The obstacles and prospers of ecotourism behavior development in the visitors. An SLR from the literature reviewing from 2015-2019

Amina Imran¹, Muhammad Siddique², Hamad Raza³, Nohman Khan⁴

 ¹Faculty of Technology Management & Business, Universiti Tun Hussein Onn Malaysia, Johor, Malaysia.
²PhD Associate Professor, Department of Commerce, University of the Punjab, Gujranwala Campus, Pakistan
³Lyallpur Business School, Government College University Faisalabad, Pakistan.
⁴UniKL Business School Universiti Kuala Lumpur, Malaysia; nohman.khan@s.unikl.edu.my

Abstract

In the past decades, tourism's impact on economics, social, culture, and society has increased. The concept of alternative tourism, such as nature-based travel, green travel, responsible travel, soft tourism, cultural tourism, adventure travel, and ecotourism, is growing very excessively as compared to ordinary tourism. The current study aims to determine the research direction on ecotourism behavior in the year 2015 to 2019. The 56 studies are included in the review from the Scopus database and following the PRISMA statement 2015. Classification of literature is divided into four significant categories after reviewing the literature and setting the inclusion and exclusion criteria. The most frequent theories also discussed, and theory of planned behavior used by the many researchers related to the ecotourism behavior. The findings showed that ecotourism behavior development research is focused on environmental protection. The behavioral development process is needed an ecotourism intention creating process. There is need to make efforts in multidisciplinary research.

Keywords: Ecotourism behavior, ecotourism intention, theory of planned behavior, environmental sustainability.

1. INTRODUCTION

In the past decades, the impact of tourism on economics, social, culture and society has increased. The concept of alternative tourism such as nature-based travel, green travel, responsible travel, soft tourism, cultural tourism, adventure travel, and ecotourism, are growing very excessively as compared to normal tourism (Powell & Ham, 2008)(Powell & Ham, 2008). Alternative tourism is a sustainable option for the resources and international

organizations with national administrations of host countries are concerning about the resources. Excessive tourists are a contributing economy, but environmental degradation is one of the causes of tourism activities. Alternative tourism is helpful to create the value of natural resources (Muhanna, 2006). Ecotourism is a highly discussed element of alternative tourism in recent year's literature for the adaptation of sustainable development of natural resources. Ecotourism is defined as traveling respectfully to natural areas with a specific reason for learning, admiring, enjoying the natural scenery and wildlife in the ecosystem (LEE, 2007). Ecotourism is helpful in protecting the natural environment and ecosystem from the mass destruction due to the travelers in the nature-based areas. The basic principle of ecotourism is the conservation of natural resources with the development of the local community and education of travelers about environmental sustainability (Kiper, 2013). For the development of ecotourism, behavioral change is the primary ingredient to include. Therefore, tourists' behavior is crucial for sustainable ecotourism development. Liu, Li, (2013) added, Ecotourism behaviors are specific components of tourists' behavioral intentions, which refer to intentions generated post the tourism consumption process. ecotourism intention that later converted into behavior largely affects the environment. Ecotourism behavior is a characteristic of individuals who are knowledgeable and concerned about the environment and will, therefore, engage in behavior that would avoid damage to the environment (Chiu et al., 2014). In the context of ecotourism, environmentally responsible behavior results when tourists recognize that their actions impact the environment, and they abide by the norms of the ecotourism area. Environmentally responsible behavior is related to knowledge of issues, action strategies, locus of control, attitude, verbal commitment and sense of responsibility (C.-H. Liu et al., 2013). To strengthen the pro-environmental behavior is the concern of modern times, literature has a very limited work on the ecotourism behavior in recent time. Researchers need to put efforts towards ecotourism behavior development among travelers. Recent attractions towards environmental sustainability are opening the doors for researchers to look in literature for behavioral development.

Past literature demonstrated that ecotourism promotes sustainable development by limiting the negative impact of tourism on, as well as the long-term maintenance of, the environment. The concepts of ecotourism, furthermore, emphasize on sustainable development of the environment as well as responsible behavior towards the environment as nature conservation mechanisms. In view of gaining a better understanding of ecotourism behaviors and developing strategies to ensure its sustainability and foster its growth, recent studies have focused on the antecedents of tourists' behavioral intentions towards ecotourism and their willingness to pay a premium (Teeroovengadum, 2019). Research studies in the past are very much focused on predictors like attitude and interest, as such their influence on ecotourism behavior has been well established (Stapleton, 2015). Dolnicar & Leisch, (2008) explain that different tourists have a different attitude toward the environment and their attitudes determine the intentions about ecotourism behavior. Pro-environmental behavior is very crucial in ecotourism management. Literature regarding mitigating the environmental impacts, an individual's environmental behavior, such as educational programs related to the environment, environment attitude, environmental values, place attachment, and reaction

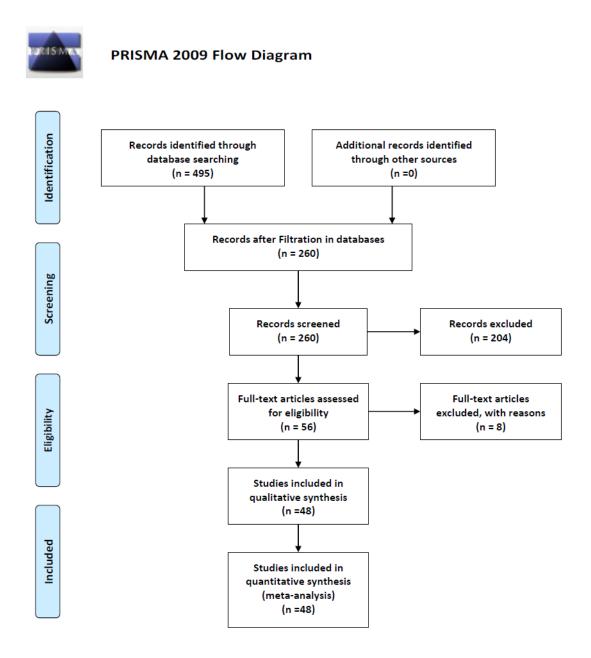
experience (Lee & Jan, 2015b). Many scholars suggested that the relationship between attitude and behavior they apply the theory of reasoned action and theory of planned behavior (LEE, 2007; Dolnicar & Leisch, 2008). Human activities are creating the environmental impacts and to reduce the impacts on the environment, researchers are suggesting to educate the tourists and cultivate the pro-environmental values, attitudes and behaviors (Han, 2015). So, attitudes, subjective norms, and perceptions are generating the intentions and the behavioral part is in last. Literature related to ecotourism behavior is demonstrated about individual behavior and educating individuals will convert into environmental sustainability.

