

**YANGON UNIVERSITY OF ECONOMICS
DEPARTMENT OF ECONOMICS
Ph.D PROGRAMME**

**IMPACTS OF TOURISM DEVELOPMENT ON CULTURAL
HERITAGE CONSERVATION IN BAGAN**

**SANDAR
SEPTEMBER, 2020**

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4- Ph.D (THU) BA-1

SEPTEMBER, 2020

CERTIFICATION

I hereby certify that contents of this dissertation are wholly my own work unless otherwise referenced or acknowledged. Information from sources is referenced with original comments and ideas from the writer herself/himself.

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ABSTRACT

This study aims to analyze the tourism development in Bagan and its impacts on cultural heritage conservation and preventive measures to minimize negative effects. Primary data was collected in Bagan- Nyaung Oo area through surveying with structured questionnaires. The multiple regression model was used for analyzing the factors effecting on cultural heritage conservation in Bagan. According to the results, economic impacts provide conservation task through financial support (tourism revenue, donation, tax revenue, and entrance fee), increased employment for conservation and demand for art and craft encouraged cultural restoration in Bagan. And cultural impacts also promote intangible cultural heritage such as cultural exchange, cultural awareness, and cultural identity. On the other hand, there is a negative environmental impact which destructs the cultural heritage in Bagan that was caused by the tourists' traffic, tourists' garbage, graffiti and vandalism, climbing on the pagodas, tourism transportation system and pollution. Due to the negative environmental impact, it is apparent that preventive measures are adopted by stakeholders such as government (rules and regulation, promoting world heritage status, capacity building and collaborative efforts), UNESCO (emergency assistance, consultation, professional training, technical assistance and awareness) and local community (involvement in restoration, planning and management, rich knowledge of cultural and traditions and involvement in tourism development) for conservation of cultural heritage assets in Bagan for sustainable development. It is recommended that both union and regional governments should collaborate with local community and public education and public awareness programs concerning the conversation of cultural heritage are essential to promote greater awareness for sustainable cultural heritage assets in Bagan.

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LIST OF ABBREVIATIONS

ADB	Asian Development Bank
AEC	ASEAN Economic Community
AFTA	ASEAN Free Trade Area
AMA	Association of Myanmar Architects
ASEAN	Associations of South East Asian Nations
ASI	Archaeological Survey of India
BZ	Buffer Zone
CBT	Community Based Tourism
CIT	Community Involvement in Tourism
CSO	Central Statistical Organization
DOA	Department of Archaeology
ECTARC	European Centre for Traditional and Regional Cultures
EU	European Union
FIT	Free Independent Tourists
GAD	General Administration Department
GDP	Gross Domestic Product
GFDRR	Global Facility for Disaster Reduction and Recovery
GIS	Geographic Information System
GNP	Gross National product
ICCROM	International Centre for the Conservation and Restoration of Monuments
ICOMOS	International Council on Monuments and Sites
IMF	International Monetary Fund
INGOs	International Non-Governmental Organizations
JICA	Japan International Cooperation Agency
KII	Key Informants Interviews
MCRB	Myanmar Centre for Responsible Business
MOHT	Ministry of Hotel and Tourism
MORAC	Ministry of Religious Affairs and Culture
MRA	Myanmar's Restaurants Association
MTGA	Myanmar Tourist Guide Association

NGOs	Non-Governmental Organizations
PLS-SEM	Partial Least Square Structure Equal Modeling
SLORC	State Law and Order Restoration Council
SME	Small and Medium Enterprises
SPDC	State Peace and Development Council
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNWTO	United Nations World Tourism Organization
USAID	United States Agency for International Development
WB	World Bank
WCED	World Commission on Environment and Development
WTO	World Tourism Organization

CHAPTER I

INTRODUCTION

Tourism based on cultural heritage is considered as one of the fastest growing segments in the world tourism market. Cultural heritage is seen as a good resource for tourism development (Wu, 2002). Improvement in tourism sector of historic cities or towns has more advantages than other tourism sites. Tourism in cultural heritage sites provides the well-being for local indigenous people by increasing their livelihood opportunities and development of infrastructure (Madden & Shipley, 2012).

Even though cultural heritage tourism makes contribution to many positive economic effects, also it has negative effects on social, cultural, and environmental aspects as well. According to Aas, Ladkin and Fletcher (2005), tourism can contribute numerous economic benefits for national heritage. Nevertheless, if tourism development goes beyond conservation of heritage destinations, it leads to unnecessary disadvantages to heritage assets. This becomes more difficult to carry out conservation and protection of it.

Therefore, a considerable amount of controversies exists between cultural heritage tourism development and maintaining heritage. For long-term use of heritage, it is able to minimize the negative effects of tourism on the local populace and heritage destinations and to maximize its positive effects (Ghanem & Saad, 2015).

Tourism contributes income generating activities for many host economies worldwide. It is in fact an important industry that impact many economic, cultural, and environmental aspects. It generates job creation, foreign exchange earnings, positive returns on investment, improved technology, and rising standards of living (Stylidis, 2012). Local communities obviously obtain the economic benefits from developing tourism activities. Furthermore, tourism provides increased revenues for local businesses, development of infrastructure and services in the local economy. On the other hand, it should be noted that local tourism is very much influenced by foreign tourist services and facilities, particularly seen as increases in food and land prices, and a host of many social problems.

While tourism is criticized for disruption of many traditional social and cultural and behavioural patterns, it makes positive contributions to the renaissance and resurgence of traditional arts, crafts, and fine arts (Ko & Stewart, 2002). A wide belief is that it is vital for preservation and enhancement of local culture in developing economies. It is generally seen as increasing the pride of residents concerning local community culture. This is by keeping culture alive and maintaining the ethnic identity of the residents. Also, it makes greater cultural exchange between tourists and residents. There is much evidence that residents generally suffered due to living in a tourism destination area because of the damage done to local culture.

Numerous studies of perception of residents regarding the tourism on environmental issues reveal that it is a big industry has both positive and negative effects on the nature. Tourism helps to preserve and enhance the cultural heritage sites. Furthermore, it provides an inducement for the restoration of ancient buildings.

Alternatively, construction of hotels and tourism facilities may destroy the natural environment in the local region since tourism facilities are usually built around heritage destinations. It causes not only damages to the natural environment and the traditional architecture but also creates solid wastes plus air, water, noise and soil pollution in many tourist destinations (Pizam, 1978). What is more, physical impacts of visitors on heritage sites can lead to huge damages. This includes theft, removal or pilferage, vandalism, accidental and intentional damage along with decay, pollution and crowding.

1.1 Rationale of the Study

Myanmar has a large potential tourism development due to much heritage sites. This relationship between “tourism” and “cultural heritage” is obvious and interdependent. Myanmar is known as its vast and “tangible cultural heritage” and also it is the Buddha heritage site in the Southeast Asia region. It has various heritage destinations such as Yangon, Bagan Archaeological Area and monuments, Badahlin and Associated Caves, Inle Lake in Southern Shan State, the ancient cities of Upper Myanmar i.e Innwa, Amarapura, Sagaing, Mingun, and Mandalay, Myauk U Archaeological Area and monuments in Rakhine State and ancient cities in the Mon State i.e Bago, Hanthawaddy, etc.

In Myanmar, out of the many cultural heritage sites, Bagan has been the best and most interesting cultural heritage site for tourists to visit. There are more than

3000 pagodas in Bagan Archaeological Zone. As Bagan located in the dry zone, tourists can travel easily to explore the ancient city all the year round. Unlike its image of being an old city with ancient architecture, on the other hand, many contemporary hotels are built and establishments for the modern adventure can be seen within the city.

Tourism generates positive impacts on tourism related business in Bagan such as hotels, motels, guest houses, restaurants and tour-guides, tour-operators, e-bike rental services, brick making for construction, and with more demand for local goods and services such as some agricultural products for hotels and restaurants, local consumer goods and souvenir shops including small lacquer ware shops. Thus, tourism has provided improved economic opportunities for the livelihoods of local communities. Simultaneously, tourism related infrastructure has also developed. Bagan has enjoyed improved roads and transport facilities as a result of tourism development.

Moreover, tourism related businesses in Bagan and elsewhere are fully responsible for maintenance of domestic traditions, culture and for preservation of the nature. It is generally seen as tourism businesses contribute to preserving “cultural and natural heritage” and increasing visitor understanding of cultural heritages in Bagan.

According to Myo Aung (2019), two percent of zone fees go towards the conservation the Bagan area. Moreover, various donations from institutions, individuals, public organizations and Buddhists living abroad have contributed much to preservation of many ancient archaeological monuments in Bagan. On the contrary, if the government, private and local communities do not cooperate in managing the tourism related businesses and activities in a proper manner, here will be much damage done to these cultural heritage areas. If the present development of tourism goes beyond the maintenance capacity of these heritage sites, there will be considerable amount of damage to these cultural heritage assets.

Overall, tourism development leads to many positive and negative economic, cultural and environmental consequences. However, positive impacts are normally found rather than negative impacts. Nevertheless, it is quite crucial to work conservation efforts for these “cultural heritage sites” to have sustainable tourism development. Additionally, boosting this tourism sector has become a necessity. In

this day and age, foreign tourists are mostly interested on heritage destinations and it is essential to make these sites more attractive.

As a result of an earthquake that struck Bagan area in 2016, many pagodas and monuments were destroyed; some partially and some completely. The restoration and reconstruction were undertaken by the Myanmar Government and UNESCO with the use of funds and donations from many INGOs and NGOs including multi-sectors. This accomplishment had led Bagan to be still an attractive cultural heritage site as before and has led to more tourists pouring into Bagan especially during the holiday seasons. Thereby, it is crucially important for the public and private to be involved in the safeguarding of Bagan.

The Myanmar Government should take the appropriate legal, administrative, technical and financial measures necessary for the protection and safeguarding of those sites in Bagan. Accordingly, conservation of “national cultural heritage” becomes the top priority to good maintenance and conservation plan where all stakeholders are involved.

1.2 Statement of the Problems

As the gradual increase of international tourists’ arrival in Bagan, it has caused the impacts of tourism development on heritage area since 2011. It is accessible for positive impacts such as increasing income, job opportunities, rising foreign exchange, government tax revenue, entrance fees, museum fees and infrastructure development and raising standard of living. Although tourism development supports the livelihoods for community, Bagan region is still facing threats and pressures like natural disaster (earthquake), regional development and tourism pressures such as encroachment of modern hotels structure, overcrowding, vandalism, graffiti, traffic related problems and environmental pollution.

To be more specific, the encroachment of modern hotel structures in Bagan Archaeological Zones which fulfils the requirements of tourist arrivals can affect the aesthetic value of Bagan Architecture. Nowadays, modern development structures can lose of traditional and archaeological landscapes, e.g. village and urban houses inside zones, electric power lines, new roads and heavy vehicles and etc.

In addition, some temples and pagodas located in the compound of hotels cannot be used as a public asset and also government are difficult to maintain for these pagodas. The overcrowding can cause physical damage to the cultural heritage

areas. Significantly, activities: photography by visitors has caused damages of mural paintings. Also, disrespectful visitors have damaged the ancient structures by climbing on the ancient pagodas in order to enjoy the sunrise or sunset in Bagan. Vandalism which occurs at “Bagan Heritage Site” not only diminishes the site ruins the setting but also endangers this heritage site.

Moreover, some undisciplined visitors also dispose garbage at the campus of monuments. Furthermore, Bagan heritage site has traffic related problems such as traffic congestion, pollution and vibration damage to heritage.

Thus, the minimization of the negative impacts of tourism is essential for the maintaining of cultural heritage. Thus, the collaborative efforts of multi-stakeholders deal with these negative environmental and physical effects on the “cultural heritage sites” in Bagan. It is needed to answer the following research questions.

- (1) What is the current status of tourism development in Bagan?
- (2) What are the effects of tourism development on cultural heritage in Bagan?
- (3) What are the effects of preventive measures for protecting and safeguarding cultural heritage in Bagan?

1.3 Objectives of the Study

The objectives of the study are as follows:

- (1) To identify the current status of tourism development in Bagan.
- (2) To examine the effects of tourism development in terms of economic, cultural and environmental impacts on cultural heritage assets in Bagan.
- (3) To analyze the effects of preventive measures adopted by the Stakeholders particularly Government, UNESCO, INGOs & NGOs and Local Community for protecting and safeguarding the cultural heritage assets in Bagan.

1.4 Method of Study

This research used both descriptive and analytical methods based on primary and secondary data. Primary data are collected through conducting a survey with a structured questionnaire for residents relating their perceptions on economic, cultural and environmental impacts, effects of preventive measures adopted by stakeholders and cultural heritage conservation in Bagan. Secondary data are taken from various sources such as Ministry of Hotels and Tourism, Ministry of Religious Affairs and Culture, Department of Archaeology, National Museum and Library, Township data

is General Administration Department from Nyaung Oo, Central Statistical Organization, newspapers and journals.

The analysis is done through both quantitative and qualitative approaches. Reliability (Cronbach's alpha), Descriptive Statistics and Multiple Linear Regressions are also used for quantitative analysis. The survey was conducted by using five-point Likert scale questionnaire in three wards in Bagan and four wards in Nyaung Oo. These were Anawrahta ward, Kyansitta ward and Thripyisaya ward in Bagan and ward 3, ward 4, ward 5 and ward 7 in Nyaung Oo. The number of residents selected from these wards is 375. Key informant Interview (KII) is used for qualitative analysis. It was conducted with three parts: tourism in Bagan and its impacts, the role of government and the contributions of stakeholders' involvement in safeguarding of heritage in Bagan.

1.5 Scope and Limitations of the Study

This study mainly presents the international tourists' arrival and its impacts on conservation in Bagan. The period of the study is from 2001 to 2018. The survey data were collected for the residents' perception on "impacts of tourism development", perceptions of stakeholders' involvement and perceptions of "cultural heritage conservation" in Bagan-Nyaung Oo Area. The study area is Bagan, specifically Anawrahta ward, Kyansitta ward and Thripyisaya ward and Nyaung Oo: ward 3, ward 4, ward 5 and ward 7. Primary data were collected during July 2018 to November 2018. Key Informant Interviews were conducted with 20 participants, including government officials, a national project officer of UNESCO, members of Bagan Tourism Federation and pagodas trustees. This study excludes the visitors' perception on impacts of tourism development on cultural heritage conservation in Bagan.

1.6 Organization of the Study

This study includes five chapters. Chapter one provides introduction covering rationale of the study, statement of the problems, objectives of the study, method of study, scope and limitations of the study and organization of the study.

Chapter two discusses the literature review for this study: the concepts of tourism, classification of the tourism, impacts of tourism development (economic impacts, cultural impacts and environmental impacts), sustainable cultural heritage resources, the concepts of cultural heritage, factors enhancing sustainability of

heritage sites, the importance of cultural heritage conservation, the relationship between tourism and cultural heritage, review on previous empirical studies and conceptual framework of the study.

Chapter three details the overview of tourism development and cultural heritage conservation in Bagan which includes tourism industry in Myanmar: evolution of international tourism growth in Myanmar, rules and regulations of tourism sector; tourism industry in Bagan: tourism development in Bagan, attractions of cultural heritage in Bagan, development of tourism businesses in Bagan; stakeholders involved in conservation of cultural heritage: legal framework for monuments conservation, the role of the Department of Archaeology, the contribution of UNESCO, local and international organizations and local community involvement in cultural heritage conservation and main challenges in cultural heritage sites.

Chapter four presents the detailed analysis of the factors affecting the cultural heritage conservation in Bagan which includes profile of the study area, research design, measured variables of the model, demographic characteristics of respondents, analytical methods and tools and feedback from key informants' interview. The later part focuses on the analysis of survey data consists of reliability test, descriptive analysis of measurement scale and multiple regression analysis.

Chapter five discusses the overview of major findings, suggestions and the needs for further research.

CHAPTER II

LITERATURE REVIEW

Tourism is an industry that is rapidly developing in many countries in the world. At present, special attention is given to improving the tourism basically due to the role for poverty reduction and socio-economic development for many local communities. The literature review explores the various concepts between tourism development and sustainable cultural heritage assets. It involves the concepts and impacts of tourism development, the concept of cultural heritage, sustainable cultural heritage assets, the relationship between them, the review on previous studies and conceptual frame work of the study.

2.1 Concept of Tourism

According to the UNWTO (1993), the terms concerning “tourism” involves the activities of individuals travelling to and staying in locations outside their normal environment for recreation, business and other purposes for not more than one consecutive year. Using this broad concept, “tourism” means the activities of all travellers, including tourists (overnight) and the same day traveller. There are three categories of tourism in a country. “Domestic tourism” includes the residents in a country concerned who only travel within that country; “inbound tourism” includes non-residents who travel in a country concerned and “outbound tourism” involves residents who travel in another country.

Conceptually, “visitor” is any person who has been travelling to a place other than his/her normal environment for less than 12 months and whose main purpose of travel is not the exercise of an operation paid from within the place visited. The term visitor can be generally categorized into international visitor (overnight visitors and same day visitors) and domestic visitors (overnight visitors and same day visitors).

In purely conceptual terms, an “international visitor” means anyone who is travelling to a country where he or she has his or her regular residence but has an environment not more than 12 months and the main purpose is to do anything other than a paid/salaried operation within the visited country. International visitors (overnight) describe visitors in collective or private accommodation in the visited country for at least one night; visitors staying the same day: visitors not staying in collective or private accommodations in the country visited.

“Domestic visitor” means any person who lives in a country and is travelling for a time “not more than 12 months” outside his or her normal environment to a place in his or her country and whose main goal is not to carry out any operation paid from the visited location. Domestic visitors are overnight visitors and same day visitors. Domestic visitors (overnight visitor) are those visitors who stay in a visited location “for at least one night” or visitors who remain on the same day or visitors who do not stay at the location in which the visitor is visited.

The purposes of the trip are visiting friends and relatives; leisure, recreation and holidays and health treatment; business and professional; religion/pilgrimages and others. “Visiting friends and relatives” means visit to family members or relatives, home leave, funeral attendance, treatment of invalids. “Leisure, recreation and holidays” describes shopping, sight-seeing, sport and cultural events, outdoor activities and entertainment, non-professional sporting activities, hiking and mountain range, beach uses, cruise, games, armed forces rest and recreation, summer camps, lunches, etc. Health treatment states fitness, spas, health resorts, thalasso-therapy and other treatments and cures.

“Business and professional” includes sales and purchase of foreign enterprises; attending conferences and meetings, exhibition and trade fairs; giving lecturers; programming tourist travel, working as guides; involvement in professional sports activities; government mission: including military and diplomatic; paid study, research and education. Religious/pilgrimages describe pilgrimages and attending religious festivals. Others include ship crews and air craft on public carriers and unknown activities (UNWTO, 1993). Additionally, several kinds of tourism generally depend on types of attractions and purposes of tourist as follows: Ecotourism, Community based tourism, Cultural heritage tourism, Business tourism, Rural-tourism, and so on.

