia (2006), who argue that geological tourism attractions could enhance enjoyment of understanding and appreciation of the universe, broaden the tourists' minds, maximize the ego values by a set of different tourism activities and sightseeing, and decrease or eliminate the feeling of agony.

CONCLUSION

It is worth mentioning that child consumers are a significant targeted segment to be understood by marketing strategies and behavior analysts. Better understanding of this segment can direct to high profitability due to the fact that children play vital role in 'adults consumption choices' (McAlister, 2007).

Many studies indicate that children can affect family vacation decision-making (Blichfeldt, Pedersen, Johansen, & Hansen, 2010). Moreover, Based upon tourism literature, most studies of family vacation decision-making mainly concentrate on the husband and the wife (Cosenza and Davis 1981) and to a minor scope on children (Cullingford 1995) (Blichfeldt, Pedersen, Johansen, & Hansen, 2010). In the geotourism context, no research has been found that surveyed the motivation of children engaging in geotourism activities. Therefore, the aim of this paper is to examine the motivations of children visiting the Dead Sea in Jordan and their sources of information about the site before visiting it. This study has shown that the respondents were males and females, and they prefer to use the internet as the primary source of information before undertaking their trip. In addition, their main motivations were enjoyment, escape from the pressures of study, friendship and relaxation. The findings enhance our understanding of why children travel to a specific geosite. This important issue in the broader tourism literature is still an uncommon area of study. Moreover, even though the geological and geomorphic resources in the Middle East are rich, minimal studies have explored the different dimensions of geotourism in this area. Thus, this study extends our understanding of geotourism and its tourists in the Middle East, particularly, Jordan.

REFERENCES

Allan, M. 2012. *Geotourism: Toward A Better Understanding Of Motivations For A Geotourism Experience: A Self-Determination Theory Perspective.* Saarbrucken, Germany: LAP Lambert Academic Publishing.

Al-Zoubi, A., Abu-Hamatteh, Z., and Abdealkaderer, A. 2006. The seismic hazard assessment of the Dead Sea rift, Jordan. *Journal of African Earth Sciences, 45*, 489-501.

Beard, J., Ragheb, M. 1983. Measuring Leisure Motivation. *Journal of Leisure Research,*

15, 219–228.

Asmar, B., and Ergenzinger , P. 2004. The Dead Sea Is Unlikely to Dry Up in 50 Years. *EOS,Transactions, American Geophysical Union, 7*, 69–76.

Blichfeldt, B., Pedersen, B., Johansen, A., and Hansen, L. 2010. Tween Tourists: Children and Decision-Making. (2, Ed.) *Journal of Tourism Consumption and Practice* , 1-24.

Borgers, N. 2000. Childern as respondents in survey research: cognitive development and response quality. *Bulletin de Methodologie Sociologie , 66*, 60-75.

Bowen, R. and Jux, U. 1987. *Afro-Arabian geology*, Chapmanand Hall, London.

Cohen, E. 1972. Towards a Sociology of International Tourism. *Social Research, 39*, 164-182.

Cohen, E. 1974. Who is a Tourist? A Conceptual Clarification. *Sociological Review, 22*,527-555.

Cohen, E. 1979. Phenomenology of Tourist Experiences. *Sociology, 13*, 179-201.

Cohen, L., Manion, L., and Morrison, K. 2000. *Research methods in education*. New York:Routledge

Crompton, J. L. 1979. Motivations for Pleasure Vacation. *Annals of Tourism Research,6*, 408-424.

Cullingford, C. 1995. Children's attitudes to holidays overseas. *Tourism Management,16*(2), 121-112.

Cosenza, R.M. and D.L. Davis. 1981 Family Vacation Decision Making Over the Family Life Cycle: A Decision And Influence Structure Analysis. *Journal of Travel Research*, (20), 17-23.

Dann, D. 1977. Anomie, Ego-Enhancement and Tourism. *Annals of Tourism Research*, *Research Quarterly for Exercise and Sport, 53*, 141-185

Dann, G. 1981. Tourist Motivation: An Appraisal. *Annals of Tourism Research, 8*, 187–219.

Dann, G. 1983. Comment on Iso-Ahola's .Toward a social psychological theory of tourism motivation: A rejoinder . Annals of Tourism Research, 10(2), 273-276.

Dowling, R., and Newsome, D. 2010. The future of Geotourism: Where to from hee? In Dowling and D. Newsome (Eds.), *Global Geotourism Perspectives*. London: Goodfellow Publishers.

Dowling, R. 2011. Geotourism's Global Growth. *Geoheritage, 3*, 1–13.