The aim of the current study is to find out the research direction on ecotourism behavior in the year 2015 to 2019. The study will classify the variables and research fields related to ecotourism behavior. For that purpose, the web of science database will be used to get the desired results related to the ecotourism behavior. Ecotourism behavior is as mention above the mainly dependent on the individual's behavior towards the environment during the travel. Ecotourism behavior related literature will thoroughly examine the excel sheets but before examining the excel sheets in database keywords ecotourism behavior will be searched. In the research methodology section of the study firstly inclusion and exclusion part will be explained and later the quality assessment of data. The year-wise, journal base and minimum citations to maximum citations of data will be explained. After that, the classification of data will be discussed and ecotourism behavior-related data contributions in past research will overview and critically analyze the results of the literature. Based on the classification of data contributions and gaps in the past research will be concluded in the discussions and conclusion part but before concluding the discussions, theoretical demonstration of literature will also be discussed. How the theories are part of the past literature and theoretical contributions related to future research. In the discussion and conclusion part, we will explain the future directions for the researchers in the field of ecotourism and possible contributions of the current study related to ecotourism behavior.

2. RESEARCH METHODOLOGY

For the study, we analyze the web of science database literature to critically look upon the published literature in the years from 2015 to 2019. The main idea was to find the direction and central points of research during the years. Web of Science database is used to search with the keyword "ecotourism behavior" and initially 495 results were found. For the more batter and accurate results, some filters are used in the database. The language option is also selected, and only the English language published paper was selected. After the filter only 493 papers were shown by the web of science and process is further elaborated by limited the time period from 2015 to 2019, the results are 232 studies. When 232 were selected from the database, the citation criteria are applied in the excel sheet and a minimum of 6 times cited paper is selected for the study. although the most cited process is limited only on the 56 papers. So, the 56 studies are cited by the different other researchers for manuscripts. For further assessment and quality development of the study, the quality assessment process is adopted. Only articles are chosen for the study and review papers and conference papers are

not selected. All papers are published and in-review and under publication studies are not elected for detail and quality maintain the process.



3. QUALITY ASSESSMENT

The last 56 studies with more than 6 times cited are closely observed in the excel sheets for analyzing the quality of the research. In the excel sheet further on check for the duplication and irrelevancy of the selected papers. The process is deeply observed and categorically checking the papers for quality measurement. After the complete checking of the sheet, only 48 studies are left for the further process. mostly studies are not relevant to the current study and some literature was published in the other country's perspective, so the irrelevant literature is screen out and relevant research is analyzed for further process. For the screening

process, the abstract and findings of the research papers are read carefully to avoid duplication irrelevancy.

Eligibility and Inclusion Criteria

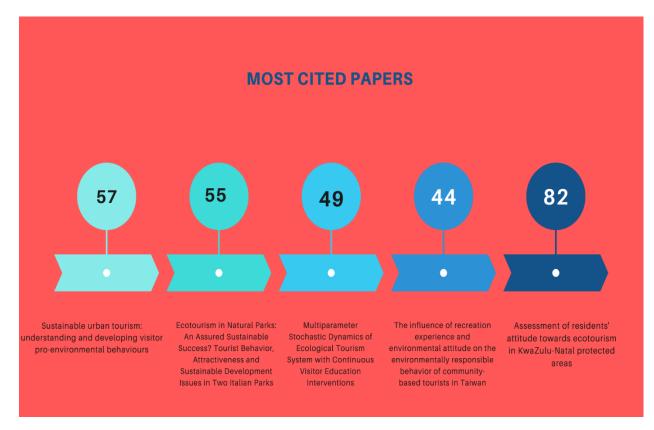
To make the process more relevant and optimum with the subject, irrelevant studies were removed from the excel sheet to ensure the process more detailed. Eligibility criteria were set for the study to cited by the 6 times and variables of the research most relevant to the ecotourism behavior. Every kind of duplication is cleared very carefully, and the screening process analyzes very consciously on the excel sheet. From the database, all the subjects are selected for the process and journals are also not limited to the inclusion criteria. The only published articles are included in the study and review papers and conference papers are excluded from the study.

Studies Included in Qualitative Synthesis

Final 48 studies from the year 2015 to 2019 were screened on the excel sheets very deeply to maintain the quality criteria for the review. All the procedures are systematically done on the excel sheet to find out the most cited research papers and journal base list are also calculated. For a batter review of the literature graphs of publications and journal is also shown. Analysis and quality process of systematic literature review (SLR) shown through the PRISMA statement templet, that is used to explain the overall process of selected and rejected articles for the study. PRISMA statement helps the researcher to analyze and improve the results of review papers.

Most Cited Publications

Most cited papers are set to measure out the number of citations per paper and minimum criteria are set to 6 times. Sustainable urban tourism: understanding and developing visitor pro-environmental behaviors is the most cited paper included, the study is cited 57 times. The second most cited paper is Ecotourism in Natural Parks: An Assured Sustainable Success? Tourist Behavior, Attractiveness and Sustainable Development Issues in Two Italian Parks with 55 citations and paper is published in the TOURISM PLANNING & DEVELOPMENT journal. The third most cited paper is Multiparameter Stochastic Dynamics of Ecological Tourism System with Continuous Visitor Education Interventions with 49 citations. Gradually the number of citations is going down and minimum citations are 6. The figure Citations report showing the most cited papers.



Journal Bases Publications

Journal base publications are showing the number of papers selecting from which journal. The figure of journal base publications shows the results from the different journals. JOURNAL OF SUSTAINABLE TOURISM is top of the list with four studies and with minimum citations is 6. While the TOURISM RECREATION RESEARCH, TOURISM PLANNING & DEVELOPMENT and QUALITY-ACCESS TO SUCCESS are contributed 2 studies each. Remaining papers are from different journals and each journal is contributed 1 study each.



Figure: Journal base Publications

4. CLASSIFICATION

The literature selected from the past research is processed on Microsoft excel sheet and analyzes every study very deeply and classification is arranged according to the nature of the literature. During the classification of literature, repetition and duplication are avoid very seriously due to the nature of research. The literature is classified according to the variables used in past research and categorized all the variables are further distributed into the three main sections in which the author, variables and core findings are discussed in detail below. Also, future recommendations and demonstrations of past literature are analyzing critically.