(a) Ecotourism

The ecotourism is to minimize the negative consequences of tourism on locals and ecosystem (Strongza & Durham, 2008). Also it is the sustainable forms of tourism. Ecotourism or natural based tourism has created the better environment and support the sustainability of human well-being. It generates the positive effects on natural resources and a wildlife sanctuary.

(b) Community-Based Tourism

Community-based tourism is tourism where local residents invite visitors to stay in their communities with offered overnight accommodation. Harris and Vogel (2005) revealed that it supports the preservation of the nature that is closely related with ecotourism, cultural heritage conservation and improvement of community livelihoods. Therefore, it emphasized the involvement of host community with regards to planning and maintaining tourism development and attaining future development.

Besides, the purpose is to enable visitors to learn and discover local life in a community and increase their community awareness. It also offers economic opportunities such as job creation, entrepreneurial opportunities, skill and experiences in remote areas particularly for women.

Harris and Vogel (2005) explained that it can be found in developing countries and it supports natural environmental protection in particular with wildlife management and also improves the livelihood of indigenous people. This occurs when the host community makes the decisions concerning tourism activity and tourism related business and usually consists of cultural exchange between local people and visitors.

(c) Cultural Heritage Tourism

It has two approaches, the approach of sites and monuments, which focus on defining the attractions visited by cultural tourists, often presenting culture as a commodity. For example, monuments are generally seen as “intangible” and “tangible” cultural objects attracting cultural tourists in the following attractions and sites. They are as follow: sculpture, art, galleries, crafts, events and festivals; dance (folk, classical and contemporary) and music; museums and archaeological sites

(famous buildings, ruins, whole town); drama (films, theatre and dramatists); language, tours, events; pilgrimages and festivals (Dixon & Fountain, 1989).

The range of experiences about cultural tourism include visiting particular art performance, specific types of galleries and museums, visiting places with literary or other cultural attractions, visiting the archaeological sites and other cultural sites, staying specific communities for experiencing their culture (Throsby, 2010). According to ICOMOS (1999), “cultural and heritage tourism” involves historic places, historic sites, landscapes, built environments, biodiversity, collections, cultural practices, culture knowledge and living experiences. Moreover, it collected the past experiences of historical development and organized the nature of diverse national, regional, indigenous and local identities.

(d) Business Tourism

Business tourism has assumed an important role today. According to WTO (2007, p.18), “business tourism” means “a travel to attend an activity or event associated with business interest”. The people undertaking international trips per year also increased dramatically with a rise in the manufacturing and company sectors. Many entrepreneurs visit other locations and countries to make business transactions or enter into business agreements with potential international partners. Their business associates take them to famous tourist resorts when they finish their work.

(e) Rural Tourism

Rural tourism is focused on local environment integration, local product use and involvement in local activities. The visitors are transported to rural areas because they are new and untouched by materialism. Many urban dwellers want to get away from urban life. They are looking for peace and quiet surroundings. Tourists visit these traditional village and a few days of being with rural people.

2.2 Impacts of Tourism Development

Impacts studies had mentioned about economic growth and it was measured by GNP, rate of unemployment and multiplier effect in the 1960s (Krannich, Berry & Greider, 1989). In 1970s, it was seen that there were “impacts of tourism” ventures on social issues (Bryden, 1973). The tourism researchers emphasised on environmental “impacts of tourism development” in the 1980s (Butler, 1980). In the 1990s, tourism

impacts studies were an integration of the previous effects of tourism development and “Sustainable Tourism” in the form of “Eco-Tourism”, “Heritage Tourism” and “Community Tourism” (Jurowski et al., 1997). In this study, there are three categories of impacts of tourism development: economic impacts, cultural impacts and environmental impacts.

2.2.1 Economic Impacts

It has positive and negative effects. Additionally, tourism can support the stability in an economy, economic diversity and encourage the activities of entrepreneurs. Positive economic effects are raising in personal income and state revenues, creation of employment, infrastructure development and tax revenue while negative economic effects are raising in cost of living (high price of goods/services/land/housing) and leakages in the local economy (Stylidis, 2012).

Personal Income and State Revenues: Several studies revealed that positive economic impacts can refer to an increase the income of the local population (Keogh, 1990). Milam and Pizam (1978) stated that the attitude of residents in Central Florida felt their income have been increased because of tourism development and also Korca (1996) found that ninety-two percent of residents agreed tourism can result in higher income of the community. Moreover, residents revealed that tourism improves the local and national economy and raises the revenue of local community (Byrd et al., 2009 & Dyer et al., 2007), also generates much tax revenue collected by regional and national government (Tosun, 2002).

Regarding the Eastern North Carolina communities, 92 percent of residents agreed that economic benefits came from tourism development. According to Milman (2004), residents in Central Florida agreed with a rising of tax revenue collected by the local government. According to Boissevain (1979), residents were financially over dependent on tourism development that is unequal distribution of profits for local community. Tax revenue such as user’s fees, income taxes, sales taxes, rental fees and license fees supports to government funding that can provide cultural heritage conservation programs and activities (Bultijens et al., 2005). Moreover, it can help to the restoration and preservation of historical buildings and sites through entrance fees, souvenirs sales and donations derived from heritage sites.

Employment: Concerning tourism sector, an important employment generator, it has two different employments: direct and indirect ones. Direct

employment which concerns with tourism industry includes accommodation, travel agencies and catering services while indirect employment includes other complementary industries such as construction and agriculture (Treloar & Hall, 2005). Moreover, tourism jobs are seasonal and require low level skills. Employment in tourism sector is more beneficial for foreigners than for local people because tourism creates more jobs for foreigners in Cyprus (Akis et al., 1996).

Infrastructure development: Tourism usually improves local facilities and tourists' infrastructure. Tourism often supports economic incentive to get better infrastructure development that enjoyed by tourists and residents. Thus, tourism in a destination always improves the residents' quality of life. Government promotes the infrastructure which improves the local economy and tourism infrastructure development in hotels, restaurants, shopping centres and marinas (Akis et al., 1996). Government should encourage development tourism infrastructure.

Standard of Living: When tourism raises the personal revenue, state revenue and improves the tourists' infrastructure, it rationally improves the living standard of the local community. Regarding tourism substantially improved their standard of living (Akis et al., 1996). Liu and Var (1986) revealed that 80 percent of respondents agreed that their living standard has increased due to tourism in Hawaii and residents of Kusadasi in Turkey agreed that their favourite tourism impact is higher living standards of their community (Tatoglu et al, 2002).

Foreign Exchange Earnings: Tourism development has contributed foreign currency earnings to provide much needed capital to developing countries for their development. Many developing countries have some problems of generating enough exchange as they cannot get a comparative advantage over rich or developed countries. Thus, tourism supports them to have a way for exchange (Kim & Richardson, 2003). Experts of tourism sector have generally agreed that if a nation can receive foreign exchange from tourism, which is at least 10% of merchandise exports, it can be considered a "tourism nation" (Zaei & Zaei, 2013).

Costs of Living: According to Holloway (2003), tourism development generates higher demand: land, housing and related properties leading to increase in prices. Residents believed that tourism development leads to higher cost of living and raising prices of all related goods and services, being as a common negative impact.

Surveys supported these negative economic impacts caused by increases in the prices of tourism-related goods and services (Pizam, 1978 & Tosun, 2002). According

to Sheldon and Var (1984), some respondents agreed that the increase in tourism was the cause of higher prices of goods and services. In one Turkish survey, over 70 percent of respondents agreed that the price of property and housing have been raised because of tourism (Weaver & Lawton, 2001).

Leakages in the Local Economy: Foreign exchange being earned by tourism may not be provided absolutely as benefits of a particular tourists' destination because of leakages (Treloar & Hall, 2005). Additionally, capital leakages may occur due to reasons like; utilization of imports by tourists, the repatriation of earnings generated from foreign investment while the expense for trip/holiday is made and no longer for the host community.

On the opposite side, Chen (2000) exposed that residents in Virginia do not agree that much earnings generated from tourism end up outside of the country. Bull (1995) stated that developed tourism destination causes lower leakage rates because they have many tourism related industries and consequently enjoy extra money within the economy, however, less developed tourism destinations or countries import more goods due to absence of adequate tourism related industries.

2.2.2 Cultural Impacts

As stated earlier, tourism development has both positive and negative culture impacts on the host population. The positive culture impacts are as follow; restoration of local cultural activities (Ko & Stewart, 2002), improving of cultural exchange (Ko & Stewart, 2002), "restoration of cultural identity" of host population (Liu & Var, 1986), growing demand for historical and cultural exhibits (Liu & Var, 1986), and facilitation of meeting visitors (an educational experience) (Liu & Var, 1986). Residents believed that tourism is a vehicle for the preservation and enrichment of local culture. Negative cultural impact is changing our precious traditional culture and over-commercialization.

Cultural Exchange: Residents in Virgin Islands believed that the interaction between tourists and residents has positive consequences for tourism activities. Similarly, Hawaiian and North Wales residents considered the cultural exchange in tourism destination is to be beneficial. Belisle and Hoy (1980) found that the positive impacts were the exposure to cultural differences. Through tourism development, local residents have the opportunities to contact with international culture which lead to increase knowledge about culture.

Preservation of Local Culture: Tourism was responsible for restoration of the cultural diversity. The commercial demands of tourists have changed the traditional arts and crafts for indigenous commodities. Studies have shown that tourism leads to the revival of traditional art, crafts, dance and music. The locals seem to think that it is a medium for maintaining and enriching of local culture. According to Pizam (1978), residents of Cape Cod agreed that tourism has positive effects on cultural identity. Old crafts and cultural practices and ceremonies will illustrate the uniqueness of a given culture in an age of globalization. Not only does this uniqueness offer economic benefits for destinations, but it can also boost the sense of national pride. The economic gain from tourism offers subsidized funds for heritage conservation (Liu & Var, 1986).

Over-commercialization: It generates negative cultural impacts that tourist destination wants to satisfy the visitors to a possible extent and wants to maximum level of profit. According to Tosun (1998), local cultural values are normally used as a product and marketing device and have suffered through over-commercialization. The outcome from commercialization is the loss of authenticity. As the tourism region becomes more commercialized, the authenticity is slowly lost, and more commoditisation happens.

2.2.3 Environmental Impacts

Tourism has provided not only positive impacts but also negative impacts. Positive environmental impacts are providing for the restoration of ancient buildings and protection of natural resources. According to Ko and Stewart (2002), some positive environmental impacts are due to increasing facilities; traffic networks, roadways and living utility: water, electricity and telephone. Some negative environmental impacts are pollution (air, water, noise and littering) (Pizam, 1978) and degradation of landscape and of historic sites, monuments and ecosystem (Ko & Stewart, 2002).

Environmental pollution can be caused by destroying the scenic landscape, garbage, modes of transportation that badly pollute the soil, air and water at tourism destination. Human threat towards cultural heritage is the scribbling of graffiti on monuments (Nyamanga, 2008).

Conservation of Natural and Cultural Resources: Although tourism has the negative environmental consequences, frequently residents perceive the positive side

and it usually contributes to natural and heritage surroundings (Oviedo-Garcia et al., 2008). For example, AP and Crompton (1998) and Mason (2008) have argued that positive effects are reflected in increasing awareness of the heritage and historic sites, which stimulate measures to protect the environment, landscape and wildlife. According to Andereck et al (2000), local residents of Arizona agreed that tourism would improve the local environment by maintaining the cultural and natural resources.

Environmental Pollution: The physical pollution of tourist destinations which concerns with both aesthetic and physical effects caused by destructing the natural scenic beauty of landscape consisting of tourism transportation and garbage. Many studies revealed that tourism can increase in environmental pollution and degradation. Huttasin study (2008) stated that tourism generated more garbage in their community. According to Yan (2013), concerning noise pollution with tourism, not only amusement parks, night pubs and entertainment venues, but also tourism transportation are noisy. Regarding water pollution, sewage and garbage are poured into the sea. Concerning air pollution, it results from carbon dioxide produced by airplanes and an increase use of tourist vehicles such as motorcycles, cars and bus.

Overcrowding and Traffic Congestion: Overcrowding is probably the most obvious problem caused by mass tourism (Holloway, 2016). For example, 60 percent of the sample reported overcrowding as an issue on the Sunshine coast (Dyer et al., 2007). Again, Amuquandoh (2010) noted that tourism in seasonal can cause overcrowding in Lake Bosomtwe, Botswana. Mason (2008) suggested that carrying capacity represents a crucial problem and could decide the magnitude of negative consequences on the environment. Lack of car parking and traffic congestion are usual occurrence in popular tourist destinations (Akis et al., 1996). Studies conducted by Liu and Var (1986) and Gu and Wong (2006) revealed that residents disagree with the fact that tourism can cause much traffic.

Congested tourism leads to the negative consequences and reduction in appreciation of the destinations by visitors. The congestion can have detrimental effects on conservation initiatives for a historic site, which can harm the fauna, flora, scenic views, physical fabric or site-specific values, increase waste and garbage, weaken local infrastructure capability and reduce efficiency of tourism services (Riganti& Nijkamp, 2008).

2.3 Sustainable Cultural Heritage Resources

The preservation and restoration of the heritage significantly contributes to sustainability (Deacon, 2003). In the 2011 version, sustainable development should be integrated into the “World Heritage Site” management system (UNESCO, 2011). With UNESCO official document, “sustainable development” is a basic principle for all stakeholders regarding the “World Heritage Sites” conservation. It mainly focuses on the improved living environment for the inhabitants. Tourism also provides environmental perspective by increasing the appreciation of the heritage environment by both tourists and local communities (Daisi, 2010). Concerning economic perspectives of sustainability for cultural heritage, it should include at least the reuse of historic buildings, the economic contribution of the historic sites and conservation of culture heritage. Regarding “social and cultural sustainability” is the ability to preserve desirable societal values, customs, structures, communities, etc (Daisi, 2010).

A “sustainable cultural heritage” resource contributes higher per capita income and GDP, foreign exchange, tourism revenue and related services which contribute to development (Pizam, 1978). According to Liu and Var (1986), economic benefits include creation of jobs, diversification in the service industry (restaurants, hotels/motels, tour guide services), manufacturing (arts and crafts, souvenir, publications), entertainment, museum, gift-shops, cafeteria, agriculture (speciality gardens or farmers’ market), encouragement of local ownership of small businesses, higher property values, increased retail sales and substantial tax revenues to contribute national economy. Furthermore, tourism generates revenues providing for safeguarding heritage resources (Lawson et al, 1998).

2.3.1 The Concept of Cultural Heritage

The “tangible cultural heritage” is expressed by UNESCO (1972) convention on the protection of the “World Cultural and Natural Heritage”, which includes under the term the following properties:

1. “Monuments”: Artwork of architecture, paintings and sculptures, archaeological structures, inscriptions and combinations of features of exceptional universal value of a historical, creative or scientific views.

2. “Groups of buildings”: Groups of separate or related structures that have an “outstanding historical, artistic or scientific significance” as a result of their design, homogeneity or their position in the landscape.
3. “Sites”: Works of men and man combined, areas which including archaeology which, from a historical, aesthetical, ethnological or anthropological point of view, are of considerable universal value (UNESCO, 1972).

According to the Convention for the “Safeguarding of Intangible Cultural Heritage”, adopted by the “General Conference of UNESCO” on 17 October 2003, “intangible cultural heritage” includes artefacts, traditions, images, phrases, information and skills, cultural spaces, individuals accept in certain cases for the certain communities and groups’ cultural heritage (UNESCO, 2003)

The intangible cultural heritage is defined as the following domains:

- (a) Oral traditions;
- (b) Art execution;
- (c) Festival and social traditions and rituals;
- (d) Practices and knowledge of nature and global;
- (e) Craftsmanship of heritage.

The “safeguarding” is a measure designed to support the viability of cultural patrimony, particularly through formal and informal education, including recording, identification, promotion of, restoration in various areas, study and security, dissemination, development and revitalization (UNESCO, 2003).

2.3.2 Factors Enhancing Sustainability of Heritage Site

Many researchers have undertaken about the heritage sustainability since the late 1990s. The following explanation is about the factors of sustainability of heritage sites: Government Support, Participation of UNESCO, Attitude, Cultural Knowledge and Awareness of the Local Populace and Funding.

(a) Government Support

As the stakeholders of ancient heritage sites, especially the public can provide the conservation work through the various activities. The Government have to take responsibilities of heritage protection and preservation policy and implementing the related measures. Moreover, government is the authorized organization and has leading power of conservation and management. It also

establishes the legal frameworks for implementing protection of laws and regulations (Wen, 2007).

Government has to take the responsibility to ensure right protection of the site and the protection measure must consist of legal protection as specified by law, adequate and suitable conservation interventions and a good management system (Arthur & Mensah, 2006). Legal actions could be taken against anyone who neglects to safeguard a site's cultural value. This is done for long-term public interest and legally proper use. Also, Chhabra (2010) has found that public opinions support the owners to sustain their ownership of heritage and could ensure the physical conservation of a heritage site through various methods. Additionally, a good heritage management system involves the trained staffs who are in charge for preservation and control of the sites. Furthermore, regular maintenance and monitoring are other preventive measures of conservation that reduce the potential threats for conservation.

(b) The Role of the UNESCO

UNESCO promotes the identification, preservation of natural and heritage sites throughout the world which is vitally considered to be of exceptional value to humanity. This is expressed in “an international treaty” of UNESCO in 1972 which is called the convention on the protection of the “World Cultural and Natural Heritage”. The major purposes of “UNESCO’s World Heritage” mission are encouraging countries in signing “World Heritage Convention” to preserve their “national and cultural heritage”; to maintain State Parties to safeguard “World Heritage properties” through the provision of technical assistance and training and to promote the local people involved in the conservation of their heritage and foster international collaboration to protect world heritage sites.

(c) Attitude, Awareness and Culture Knowledge

Attitude, Awareness and Culture Knowledge are generally essential for providing cultural heritage property sustainability. According to Chhabra (2010) and Landorf (2009), good attitude concerning heritage and development could improve the local responsibility and increases the connecting between the locals and their heritage. Lack of knowledge causes the damage the heritage sites because of human threats. On the other side, better knowledge of local community involving stakeholders and tourists could support more heritage preservations and reduce the threats of human

behaviour (Stubbs, 2004). Many activities of conservation programs especially suitable mass media coverage, local lectures, seminars and training programmes are seen partially important for it.