El Wartiti, M., Malaki, A., Zahraoui, M., El Ghannouchi, A., and Di Gregorio, F. 2008. Geosites inventory of the northwestern Tabular Middle Atlas of Morocco. *Environ*

Geol, 55, 415–422.

Farsani, N., Coelho, C., and Costa, C. (2010). Geotourism and Geoparks as Novel Strategies for Socio-economic Development in Rural Areas. *International Journal of TourismResearch*.

Fodness, D. 1994. Measuring Tourist Motivation. *Annals of Tourism Research, 21*(3), 555-581.

Holden, A. (2005). *Tourism studies and the social sciences*. New York: Routledge.

Goossens, C. 2000. Tourist information and pleasure formation. *Annals of Tourism*

Research, 27(2): 301-321.

Hose, T. 2007 'Geotourism in Almeria Province, southeast Spain', Tourism 55, 259-276.

Hose, T. 2008. Towards a history of geotourism: definitions, antecedents and the future.In C. Burek, Prosser, C (Ed.), *The history of geoconservation*. Bath: Geological Society.

Hose, T., and Vasiljević, D. 2012. Defining the Nature and Purpose of Modern Geotourism with Particular Reference to the United Kingdom and South-East Europe. *Geoheritage , 4*, 25–43.

Horowitz, A. 2001. *The Jordan Rift Valley.* A.A. Balkema Publishers.

Internet World Stats. 2011. Internet World Stats. Retrieved 06 10, 2012, from

HYPERLINK "http://www.internetworldstats.com/stats.htm" http://www.internetworldstats.com/stats.htm

Iso-Ahola, S., Allen, J. 1982. The Dynamics of Leisure Motivation: The Effects of Outcome on Leisure Needs.

Jang, S., and Cai, L. 2002. Travel Motivations and Destination Choice: A Study of British Outbound Market. *Journal of Travel and Tourism Marketing, 13*, 111-133.

Jennings, G. 2010. *Tourism Research* (2 ed.). QLD: Wiley.

Jordan Tourism Board. 2010. *Jordan*. Retrieved 06 23, 2013, from Jordan Valley and The Dead Sea: http://www.visitjordan.com/Default.aspx?tabid=67

Joyce, E., B. 2006. *Geomorphological Sites and the new Geotourism in Australia*.Geological Society of Australia. Melbourne. Retrieved from

http://web.earthsci.unimelb.edu.au/Joyce/heritage/GeotourismReviewebj.htm

Kau, A. K., Lim, P.S. 2005. Clustering of Chinese tourists to Singapore an analysis their motivations, values and satisfaction. *International Journal of Tourism*

Khunou, P., Reynish, N., Pawson, R., Tseane, L., and Ivanovic, M. 2009. *Fresh*

Perspectives: Tourism Development 1. Cape Town: Pearson South Africa.

Kim, S., and Prideaux, B. 2005. Marketing Implications Arising from a Comparative Study of International Pleasure Tourist Motivations and other Travel-Related Characteristics of Visitors to Korea. *Tourism Management, 26*, 347-357.

Kim, S., Kim, M., Park, J., and Guo, Y. 2008. Cave Tourism: Tourists' Characteristics, Motivations to Visit, and the Segmentation of Their Behavior. *Asia Pacific Journal of Tourism Research, 13*(3), 299-318.

Kozak, M. 2004. Destination Benchmarking: Concepts, Practices and Operations. Wallingford, CAB International.

Larsen, S., and Jenssen, D. 2004. The school trip: Travelling with, not to or from. *Scandinavian Journal of Hospitality and Tourism, 4*(1), 43 - 57.

Loker, L., and Perdue, R. 1992. A benefit-based segmentation of a non-resident summer travel market. *Journal of Travel Research, 31*, 30-35.

Mansfield, Y. 1992. From motivation to actual travel. *Annals of Tourism Research*,

19(3): 399-419.

Mill, R., and Morrison, A. (1985). *The tourism system: An introductory text*. Englewood Cliffs: NJ: Prentice-Hall.

MOTA. 2013. *Tourism Statistical Newsletter*. Retrieved 09 6, 2013, from The Ministry of Tourism and Antiquities: http://www.mota.gov.jo/ar/Default.aspx?tabid=120

Moutinho, L., 1987. Consumer behavior in tourism. *European Journal of Marketing,* 21(10), pp. 4-33.

Nickerson, N., and Jurowski, C. 2001. The influence of children on vacation travel patterns. *Journal of Vacation Marketing, 7*(19), 19±30.

Page, S., and Connell, J. 2006. *Tourism: a modern synthesis*. London: Cengage Learning EMEA.