Ecotourism

There are basic classification approaches currently being adopted in research, ecotourism is discussed a maximum number of past authors. According to Montaguti & Mingotto, (2015) ecotourism has great potential to foster environmental sustainability and economic development in natural parks. The author used the product base and place-based approaches for the Italian park's motivation for the ecotourism. The findings of the study show the result that ecotourism demand is not for granted for economic development and environmental sustainability. The study is cited 55 times and published in TOURISM PLANNING & DEVELOPMENT in the year 2015. Comprehensive and successful planning is required for the development of ecotourism. There is the importance of governance between tourists'

destinations and tourist agencies are leading toward ecotourism. Coordination and Governance among Tour Agencies and Tourist Attractions: An Analysis of Tourism Production Systems in Brazil is the study that is used for the current study. The recommendations of the literature are the established environment in the analyzed tourism system is highly important with respect to the coordination and structural configuration of the tourism system, minimizing potential uncertainties and opportunistic behavior of agents in the analyzed tourism system (Arruda et al., 2016; N. Khan & Qureshi, 2020; N. U. Khan et al., 2017; Mufti et al., 2017; M I Qureshi et al., 2016, 201). Literature is also discussing the ecotourism with the climate change in the literature, for the development of the protection of the natural resources the ecotourism is significant that is basically leading towards climate change sustainability. In nature, ecotourism is climate-dependent, that suggests that the climate change affect ecotourism and influence tourist's protected area tourism destination selection. Therefore, understanding tourist's perceptions regarding climate change impact on ecotourism will be an important tool in successfully guiding decision-making connected with climate change impact on ecotourism in protected areas, and finally informing policy elaboration (Felicetti, 2016; M. I. Khan et al., 2014; N. Khan et al., 2020). It is very important to overview the individual attitude toward ecotourism and how materialistic individual mindset can influence the ecotourism. Lu, Gursoy, & Del Chiappa, (2016) study The Influence of Materialism on Ecotourism Attitudes and Behaviors is published in the Journal of Travel Research. Data for this study were collected from 2,352 Italian travelers and the proposed hypotheses were tested using a structural equation modeling approach. Findings suggested that individuals' ecotourism attitude would positively influence ecotourism intention, ecotourism interest, and willingness to pay a premium for ecotourism products and services. The relevant study to materialism and behavior is also contributed in the literature. Hultman, Kazeminia, & Ghasemi, (2015) draws a distinction between attitude, intention and behavior with the help of the theory of planned behavior. More recent attention has drawn a conceptual model incorporates environmental beliefs, attitudes toward ecotourism, behavioral indications, and willingness to pay a premium (WTPP), in combination with materialism and general tourism motivation. The most interesting finding was that ecotourism attitude's influence on WTP decisions. The most obvious finding to emerge from the analysis is that potential tourists' opinions about human behavior's adverse impact on the environment contribute to the formation of positive attitudes toward ecotourism, and the extent to which they engage in activities at premium prices. Researchers attempted to evaluate the impact of the resident's attitude towards the ecotourism. A strong relationship between residents' attitude and ecotourism has been reported in the literature, That is a strong indicator of environmental sustainability (Adeleke, 2015). Several studies have revealed that considerable focus on ecotourism's potential to contribute to conservation, it is increasingly important to understand the implications of ecological information in triggering sustainability-relevant attitudes and actions (Vásquez Lavín et al., 2016; M I Qureshi, Al Rasiah, et al., 2019; M I Qureshi, Elashkar, et al., 2019). Findings of the study revealed that education and information campaigns are more effective the way normally behave. Behavior is helpful for the development of the conservation of natural resources. Ecotourism classification towards the attitudes, intentions and behavior in the current study has mainly revealed the materialism and

residents' attitude towards the ecotourism. Up to now, the research has tended to focus on the protection of natural resources but some of the studies also classified the shark behavior towards ecotourism. Due to the excessive amount of visitors, shark behaviors are disrupting. Sanzogni, Meekan, & Meeuwig, (2015) study results showed that short-term (minutes to hours) behaviors including rolling, banking and diving by whale sharks in response to approaches by divers and boats are negative reactions to the presence of humans. The most obvious finding to emerge from this classification is ecotourism development is important for environmental sustainability and that is not possible without the positive behavior development towards nature-based tourism.

Conservation behaviors

An objective of this study was to investigate the ecotourism behavior related to past research and the areas in which the research is conducted. The second most research related to ecotourism behavior in the literature is conservation behaviors. Skibins, Powell, & Hallo, (2016) flagship species conservation reported in his research. Researchers find that the conservation of flagship species is one of the attractions for the visitors. However, flagshipbased ecotourism has been criticized for not delivering expected conservation benefits for species of interest or biodiversity and having negative impacts on wildlife on site. Conservation of resources and sustainable tourism is not possible without conservation behavior. The behavior development positive attitude and their general agreement with conservation efforts did not stop households' involvement in illegal resource extraction. The study related to attitude towards the conservation behavior shown the result that positive attitudes by themselves are not enough for changing behavior. This reveals that mediations need to be addressed to all parts of the fundamental sequence from environmental understanding, to attitudes, to intention, and finally to actual behavior; missing a link in the sequence will interrupt the whole process (Thapa Karki & Hubacek, 2015; (Ahmad et al., 2018; Arshad et al., n.d.; Ashfaq et al., 2018; Bashir et al., 2017; Bhatti et al., 2018; Hishan et al., 2019). There is little published data on interpretations that are challenging the conservation process in a different way. Interpretation is a golden tool of education and awareness about conservation behavior. Saayman, Kruger, & Botha, (2016) in his study showing the results that interpretation services are the most important element toward ecotourism and conservational behaviors can be generated through the interpretations of ecotourism destinations. Generally, the attitude towards the conservation is reported positive in the literature that in not only limited towards the environment and resources but also wildlife conservation-related studies are shown the positive results. When the discussions reveals the knowledge about the conservation between men and women is elaborate, the study Local People's Knowledge and Attitudes Matter for the Future Conservation of the Endangered Guizhou Snub-Nosed Monkey (Rhinopithecus brelichi) in Fanjingshan National Nature Reserve, China shown results that are indicate that knowledge about the reserve and the monkey is unevenly distributed among respondents; men are significantly more knowledgeable about the reserve than women and women are significantly more knowledgeable about the monkey than men (Ellwanger et al., 2015; Muhammad Imran Qureshi, Qayyum, et al., 2019; Muhammad Imran Qureshi, Yusoff, et al., 2019; A. Rasli et al., 2017; A. M. Rasli et al., 2018; Yasir et al., 2017; Zahid et al., 2020). One of the more significant findings to emerge from the classification of literature is about the behavior towards the conservation is shown that the educational tools is more valuable and related research is helpful about the conservation behaviors.