(d) Local Community and Stakeholders Collaboration

Local Community living around the heritage sites has power to make decision about their cultural assets (Cochrane & Tapper, 2006). According to Harris and Vogel (2005), Community-Based Tourism provides “natural and cultural heritage assets” and the local populace development. Moreover, community practices contribute to the improvement of community livelihoods and the protection of natural and cultural heritage. The community have to involve in tourism development and heritage conservation. If the local populace can support the revitalization work of cultural heritage resources, restoration of cultural heritages can be sustainably developed. The practices of community involvement consist of many policies, clear and understandable procedures and eager desire for protection and conservation of their historical, social and cultural values (Durr et al., 2017). The local populace have made better decisions to decrease the potentially social, cultural and environmental disputes (Aas et al, 2005). Xiang (2009) has realized that the local community who are dwelling in the compound of heritage sites should take care of their heritage and their sustainable living should help the whole site to achieve cultural heritage sustainability (Hall & McArthur, 1997).

Landorf (2009) revealed that stakeholders supported the heritage resources which are bestowed to the local populace and also enhancing the gains of that resource. Key stakeholders concerning cultural heritage site may involve government authorities, environmental preservation organizations, specialists, suppliers, local people around the sites, site managers, tourists, trustees, tourism organization, consultants, ICOMOS, universities, research institutes, contractors and workers.

A stakeholder is generally defined as a person who is willing and able to participate in a process (Gray, 1989, from Aas et al., 2005). In the tourism sector, stakeholders are those affected either positively or negatively by a specific tourism development. In the tourism context, stakeholders’ cooperation means a process of collective decision-making between key stakeholders to address tourism planning and growth problems and management issues (Aas et al., 2005). The stakeholder cooperation could increase their sense of responsibility, self-confidence and

understanding by engaging interested parties to become involved in decision-making (Aas et al., 2005).

More developed and practiced in developed countries, stakeholder collaboration is increasingly taking place in developing countries. But, it is usually difficult to adopt collaborative approaches for tourism development seen in developing countries due to existing organizational, structural and cultural limits for stakeholder cooperation especially for local participation (Tosun, 2002). To achieve a mutually beneficial balance, that is economically beneficial and socially acceptable to different stakeholders with diverse interests, stakeholder cooperation in planning and development process is essential (Aas et al., 2005).

(e) Funding

Financial assistance means for supporting the sustainable conservation schemes (Royal Town Planning Institute, 2000). It has several ways of raising funds needed for sustainability of “natural and cultural heritage sites”. Funding comes from private corporations, NGOs, regional government, tourism charges, services fees and INGOs.

Su (2010) discovered that adequate funding sources are needed for many cultural heritage sites. However, cultural heritage tourism has successfully supported rehabilitation, restoration, conservation and sustainable programs (Chhabra, 2010). According to Emerton et al (2006), visitors’ fees are the funding sources which help in conserving many heritage sites. Moreover, funding from personal contributions, local taxes, admission charges, finances, and public-private collaboration are also vital (Lazrak et al., 2012).

2.3.3 Importance of Cultural Heritage Conservation

According to Amar (2017), conservation means the policies and actions that provide to sustain the value, perceptions and significance of build heritage from the past, both for present use and to be protected for future generations. Moreover, Ahmad (1998) found that heritage sites needed to be preserved due to “social and cultural values”. This is because preserving the cultural identity and cultural heritage is extremely important for future generations.

All historical settlements must be appreciated: cultural identity, cultural traditions and historical value for any local community. Preservation of historic

structures and its associated environment helps the rapid change in lifestyle and technology of society. According to Hui and Leung (2004), conservation generates to prolonged life of many cultural heritage sites and its utilization for the present and the future. Furthermore, Forster and Kayan (2009) revealed that promoting tourism business leads to conservation of cultural identity and heritage.

Such conservation measures regarding cultural heritage depends on the factors like nature of the technology, management of the situation and the government of the country (Fitch, 1982). Any policy concerning cultural heritage preservation by any government deals with the advices of business planners, architects, cultural heritage managers and experts.

Deterioration of ancient heritage sites is mainly due to fire, theft, vandalism and particularly weather (Fitch, 1982). Tourists are needed to protect the heritage area because of destroying the heritage sites environment by increasing carbon dioxide and dust that harm cultural heritage. Secondly, large crowds of travellers usually damaged to these heritage sites. Garbage throwing of visitors around the cultural heritage sites and residues of the food scraps, plastic wrap containers, aluminium cans and glass bottles are also harmful (Nyamanga, 2008).

2.4 Relationship between Tourism and Cultural Heritage

Tourism is an industry that is growing rapidly worldwide. Tourism has generated to the following attributes: it has directly generates foreign currency for the country; it supports related investment such as travel, hotel, restaurant, transport, and souvenir businesses; it creates employment for people; it contributes to foreign currency accumulations and facilitates domestic financial liquidity and distributes income to rural remote areas.

“Cultural heritage” has mainly a commercial use for tourism, serving the growing market with economic opportunities than most other heritage uses (Ashworth, 1993). Tourism is feasible because heritage can provide legitimate tourist attractions, while tourism activities can generate revenue that supports for the cultural heritage conservation (Aas et al., 2005).

Additionally, the preservation through the tourism was the significant aspect of heritage management (Garrod & Fyall, 2000). Preservation the heritage typically requires high costs, generating from tourism revenue. In both developing and developed nations, tourism provides funding for the preservation and conservation of

it and well-being of the local populace is high, if it is well planned and handled. Through mutually beneficial means, a balance could be created and theoretically achieved between the heritage conservation and its use for tourism (Aas & Ladkin, 2005).

According to Bowitz and Ibenholt (2009), cultural heritage has the effects on the socio-economic development; economic effects on cultural heritage sites associated with income and employment generation from activities especially heritage conservation, restoration, reconstruction, rehabilitation and functioning of heritage organizations (libraries, museum, archives and heritage interpretation centres). Secondly, it encourages knowledge economy in the long-run and used for education, creation of cultural capital and high value of cultural products and services. Thirdly, the improvement of life is significant because cultural heritage supports local identity, cultural pride and recreational centre.

The relationship between tourism and cultural heritage preservation work are interdependent (Ashworth, 1993). If the heritage is opened with new perspectives, it could provide tourism in culturally rich destinations and meet the challenges of managing heritage facilities and opportunities (Jansen-Verbeke & Lievois, 1999). The favourable cultural heritage finds both incentives and genuine support in tourism development (Nordic World Heritage Office, 1999).

2.5 Reviews on Previous Studies

Several scholars and researchers have analysed and undertaken tourism sector related studies concerning with the residents' perceptions of the impacts of tourism and the protection and conservation of heritage assets. These previous studies mentioned that the negative impacts on the "culture heritage sites" can be encountered whereas "tourism development" can stimulate the economic development through jobs creation, increasing local services and conservation of natural and culture heritage as well. Regarding the positive and negative consequences of tourism, stakeholders and local communities involve in implementing "sustainable tourism development" with the conservation and protection of heritage.

Nyamanga (2008) studied the "impacts of tourism" on the "conservation of culture heritage" in the Kenyan Coasts and explored social and cultural impacts of tourism, physical damage from tourism and Kenya's heritage conservation from

tourism benefit. Four heritage sites: Fort Jesus, Jumba La Mtwana, Gede and Kaya Kinondo at Kenyan Coasts were selected for study. Using qualitative and quantitative method, Kenya has likely to mainly support positive economic returns such as revenues and an increasing opening up the sites for cultural promotion, education and visitation. However, tourists induced problems and challenges had been found. Tourism boosted the ruin of treasured heritage through graffiti making, abrasion, light and theft and noise. Therefore, tourism created larger economic benefits for local community through eco-tourism initiatives in Kaya Kinondo. Hence, stakeholder collaboration was necessary to manage the negative impacts of tourism. The administrators of the sites supported the guidelines to become respectful and valuable tour of the sites avoiding garbage dumping and graffiti. The author explored that the Kenyan sites were opened for inspiration, pride and personal enjoyment, promoting out of school learning and the economic gains from tourism development. He suggested that while tourism development generated raising revenue, it should be utilized for heritage conservation and minimised visitor threats of tourism development.

In addition, Daisi (2010) also investigated the “sustainable development” of UNESCO “World Cultural Heritage Sites” in Lijiang (China) and Amsterdam (the Netherlands). He examined the conflicts between heritage conservation and tourism development of heritage sites in two UNESCO World Culture Heritage Sites: Lijiang in China and Amsterdam in the Netherlands by using document study which means reviewing Government documents and UNESCO documents in both countries. The author found that the tourism in Lijiang promoted old towns like supporting the hydropower industry and biological industry. The old town amenities in Amsterdam and creative knowledge industry attract the tourists worldwide. In the fields of planning and cultural heritage conservation, laws and administrative departments influenced the managements of Lijiang and Amsterdam at local level. The in-depth studies provided the achieving “sustainable development” in historic towns and centres. Moreover, handling the conflicts between the “tourism development” and “cultural heritage conservation” has two parts. Part one was the safeguarding the historic buildings and built environment. The conservation of historic structures allowed the building to be reused, which increased its life span. Part two was the well-developed and effective techniques in two countries because they used international conservation principles and maintained historic structures for regional development.

Regarding Bagan Heritage Site, Crabolu (2015) examined “visitor management” in tourist destinations. This conducted a qualitative research with a semi-structure way by using exploratory and inductive approaches. The analysis revealed the certain challenges: tourists climbing on the prohibited monuments, showing disrespect concerning dress codes and drinking alcohol in the pagoda compounds, making graffiti and tourism traffic-related problems. This had negative effects on tourism in Bagan. Furthermore, pressures regarding conservation measures of the “Bagan Cultural Heritage Sites” and visitors’ experiences were discussed in it. Lastly, the recommendation was that multi-organizations and private sector must have cooperation and collaboration while conducting the visitors’ management related activities.

Rasoolimanesh et al. (2017) studied the residents’ perceptions on “World Heritage Site” writings and “sustainable tourism development” at George Town “World Heritage Site” located in Malaysia. Perceptions of residents provided much support for tourism and conservation. For that reason alone, local authorities must be actively involved and develop positive perceptions and actions in response to negative perceptions by local populace. With more community involvement, local populace gains would considerably increase the positive perceptions. Still, there are negative perceptions regarding the community gains.

Tang (2017) explored tourists’ perspective on the sustainability of “Badaling Great Wall Heritage Site” in Beijing, China. This study examined the current challenges for sustainability of Badaling Great Wall site in Beijing, China through the perception of tourists. For this qualitative research, 11 interviewees who travelled to “the Great Wall” within five years so far were selected by using the snowball sampling through mobile phone, 24 questions were developed in semi-structured and open-ended interviews. The questions covered four aspects: interviewees’ personal information, economic sustainability, socio-cultural and environmental sustainability. The author revealed that economic sustainability had potentially kept up, but environmental sustainability had some weakness thus it was necessary to manage the improvement of water, energy and waste and control the pollutant emissions. Landscape at the heritage site was the good condition but there was noise pollution in that area. Regarding socio-cultural sustainability, local residents generated the benefits from tourism but mass tourism could cause the negative consequences on the sites. The empirical findings were as follows: lack of cooperation among stakeholders

related to tourism sector, especially, government officials, private operators and the local populace in collaboration for “sustainable tourism development” in the economic sector. Excessive visitors have had the severe challenges at “Badaling Great Wall site”. These effects have destroyed the natural landscape, built heritage assets and the well visitors’ travelling experience. Finally, it summarized that lack of the sound and systematic scheme for monitoring the heritage conservation and supervising of tourists’ behaviours.

Hlaing Hlaing Moe (2019) investigated residents’ support for tourism development in Bagan- Nyaug Oo area. The author conducted the survey as the following items: demographic and socio-economic characteristics of the households, characteristics which concerning tourism, community attachment and tourism personal benefits, economic, social and cultural and environmental effects to support for the tourism development. In examining how to relate the factors between the exogenous and endogenous variables of tourism, the author chose exogenous variables: residents’ perception on community attachment and personal benefits concerning of tourism and endogenous variables: residents’ perception of “economic”, “socio-cultural” and “environmental impacts” and on support to tourism in Bagan-Nyaung Oo Area. The outcomes revealed that residents from Bagan-Nyaung Oo Area were much attached to their place and pleased to live in that area. Residents perceived their economic and cultural impacts of attachment likes support further tourism development. Regarding personal benefits from tourism, the residents agree upon benefits from it and had the better perceptions on economic and cultural impacts of tourism which provided further tourism development.

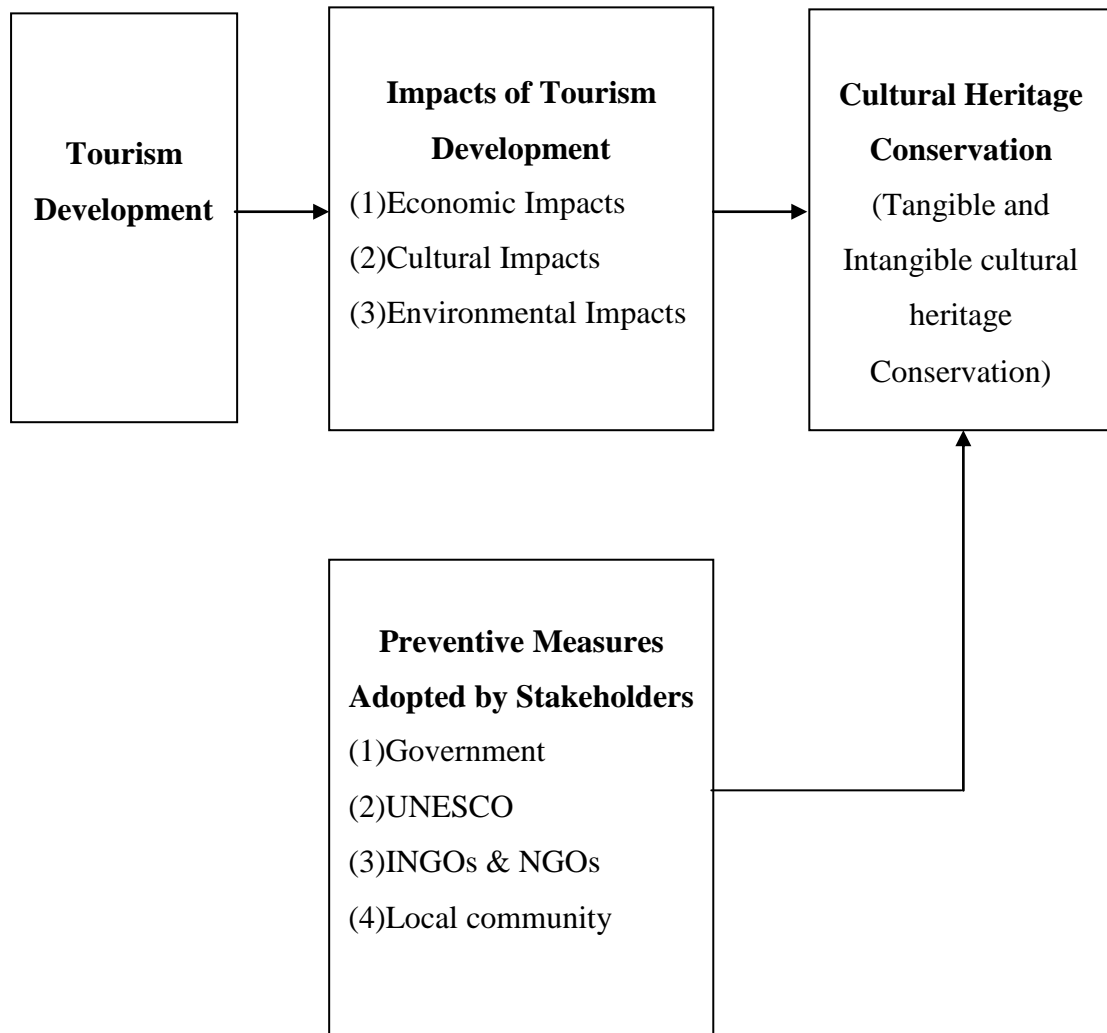
2.6 Conceptual Framework of the Study

It is intended to obtain the “sustainable development” which needs to continuously maintain the heritage assets. Thus, conservation effort of the heritage is necessary to reduce the heritage damage from negative consequences of tourism in Bagan.

When the growth of tourists’ arrival in Bagan, it will have many challenges for the sustainable cultural heritage assets including development programs, tourism related activities and other challenges such as natural disaster (earthquake) and lack of cooperation among public, private and local community for cultural preservation of the “world heritage site” in Bagan. Thus, to obtain the goals of long-term

development in tourism sector and it is needed to implement the conservation efforts. Conservation and protection of cultural heritage sites is for long-term utilization and sustain “World Cultural Heritage Status”. Also, it will provide sustainability of heritage for future generation. Cultural heritage conservation strategy requires for the active participation of the stakeholders in all aspects of its implementation and development and it also help both tangible and intangible cultural heritage in an integrated manner.

Figure (2.1) Conceptual Framework of the Study



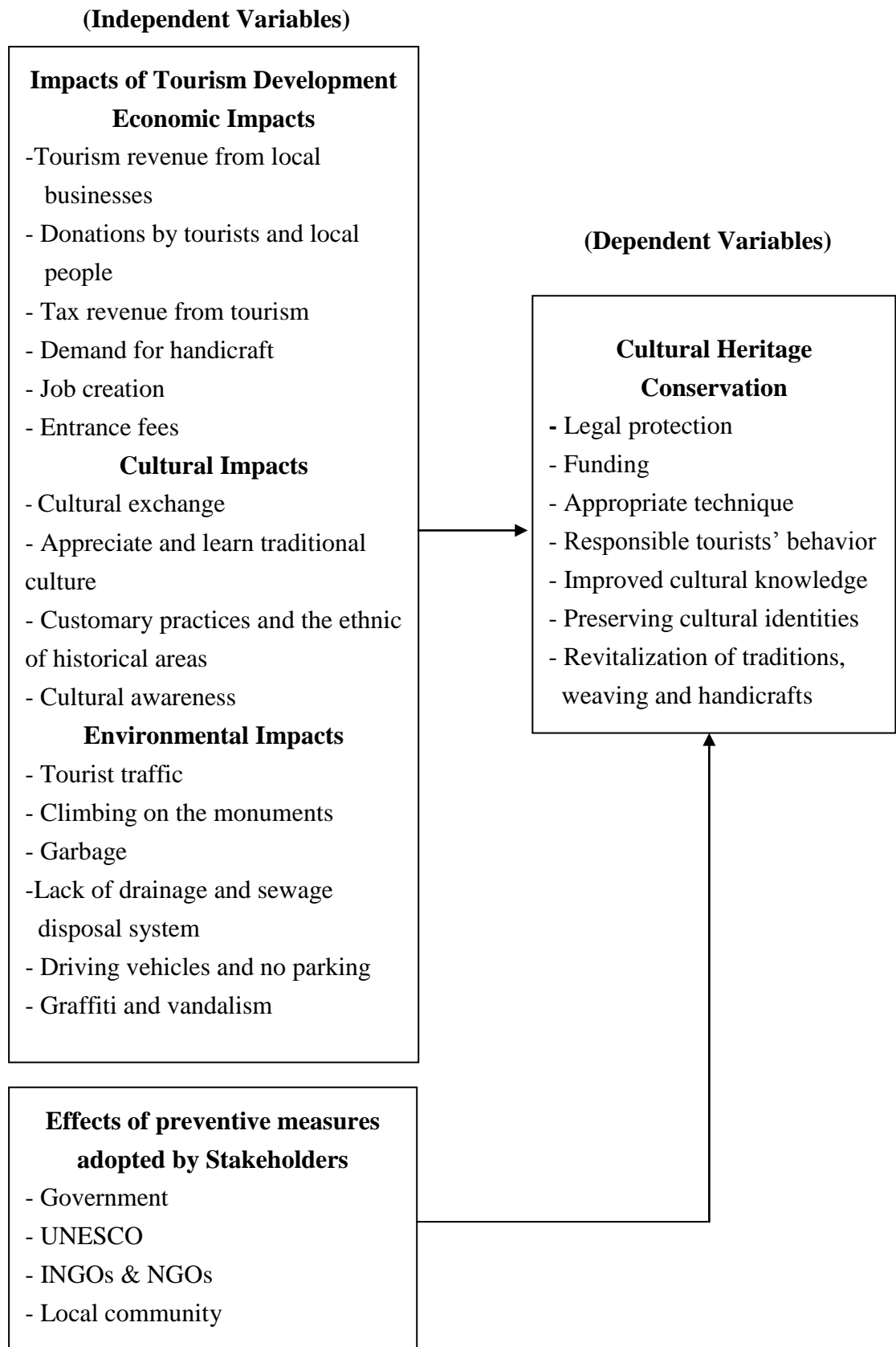
Source: Own compilation

This conceptual framework tries to identify the relationship among “tourism development” and its impacts, the effects of preventive measures adopted by stakeholders and the “conservation of cultural heritage” in Bagan in Figure (2.1). Regarding the situation of tourism development in Bagan can be measured by descriptive analysis using quantitative variables: the growth of international tourist arrivals in Bagan, tourism attractions in the whole sites, tourism revenue and tourism related businesses in the heritage sites. Moreover, secondary data are collected from MOHT, MORAC and GAD and primary data are found out from the survey of qualitative and quantitative analysis. Tourism in heritage destination can cause the impacts on the heritage sites in Bagan region can be studied. The lack of well-management system and control on this developed situation in tourism sector, the negative impacts on the heritage sites in Bagan will be encountered.