Panizza, M., and Piacente, S. 2008. Geomorphosites and geotourism. *Electronic Journal of Geography and Correlated Areas, 2*(1), 5-9.

Pearce, D., and Butler, R. 1994. *Tourism Research: Critiques and Challenges*. London: Routledge.

Pelletier, L.G., Vallerand, R.J., Brière, N.M., and Blais, 1989.Construction et validation de l'Échelle de motivation vis-à-vis les Loisirs (EML). Communication présentée au congrès annuel de la SQRP, Ottawa, 28 octobre 1989. Résumé des communications, p.146.

Plog, S. 1972. Why Destination Areas Rise and Fall in Popularity. *Cornell Hotel and Restaurant Quarterly, 14*(40), 55-58.

Qiumei, F., and Zhenzjia, Z. 2006. Exploitation and sustainable development of tourism geological resources in Liaoning province of China. *Candian Social Science, 2*(4), 99-103.

Singh. T. (2008). *Fundamental of Tourism and Travel*. Delhi: Gyan Publishing House.

Sadry, B. 2009. *Fundamentals of Geotourism With a Special*

Emphasis on Iran. Tehran, Iran: Samt Organization Publishing.

Sharpley, R. 2006. *Travel and tourism*. London: SAGE.

Stueve, A., Cock, S, Drew, D. 2002. The Geotourism Study: Phase I Executive Summary: National Geographic.

Tapiador, f. 2007. *Rural analysis and management: an earth science approach to ruralscience*. Toledo, Spain: Springe.

The International Congress of Geotourism. 2011. *Arouca Declaration*. Retrieved 01 28, 2013, from The International Congress of Geotourism: http://dl.dropbox.com/u/36358978/ News/Declaration_Arouca_%5BEN%5D.pdf

Tjostheim, I., Tussyadiah, L., and Hoem, S. 2007. *Combination of information source in travel planning: A cross national study.* Paper presented at the Information and communication technologies in tourism 2007: proceedings of the international conference in Ljubljana, Slovenia, Ljubljana.

Travel Industry Association of America. 2002. The Geotourism Study: Phase I Executive Summary (pp. 1-24). Washington, D.C.: Travel Industry Association of America.

UNESCO. 2006. *Geopark, a new strategy*. Retrieved 08 15, 2013, from UNENSCO:

http://unesdoc.unesco.org/images/0015/001500/150007e.pdf

Zhang, H., and Lam, T. 1999. An analysis of Mainland Chinese visitors' motivations to visit Hong Kong. *Tourism Management, 20*, 587 - 594.

السياحة الجيولوجية: لماذا يقوم الاطفال بزيارة مواقع سياحية جيولوجية؟

*مأمون علان**

ملخص

تهدف هذه الدراسة الى فهم دوافع الأطفال الذين يقومون بزيارة موقع سياحي ذي أهمية جيولوجية، ومعرفة وسائل المعلومات المختلفة التي يستخدمها الأطفال للتزود بالمعرفة حول الموقع السياحي الجيولوجي قبل زيارته. وقد تم تطبيق المنهج الكمي من خلال توزيع استبانة على 147 طفلا أردنيا تتراوح أعمارهم بين 14−17 سنة، قاموا بزيارة البحر الميت في الاردن عام 2012. وقد بينت الدراسة أن أهم الدوافع التي جعلت الاطفال يقومون بزيارة البحر الميت هي "الاستمتاع بالموقع" ، والهروب من ضغوطات الدراسة، وتكوين صداقات جديدة، والاستجمام. كما اشارت نتائج هذه الدراسة الى أن معظم أفراد العينة استخدموا وسائل معلومات مختلفة حول البحر الميت، وأن مصدر المعلومات الأساسي لهؤلاء الأطفال هو شبكة الانترنت. وتعد هذه الدراسة من الدراسات النادرة التي تتناول دوافع الاطفال لزيارة مواقع سياحية معينة، علما بأن الدراسات السياحية السابقة اهملت دور الاطفال في الأنشطة السياحية المختلفة وعلى الأخصّ في أنشطة السياحة الجيولوجية. كما ان هذه الدراسة تعد من الدراسات السياحية القليلة التي تركز على دوافع السياحة الجيولوجية في الأردن والشرق الأوسط.

الكلمات الدالة: السياحة الجيولوجية، الدوافع، موقع جيولوجي، الجيولوجيا، البحر الميت.

* كلية الآثار والسياحة، الجامعة الأردنية. تاريخ استلام البحث 2012/12/27، وتاريخ قبوله 2013/9/8.