Pro-environmental behaviors

The third major finding was that pro-environmental behaviors are enlightening the past literature. To control the large scale destruction, enhancement of pro-environment behaviors is the importance of time. Miller, Merrilees, & Coghlan, (2015) explains four pro-environmental behaviors (recycling, green transport, green energy use, and green consumption) in urban tourism destinations. In the same study five potential antecedent habits, availability of facilities, environmental attitudes, taking a break from environmental duties, and tourist social responsibility are also studied. The results of the study shown that environmental infrastructure assets such as recycling facilities and public transport, reducing implementation barriers and in formulating an overall pro-environmental image for the destination. The study would have been more interesting if it had included attitude and behavior development in the context of pro-environment behavior. Lee & Jan, (2015b) examines the relationships between recreation experience, environmental attitude, and the general and site-specific environmentally responsible behavior of tourists. The results of the study show that environmental attitudes are positively and significantly related to general and site-specific behavior and mediate the relationship between recreation experience and environmentally responsible behavior. Data was collected from 862 respondents for the study and 44 studies are cited. Ecotourism is interacting with the environment through responsibility and awareness. Environmental behavior intention is also examining in the classification section of the current study related to the pro-environmental category. it is undeniable that not all travelers visiting eco-tourism objects demonstrate positive environmental behavior. The study revealed four concepts destination image, trip quality, perceived value, and satisfaction regarding the traveler's environmental intention behavior. The study collected data from 210 travelers in Indonesian ecotourism sites and used SEM (structural equation model) for the data analyzing. This research confirmed that five proposed hypotheses were supported and the results of the study revealed that there are many variables affecting this behavior, such as trip quality, perceived value, destination image and tourist satisfaction (Handriana & Ambara, 2016; M I Qureshi, Iftikhar, et al., 2015; M I Qureshi, Khan, et al., 2015; M I Qureshi, Md. Rasli, et al., 2015).

Nature-based tourism

Nature-based tourism is fast becoming a key instrument in mass tourism to protect natural resources. In the current study, literature demonstrated a very limited portion that is related to nature-based tourism. Even Though nature-based tourism is often endorsed as benefiting local destinations through income generation, employment, and direct conservation support, it is also believed to influence tourists' environmentally friendly attitudes, knowledge, and ultimately their behavior. Ardoin, Wheaton, Bowers, Hunt, & Durham, (2015) conducted an empirically study on nature-based tourism's ability to foster long-term stewardship behavior

among travelers. The findings of the study related to environmental attitudes and behaviors were inconsistent. Author recommendations for future studies are measured by environmental behavior directly. There is a growing body of literature that recognizes the importance of nature-based activities involve learning, recreation, and adventure in natural surroundings. The adaptation of nature-based tourism enhances the ability of subjective psychological elements to enhancing the tourist's experience of nature-based protected areas. Produce ecotourism endorsement knowledge and attitude towards sustainability while tourists visiting would increase the perceived value of nature-based protected areas and tourists' satisfaction, a very vital factor for long term image of the ecotourist destinations and behavior development (Castellanos-Verdugo et al., 2016; M I Qureshi, Rasli, et al., 2015; M I Qureshi et al., 2013, 2014; Muhammad Imran Qureshi et al., 2016, 2017, 2020). Navrátil, Knotek, Pícha, & Fialová, (2015) conducted a study on recreational activities in nature-based areas. Recreational activities are a very important role in nature-based protected areas. Study One interesting finding is relaxation is the most important activity among tourists in the large area protected natural territories. Entertainment is also a very important activity and It has been revealed that recreational sports activities are very attractive for tourists visiting nature-based tourist destinations. The study cited 30 times and a survey conducted on 1500 participants. In contrast to earlier findings, however, Lee & Jan, (2015a) argue that scientific interpretation of the recreation experience and the environmentally responsible behavior of nature-based tourists is limited. The approach to empirical research adopted for the relationship among the recreation experience, environmental attitude, biosphere value, and the general and sitespecific environmentally responsible behavior of nature-based tourists. The empirical study conclude that an individual contributes to nature-based tourism as designated here, these recreation experiences support their environmental attitude and biosphere value, and accordingly increase their engagement in both general and site-specific environmentally responsible behaviors. These results are similar to those reported in later year Chen & Peng, (2016), examine Chinese tourists' participation in nature-based, tourism activities by incorporating tourists' environmental concerns. The responses of 409 Chinese tourists show that environmental concern will positively affect tourists' motivation, which, in turn, will affect their negotiation strategy and ultimately their participation behavior.

Tourist behavior

One of the most well-known tools for assessing tourism is tourist behavior towards the ecotourism. Tourist behavior is discussed in very limited studies and the central focus is limited but we cannot deny the importance of tourist's behavior towards ecotourism behavior. Tourists from different cultures and origins, visiting the same nature-based destination, differentially choose alternative business tourist products that present different experiences. Chen & Peng, (2016) conducted a study to compare geographic origins, demographics, motivations, information sources and satisfaction factors for tourists. The study was designed to determine the effect of tourist's behavior towards the conservation of natural resources. The results of this investigation show that tourist social responsibility, with high relevance to furthering tourism's sustainability strengthen ecotourism behavior. Positive tourist's behavior development is contributing the economic development and prosperity in regions that are

promoting conservation of natural areas. Butzmann, (2016) demonstrated in his study that economic development and ecological conservation are achieved through the identification of visitor segments. The most obvious finding to emerge from this study is that a new concept, tourist social responsibility, with high relevance to furthering tourism's sustainability.