For qualitative analysis with Key Informants Interviews, it was conducted with twenty participants including government officials, famous pagodas trustees, members of Bagan Tourism Federation, multi-organizations and local populace. The Key Informants Interviews were undertaken by using eighteen open-ended questions with three parts: impacts of tourism on culture heritage sites in Bagan, the government involved in the conservation and contributions of UNESCO, INGOs & NGOs and local populace during May 2018 - November 2018.

To gain the sustainable cultural heritage assets, tangible and intangible heritage should be conserved for long-term use. Cultural knowledge and attitude are important aspects for sustainable of the heritage leading to better cultural heritage conservation (Timothy & Boyd, 2003). Tourism promotes the various cultural activities and revitalization of traditions, handicrafts and weaving for restoration of heritage in tourism destination. According to Su (2010), funding is seen the best rewards for conservation scheme. Then, UNESCO provides international conservation guide lines for maintaining the heritage sites. Moreover, heritage tour guides should inform and educate visitors about responsible visitors’ behaviour for maintaining the sites.

Figure (2.2) Framework for the Analysis of Cultural Heritage Conservation



Source: Own Compilation

Figure (2.2) shows the framework for the analysis of cultural heritage conservation and is constructed with the inter-linkage of all possible variables. Actually, it deals with the studied variables including the perceptions on “impacts of tourism” and perceptions on the preventive measures affecting the “cultural heritage conservation”. Then, quantitative analysis is used with “five points Likert scale”. An analysis of impacts of tourism development on “cultural heritage conservation” in Bagan is undertaken from three perceptions: perception on economic impacts, cultural impacts and environmental impacts.

Regarding economic impacts, tourism can increase tourists’ revenues and support the funds needed to conserve the heritage sites (Nyamanga, 2008). Revenue from tourism also generates to the preservation of museums, theaters and other cultural heritage facilities (Tovar & Lockwood, 2008). Moreover, through tourism development, employment opportunities such as curators, attendants, artists, photographers, security personnel, handicraft sellers and curio sellers are generated to help the necessary labor force for heritage preservation (Nyamanga, 2009). According to Irandu (2004), revenue from tourism has generated “monuments and sites conservation” through business donation, selling souvenirs and fees. Furthermore, tourism development strengthens the handicrafts industry: woodcarving, paintings, lacquer-ware and handlooms supporting to cultural restoration.

Regarding cultural impacts, cultural exchange between local residents and tourists can enhance cultural knowledge in tourism destination. Moreover, it has maintained the customary practices and ethnic of the historical areas that preserved the local cultural identity. Also it has encouraged cultural activities: traditional art, crafts, dance and music which revitalized the “intangible cultural heritage”.

Concerning with environmental impacts, heritage sites have been affected due to the influx of visitors. Also, the ancient monuments have been ruined by weight and foot-steps of travelers (Fitch, 1982 & Brown, 1998). In Bagan, garbage problem unpleasantly affects the image and landscape of sites, thus it is needed to manage the solving this problem and work with local people to maintain the “cultural heritage sites” (JICA, 2018). The heavy traffic in the ancient monuments, it has reduced the appearance of the statues, the stability and strength of the ancient monuments (MORAC, Integrated Management Framework Myanmar, 2018). Vandalism could affect the depreciation and destruction of aesthetic and physical quality of the whole heritage sites (Brown, 1998). Furthermore, heritage could be damaged and

deteriorated due to graffiti done by visitors (JICA, 2018). Lack of management system for sewage disposals in Bagan is threatening the landscape of cultural heritage sites (MORAC, Integrated Management Framework Myanmar, 2018). Climbing on the monuments has damaged the stability and strength of the monuments (MORAC, Integrated Management Framework Myanmar, 2018).

Stakeholders of “cultural heritage conservation” are government, UNESCO, INGOs & NGOs and local populace. Concerning with Government involvement in preventive measures of the heritage sites, “Department of Archaeology” works cultural heritage conservation measures due to the legal framework and promulgated disciplines for pagodas trustees in archaeological sites (JICA, 2018). DOA performs the promotion of capacity building to efficiently manage the heritage area in Bagan.

“Ministry of Religious Affairs and Culture (MORAC)” conducted nomination dossier with concerning governmental organizations and UNESCO for Bagan cultural heritage to promote as “World Cultural Heritage Status” since 2013. Government especially the MORAC had closely coordinated with UNESCO and ICOMOS Myanmar (MORAC, Integrated management Framework Myanmar, 2018). Moreover, MORAC coordinated with local and international experts to implement a management system to set Bagan up World Heritage List in 2019.

Concerning with UNESCO involved in “cultural heritage conservation”, it helped the emergency situation of damaged monuments during the earthquake in 2016. Moreover, UNESCO closely consulted with the Myanmar authorities, local people and international collaborators to provide the assistance for the restoration of heritage in Bagan. It has provided technical support and trainings and management to maintain better heritage assets (UNESCO, 2018).

Regarding INGOs & NGOs involvement in preventive measures for “cultural heritage conservation”, it provided funding and in-kind collaboration after the earthquake 2016. In Bagan, local NGOs have initiated the projects concerning with sustainable environmental work especially trees planting initiatives and waste management initiatives (MCRB, Myanmar Tourism Sector Wide Impact Assessment, 2016). JICA has provided the public awareness workshops related to “cultural heritage conservation” in Bagan-Nyaung Oo area (JICA, 2018).

The local residents’ involvement is critically important in this aspect too. In preservation of those areas, the local residents’ involvement is critically important in this aspect too. They are also the major stakeholders in protecting, monitoring, and

preserving the heritage sites. Rituals and local celebrations maintain the “intangible cultural heritage property”.

MOHT made necessary negotiations with local residents in Bagan involving in analyzing of environmental impacts of tourism which is important for “cultural heritage sites” in Bagan (MCRB, Myanmar Tourism Sector Wide Impact Assessment, 2016). To achieve effective conservation, government implements the certain rules and regulations with the involvement of tourists, local community, and tourism-related businesses are mainly responsible.

In the long run, such conservation measures will positively contribute much to the sustainable tourism development. This could lead to attracting many tourists visiting the Bagan area. Alternatively, several sources of funding from tourists, tourism related businesses and multi-organizations may support this cultural heritage conservation. It must be said that in-kind collaboration with various stakeholders is quite essential in maintaining culture heritage assets. In this way, many traditional customs and cultures will also be restored in the sustainable way. Further, the tourism development and cultural heritage conservation in Bagan will be presented in next chapter.

CHAPTER III

TOURISM DEVELOPMENT AND CULTURAL HERITAGE CONSERVATION IN BAGAN

This chapter focuses on the tourism development and cultural heritage conservation in Bagan. First of all, it describes the tourism industry in Myanmar including the evolution of international tourism growth in Myanmar and rules and regulations of the tourism sector. Then, tourism industry in Bagan consists of tourism development in Bagan, attractions of cultural heritage in Bagan and development of tourism business in Bagan. Moreover, it presents the stakeholders' involvement in cultural heritage conservation in Bagan and finally it describes the main challenges in Bagan heritage sites.

3.1 Tourism Industry in Myanmar

Myanmar is 676,577 square kilometres in areas and has natural landscape, biological and plant species and diverse races and cultures. Myanmar has a great potential to deal with different types of tourism. Myanmar's colonial past has been long history. This has made Myanmar a well-known historic tourist destination. Since Myanmar culture is closely interrelated with religion and religious traditions with a diverse range of ethnic groups and it creates a perfect cultural tourism destination. Myanmar's land, species, and ethnic diversity also greet many visitors who are seeking eco-tourism. In addition, it has many tourism attractions with a diverse culture in Myanmar (MOHT, 2012). Famous places to visit in Myanmar consist of Yangon (former capital), Bagan (greatest archaeological sites), Mandalay (capital of ancient Myanmar), Inle Lake (natural landscape), Golden Rock Pagoda, Kengtung (Kyaing Tong), Hpa-An, Putao, Ngapali & Ngwe Saung Beaches, Bago, Bhamo (Bamaw), Kalaw and Mrauk U.

3.1.1 Evolution of International Tourism Growth in Myanmar

To understand Myanmar tourism, it is necessary to overview the historical insight on how tourism had developed in Myanmar. Accordingly, it has five periods: Parliamentary democracy period (1948 to 1962), the Socialist period (1962 to 1988), State Law and Order Restoration Council and State Peace and Development Council (1988 to 2010), First Democratic Government (2011 to 2015) and Second Democratic Government (2016 to 2020).

Historically, there is no evidence regarding with tourism during the pre-independence period. In 1948, with starting the independence period, tourism changed its development period. In that period Myanmar was a capitalist driven economy, thus there were numerous private travel agencies and privately owned hotels located in the major cities (Ko Ko Thett, 2012). A Tourist Information Service (TIS) was formed to promote tourism sector. To encourage it in the economy, entry visas with the length of a month was decided to be allowed for tourists (Aung Kyaw Oo, 2008). In 1961, the TIS was transformed to Tourist Burma and incorporated under Burma Economic Development Corporation (BEDC) and entry visa during that period was reduced to 24 hours (Tucker, 2001)

In 1964, the nationalism program with socialism was undertaken, and every tourism business: hotels and tour operators were nationalized and administered by Ministry of Trade (Tucker, 2001). In 1978, Tourist Burma was reformed under Ministry of Trade. During that period, tourism was not promoted as the preservation of national traditions and culture against foreign influences was given priority (Aung Kyaw Oo, 2008).

After a nationwide uprising, the Socialist regime was restored by SLORC in 1988 and SPDC in 1997. The tourists' arrival apparently declined from 1988 to 1989 (Ko Ko Thett, 2012). The SLORC's performed the market-oriented economy, but this sector was not effective because of insufficient knowledge and consequential effects from the previous regime (Ko Ko Thett, 2012). But, the government promoted the tourism in the economy and it had a priority sector for setting national development agenda in the 1990s. Subsequently, MOHT was implemented in 1992 and the law of tourism in Myanmar was announced, foreign investments were encouraged, border crossing points were opened and visas were extended to one month in 1993 (Aung Kyaw Oo, 2008).

Then, “Visit Myanmar Year 1996” campaign was officially implemented by the government in November 1996. Although its campaign was implemented, the tourist’s arrival had not increased as expected. However, according to this campaign, the infrastructure of tourism sector, especially hotels had significantly increased from 18 in 1988 to 450 in 1997 (Aung Kyaw Oo, 2008). The public campaigns against the Myanmar’s military rules occurred during the late 1990s. Also, USA and EU were against the military government. These caused the diplomatic and economic sanctions against Myanmar.

Table (3.1) Total International Tourist Arrivals in Myanmar (2001 to 2018)

Year	International Tourist Arrival (Number)	Percent of Growth Rate from the Previous Year
2001	475106	-
2002	487490	2.03%
2003	597015	0.23%
2004	656910	0.10%
2005	660206	0.01%
2006	630061	-0.05%
2007	716434	0.14%
2008	731230	2.06%
2009	762547	4.28%
2010	791505	3.79%
2011	816369	3.14%
2012	1058995	29.72%
2013	2044307	93.04%
2014	3081412	50.73%
2015	4681020	51.91%
2016	2907207	-37.89%
2017	3443133	18%
2018	3551428	3.15%

Sources: MOHT, Tourism Statistics (2001 to 2018)

To encourage Myanmar tourism in the early 2000s, government lengthened the visa duration and reduced tourists’ restrictions on entry requirements. Thus, international tourist arrival increased from 475.11 thousand in 2001 to 660.21

thousand in 2005 with 0.6% average annual growth rate during these periods. Major reforms were made by introducing the electronic visa since 2004 and foreign visitors obtained arrival visas at International Airports starting from May 2010 (Aung Kyaw Oo, 2008). So, the international tourist arrival has increased again by 791.51 thousand in 2010 with the average annual growth rate was 2.04% during 2005 to 2010. After implementing the general elections in 2010, several reforms in every sector were made to promote the economy.

Table (3.1) shows international tourists' arrival and growth rate in tourist arrival in Myanmar (2001 to 2018). Myanmar has experienced a high rate of growth for international tourist arrivals after 2011. According to statistical data of MOHT, tourist arrivals was about 0.82 million in 2011 then continued to rise rapidly to 3.08 million in 2014. In 2015, the tourist arrivals reached to 4.68 million. The growth rate of tourist arrival was 29.72% from 2011 to 2012 and 93.04% from 2012 to 2013 and 51.91% from 2014 to 2015. The tourism industry was expanded and achieved the potential gain since 2011 because Myanmar has implemented the multi-sector reforms towards a market economy, encouragement of private sector participation and investment in infrastructure.

Myanmar tourism is also prominently featured in upcoming National Development Plan because it enables to promote "sustainable economic growth". Moreover, the opinions of international countries on Myanmar have been altered in a positive way and, thus, the US has agreed to undertake the easing of sanctions against Myanmar in 2012. Also, MOHT enacted the "Responsible Tourism Policy" in 2012 and it has encouraged growth of the tourism sector. Also it has helped local population to build more jobs for better business prospects.

Consequently, MOHT implemented the "Community Involvement in Tourism Policy" in 2013 and improved involvement of community in tourism policy. In 2013, MOHT also presented the Master Plan for tourism for Myanmar. Air transportation sector provided better inbound connectivity from neighbouring countries. Also, Yangon International Airport provides international tourist arrival to Myanmar. MOHT provided tourist visa-on arrival privileges at the airport gateway.

Then, the 2013 SEA Games was held as a host from December 11th to 22nd. Moreover, Myanmar has improved air connectivity due to liberalization in air services. It was likely to experience a surge in the arrival of visitors from this and other the AEC and AFTA meetings were held in Myanmar, 2015 which were highly

beneficial to and great opportunities for those in Tourism. However, tourist arrivals dropped to 2.9 million in 2016, and the growth rate was (-37.89%) from 2015 to 2016, which was caused by change in method of visitors' data counting: namely, the people of day trip foreign visitors entering from the border gates was excluded for foreign visitor data from 2016 (JICA, 2018). The tourist arrival has increased to 3.44 million in 2017 and to 3.55 million in 2018 with a 3.15% growth rate in 2018. Table (3.2) shows international visitors' arrivals to Myanmar by points of entry.

Table (3.2) International Tourists' Arrivals by Points of Entry in Myanmar

Point of Entry Year	Yangon	Mandalay/ Bagan	Naypyitaw	Mawlamyine/ Myeik Tachileik	Borders	Total
2001	203200	1662	-	-	270244	475106
2002	212468	4744	-	-	270278	487490
2003	198435	7175	-	-	391405	597015
2004	236370	5568	-	-	414972	656910
2005	227300	4918	-	-	427988	660206
2006	257594	5920	-	-	366547	630061
2007	242535	5541	-	-	468358	716434
2008	187766	5553	-	-	537911	731230
2009	234417	8861	-	-	519269	762547
2010	297246	13442	-	-	480817	791505
2011	364743	20912	5521	-	425193	816369
2012	559610	32521	1250	-	465614	1058995
2013	817699	69596	11842	1024	1144146	2044307
2014	1022081	90011	19261	271	1949788	3081412
2015	1180682	107066	13835	-	3379437	4681020
2016	1080144	128387	16224	47841	1634611	2907207
2017	1146069	157860	17077	41942	2080185	3443133
2018	1158747	169852	16242	53257	2153330	3551428

Source: MOHT, Myanmar Tourism Statistics (2001 to 2018)

International tourists' enter into Myanmar through the different gate ways. The major gate ways or entrances are Yangon and Mandalay airports. Yangon is a commercial city with international sea port and air port and international tourists visit religious structure and colonial buildings. Also, Mandalay is the business centre in upper Myanmar. Also, it has much cultural heritage after Bagan. Nay Pyi Taw international airport was officially opened in 2011 and it receives the domestic flights across the country and international flight to Bangkok and Kumin. Mawlamyine is the third gate way opened in 2013 and visitors can enter from it using Nok Air airline between Mawlamyine and Mae Sot in Thailand.

According to Table (3.2), the largest numbers of international tourists come through borders. It has official borders from China, Thailand and India for international tourists to travel overland from neighbouring countries to Myanmar. The common checkpoints are the eastern borders of Myanmar, receiving tourists from Thailand and China. The international tourists' arrivals by cross border routes increased from 0.27 million in 2001 to 0.48 million in 2010 and increased 2.15 million in 2018. 32.63% of international tourists' arrival from Yangon, 4.78 % from Mandalay/Bagan, 0.46 % from Naypyitaw, 1.5% from Mawlamyine/Myeik and Tachileik and 60.63% were from Border crossing in 2018. The international tourists' arrival increases annually and many arrives to Myanmar, using the borders entrances. Almost all are traders who come for business crossing the border and returning the same day. Their tourism expenditure is very low per day and duration of length is short. Table (3.3) shows number of international tourists by region from 2001 to 2018.

Table (3.3) International Tourists Arrival to Myanmar by Region

Region Year	Asia (Percent)	West Europe (Percent)	North America (Percent)	Oceania (Percent)	East Europe (Percent)	Middle East (Percent)	Africa (Percent)	Others America (Percent)
2001	60.5%	27.3%	7.7%	2.5%	0.8%	0.7%	0.2%	0.4%
2002	57.8%	29.2%	7.8%	2.7%	1%	0.9%	0.2%	0.4%
2003	59%	28%	7.7%	2.8%	1.1%	0.6%	0.2%	0.4%
2004	60.7%	26%	8%	2.9%	1%	0.8%	0.2%	0.5%
2005	57.7%	27.8%	8.4%	3.1%	1.5%	0.8%	0.2%	0.5%
2006	56.8%	29.1%	8.1%	2.9%	1.5%	0.8%	0.2%	0.6%
2007	63.5%	22.7%	7.4%	3.2%	1.7%	0.7%	0.2%	3.2%
2008	66.4%	19.2%	7.9%	3.1%	1.9%	0.7%	0.3%	0.5%
2009	66.2%	20%	7.2%	3.3%	1.9%	0.6%	0.3%	0.5%
2010	68.4%	19.3%	6.1%	2.8%	2%	0.7%	0.3%	0.5%
2011	66.4%	20.7%	6.5%	0.6%	2%	0.7%	0.3%	0.6%
2012	64.1%	22%	7.4%	3.5%	1.5%	.6%	.3%	.6%
2013	70%	17.6%	7%	3.1%	1.1%	.4%	.3%	.5%
2014	71.4%	16.5%	6.6%	3%	1.2%	0.4%	0.3%	0.6%
2015	72.1%	16.1%	6.4%	2.7%	1.2%	0.4%	0.3%	0.7%
2016	67.9%	18.7%	7.2%	3.1%	1.4%	0.6%	0.3%	0.9%
2017	70%	17.6%	6.4%	2.8%	1.5%	0.9%	0.4%	1.9%
2018	76.3%	13.1%	5.4%	2.3%	1.3%	0.4%	0.3%	0.8%

Source: MOHT, Myanmar Tourism Statistics (2001 to 2018)

Table (3.3) shows international tourists' arrival to Myanmar during 2001 to 2018, 57% to 76% of total international tourists came from Asia; around 13% to 29% of total international tourists came from West Europe and about 5% to 8% of total international tourists came from North America. Concerning international tourists' arrival to Myanmar during 2001 to 2018, Asia is the largest of tourist arrivals, West Europe is the second largest of tourist arrivals and North America is the third largest among the regions. The most tourists come from Asia; many tourists coming to Myanmar are Asians because Myanmar government has implemented new regulations making tourists to easily enter into Myanmar. Particularly, visa-free entry was given to South Korea, Hong Kong, Macau and other Southeast Asian countries. Therefore, it likes to extend tourism market for Europe and America. Stakeholders of tourism sector have to emphasis on the tourism promotion for international tourists from those regions.

3.1.2 Rules and Regulations of Tourism Sector

The "Hotels and Tourism Law" was first introduced in 1990 by MOHT and it was replaced in 1993 by the current law. Moreover, "Responsible Tourism Policy" was developed by MOHT in 2013. This policy has supported economic development and promoted long-term sustainable development of the tourism sector. The overall aims of this policy are:

- (i) National priority is given to tourism;
- (ii) High levels of socio-economic growth at local level;
- (iii) Maintaining authenticity and cultural diversity;
- (iv) Environmental protection and enhancement;
- (v) Rivalry for product diversity, richness and quality;
- (vi) Ensure the health and safety for visitors;
- (vii) Institutional strengthening of tourism management;
- (viii) A work force that is well educated and compensated; and
- (ix) Unethical activities to be minimized (MOHT, Myanmar Responsible Tourism Policy, 2012).

This policy has been implemented by the multi-stakeholders. The public sector also needs to involve the policy implementation at the national level. Local authorities also take the responsibilities to participate the tourism activities. All tourism stakeholders are responsible to actively involvement in activities: enjoying

the environmental friendly transportation and opportunities for cultural exchange with local people, minimizing the waste and conservation work altogether.

The Policy on “Community Involvement in Tourism” (CIT) was developed on how community involvement must be in practice. After establishing the CIT Policy, stakeholders have to involve in Myanmar’ CBT programmes, and these can contribute the advantages to local and tourists. “Tourism Master Plan” was provided by the ADB through a grant from Government of Norway from 2012 to 2013. It aims at maximizing the contribution of tourism to ensure its benefits are spread equally.

3.2 Tourism Industry in Bagan

Tourism in Bagan involves tourism development in Bagan: international tourist arrival in Nyaung Oo Township, international tourists’ arrival by region, international tourists’ arrival by country, international tourists’ arrival by monthly, international tourists’ arrival to Bagan by mode of transport and tourism business in Bagan: accommodations, food and beverages, travel agents and tour operators, tourist guides, handicraft and souvenir shops. They can create job opportunities and increasing income of community. Then, it can promote the living standard and the reduction of the poverty of the local people. Moreover, zone and museum fees generate revenue from cultural heritage property and it can conserve the heritage in Bagan.

3.2.1 Tourism Development in Bagan

Among the “cultural heritage sites”, Bagan is an archaeological site in Myanmar and also a UNESCO “world culture heritage site”. It is a well-known ancient site in Myanmar and worldwide because of flourishing as a Buddha Sarsanar heritage sites. It is rich in many valuable ancient monuments such as different varieties of pagodas, stupas and monasteries etc. Monuments in Bagan are not only Myanmar national landmarks but also precious buildings of Myanmar’s heritage. Bagan, the country's biggest tourist attraction, the temples of Bagan are recognized as one of Southeast Asia's major historical landmarks.

Tourism in Myanmar concerns with culture, but also includes history and nature tourism has followed an unusual trend due to political reforms (Henderson, 2003). The SLORC has recognized tourism as an opportunity of the positive image of

Myanmar (Hudson, 2007). The Bagan Archaeological Zone is the popular tourist destination in Myanmar (Henderson, 2003).

Bagn was built between the 11th and 13th century and famous as an Ancient City and an important Buddhist heritage site in Southeast Asia. In Bagan, more than 3000 monuments (temples, pagodas, monasteries, archaeological mounds) are spread in the plains area on the left bank of the Ayeyarwady River. Bagan is a cultural heritage tourist destination to attract many tourists including domestic visitors and tourists. The MOHT does not provide official statistics for domestic visitors. The domestic visitors visit Bagan during the long holiday periods in March, October and December. Most domestic visitors stay at small hotels, guesthouses and monasteries in Bagan-Nyaung Oo area. The estimated domestic visitor to Bagan was about 306,000 in 2016 concerning the information about domestic visitors coming to Bagan by the JICA expert team. The arrival of domestic visitors was more than international tourists to Bagan in 2016 (JICA, 2018).

Table (3.4) International Tourist Arrival in Nyaung Oo Township (2001-2018)

Year	International Tourist Arrival	% of Growth Rate from the Previous Year
2001	58571	-
2002	70440	20%
2003	68890	-2%
2004	73922	7%
2005	73020	-1%
2006	88240	21%
2007	80410	-9%
2008	38135	-52%
2009	55061	44%
2010	76831	40%
2011	102587	34%
2012	162984	59%
2013	196365	20%
2014	230129	17%
2015	247140	7%
2016	283877	15%
2017	300441	6%
2018	250917	-16.5%

Source: MOHT, Bagan Branch Statistics (2018)

Table (3.4) shows the international tourists' arrival to Nyaung Oo Township has increased year by year until 2007 but declined in 2008. The international tourists' arrival was 80.41 thousand in 2007 and 38.14 thousand with (-52%) growth rate in 2008 because of political events and natural disasters in Myanmar during 2007-2008. The Saffron Revolution occurred in August 2007 in Myanmar. Moreover, the natural disaster, Cyclone Nargis, caused destruction to various areas in the country, mainly including the Ayeyarwady Delta Region on 2 May 2008. Tourism did not recover from that situation until 2009.

The international tourists' arrival to Bagan increased from 76.83 thousand in 2010 to 300.44 thousand in 2017 and the overall trend of tourists' arrivals have significantly gone up over the period. Because Bagan is the popular tourist destination

and it possesses wonderful archaeology. In additions to pagodas and temples as tourist resources, rural villages, nature and farming landscapes in Bagan are also important for tourism attractions. “Community-Based Tourism” is an approach to support the tourism in Bagan where tourists can experience local village life such as handicrafts making (lacquer ware, woven cotton textile) and farming. Local villages located in the Bagan Heritage Region such as Min Nan Thu and West Pwa Saw are popular for community- based tourism (CBT). Other attractive tourism resources in Bagan are river cruises along the Ayeyarwady River and hot air balloons. Tourist arrival to Bagan was 250.92 thousand in 2018, growth rate was (-16.5%) because of the political event concerning with “Rohingya” conflicts in the “northern part of Rakhine” throughout 2018 (Myint Maung Soe, 2018). Regarding the MOHT (Bagan Branch) Statistics (2003 to 2018), Table (3.5) describes the international tourists’ arrival to Bagan by region including America, West Europe, East Europe, Middle East, Asia and Oceania.

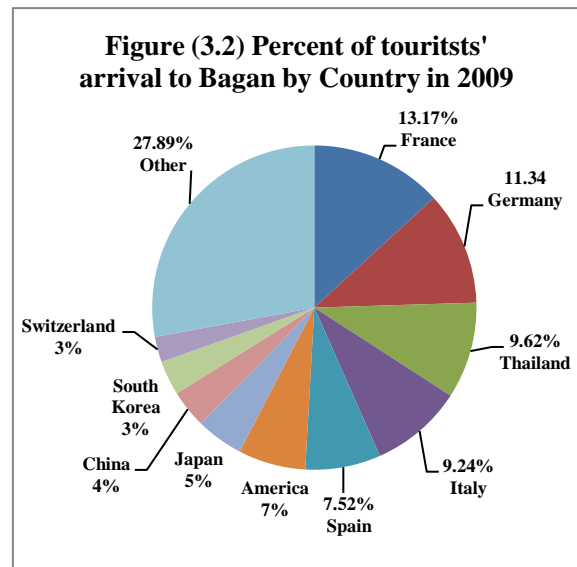
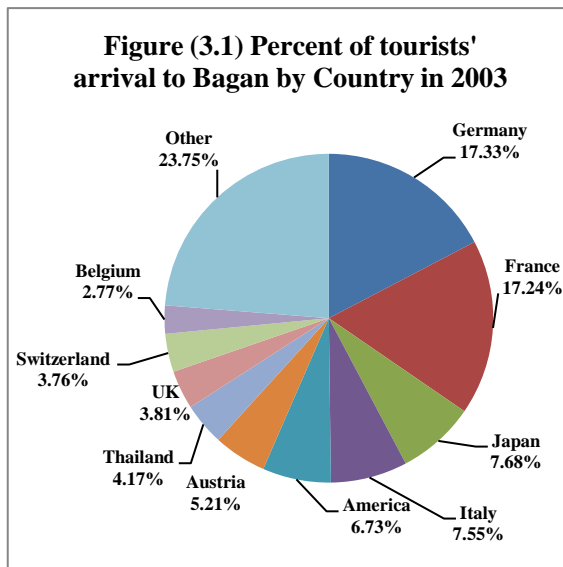
Table (3.5) International Tourists Arrival to Bagan by Region (2003 to 2018)

Region Year	West Europe (Percent)	Asia (Percent)	North America (Percent)	East Europe (Percent)	Oceania (Percent)	Middle East (Percent)	Total (Percent)
2003	66%	20%	9.3%	.7%	2.8%	1.2%	100%
2004	63.6%	21.6%	9.7%	1.3%	2.5%	1.3%	100%
2005	66.1%	19.8%	9.6%	1.1%	1.9%	1.5%	100%
2006	65.8%	20.2%	9.2%	1.6%	1.7%	1.5%	100%
2007	68.2%	20%	7.1%	2.2%	1.7%	0.8%	100%
2008	54.9%	26.8%	12.8%	2.1%	2.3%	1.1%	100%
2009	58.9%	26.2%	9%	2.3%	2%	1.6%	100%
2010	57.4%	28.5%	7.7%	2.8%	2%	1.7%	100%
2011	56.4%	30.2%	8.1%	2%	2.1%	1.2%	100%
2012	57.7%	26.4%	10.4%	1.8%	2.4%	1.3%	100%
2013	52.6%	30.2%	10.3%	2.1%	3.4%	1.4%	100%
2014	53.3%	33.6%	8.3%	1%	2.6%	1.2%	100%
2015	49%	39.4%	7.5%	1.8%	1.3%	1%	100%
2016	47%	37%	9.7%	2.7%	2%	1.6%	100%
2017	46.7%	38.5%	9.6%	3%	1.2%	1%	100%
2018	43.1%	40.7%	10.6%	2.8%	1.8%	1%	100%

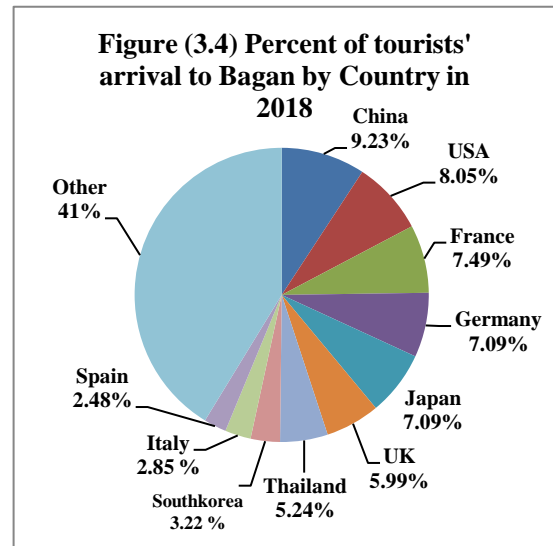
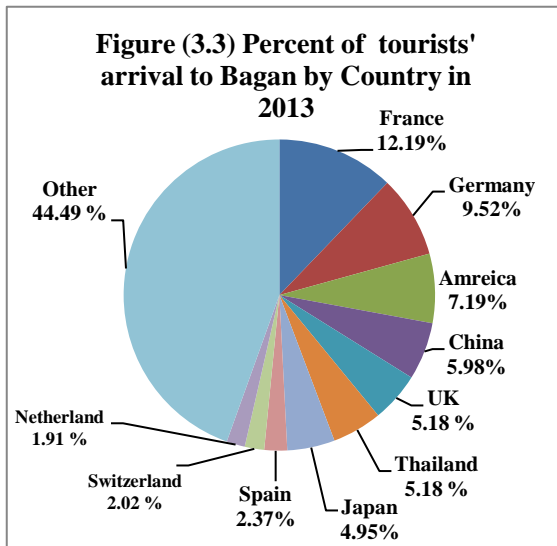
Source: MOHT, Bagan Branch (2003-2018)

Note: MOHT (Bagan) was implemented in November 2002 and data are obtained from starting 2003

Table (3.5) shows international tourists' arrival to Bagan during 2001 to 2018. According to MOHT (Bagan Branch) Statistics (2001 to 2018), ranging from 43% to 68% of international tourists' arrival from West Europe, ranging from 20% to 41% of international tourists came from Asia and ranging from 7% to 13% of total international tourists came from North America. Concerning international tourists' arrival to Myanmar from 2001 to 2018, West Europe is the largest number of tourist arrivals, Asia is the second largest number of tourist arrivals, and West Europe is the third largest among the regions. The percent of international tourists' arrival from other regions such as East Europe, Middle East and Oceania were from 0.7% to 3%. It can be observed that international tourists' arrival has decreased from West Europe 66% in 2003 to 52% in 2013 and 43% in 2018. However, international tourists' arrival has increased from Asia 20% in 2003 to 30% in 2013 and 41% in 2018. International tourists' arrival from America has not apparently changed during 2001 to 2018. The following figures described the trend of international tourists' arrival to Bagan by Country in 2003, 2009, 2015 and 2018.



Source: MOHT, Bagan Branch (2003 and 2009)

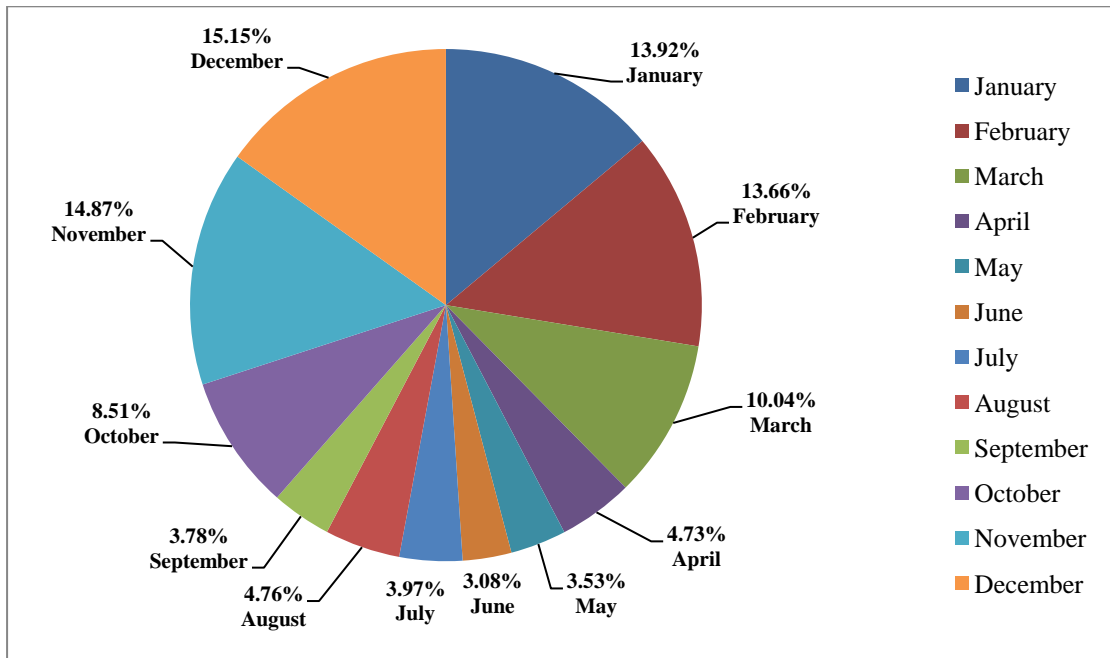


Source: MOHT, Bagan Branch (2013 and 2018)

Figures (3.1), (3.2), (3.3) and (3.4) show majority of top international tourists were people from France, Germany, Italy and Spain from West European, China, Thailand, Japan and USA. Regarding the data of the international tourist arrival by Country in 2003, 2009, 2013 and 2018, the percent of tourists from Germany and France was in top three in Myanmar in these years.