5. THEORETICAL DEVELOPMENT IN ECOTOURISM BEHAVIOR

Several studies have revealed that dealing with the behavior in ecotourism is using theory of planned behavior (TPB). Assessment of residents' attitude towards ecotourism in KwaZulu-Natal protected areas in study that talk individual behavior is influenced by behavioral beliefs, normative beliefs and control beliefs (Adeleke, 2015). The study contributed the theory of panned behavior towards the involvement of residents in ecotourism adaptation. The theory of planned behavior is formed to understand the perception, subjective norm and attitude that is converted into intention and finally behavior to participate in the ecotourism for the conservation of natural areas. Another study that is related to ecotourism intention and behavior in the literature is in the study. Intention to visit and willingness to pay premium for ecotourism: The impact of attitude, materialism, and motivation give a detail view ecotourism attitude's influence on willingness to pay premium(Hultman et al., 2015; Ahmad et al., 2018; Arshad et al., n.d.; Ashfaq et al., 2018; Bashir et al., 2017; Bhatti et al., 2018;). Literature contribution of the study is moderating effect of tourism motivation also discuss the belief and attitude relationship. this study finds that motivations partially moderate the effect of environmental beliefs on forming positive attitudes toward ecotourism. Theoretical development in the ecotourism behavior is mostly literature is used theory of planned behavior that is the extension of the theory of reasoned action. Hultman et al., (2015) also discuss the theory of post-materialism assumptions in the same study. Another study in the literature discusses the theory of planned behavior in the influence of recreation experience and environmental attitude on the environmentally responsible behavior of community-based tourists in Taiwan. The study examines the environmental attitude, recreation experience and site-specific environmental responsible behavior of tourist. The focus of the study is agriculturally based community and ethnic minorities. This study suggests that tourism destination providers should provide pro-environmental activities, ecotourism experiences, and interpretations of environmental issues to enhance tourists' environmental attitude and general and site-specific environmentally responsible behavior, thereby potentially reducing the adverse environmental effect produced by tourists during daily life and at tourism destinations (Lee & Jan, 2015a; Arshad et al., 2021; Hassan Gillani et al., 2021; Jabeen et al., 2021; Maisyaroh et al., 2021; Raza et al., 2021). Theoretical development in ecotourism is largely dependent on the theory of the planned behavior and very limited evidence is found in the recent years to adopt the other theories towards the behavior and intention development of ecotourism in the literature.

6. CONCLUSION

The literature is demonstrated that environmental sustainability is achieved through ecotourism behavior. Past research is mainly focused on behavioral intentions, that are talking about personal norms during the traveling. Personal norms showed the strongest association

with behavioral intentions and further mediated the link between injunctive social norms and behavioral intentions (Doran & Larsen, 2016). With the personal norms and behavior generation process there is a very important element is about the interpretation of multidimensional aspects of environmental protection. To control the environmental issues in the local community, behavior and attitudes can be controlled through interpretations (Kim et al., 2011). Ecotourism intention among the visitors is leading to behavior that is helpful for the sustainability of natural resources. Environmental sustainability is a broader concept while ecotourism is following the concepts of sustainability. Behavioral intentions are demonstrating loyalty with the tourist's destinations, analyzing loyalty as an important focus for nature-based tourism research. Analyzing recent loyalty and related behavioral intentions research is positively developing behavioral intentions that are promising satisfaction of the visitors (Moore et al., 2015). Environmental loyalty and satisfaction are needs education for the conservation of natural resources. Ecotourism intention and behavior can be achieved through environmental education. Environmental education and interpretation have largely focused on individual mechanisms (e.g. cognitive processes) leading to intention and behavioral change. Less has been said about the role of the situation and communication processes between tour guides and tourists in ecotourism experiences (Peake et al., 2009). Literature is focusing on the behavioral intentions for the ecotourism. Ecotourism related theories are used with the theory of planned behavior dominating in literature for achieving sustainability in visitors' behavioral intentions. Literature also evidence of the theory of reason action, technology acceptance model, the theory of involvement and expectancy theory. Future research to find behavioral intentions can explore the results while using these theories about ecotourism intentions.

7. REFERENCES

- [1] (Ahmad et al., 2018; Arshad et al., n.d.; Ashfaq et al., 2018; Bashir et al., 2017; Bhatti et al
- [2] Adeleke, B. O. (2015). Assessment of residents' attitude towards ecotourism in KwaZulu-Natal protected areas. *International Journal of Culture, Tourism, and Hospitality Research*, 9(3), 316–328. https://doi.org/10.1108/IJCTHR-12-2014-0102
- [3] Ahmad, M. H. B. H., Sarmin, N. H., & Qureshi, M. I. (2018). Selected Peer-Reviewed Articles from the International Conference on Science, Engineering, Management and Social Sciences (ICSEMSS 2016), Johor Bahru, Malaysia, 6--8 October, 2016. Advanced Science Letters, 24(6), 3823–3824.
- [4] Ardoin, N. M., Wheaton, M., Bowers, A. W., Hunt, C. A., & Durham, W. H. (2015). Nature-based tourism's impact on environmental knowledge, attitudes, and behavior: a review and analysis of the literature and potential future research. *Journal of Sustainable Tourism*, 23(6), 838–858. https://doi.org/10.1080/09669582.2015.1024258
- [5] Arruda, D. de O., Mariani, M. A. P., & Carvalho, D. T. de. (2016). Coordination and Governance among Tour Agencies and Tourist Attractions: An Analysis of Tourism Production Systems in Brazil. *Revista Rosa Dos Ventos - Turismo e Hospitalidade*, 8(1), 1–16. https://doi.org/10.18226/21789061.v8e002
- [6] Arshad, R. N., Abdul-Malek, Z., Roobab, U., Munir, M. A., Naderipour, A., Qureshi, M.

I., Bekhit, A. E.-D., Liu, Z.-W., & Aadil, R. M. (2021). Pulsed electric field: A potential alternative towards a sustainable food processing. *Trends in Food Science* \& *Technology*.