In 2009, the percent of tourists from Thailand increased and it can be seen at the top three among the others in Figure (3.2). In 2018, Chinese who came to Myanmar were 9.23% in Figure (3.4). Among the Asian visitors, people from China came to visit the most because of business purposes and people from Thailand also visited Myanmar because of easy access to airlines and only an hour plane trip. Japan is the third country after China and Thailand because of Japan's aid policy and aid programs in various fields to Myanmar. International tourists are satisfied with tourism-related activities: sightseeing cultural and natural heritage sites, the beauty of sunset and sun-rise, visiting places by either horse cart or e-bike and riding hot air balloons trips over Bagan. As regards tourism seasonality in Myanmar, it starts from October which is at the end of monsoon season and ends in March. The tourism is seasonal and lasts approximately for six months in Myanmar. The remaining six months are regarded as off-season because of the weather. The Figure (3.5) shows foreign visitors to Bagan by monthly in 2018.

Figure (3.5) Percent of International Tourists to Bagan by Monthly in 2018



Source: MOHT, Bagan Branch Statistics, 2018

Tourism in Bagan is seasonal because of the monthly fluctuations of international tourists. International tourists come to Bagan during the tourism season from October to March. The remaining months are considered off-season due to the weather during that time. The international tourists for the holiday season or the peak season (Jan, Feb, March, Oct, Nov and Dec) was 191.05 thousand with (76.15%) and that of the off-season (April to September) was 59.87 thousand with (23.85%). Furthermore, December is the month with the largest tourist arrivals (15.15%) whereas June is with the smallest tourists arrivals (3.08%) for a year.

Table (3.6) International Tourists Arrival to Bagan by Mode of Transport (2018)

Mode of Transport	Number of Foreign Visitors	% of Total Transport
Cars/Bus	127066	51%
Flight	92151	37%
Boat	31700	13%
Total	250917	100%

Source: MOHT, Bagan Branch Statistics (2018)

Regarding the international tourist arrival to Bagan by mode of transport, Bagan are accessible by flight, boat and car or bus with various routes. Table (3.6)

describes the international tourists to Bagan by mode of transport in 2018. Table (3.6) shows the shares of international tourists who arrived to Bagan by mode of transportation were 51% by car/bus, 37% by flight and 13% by boat. Nyaung Oo airport has scheduled flights connected to some popular tourists' destinations: Yangon, Mandalay, Heho, Naypyidaw, Thandwe, Tachileik and Myintkyina. Most international tourists to Bagan by car/bus were coming from Mandalay. International tourists also came to Bagan by cruise boat from Mandalay.

3.2.2 Attractions of Culture Heritage in Bagan

Regarding tourism attractions in Bagan mainly include Bagan archaeological area and monuments, the inscriptions of Bagan, mural paintings, stucco carvings, integrity and authenticity which attract tourists. Moreover, it has various interesting places near Bagan such as Mount Popa, Salay, Law Ka Nandar and Zee O Forest. The study mainly focuses on “cultural heritage property” in Bagan.

(a) Bagan Archaeological Area and Monuments

Bagan is as the “world cultural heritage sites” in Myanmar and it has more than 3000 ancient monuments in Bagan. It is also a place of Buddhist heritage sites. It is the Southeast Asia's most significant historic sites and the richest archaeological site. It is on the bank of the Ayeyawady River. The royal palace, court buildings and several monuments were in the walled town that constituted only a small portion of the total archaeological area. Bagan, possibly started to be built around the 9th century AD, which had developed between the 11th to the 13th centuries AD and the capital of the first Myanmar Kingdom. It consists of the variety of surviving monuments on the landscape such as temples, stupas, a palace site, monasteries, ordination halls, archaeological deposits and water management features.

(b) Inscriptions of Bagan

Inscriptions recording religious donations give quite a different view of the people of Bagan: chronicles which may contain much legend and history. The inscriptions often record in detail the expenditures laid out for the construction of a work of merit, a building, which was the embodiment of the wish of the donor to improve his position in the next existence.

(c) Mural Paintings

Murals seem generally to have filled the interior of Bagan's temples. The main theme is the historical life of the Buddha and his several hundred previous existences. Another major theme is the series of the twenty-eight Buddhas in the past, who sit below their respective trees, displaying either the gesture of enlightenment or the gesture of teaching. A third and more general category includes iconographies painted on the ceiling: the Buddha's footprints, the universe and Lake Anotatta seen in the vestibule hall or the large lotus always painted on the keystone of the shrine; divine figures distributed on the walls: the Bodhisattas, the gods Sakka and Brahma or ornamental motifs, such as creepers or architectural structures.

(d) Stucco Carvings

These may be counted among the 1326 buildings in Bagan with surviving stucco plaster, as the stucco forms a base for interior paintings, and for decorative features both inside and outside the buildings.

(e) Integrity

The property has all the qualities required to reflect Bagan's "Outstanding Universal Value". It includes the pre-eminent and very large collection of monuments from the Bagan period temples, stupas (including the four corner or boundary stupas), monasteries, ordination halls, a palace sites and fortifications, extensive and largely intact subsurface archaeological deposits, and two ancient reservoirs and the features of water management which may date from this period. It is the key remaining evidence for the scale and the number of monuments of the ancient capital.

(f) Authenticity

Bagan's outstanding universal value is genuinely and credibly expressed in the surviving monuments, archaeological remains and religious practices. The large population of monuments remains the general shape of ancient Bagan on a landscape scale, noting the loss of certain monuments over time and the alleged lack of much of the old occupation and other structures.

3.3 Development of Tourism Business in Bagan

Tourism related businesses in Bagan consist of hotels, motels and guest-houses, travel agents and tour operators, tourist guides, handicraft and souvenir shops and etc. Table (3.7) shows number of accommodations (hotels, motels and guest houses) and rooms in Bagan.

Table (3.7) Hotels/Motels/Guest Houses and Rooms in Bagan (2001 to 2018)

Year	Hotels/Motels/Guest Houses	Rooms
2001	82	1574
2002	80	1696
2003	81	1799
2004	84	1958
2005	85	1980
2006	81	1926
2007	82	1945
2008	84	1963
2009	74	1953
2010	74	1953
2011	75	2008
2012	75	2198
2013	76	2351
2014	77	2400
2015	78	2565
2016	84	2866
2017	85	3019
2018	85	3019

Source: MOHT, Tourism Statistics (2018)

In Bagan, the number of hotels, motels and guest house rose from 82 in 2001 to 85 in 2018 and rooms are from 1574 in 2001 to 3019 in 2018. These accommodation facilities can be broken down into five categories from 1 star to 4 star and unrated. According to JICA (2018), 15% of these facilities are 3 or 4 star, 15% are 1 star and the remaining 70% are unrated. These hotels are limited in Bagan which make it difficult to reserve a room during the holiday period. For this reason, the problems of the rising hotels prices during the holidays in Bagan have emerged.

The Myanmar Restaurant Association in Bagan (MRA) was established in 2011. In 2014, there are roughly 100 restaurants in Bagan (JICA, 2014). Moreover, 182 restaurants are registered in Bagan, consisting of 80 large restaurants, 57 small meal shops and 45 cafeterias in 2017 and 218 restaurants in 2018. Some restaurants put on puppet shows or traditional dance performance. Many are as “small and medium enterprises” (SME) run by family members. MRA should be developed a fund and organized periodical training programs.

The Myanmar Tourist Guides Association (MTGA) is a station guide registered in Bagan in 2014 with 130 nationally accredited guides. Furthermore, 108 guides are regionally-accredited. However, among those numbers, only 40 individuals actually operate as guides. In 2017, 265 tourist guides are registered as members of MTGA Bagan. Additionally, 231 licensed regional tourist guides and 311 national licensed tourist guides in Bagan (JICA, 2018). Moreover, in Bagan, it has 407 national licensed guides and 293 licensed regional tour guides in 2018 (MOHT, Bagan branch statistics, 2018). Most group tours in Bagan are accompanied by a nationally licensed guide from Yangon. The station tourist guide in Bagan is usually employed for FIT at the front counter at hotels.

Much tourism industry present in Bagan consists of satellite shops for tour operators based in Yangon or partner agencies that offer guides or vehicles or carry out sales of plane tickets, cruise tickets and local tours. Only 24 travel agents operate in Bagan, 2017, which are branch offices of travel agents registered in big cities. Tour operators in Bagan accept group tours and free independent tourists (FIT) from it instructed by the main office.

There are a variety of handicrafts and souvenirs being produced in Bagan such as lacquer wares, wood carving and sand picture. Lacquer ware is the popular souvenir in Bagan. Most souvenirs shops sell the local products, while some big shops deal with travel agencies as partnerships. In recent year, boutique shops have been selling luxury goods. Many lacquer ware stores are concentrated in New Bagan. Many craft makers have factories in their own shop. Customers can go the workshops and listens to explanation of the process by shop employees. One tourist attraction is visiting the craft shops in Bagan. Alternatively, the lacquer ware or sand paintings are sold at the stands around Bagan’s historic monuments. Regarding local food products, peanuts, palm wine, palm sugar, and tamarind and sesame processed products are sold in Bagan.

Tourism transportation services in Bagan are buses and taxis, e-bikes and bicycles, horse-carts and river cruise ships and small boats. Vans and saloons are used as taxi for tourists' transportation. Taxi can be hired from Nyaung Oo Airport, Nyaung Oo Bus Terminal, travel agents and hotels and private transport companies have offices at Bus Terminals for selling tickets. Nowadays, e-bike services are popular and easy to hire in Bagan. Almost every shop and hotel has an e-bike rental service. Free Independent Tourists do hiring e-bike and bicycles which are very high. The registered number of e-bikes in Bagan exceeds 10000. The rental cost of e-bike around 5000 kyat or \$5 per day or for around the eight hours of battery life. Travelling by a royal horse cart is a relaxing and elegant way to enjoy in Bagan. This makes it popular tourist transportation.

Bagan is an international site which becomes an attraction for visitors. It may increase financial support to conserve heritage in Bagan. It is said that tourism, concerning increasing incomes, employment opportunities, improved living standards and public infrastructure, the increasing recreations and leisure facilities can promote the livelihood of the local populace. Moreover, revenue from zone fees and museum fees from cultural heritage sites supports the heritage. The following Table (3.8) shows total revenue in Bagan.

Table (3.8) Total Revenue from Entrance Fees and Museum Fees in Bagan

Year	Entrance Fees Foreigner (US \$)	% Growth Rate	Museum Fees Foreigner (US \$)	% Growth Rate	Museum Fees Locals Kyat (Million)	% Growth Rate
2000-01	589,820	-	41645	-	2.58	-
2001-02	588,528	-0.22	36715	-11.84	2.70	4.65
2002-03	761,050	29.31	29874	-18.63	2.76	2.22
2003-04	611,678	-19.63	17091	-42.79	2.23	-19.20
2004-05	738,570	20.75	20703	21.13	2.08	-6.73
2005-06	743,130	0.62	18921	-8.61	2.11	1.44
2006-07	1008,780	35.75	33461	76.85	34.89	1553.55
2007-08	572,208	-43.28	14735	-55.96	41.80	19.81
2008-09	364,050	-36.38	8310	-43.60	49.82	19.19
2009-10	669850	84.00	15235	83.33	56.63	13.67
2010-11	852880	27.32	17990	18.08	59.19	4.52
2011-12	1198180	40.49	21070	17.12	62.11	4.93
2012-13	1865915	55.73	38970	84.95	75.21	21.09
2013-14	2839845	52.20	41645	6.86	105.88	40.78
2014-15	4099443	44.35	54523	30.92	116.71	10.23
2015-16	4932725	20.32	50599	-7.19	113.05	-3.14
2016-17	4919505	-0.27	40685	-19.59	117.89	4.28
2017-18	3671135	-25.38	31699	-22.09	152.53	29.38

Source: Annual Report of Department of Archaeology, National Museum and Library (2018)

Table (3.8) shows the revenue of zone fees or entrance fees in Bagan, the entrance fees for international tourists are increasing year by year, from US \$ 0.589 million in 2000-2001 to US \$ 1.01 million in 2006-2007. However, revenue from zone fees decreased to US \$ 0.57 million, growth rate with (-43.28 %) in 2007-2008 and US \$ 0.364 million with growth rate (-36.38 %) in 2008-2009 due to natural disaster and political affairs occurring in Myanmar during 2007-2008. As the 2011 civilian government undertook the various sector reforms, these reforms promoted

foreign tourist arrival to Myanmar. Furthermore, the entrance fee of Bagan was US \$ 10 per person until 2012 to increased US \$15 per person in 2014. Zone fees for foreigners increased from \$ 15 to \$ 20 starting from January 1, 2015. Thus, in 2015-2016, revenue from zone fees was US \$ 4.93 million with (20.32%). However, the zone fees felt to US \$ 3.67 million with (-25.38%) in 2017-2018 because of the decrease in tourist arrival to Bagan. On the first January 2016, zone fees or the entrance fees were accepted only in Myanmar Kyat at a rate of K 25,000 per person. After 2015, zones fees of Myanmar kyat were converted to US \$ at “Central Bank” of Myanmar reference rate.

“Myanmar Tourism Federation” collects the entrance fees for tourists only at the entry points of the Bagan: airports, gateways near the bus station and ferry for tourists only. The entrance fees are valid for five days and allow tourists to visit the Bagan monuments. In addition, checkpoints are at two popular pagodas, namely Shwe San Daw pagoda and Hti Lo Min Lo pagoda. This was set up to check whether the entry card has been purchased by every tourist. MFT has been responsible for collecting Bagan Culture Zone Fees since March 2016 under the directions of MORAC. In 2016, MTF and MORAC agreed to provide 90 percent of the zone fees to the national budget, and the final 6 percent are for tourism. Moreover, the DOA has nominated 2 percent of zone fees for heritage preservation and the remaining 2 percent for environment that is managed by the administrators of Nyaung Oo district (Myo Aung, 2019).

As the zone fees increase year after year, the maintenance of heritage requires sufficient funding from zone fees. If government funding from zone charges is allowed to protect the sites, this will be applied to recruit experts in conservation and to employ the people if tourists comply with discipline or undertake activities that damage the resources of Bagan’s heritage.

The Bagan Archaeological Museum is located in old Bagan and was opened in 1998. It has many valuable assets and exhibits range from Buddhist statues, stone monuments, art objects, old folk crafts, traditional costumes and dioramas of dynasty era. Table (3.8) shows Museum fees for international tourists and local visitors in Bagan during 2000-2001 to 2017-2018.

According to Table (3.8), museum fees from foreigners decreased to US \$ 14.74 thousand with (-55.96%) growth rates in 2007-2008 and to US \$ 8.31 thousand with (-43.6%) growth rates in 2008-2009 because international visitors did

not come in these periods concerning the events of Saffron Revolution and Cyclone Nargis in Myanmar. In 2014-2015, Museum fees for international visitors increased to US \$ 54.52 thousand with (30.92%) because of increasing international visitors. Museum fee is US \$ 5 per international visitors before 2013 and then it has changed to Kyat 5000 per head for international visitors on 13th July 2013. The growth rate of museum fees for foreign visitors is (-7.19%) in 2015-2016, (-19.59%) in 2016-2017 and also (-22.09%) in 2017-2018 respectively because of an increasing foreign exchange rate.

Museum fees for local visitors has risen from Kyat 2.58 million in 2000-2001 to Kyat 34.89 million in 2006-2007 with (1554 %) because Museum fees are Kyat 10 for adults and kyat 5 for children before 2005-2006 and it was increased to Kyat 500 for adults and 250 kyat for children in 2005-2006. Museum fees from locals increased to Kyat 117.89 million in 2016-2017 with (4.28%), Kyat 152.53 million in 2017-2018 with (29.38%), total revenue from museum fees for local has increased because the museum fees was increased to Kyat 5000 for local adults and free for children on 3rd August 2016 with an increase of local visitors to museum. If part of the museum fees were allocated towards the preservation in Bagan.

3.4 Stakeholders Involved in Conservation of Cultural Heritage in Bagan

Myanmar has many heritage sites: Thayekhittaya, Hanlin, Beikthano, Inwa, Pinya, Bagan and so on. Among these, Bagan is famous for its heritage sites which have over 3000 ancient monuments located in the cultural landscape of 16 square kilometres. Nyaung Oo, Bagan and 13 villages are nominated in Bagan cultural heritage region.

The conservation work is essential for sustainable cultural heritage property in Bagan for future generation. These cultural heritage properties in Bagan could attract many local and international visitors for their prestige. For the above reasons, the major stakeholders including Government, UNESCO, multi-organizations and local populace are making collective efforts to perform the preservation of heritage in Bagan.

3.4.1 Legal Framework for Monuments Conservation

The Myanmar government is mainly responsible for adopting and working on heritage protection policies and the related measures: the “Antiquities Act” (1957),

the Act Amending the “Antiquities Act” (1962), the Protection and “Preservation of Cultural Heritage Regions Law” (1998) and the Law Amending PRCHRL (2009), the “Protection and Preservation of Ancient Monuments Law” (2015) and the “Protection and Preservation of Antique Objects Law” (2015). The objectives of the “Protection and Preservation of Cultural Heritage Regions Law” (1998) are as follows:

- (a) To implement the policy of conservation concerning perpetuation of heritage has existed for many years;
- (b) To protect the areas of heritage from natural disasters and destruction by human beings;
- (c) To increase hereditary pride and foster citizens’ patriotic dynamism by protecting and maintaining regions of heritage;
- (d) To promote public understanding for heritage preservation;
- (e) To protect the regions from loss of heritage;
- (f) To safeguard and protect cultural heritage regions in compliance with the state-approved International Convention (SPDC, PPCHRL, 1998)

Also, MORAC demarcated the following kinds of heritage region regarding the 1998 Law: “ancient monument zone”, “ancient site zone” and “protected and preserved zone” (MORAC, Integrated Management Framework, 2018, p. 299). An Ancient Monument Zone, focusing on “ancient monuments” in Bagan, does not entirely allow any further development program. Regarding an Ancient Zone (AZ), the law allows to undertake development programs in some areas of monuments and buffer zones, based on certain criteria. Additionally, protected and preservation zone (PZ), there is no restriction for further development in that area. But the permission is needed before the process in that buffer area. Demarcation of such zones in Bagan region can diminish the following environmental consequences: environmental and historical sites damage due to excessive development projects, water pollution, air pollution, waste problems, traffic congestion, and the conflicts between locals and visitors because of not enough supply of electricity, water, toilets and catering services. To preserve heritage of Bagan, zoning avoids the negative consequences of the development. Furthermore, cultural conservation zoning can be a visitor management tool and a strategy for the preservation for long-run use. It is a process of identifying activities, infrastructure, accommodation and facilities to be implemented in the conservative area (Crabolu., G, 2015).

3.4.2 The Role of Department of Archaeology

The DOA is taking charge of the affairs on conservation and preservation of “tangible and intangible heritage” and consisting of museums in Myanmar. The functions of the DOA are as follow:

- (a) Excavations and research on ancient cultural heritage;
- (b) Historical ancient sites research;
- (c) Ancient culture excavation and research;
- (d) Monitoring and registration of antiques and control of illicit trafficking, exports and imports of antiques;
- (e) Cultural heritage landmarks and sites documentation and inventory;
- (f) Conservation of monuments related to Myanmar’s cultural history, mural painting and experimental stucco carvings;
- (g) Collect and decode old stone, ink and bell inscriptions and conduct research;
- (h) Publishing academic papers, books and public newsletter;
- (i) Managing and maintaining ancient heritage sites;
- (j) Establishing the Archaeological Museum, National Museum, State and Divisional Cultural Museums and preservation and exhibitions of heritage and collecting the materials pertaining to Myanmar heritage;
- (k) Displaying the materials collected in the museums to keep them up to date;
- (l) Undertake research and explore history of heritage materials collected;
- (m) Continuously compile and publish the museum guide books and brochures (MORAC, Integrated Management Framework)

For instance, on August 24, 2016, an earthquake with a magnitude of 6.8 occurred with a Chauk located 30 km south of Bagan. Since the 389 ancient pagodas including 56 ancient buildings with murals paintings were damaged in various scales, some temples which are popular for tourism were forced to close for some months due to safety considerations.

Table (3.9) Damaged Monuments by Earthquake in Bagan (2016)

Sr. No.	Particular	Types of Monuments				
		Temple	Stupa	Monastery	Other	Total
1	Priority I	7	26	2	1	36
2	Priority II	11	37	4	1	53
3	Priority III	84	207	6	3	300
	Total	102	270	12	5	389

Source: Annual Report of Department of Archaeology and National Museum (2018)

At the time of damage, the Department of Archaeology, National Museum and Library had been supervising the renovation of already-damaged pagodas. Some pagodas were renovated with donor funding in accordance with all the necessary rules and regulations.

Table (3.10) Programme for Restoring the Damaged Monuments in Bagan by Earthquake (2016-2020)

Sr. No.	Particular	Year					Total
		2016	2017	2018	2019	2020	
1	Priority I		20	10	6	-	36
2	Priority II		15	14	10	14	53
3	Priority III	224	15	15	20	26	300
	Total	224	50	39	36	40	389

Source: Annual Report of Department of Archaeology and National Museum (2018)

Table (3.10) shows the DOA intended to undertake the rejuvenation of 224 monuments for restoring the monuments of Bagan cultural heritage zone in 2016, 50 monuments in 2017, and 39 monuments in 2018, 36 monuments in 2019 and 40 monuments in 2020. The monument is 36 for the top priority, 53 for second priority and 300 for third priority after the 2016 earthquake from 2016 to 2020. The program envisaged the restoration of total 389 monuments following the 2016 Bagan earthquake. The priority it was regarding on the value of monuments including architectural value and historical value. It was nominated for three grades: Grade 1 which is “outstanding monuments” can be chosen as first priority to be inspected and conserved systematically in perfect condition. Grade 2 “exceptional monuments” can

be selected as second priority aiming at regular inspection, maintenance and repair. Grade 3 “important” can be nominated as third priority, to be periodically inspected, maintained and repaired”(Wint Tin Htut Latt et al., 2017)

Table (3.11) Completion of Conserved Monuments after Earthquake in Bagan (2020, March)

Sr. No.	Particular	Damage	Completion	Still	Remain	Remark
1	Priority I	36	29	6	1	Stabilization Brick Conservation Pointing and Edging Grouting Need Monitoring
2	Priority II	53	48	3	2	Stabilization Brick Conservation Pointing and Edging Grouting Need Monitoring
3	Priority III	300	298	2	-	Rehabilitation
	Total	389	375	11	3	

Source: Annual report of MORAC (2020, March)

After the 2016 Bagan earthquake, the Association of Myanmar Architects, in collaboration with the “Department of Archaeology”, conducted data collection between October and December 2016, analysing 3822 monuments in the “Bagan Archaeological Area”. The MORAC and UNESCO invited the main actors who have been working to restore to the ancient temples damaged by the earthquake and the Technical Experts Team which encompasses experts in engineering, architecture, geology and preservation. Until March 2020, the completion of conserved monuments after earthquake was 375 and the number of the completed damaged monuments focusing on stabilization, brick conservation, pointing, edging, grouting and rehabilitation was 29 which was included in first priority group, 48 from second priority group and 298 from third priority group. The process of conservation is still working on 11 monuments including 6 from first priority, 3 from second priority, and 2 from third priority. The remaining 3 monuments are remaining the conservation work. Therefore, these conserved monuments in Bagan are monitored by the

responsible persons of the Department of Archaeology, Trustees of Pagodas and local populace.

3.4.3 The Role of the UNESCO in Cultural Heritage Conservation

Myanmar became a member of the UNESCO on June 27, 1949. Bagan had suffered natural disasters like earthquake seriously for two times, 1975 and 2016 respectively. As the problem of preservation needed to be solved urgently in the time when Myanmar has been faced with such damages, UNESCO has provided emergency assistance for the immediate danger sites. After the 1975 earthquake, the UNESCO and UNDP, the “Department of Archaeology” undertook structural and chemical conservation.

In Myanmar, UNESCO has effectively helped Myanmar to strengthen its heritage conservation measures since 2011. UNESCO’s assistance contains the following measures such as conservation and decorative works especially conservation of mural paintings and stucco carvings, advanced technologies: “Geographic Information System” (GIS) and giving capacity building which conducted trainings in conservation of archaeology sites and heritage management for government staffs and officials (Makino, 2014).

On 24th August, 2016, 389 ancient pagodas in total were damaged due to 6.8-magnitude earthquake. UNESCO cooperated with the MORAC in establishing a conservation plan for each damaged-monument. After that, UNESCO dispatched experts immediately to Bagan to give full support to the DOA. The experts cooperated in assessing rapid damage, detailed engineering and mural damage and documenting the damage. The expert team from UNESCO held on-the-job training to construct technical capacity building, coordinated with various stakeholders such as government authorities, local populace and multi-organizations to set up earthquake rehabilitation activities. It also provided technical guidelines for management of disaster and long-term rehabilitation in Bagan.

UNESCO provides the “Ministry of Culture” with the following attributes; nominating “World Cultural Heritage Sites”, building up reporting systems, supporting technical assistance and professional training for safeguarding “World Cultural Heritage Sites”, solving urgently for immediate danger, education relating to conservation for public awareness, supporting involvement of local populace and international collaboration (Myo Aung, 2017). In Bagan, the 2016 earthquake damaged

389 monuments thus UNESCO consequently supported emergency assistance with various collaborators, local populace and Myanmar Government for long-term rehabilitation (UNESCO, 2018).

Moreover, the UNESCO provides technical assistance including developing conservation guidelines, survey techniques, and data collection methods and assessing the existing methods on current conservation of monuments for the purpose of improving conservation of monuments by international conservation measures (Makino, 2014). Therefore, it is the main supporter of the “Ministry of Culture” is accountable to be enlisted as a “UNESCO World Cultural Heritage Site”. UNESCO coordinated with the DOA in developing the master plan for the conservation of Bagan Heritage Site to be nominated as the “World Heritage Site”. It also identified the proposed values of “World Culture Heritage sites”. With the support of the National Federation of UNESCO Association in Japan, they worked on Nomination Dossier in July, 2015 and submitted by 1st February, 2018. On 6th July, 2019, with the effort of stakeholders including UNESCO, the DOA relevant national and international organisations and local populace, Bagan was officially inscribed as a “World Cultural Heritage Site”.

3.4.4 Local and International Organisations in Cultural Heritage Conservation

For cooperation of stakeholders: local community organizations, tourism industry, donors, NGOs and international agencies which support financial and technical assistance for tourism and heritage conservation in Bagan are needed. Moreover, the Association of Myanmar Architects and Myanmar Engineering Society has restored and conserved ancient monuments in Bagan. It implemented the Bagan Comprehensive Master Plan in 2015 containing Bagan Regional Plan, Zoning Plan, Settlement Development Plan, Building Control and Regulations, Archaeological Landscaped Control, Infrastructure Plan, Tourist Facilities Plan and Institutional framework for Long-term Conservation that protected the negative consequences of tourism and safeguarding the sites in Bagan.

The Bagan Plastic Campaign, Non-Governmental Organization, the activities of BPC are cleaning activities on every Saturday, making public awareness presentations and demonstrations, pamphlet distribution, installation of posters and sign boards and media contacting. The local populace takes part in campaigns, the display of trash bins, public awareness billboards and posters, the implementation of a

community based waste management team for the development of landscape in Bagan.

Moreover, pagodas trustees are responsible to look after and maintain the monuments under the guidelines of the “Department of Archaeology” (Bagan branch) and Regional Government. Pagodas trustees also lead the activities of pagodas festivals and cultural activities. Thus, it can consequently help the restoration of culture in Bagan.

For safeguarding culture heritage sites in Bagan, the DOA conducted preservation in Bagan with international cooperation. “A Memorandum of Understanding” (MoU) was signed between the government of India and the government of Myanmar to restore the Ananda pagoda, and the renovation began in 2012-2013. The project was completed in fiscal year 2017-2018 and the expenditure of six year project was US\$ 3.2 million (MMK 4.35 billion) and it was offered by the Government of India (Maung Zaw, 2017).

Since 2012, Italy has dedicated the funding for Capacity Building to Safeguard Cultural Heritage in Myanmar. This contribution allowed UNESCO to hire international experts from ICCROM and Lerici foundation which helped Myanmar to protect its important heritage sites, particularly the ancient Pyu settlements and Bagan (UNESCO, Bangkok Office, 2015). In addition, JICA has also participated in regional development programme in Bagan. For example, it conducted mini public awareness workshops in Bagan-Nyaung Oo area. These workshops mainly presented about the existing local products and for sustainable environment in Bagan from 2015 to 2016. Moreover, JICA also implemented clean up campaigns with working groups in Old Bagan, Myingabar village and Min Nan Thu village in 2015 (JICA, 2018).

International partners for preservation in Bagan include heritage agencies, ICCROM, the National Research Institute for Cultural Properties Tokyo and development partners including JICA and the WB. Moreover, representatives from China, Italy, Germany, Korea, Canada, South Africa and India were participated the preservation in Bagan. The work are consulting, recording damaged ancient monuments, restoring mural paintings, planning emergency response and rehabilitation, training on restoring mural paintings, analysing damaged ancient monuments, developing Nomination Dossier, conservation of the “Ananda Temple” in Bagan, donation for the Bagan museum and collecting data for damaged items and

taking survey for maintaining and reconstruction of damaged ancient buildings through 2016 to 2019.

3.4.5 Local Community Involved in Cultural Heritage Conservation

Community-Based Tourism supports natural and cultural heritage for long-term development. Local people in Bagan involves community-based-tourism activities with tourists such as visiting and shopping in local market, hands-on experience of local cooking, lunch with tour groups, traditional dance with tourists, explaining their life and culture, cooperation with local handicraft especially women for demonstrating traditional weaving and collaboration with local farmers in observing traditional farming process. Thus, these events support the maintaining culture activities in Bagan (JICA, 2018).

Moreover, the local populace have to become caretakers for the property of heritage, who monitor and maintain the site. Ancient customs, rituals and festivals are a significant part of heritage and be preserved and encouraged by the local populace. Many traditional pagodas festivals in old, new Bagan and Nyaung Oo are held by the local populace. Crafts are popular in Bagan especially traditional lacquer-ware production, silver-ware production, soybean paste production, traditional painting such as mural painting, sand painting and cloth painting, tamarind paste production and textile products. These traditional products are produced and encouraged by the local populace in Bagan.

3.5 Main Challenges in Bagan Heritage Sites

Bagan is well-known for its numerous pagodas, monuments and natural environment. Currently, it consists of 3595 surviving monuments scattered on the Bagan landscape including temples, stupas, ordination halls, monasteries, sculptures, associated inscriptions, cloth and murals paintings and archaeological deposits (MORAC, Integrated Management Framework, 2018). These monuments are the greatest assets of Bagan and must be safeguarded and conserved for future generations. However, it is still facing threats and pressures such as natural disaster and climate pressure, tourism pressure, transportation, technology, vandalism and development pressure.

Natural impacts include natural disaster and climatic pressure in Bagan. They are wind, earthquake, rain water erosion, and rain water penetration and vegetation

growth on monuments. Wind erosion could damage the monuments and decoration work on outside walls of ancient monuments. Concerning earthquake, it is situated on an active earthquake zone and several earthquakes occurred in Bagan. The severe earthquake was on 8th July 1975 with 6.5 Richter scale which damaged lots of deterioration in monuments. Recently, Bagan was hit by severe earthquake with 6.8 Richter scale on 24th August 2016 and total monuments 389 were damaged. Heavy rain could cause flooding, erosion along the banks of river, weakening of the strength of ancient buildings, landslides and heavy downpours on the cliff walls. Moreover, the fire risk: urban fire and forest fire due to extreme weather such as drought. Regarding vegetation growth on monuments, the roots damage the ancient monuments structure in Bagan. Lighting effect could cause damage mural painting on inside walls. Thus, government personals should plan disaster risk management strategy and implement guidelines for rehabilitation of historical monuments in Bagan.

The main tourism pressure includes hotel development and tourist capacity in some famous pagodas in Bagan due to tourism demand and private investment. Hotel construction has gradually increased, given the increased tourist arrivals in Bagan. Consequently, it causes the encroachment of modern hotel structures on Bagan Archaeological Zones and disturbances to the “integrity” and “aesthetic” value of Bagan. Some ancient pagodas within the compounds of the big hotels including ThiriPyitSayar, Adin and Sakura cannot be reached by the worshippers and those ancient pagodas are difficult to maintain and be public access.

Moreover, new hotel construction has been occurred in the sites to influence physical environment. Physical impact is the over carrying capacity due to the concentration of tourists to heritage sites during holidays seasons. This brought out the problems of the other visitor related activities: the movement and parking of vehicles near the monuments. Before 2017 July, foreign visitors climbed on pagodas such as Shwe San Taw and Pyathatgyi. But the State banned such climbing on the monuments for restoration. Traffic management and maintenance of roads has become important. Rubbish (such as plastic, glass and metal etc.) dropped by visitors in the campus of monuments can cause environmental degradation. The big cars around the heritage area can damage on the monuments such as destruction of mural paintings in some ancient pagodas in Bagan. These travel buses weaken the ancient pagodas’ stability and durability.

Animals have been herded around the monuments causing damage that leads to vandalism and graffiti. Some visitors made the graffiti on walls or physical structure of monuments. This can cause the diminishing of the “authenticity” of the heritage. Photographic lights may also hasten the fading of colours, paintwork or decorated surfaces. Bats and birds living inside the monuments lead to damages to architecture. Furthermore, some religious activities: setting air-con and lightening within the boundary of the pagodas damage the originality and “authenticity” of these heritages (Thein Lwin, 2016).

Development programmes can also affect the sites in Bagan. For example, electric poles inside the buildings, telephone tower and cables like wiring and lighting. Advertising boards are being allowed in many locations along the road which can cause disruption of the “authenticity” of the sites. Using tube wells for hotels, restaurants, agriculture can have problems for monuments in Bagan (MORAC, Integrated Management System, 2018).

Many monuments were conserved by improper conservation materials and techniques losing the heritage values and authenticity. Furthermore, improper conservation techniques can destruct the ancient structures. Tourism attraction, installation of air-conditioners in A Lo Taw Pyae pagoda can damage the micro climate. Renovation of the ancient monuments can damage their “authenticity” and “integrity”. Because of lack of cooperation between ministries, private and local communities for preservation, it is still difficult to maintain these heritage sites. The next chapter will present analysing the factors affecting on cultural heritage conservation in Bagan.

CHAPTER IV

ANALYSING THE FACTORS AFFECTING ON CULTURAL HERITAGE CONSERVATION IN BAGAN

It is to analyze the factors affecting on cultural heritage conservation in Bagan. It represents profile of the study area, research design including target population, sample size determination, data collection and questionnaire design, analytical methods and measured variables for research. Also it explores demographic characteristics of the respondents and feedback from key informant interviews (KII). Moreover, Reliability Cronbach's alpha, "Descriptive Statistics" and "Multiple Regression Analysis" are used for the data analysis.

4.1 Profile of the Study Area

Bagan located in Mandalay Region is a wonderful tourists' attraction area in Myanmar. It involves 3382 surviving monuments such as stupas, temples, monasteries, ordination halls, a palace site and fortifications, associated inscriptions, sculptures, murals and clothing paintings and archaeological deposits. "Bagan Archaeological Zone" is the popular visited tourist destination in Myanmar (Henderson, 2003). It is situated at the administrative border area of Nyaung Oo in the Mandalay region. The district of Nyaung Oo is comprised of the township of Nyaung Oo and Kyaukpadaung. The location of Bagan can be seen in Map 4.1 in Appendix (B).

Heritage of Bagan is scattered on the boundary of Nyaung Oo Township which consists of Nyaung Oo, Bagan, Ngathayauk and some villages. Major cultural heritage is scattered in Bagan and Nyaung Oo . Bagan was upgraded and formed by the Ministry of Home Affairs on 25th September 1973. Bagan was placed in Nyaung Oo Township. Then, Nyaung Oo Township was upgraded to the district level on 4th April 1996. The formation of Nyaung Oo Township shows in Table (4.1).

Table (4.1) Formation of Nyaung Oo Township (2018)

Particular	Nyaung Oo	Bagan	Ngathayauk	Villages	Nyaung Oo Township
Number of House	6335	2372	1455	42775	52937
Number of Households	6420	3259	1527	44537	55743
Number of Quarters	7	6	4	-	17
Groups of Village	-	-	-	75	75
Number of Village	-	-	-	220	220

Source: Annual Report of General Administration Department, Nyaung Oo (2018)

Nyaung Oo Township is comprised by three towns namely Nyaung Oo, Bagan and Ngathayauk and associated with 17 quarters, 220 villages and 75 groups of villages. Table (4.1) shows Nyaung Oo which has the largest number of houses and households compared to Bagan and Ngathayauk. This study selects Nyaung Oo and Bagan due to the position of most working households linked to the tourism.

Additionally, Bagan and Nyaung Oo areas were selected as the survey area because they are a tourism region having more tourists than the rest of the country's tourist sites. The total population of male and female, religion, occupational distribution of local residents in Nyaung Oo Township are expressed in Table (4.2), Table (4.3) and Table (4.4). Table (4.2) shows the distribution of population in Nyaung Oo Township.