- [7] Arshad, R. N., Abdul-Malek, Z., Roobab, U., Qureshi, M. I., Khan, N., Ahmad, M. H., Liu, Z.-W., & Aadil, R. M. (n.d.). Effective valorization of food wastes and by-products through pulsed electric field: A systematic review. *Journal of Food Process Engineering*, e13629.
- [8] Ashfaq, M., Husna, R., Ismail, F., Irum, S., & Qureshi, M. I. (2018). EFFECT OF WORKPLACE SPIRITUALITY ON THE AFFECTIVE COMMITMENT OF PAKISTANI BANK EMPLOYEES. In Qureshi, MI (Ed.), AIMC 2017 - ASIA INTERNATIONAL MULTIDISCIPLINARY CONFERENCE (Vol. 40, pp. 525–532). https://doi.org/10.15405/epsbs.2018.05.41
- [9] Bashir, Y., Aslam, A., Kamran, M., Qureshi, M. I., Jahangir, A., Rafiq, M., Bibi, N., & Muhammad, N. (2017). On Forgotten Topological Indices of Some Dendrimers Structure. *MOLECULES*, 22(6). https://doi.org/10.3390/molecules22060867
- [10] Bhatti, M. N., Rasli, A., Haider, M., & Qureshi, M. I. (2018). RELATIONSHIP BETWEEN PERSONALITY TRAITS AND ACADEMIC STRESS AMONG POSTGRADUATE STUDENTS IN PAKISTAN. In Qureshi, MI (Ed.), AIMC 2017 -ASIA INTERNATIONAL MULTIDISCIPLINARY CONFERENCE (Vol. 40, pp. 583– 591). https://doi.org/10.15405/epsbs.2018.05.47
- [11] Botha, E., Saayman, M., & Kruger, M. (2016). Clustering Kruger National Park visitors based on interpretation. *South African Journal of Business Management*, 47(2), 75–88. https://doi.org/10.4102/sajbm.v47i2.62
- [12] Butzmann, E. (2016). Economically and ecologically favorable Visitor Segments in the Context of the National Park Tourism The Case Study Berchtesgaden. Zeitschrift Fur Tourismuswissenschaft, 8(2), 223–252. https://doi.org/10.1515/tw-2016-0019
- [13] Castellanos-Verdugo, M., Vega-Vázquez, M., Oviedo-García, M. Á., & Orgaz-Agüera, F. (2016). The relevance of psychological factors in the ecotourist experience satisfaction through ecotourist site perceived value. *Journal of Cleaner Production*, 124, 226–235. https://doi.org/10.1016/j.jclepro.2016.02.126
- [14] Chen, A., & Peng, N. (2016). Examining Chinese tourists' nature-based tourism participation behavior: Incorporating environmental concern into a constraint-negotiation model. *Tourism Analysis*, 21(2), 189–202. https://doi.org/10.3727/108354216X14559233984737
- [15] Chiu, Y. T. H., Lee, W. I., & Chen, T. H. (2014). Environmentally Responsible Behavior in Ecotourism: Exploring the Role of Destination Image and Value Perception. *Asia Pacific Journal of Tourism Research*, 19(8), 876–889. https://doi.org/10.1080/10941665.2013.818048
- [16] Dolnicar, S., & Leisch, F. (2008). Selective marketing for environmentally sustainable tourism. *Tourism Management*, 29(4), 672–680. https://doi.org/10.1016/j.tourman.2007.07.010
- [17] Doran, R., & Larsen, S. (2016). The Relative Importance of Social and Personal Norms in Explaining Intentions to Choose Eco-Friendly Travel Options. *International Journal*

of Tourism Research, 18(2), 159-166. https://doi.org/10.1002/jtr.2042

- [18] Ellwanger, A. L., Riley, E. P., Niu, K., & Tan, C. L. (2015). Local People's Knowledge and Attitudes Matter for the Future Conservation of the Endangered Guizhou Snub-Nosed Monkey (Rhinopithecus brelichi) in Fanjingshan National Nature Reserve, China. *International Journal of Primatology*, 36(1), 33–54. https://doi.org/10.1007/s10764-014-9807-z
- [19] Felicetti, G. (2016). Tourists' perceptions regarding climate change impact on ecotourism in protected areas. *Quality Access to Success*, 17(150), 72–75.
- [20] Han, H. (2015). Travelers' pro-environmental behavior in a green lodging context: Converging value-belief-norm theory and the theory of planned behavior. *Tourism Management*, 47, 164–177. https://doi.org/10.1016/j.tourman.2014.09.014
- [21] Handriana, T., & Ambara, R. (2016). Responsible environmental behavior intention of travelers on ecotourism sites. *Tourism and Hospitality Management*, 22(2), 135–150. https://doi.org/10.20867/thm.22.2.4
- [22] Hassan Gillani, S. M. A., Raza, H., Qureshi, M. I., & Khan, N. (2021). The effective use of technology and digitalization in Disaster Management in Malaysia. *Journal of Contemporary Issues in Business and Government*, 27(1), 71–87.
- [23] Hishan, S. S., Sasmoko, Khan, A., Ahmad, J., Hassan, Z. Bin, Zaman, K., & Qureshi, M. I. (2019). Access to clean technologies, energy, finance, and food: environmental sustainability agenda and its implications on Sub-Saharan African countries. *Environmental Science and Pollution Research*, 26(16), 16503–16518. https://doi.org/10.1007/s11356-019-05056-7
- [24] Hultman, M., Kazeminia, A., & Ghasemi, V. (2015). Intention to visit and willingness to pay premium for ecotourism: THE impact of attitude, materialism, and motivation. *Journal of Business Research*, 68(9), 1854–1861. https://doi.org/10.1016/j.jbusres.2015.01.013
- [25] Jabeen, S., Malik, S., Khan, S., Khan, N., Qureshi, M. I., & Saad, M. S. M. (2021). A comparative systematic literature review and bibliometric analysis on sustainability of renewable energy sources. *International Journal of Energy Economics and Policy*, 11(1), 270.
- [26] Khan, M. I., Awan, U., Yasir, M., Mohamad, N. A. B., Shah, S. H. A., Qureshi, M. I., & Zaman, K. (2014). Transformational leadership, emotional intelligence and organizational commitment: Pakistan's services sector. *Argumenta Oeconomica*, 33(2), 67–92. https://doi.org/10.15611/aoe.2014.2.04
- [27] Khan, N., & Qureshi, M. I. (2020). A systematic literature review on online medical services in Malaysia. *International Journal of Online and Biomedical Engineering*, 16(6), 107–118. https://doi.org/10.3991/ijoe.v16i06.13573
- [28] Khan, N., Qureshi, M. I., Mustapha, I., Irum, S., & Arshad, R. N. (2020). A systematic literature review paper on online medical mobile applications in Malaysia. *International Journal of Online and Biomedical Engineering*, 16(1), 63–82. https://doi.org/10.3991/ijoe.v16i01.12263
- [29] Khan, N. U., Rasli, A. M., & Qureshi, M. I. (2017). Greening human resource management: A review policies and practices. *Advanced Science Letters*, 23(9), 8934–

8938. https://doi.org/10.1166/asl.2017.9998

- [30] Kim, A. K. J., Airey, D., & Szivas, E. (2011). The Multiple Assessment of Interpretation Effectiveness: Promoting Visitors' Environmental Attitudes and Behavior. *Journal of Travel Research*, 50(3), 321–334. https://doi.org/10.1177/0047287510362786
- [31] Kiper, T. (2013). Role of Ecotourism in Sustainable Development. In Advances in Landscape Architecture. InTech. https://doi.org/10.5772/55749
- [32] LEE, T. H. (2007). An ecotourism behavioural model of national forest recreation areas in Taiwan. In *The International Forestry Review* (Vol. 9, pp. 771–785). Commonwealth Forestry Association. https://doi.org/10.2307/43739717
- [33] Lee, T. H., & Jan, F.-H. (2015a). The influence of recreation experience and environmental attitude on the environmentally responsible behavior of community-based tourists in Taiwan. *Journal of Sustainable Tourism*, 23(7), 1063–1094. https://doi.org/10.1080/09669582.2015.1032298
- [34] Lee, T. H., & Jan, F. H. (2015b). The Effects of Recreation Experience, Environmental Attitude, and Biospheric Value on the Environmentally Responsible Behavior of Nature-Based Tourists. *Environmental Management*, 56(1), 193–208. https://doi.org/10.1007/s00267-015-0488-y
- [35] Lee, T. H., & Jan, F. H. (2015c). The influence of recreation experience and environmental attitude on the environmentally responsible behavior of community-based tourists in Taiwan. *Journal of Sustainable Tourism*, 23(7), 1063–1094. https://doi.org/10.1080/09669582.2015.1032298
- [36] Liu, C.-H., Hong, C.-Y., & Li, J.-F. (2013). THE DETERMINANTS OF ECOTOURISM BEHAVIORAL INTENTIONS. Global Journal of Business Research, 7(4), 71–84.
- [37] Liu, C., Li, J., & Pechacek, P. (2013). Current trends of ecotourism in China's nature reserves: A review of the Chinese literature. In *Tourism Management Perspectives* (Vol. 7, pp. 16–24). https://doi.org/10.1016/j.tmp.2013.03.001
- [38] Lu, A. C. C., Gursoy, D., & Del Chiappa, G. (2016). The Influence of Materialism on Ecotourism Attitudes and Behaviors. *Journal of Travel Research*, 55(2), 176–189. https://doi.org/10.1177/0047287514541005
- [39] Maisyaroh, M., Juharyanto, J., Bafadal, I., Wiyono, B. B., Ariyanti, N. S., Adha, M. A., & Qureshi, M. I. (2021). THE PRINCIPALS'EFFORTS IN FACILITATING THE FREEDOM TO LEARN BY ENHANCING COMMUNITY PARTICIPATION IN INDONESIA. Jurnal Cakrawala Pendidikan, 40(1).
- [40] Miller, D., Merrilees, B., & Coghlan, A. (2015). Sustainable urban tourism: understanding and developing visitor pro-environmental behaviours. *Journal of Sustainable Tourism*, 23(1), 26–46. https://doi.org/10.1080/09669582.2014.912219
- [41] Montaguti, F., & Mingotto, E. (2015). Ecotourism in Natural Parks: An Assured Sustainable Success? Tourist Behavior, Attractiveness and Sustainable Development Issues in Two Italian Parks. *Tourism Planning and Development*, 12(1), 99–110. https://doi.org/10.1080/21568316.2014.960598
- [42] Moore, S. A., Rodger, K., & Taplin, R. (2015). Moving beyond visitor satisfaction to loyalty in nature-based tourism: a review and research agenda. *Current Issues in*

Tourism, 18(7), 667-683. https://doi.org/10.1080/13683500.2013.790346

- [43] Mufti, M. R., Qureshi, M. I., Alkhalaf, S., & Iqbal, S. (2017). An Algorithm: Optimal Homotopy Asymptotic Method for Solutions of Systems of Second-Order Boundary Value Problems. *MATHEMATICAL PROBLEMS IN ENGINEERING*, 2017. https://doi.org/10.1155/2017/8013164
- [44] Muhanna, E. (2006). Sustainable tourism development and environmental management for developing countries. *Problems and Perspectives in Management*, 4(2), 14–30.
- [45] Navrátil, J., Knotek, J., Pícha, K., & Fialová, J. (2015). The protected areas: Are they still in the 'pleasure periphery' or are they destinations for sustainable tourism activities? *European Journal of Tourism Research*, 11, 57–72.
- [46] Peake, S., Innes, P., & Dyer, P. (2009). Ecotourism and conservation: Factors influencing effective conservation messages. *Journal of Sustainable Tourism*, 17(1), 107–127. https://doi.org/10.1080/09669580802276000
- [47] Powell, R. B., & Ham, S. H. (2008). Can Ecotourism Interpretation Really Lead to Pro-Conservation Knowledge, Attitudes and Behaviour? Evidence from the Galapagos Islands. *Journal of Sustainable Tourism*, 16(4), 467–489. https://doi.org/10.1080/09669580802154223
- [48] Qureshi, M I, Al Rasiah, R., Al-Ghazali, B. M., Haider, M., Jambari, H., Iswan, & Sasmoko. (2019). Modeling work practices under socio-technical systems for sustainable manufacturing performance. *Sustainability (Switzerland)*, 11(16). https://doi.org/10.3390/su11164294
- [49] Qureshi, M I, Awan, U., Arshad, Z., Rasli, A. M., Zaman, K., & Khan, F. (2016). Dynamic linkages among energy consumption, air pollution, greenhouse gas emissions and agricultural production in Pakistan: sustainable agriculture key to policy success. *Natural Hazards*, 84(1), 367–381. https://doi.org/10.1007/s11069-016-2423-9
- [50] Qureshi, M I, Elashkar, E. E., Shoukry, A. M., Aamir, A., Mahmood, N. H. N., Rasli, A. M., & Zaman, K. (2019). Measuring the ecological footprint of inbound and outbound tourists: evidence from a panel of 35 countries. *Clean Technologies and Environmental Policy*, 21(10), 1949–1967. https://doi.org/10.1007/s10098-019-01720-1
- [51] Qureshi, M I, Iftikhar, M., Bhatti, M. N., Shams, T., & Zaman, K. (2013). Critical elements in implementations of just-in-time management: Empirical study of cement industry in Pakistan. *SpringerPlus*, 2(1), 1–14. https://doi.org/10.1186/2193-1801-2-645
- [52] Qureshi, M I, Iftikhar, M., Janjua, S. Y., Zaman, K., Raja, U. M., & Javed, Y. (2015). Empirical investigation of mobbing, stress and employees' behavior at work place: quantitatively refining a qualitative model. *Quality and Quantity*, 49(1), 93–113. https://doi.org/10.1007/s11135-013-9976-4
- [53] Qureshi, M I, Janjua, S. Y., Zaman, K., Lodhi, M. S., & Tariq, Y. B. (2014). Internationalization of higher education institutions: Implementation of DMAIC cycle. *Scientometrics*, 98(3), 2295–2310. https://doi.org/10.1007/s11192-013-1163-9
- [54] Qureshi, M I, Khan, N. U., Rasli, A. M., & Zaman, K. (2015). The battle of health with environmental evils of Asian countries: promises to keep. *Environmental Science and Pollution Research*, 22(15), 11708–11715. https://doi.org/10.1007/s11356-015-4440-8
- [55] Qureshi, M I, Md. Rasli, A., Jusoh, A., & Kowang, T. O. (2015). Sustainability: A new

Journal of Contemporary Issues in Business and Government Vol. 27, No. 1, 2021 P-ISSN: 2204-1990; E-ISSN: 1323-6903 https://cibg.org.au/

manufacturing paradigm. *Jurnal Teknologi*, 77(22), 47–53. https://doi.org/10.11113/jt.v77.6661

- [56] Qureshi, M I, Rasli, A. M., Awan, U., Ma, J., Ali, G., Faridullah, Alam, A., Sajjad, F., & Zaman, K. (2015). Environment and air pollution: health services bequeath to grotesque menace. *Environmental Science and Pollution Research*, 22(5), 3467–3476. https://doi.org/10.1007/s11356-014-3584-2
- [57] Qureshi, M I, Yusoff, R. M., Ahmed, A. R., Isa, K., & Imran, A. (2017). Linking quality of work life with sustainable manufacturing performance. *Advanced Science Letters*, 23(9), 8232–8235. https://doi.org/10.1166/asl.2017.9867
- [58] Qureshi, Muhammad Imran, Hassan, M. A., Hishan, S. S., Rasli, A. M., & Zaman, K. (2017). Dynamic linkages between sustainable tourism, energy, health and wealth: Evidence from top 80 international tourist destination cities in 37 countries. *Journal of Cleaner Production*, 158, 143–155. https://doi.org/https://doi.org/10.1016/j.jclepro.2017.05.001
- [59] Qureshi, Muhammad Imran, Khan, N., Qayyum, S., Malik, S., Sanil, H. S., & Ramayah, T. (2020). Classifications of sustainable manufacturing practices in ASEAN region: A systematic review and bibliometric analysis of the past decade of research. In *Sustainability* (*Switzerland*) (Vol. 12, Issue 21, pp. 1–19). MDPI AG. https://doi.org/10.3390/su12218950
- [60] Qureshi, Muhammad Imran, Qayyum, S., Nassani, A. A., Aldakhil, A. M., Qazi Abro, M. M., & Zaman, K. (2019). Management of various socio-economic factors under the United Nations sustainable development agenda. *Resources Policy*, 64, 101515. https://doi.org/10.1016/j.resourpol.2019.101515
- [61] Qureshi, Muhammad Imran, Rasli, A. M., & Zaman, K. (2016). Energy crisis, greenhouse gas emissions and sectoral growth reforms: Repairing the fabricated mosaic. *Journal of Cleaner Production*, 112, 3657–3666. https://doi.org/10.1016/j.jclepro.2015.08.017
- [62] Qureshi, Muhammad Imran, Yusoff, R. M., Hishan, S. S., Alam, A. F., Zaman, K., & Rasli, A. M. (2019). Natural disasters and Malaysian economic growth: policy reforms for disasters management. *Environmental Science and Pollution Research International*, 26(15), 15496–15509. https://doi.org/10.1007/s11356-019-04866-z
- [63] Rasli, A., Jusoh, A., & Qureshi, M. I. (2017). Selected peer-reviewed articles from the ASIA international conference (AIC-2016) on emerging issues in economics and finance (EIEF) and future of marketing and management (FMM), Universiti Teknologi Malaysia, 10–11 December 2016. Advanced Science Letters, 23(9), 8021–8022. https://doi.org/10.1166/asl.2017.9828
- [64] Rasli, A. M., Qureshi, M. I., Isah-Chikaji, A., Zaman, K., & Ahmad, M. (2018). New toxics, race to the bottom and revised environmental Kuznets curve: The case of local and global pollutants. *Renewable and Sustainable Energy Reviews*, 81, 3120–3130. https://doi.org/10.1016/j.rser.2017.08.092
- [65] Raza, H., Hassan Gillani, S. M. A., Ahmad, H., Qureshi, M. I., & Khan, N. (2021). Impact Of Micro And Macro Dynamics On Share Price Of Non-Financial Listed Firms In Textile Sector Of Pakistan. *Journal of Contemporary Issues in Business and*

Journal of Contemporary Issues in Business and Government Vol. 27, No. 1, 2021 P-ISSN: 2204-1990; E-ISSN: 1323-6903 https://cibg.org.au/

Government, 27(1), 59-70.

- [66] Sanzogni, R. L., Meekan, M. G., & Meeuwig, J. J. (2015). Multi-year impacts of ecotourism on whale shark (Rhincodon typus) visitation at Ningaloo Reef, Western Australia. *PLoS ONE*, 10(9). https://doi.org/10.1371/journal.pone.0127345
- [67] Skibins, J., Powell, R., & Hallo, J. (2016). Lucky 13: conservation implications of broadening "Big 5" flagship species recognition in East Africa. *Journal of Sustainable Tourism*, 24(7), 1024–1040. https://doi.org/10.1080/09669582.2015.1101126
- [68] Stapleton, S. R. (2015). Environmental identity development through social interactions, action, and recognition. *Journal of Environmental Education*, 46(2), 94–113. https://doi.org/10.1080/00958964.2014.1000813
- [69] Teeroovengadum, V. (2019). Environmental identity and ecotourism behaviours: examination of the direct and indirect effects. *Tourism Review*, 74(2), 257–269. https://doi.org/10.1108/TR-11-2017-0190
- [70] Thapa Karki, S., & Hubacek, K. (2015). Developing a conceptual framework for the attitude-intention-behaviour links driving illegal resource extraction in Bardia National Park, Nepal. *Ecological Economics*, *117*, 129–139. https://doi.org/10.1016/j.ecolecon.2015.06.022
- [71] Vásquez Lavín, F., Gelcich, S., Paz Lerdón, X., & Montealegre Bustos, F. (2016). The role of information in changing tourists behavioral preferences at the Humboldt penguin reserve in northern Chile. *Ocean and Coastal Management*, 125, 63–69. https://doi.org/10.1016/j.ocecoaman.2016.03.003
- [72] Yasir, M., Rasli, A., & Qureshi, M. I. (2017). Investigation of the factors that affect and gets affected by organizational ethical climate. *Advanced Science Letters*, 23(9), 9351– 9355. https://doi.org/10.1166/asl.2017.10479
- [73] Zahid, M., Rahman, H. U., Ali, W., Khan, M., Alharthi, M., Imran Qureshi, M., & Jan, A. (2020). Boardroom gender diversity: Implications for corporate sustainability disclosures in Malaysia. *Journal of Cleaner Production*, 244. https://doi.org/10.1016/j.jclepro.2019.118683