Table (4.2) Distribution of Population in Nyaung Oo Township (2018)

Urban/Rural Area	No. of Households	% of total Households	Total Population			
			Male	Female	Total	% of Total Population
Urban	11206	20.10	23692 (46.60%)	27149 (53.40%)	50841	20.41%
Rural	44537	79.90	90932 (45.86%)	107369 (54.14%)	198301	79.59%
Total	55743	100	114624	134518	249142	100%

Source: Annual Report from General Administration Department, Nyaung Oo (2018)

The statistics of Table (4.2) shows the total number of households is 55743 with a total population of 249142, consisting (46.01 %) male and (53.99 %) female in Nyaung Oo Township. In this township, 50841 people lived in the urban area whereas the rest of 198301 people lived in the rural areas with 20.41% urban and 79.59% rural respectively. Table 4.3 describes religion in Nyaung Oo Township.

Table (4.3) Religion in Nyaung Oo Township (2018)

Sr. No.	Town	Number of Persons				
		Buddhist	Christian	Muslim	Other	Total
1	Nyaung Oo	228936	18	133	51	229138
2	Bagan	13469	16	-	-	13485
3	Ngathayauk	6519	-	-	-	6519
		248924	34	133	51	249142

Source: Annual Report from General Administration Department, Nyaung Oo (2018)

According to Table 4.3, most locals in Nyaung Oo Township are Buddhists (approximately 99.91 %), and minority are Christians. The total number of Muslims is a few percentages in the township (see in table 4.3). Altogether there are 384 monasteries and 9 nun-monasteries in the township. The distribution of the local population's occupation is essential for heritage tourism as it impacts on the economic conditions of this tourism destination in Bagan.

**Table (4.4) Occupational Distribution of Residents in Nyaung Oo Township
(2018)**

Sr. No.	Type of Occupation	Number of Employee	Percent of Total Employee
1	Government	3890	2.80
2	Service	24898	17.94
3	Agriculture	31328	22.57
4	Livestock Breeding	2078	1.50
5	Whole Sale & Retails	3768	2.71
6	Manufacturing	1208	0.87
7	Waterway	903	0.65
8	Causal	42829	30.85
9	Others	27914	19.85
10	Total	138816	100

Source: Annual Report from General Administration Department, Nyaung Oo (2018)

Among the employed, employment in the agriculture sector is (22.57%), whereas the service sector employment is (17.94%) and government sector employment is (2.8%). Likewise, agriculture is the major economic sector in Nyaung Oo Township. Major crops consist of paddy, groundnut, sesame, green mung bean, pigeon pea and vegetables essential for food supply providing hotels and restaurants.

Agriculture stands as a major provider of income for locals in the Bagan area. When the tourism was expanded many years ago, hotels, restaurants, tour companies, transportation enterprises was developed. Along came the increased number of jobs associated with these developments. In 2018, there were 85 hotels, motels, guest houses with accommodation of 3019 rooms. Later on totally 218 restaurants, 12 tour companies, 407 licensed tour guides and 293 regional tour guides appeared in Nyaung Oo Township.

These developments were seen as a significant contribution to the employment of local community in Bagan. It was observed that causal workers were (30.85 %) of total employment while others were only (19.85 %) of total employment. Most causal workers worked in construction works as masons, brick baking works, carpenters and helpers in retail shops and small firms. Others worked in cottage industries, textile business, lacquer-ware enterprises, and gold smith enterprises.

Besides, there are also two large bazaars namely Nyaung Oo bazaar and Bagan bazaar. Regarding trade, agriculture products like groundnuts, sesame, jaggery, plums and its seeds, tobacco leaves, ponyegy (bean paste), lacquer-ware were traded to Mandalay. Also, products like jaggery, tamarind, tobacco leaves and ponyegy (bean paste) have been used as regional trade to Yangon. Rice, salt, coconut oil, fish paste, dried fish and other consumer goods are imported from Yangon.

4.2 Research Design

The research was undertaken by the application of Key Informant Interviews (KII) as the qualitative method. Regarding quantitative methods, descriptive and inferential method are used to measure the “impacts of tourism development”, effects of preventive measures adopted by stakeholders and “cultural heritage conservation” in Bagan. The three impacts of tourism development (economic impacts, cultural impacts and environmental impacts) and the preventive measures adopted by stakeholders (Government, UNESCO, INGOs & NGOs and local populace) are treated with the “five-point Likert scale” questionnaire. On the other hand, secondary data are taken from various sources such as “Directorate of Hotel and Tourism” (Bagan) under the “Ministry of Hotels and Tourism”, “Department of Archaeology” under the “Ministry of Religious Affairs and Culture”, “General Administrative Department”, Central Statistical Organization, published reports, conducted research papers concerning with impacts of tourism development and cultural heritage conservation from journals, various fields and internet.

Target Population: For quantitative analysis, the target population of the survey was permanent residents of 18 years of age and above from the Bagan – Nyaung Oo areas. Most residents involved tourism and cultural heritage sector of public and private firms such as tour guides, employees of hotels, employees of restaurants, Banks’ staffs, government museum’s staffs, staffs of “General Administrative Department”, wards’ administrators, “Department of Archaeology” staffs and etc. For qualitative analysis, the target population of the Key Informants Interview was government officials, a programme officer of UNESCO, popular pagodas trustees, members of Bagan Tourism Federation and local organization.

Sample Size Determination: Primary data were collected by interviewing with residents from Nyaung Oo and Bagan. Two-stage stratified sampling method was used and the first-stage sampling, wards were randomly selected from Nyaung

Oo and Bagan. Ward 3, ward 4, ward 5 and ward 7 were selected from Nyaung Oo, and Kyansitta, Anawrahta and Thiripyitsaya were selected from Bagan. In the second-stage sampling, households were randomly selected from these selected wards by using proportional stratified random sampling method. A target household was 5864 households from seven selected wards. The selected “sample size” was 375 households. Table (4.5) shows sample households from wards in Nyaung Oo and Bagan (2018).

Table (4.5) Sample Households from Wards in Nyaung Oo and Bagan (2018)

Sr. No.	Word/Town	Number of Households	Number of Sample Households
1	Wards3/NyaungOo	1146	73
2	Wards4/NyaungOo	798	51
3	Wards5/NyaungOo	1205	77
4	Wards7/NyaungOo	388	25
5	Kyanzitta/ Bagan	784	50
6	A Nawrahta/ Bagan	1073	69
7	Thiripyitsaya/Bagan	470	30
	Total	5864	375

Source: Annual Report from Government Administrative Department, Nyaung Oo District (2018)

According to Krejcie and Morgan (1970) the required “sample size” used the acceptable margin of error 5% for categorical data. The required “sample size” is

$$n_0 \geq \frac{pq z^2}{e^2} = \frac{0.5 (0.5) (1.96)^2}{(0.05)^2} = 384$$

Where, $p = 0.5$ (maximum possible proportion)

$e = 5\%$ (acceptable margin of error for proportion)

$z = 1.96$ for 5% significance level

The number of households in selected wards was 5864 and the number of selected households (sample size) was 384. Since this “sample size” exceeds 5% of

the population ($5864 \times 0.05 = 293$), Cochran's (1977) correction formula should be calculated the final sample size. Therefore, the final "sample size" becomes

$$n = \frac{n_0}{1 + \frac{n_0}{N}} = \frac{384}{1 + \frac{384}{5864}} = 360$$

Assume that response rate was 96%. Therefore, the required "sample size" was ($360/0.96 = 375$) 375 households.

Data Collection: To obtain accurate results and be effective in undertaking surveys and the Key Informant Interviews (KII), the training for the interviewers was conducted in the first week of May. In this course, the researcher explained the objectives of undertaking this research, the difficulties and challenges that might encounter during the survey and the concerning of questionnaires and selecting the respondents. 5 interviewers were recruited after giving training on interview techniques and survey procedures. The survey and the Key Informant Interviews (KII) were undertaken from May 2018 to November 2018 using two-structured questionnaire for residents and KII. It was conducted with 375 respondents and the KIIs were undertaken with 20 participants from various areas.

Questionnaire Design: Regarding the questionnaire was constructed to collect the information about tourism development and its impacts, preventive measures of the stakeholders and conservation in Bagan.

The primary data were collected by using two structured questionnaire for survey and KII which contained three parts: part one included background data of the residents and part two dealt with KII. The questionnaire for KII consisted of 18 questions was constructed when discussing with 20 stakeholders at various levels. Part three described the quantitative research with 375 Stakeholders. Questions were designed to answer the perception of various residents on the impacts of tourism development, effects of preventive measures of stakeholders and heritage conservation in Bagan. These factors had different items measured by "five-point Likert scale" questionnaire (from 1= "strongly disagree" to 5= "strongly agree"). After collecting data of the perceptions of residents from Bagan Nyaung Oo area, descriptive statistics and multiple regression analysis were conducted.

4.2.1 Analytical Methods

Cronbach's alpha is measured the reliability of the questionnaire items. Data are reliable if appear consistent and several checks lead to no deviation. Ensuring reliability can help get rid of biasness and minimizing errors (Amaratunga et al, 2002). Another measure of reliability is the "internal consistency" of the items. The reliability of the measurement instrument was assessed by Cronbach's alpha.

Multiple regression analysis is examined which independent variable is most important in describing this study's relation between variables. The general model for "regression analysis" is:

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \dots + \beta_k X_{ki} + \varepsilon_i$$

Where:

$$i = 1, 2, \dots, n$$

$$j = 1, 2, \dots, k$$

Y_i = i^{th} observation of the dependent variable

X_{ij} = i^{th} observation of the j^{th} independent variable

β_k = Regression coefficient of X_k

ε_i = i^{th} independent identically distributed normal error

The assumptions of multiple linear regressions are as follow:

- 1) The relationship between the independent variables and dependent variables must be linear.
- 2) All variables must be normal.
- 3) There is no multicollinearity in the independent variables.
- 4) There is no autocorrelation in the data.
- 5) The variance of error term is homoscedasticity for all observations.

4.2.2 Measured Research Variables of the Model

The model comprises seven independents variables such as residents' perceptions of "economic impacts", "cultural impacts", "environmental impacts" of tourism development, and effects of preventive measures adopted by stakeholders (Government, UNESCO, INGOs & NGOs, and Local Community) and one dependent variable is the perceptions of "cultural heritage conservation" in Bagan. All measured variables are rated on a "five-point Likert-type scale" with 'strongly

disagree’, ‘disagree’, ‘neutral’, ‘agree’ and ‘strongly agree’. The measured variables of the model are conducted in the followings.

(a) Economic impacts

This study focuses on the residents’ perception on economic impacts on the heritage conservation in Bagan. Six items are applied to measure it.

- (i) Tourism revenue from local businesses supports to the conservation.
- (ii) Donations by individual, local people and tourists contribute for the conservation.
- (iii) Tourism generates substantial tax revenues which support conservation (Airport tax, hotel tax, license fees, income tax and tax on sales and etc.).
- (iv) Tourism development has increased demand for handicrafts such as painting, woodcarving, lacquer ware and handlooms which results in cultural restoration.
- (v) The increased number of jobs in the community (tour guides, attendants, photographers, security personal and curio sellers) has helped conservation.
- (vi) Entrance fees contribute to heritage conservation.

(b) Cultural Impacts

This study mentions the residents’ perception on cultural impacts on the heritage conservation in Bagan. Four items are applied to measure it.

- (i) Tourism development promotes cultural exchange.
- (ii) Tourists can appreciate and learn valuable traditional culture.
- (iii) Tourism development maintains customary practices and ethnic of historical area of heritage sites.
- (iv) Bagan tourism has raised cultural awareness.

(c) Environmental Impacts

It explores the residents’ perception on environmental impacts on the heritage conservation in Bagan. Six items are applied to measure it.

- (i) Tourism development increases tourist’s traffic in Bagan.
- (ii) Climbing on monuments.
- (iii) Garbage in Bagn.
- (iv) Lack of drainage and sewage disposal systems.

- (v) Vandalism and graffiti
- (vi) Driving vehicles around and close to monuments

(d) Effects of Preventive Measures of Government

It explores the residents' perception on the preventive measures of government in Bagan. Four items are used to measure the government involved in conservation in Bagan.

- (i) The preservation of heritage improved after implementing the protection of cultural heritage region law.
- (ii) Government takes responsibility and tried to promote Bagan
- (iii) Government has collaborated local and international organizations for conservation in Bagan.
- (iv) DOA (Bagan) promotes capacity building for conservation.

(f) Effects of Preventive Measures of UNESCO

It explores the residents' perception on the preventive measures of UNESCO involved in conservation is measured by five items. The five items are as follows:

- (i) UNESCO has provided "emergency assistance" for sites "in immediate danger".
- (ii) UNESCO has supported close consultation for safeguarding cultural heritage in Bagan.
- (iii) UNESCO has provided safeguarding Bagan cultural heritage by professional trainings.
- (iv) UNESCO has supported safeguarding Bagan cultural heritage by providing technical assistance.
- (v) UNESCO contributes awareness for heritage conservation.

(g) Effects of Preventive Measures of INGOs & NGOs

It explores the residents' perception on the preventive measures of INGOs & NGOs involved in conservation is measured by five items. The five items are as follows:

- (i) INGOs have contributed to funding for conservation in Bagan.
- (ii) INGOs & NGOs have supported to in-kind collaboration for preservation in Bagan.

- (iii) INGOs & NGOs have provided preservation through sustainable tourism development.
- (iv) INGOs support public awareness campaigns for safeguarding cultural heritage property.
- (v) INGOs & NGOs should cooperate with government and local populace for preservation.

(h) Effects of Preventive Measures of Local Community

It states the residents' perception on the preventive measures of the local community involved in conservation is measured by five items. The five items are as follows:

- (i) Local community needs to be involved in the restoration and preservation of heritage.
- (ii) Local community should actively participate in heritage planning and management.
- (iii) Local community owns rich knowledge of local social, cultural and traditions.
- (iv) Local community carries out rituals and celebrations to maintain the heritage.
- (v) Local community involves in cultural heritage tourism development.

(i) Cultural Heritage Conservation

It represents the residents' perception on the conservation is measured by seven variables. The seven items are as follows:

- (i) Tourism development helps in preserving cultural identity (e.g. food, language, religion, physical ability, ethnicity and socio-economic status and so on) of the host population.
- (ii) Cultural Knowledge and attitude lead to better cultural heritage preservation and less harm to the heritage assets.
- (iii) Responsible visitors' behaviour making by employing heritage guides support to the conservation of the heritage sites.
- (iv) Legal protection could be taken against anyone who neglects the cultural heritage value for restoring cultural heritage assets.
- (v) Revitalization of traditions, weaving and handicraft through tourism development support restoration of culture.
- (vi) Funding is essential to support the heritage conservation

(vii) Using appropriate conservation techniques for conservation according to guidelines of UNESCO.

4.3 Demographic Characteristics of Respondents

This section provides a description of the demographic data of respondents including sex, age, occupation, education level, sources of income, whether they are native in Bagan or Nyaung Oo or others, and whether they participated in conservation of cultural heritage or not. This summary table of the demographic characteristics of respondents is shown in Table (4.6).

Gender can be divided into two categories such as male and female. Also age group has six groups: 15-25, 25-35, 35-45, 45-55, 55-65 and above 65. Occupation has nine groups: daily worker, government staff, professional, private organization staff, self-employed, retired, volunteer, student and unemployed. Education level has six groups: monastery education, primary education, middle education, high school education, university and above and others. Major income sources of households are tourism, hotel, tourism transportation, cultural-oriented services, tourism related work, trading and others.

Table (4.6) Demographic Characteristics of Respondents

Variables	Number of Respondents	Percent (%)
Gender		
Male	182	48.5
Female	193	51.5
Age		
15-25	61	16.3
25-35	157	41.9
35-45	81	21.6
45-55	51	13.6
55-65	18	4.8
65-80	7	1.9
Occupation		
Daily Worker	16	4.3
Government Staff	151	40.3
Private Organization Staff	142	37.9
Professional	6	1.6
Self-employed	42	11.2
Retired	4	1.1
Volunteer	2	.5
Unemployed	12	3.2
Education Level		
Middle Education	20	5.3
High School Education	84	22.4
University and above	256	68.3
Others	15	4
Income Sources		
Tourism related work	78	20.8
Hotel	87	23.2
Tourism Transportation	21	5.6
Cultural Oriented Services	2	0.5
Others	187	49.9
Native		
Yes	271	72.3
No	104	27.7
Duration of stay in Nyaung Oo		
Within 1 year	14	3.7
Between 1-3 years	36	9.6
Between 3-6 years	37	9.9
6 years and above	288	76.8
Participation		
Any activities for conservation	137	36.5
No activity	238	63.5

Source: Survey Data 2018

Table (4.6) shows the study's respondents were mostly female (51.5%) and male (48.5%). Then, respondents were categorized into six age groups: 15-25 years (16.3%), 25-35 years (41.9%), 35-45 years (21.6%), 45-55 years (13.6%), 55-65 years (4.8%) and 65-80 years (1.9%). Most respondents are between 25 to 45 years.

Moreover, most respondents were worked in government sector (40.3%), second as private organization staff (37.9%), self-employed (11.2%), daily worker (4.3%), professional (1.6%), Retired (1.1%), volunteer (0.5%) and unemployed (3.2%). Most respondents had university degree and above (68.3%), high school education (22.4%), middle school education (5.3%) and others (4%). Among 375 respondents, 188 of those (50.1%) earned tourism related activities: tourism related work (20.8%), hotel (23.2%), tourism transportation (5.6%), cultural oriented services (0.5%) and (49.9%) are income from other jobs. Majority of respondents are natives (72.3%) and the most duration of stay of residents in Bagan is more than 6 years (76.8%), between 3 to 6 years (9.9%), between 1 to 3 years (9.6%) and within 1 year (3.7%). Most respondents participated in "cultural heritage conservation" (36.5%).

4.4 Feedback from Key Informant Interview (KII)

Using the qualitative approach, various stakeholders from different organizations involved in tourism sector and cultural heritage conservation were invited to discuss their perceptions on the impacts of tourism development on the nation's cultural heritage assets.

Key Informant Interviews were conducted with 20 participants, including eight government officials from "Department of Archaeology" (Bagan Branch) under the "Ministry of Culture", "Directorate of Hotel and Tourism" (Bagan Branch) under the "Ministry of Hotels and Tourism" and "General Administrative Department" (Bagan); one from National Project Office of UNESCO; seven from Bagan Tourism Federation such as Bagan Hoteliers Association (two), Bagan Tourists Guides Association (two), Bagan Tourist Transportation Association (one), Bagan Souvenir Entrepreneurs Association (one) and Bagan Restaurants Association (one); one member of Heritage Trust; one ward administrator from Naung Oo township and two Pagodas Trustees in Bagan. All these interviews were conducted during May to November, 2018. This discussion was mainly emphasized on "impacts of tourism development", the role of stakeholders and policy implication for "cultural heritage

conservation” in Bagan. The demographic profile of respondents for key informant interview is shown by Appendix (C).

The perception of government officials, national project officer of UNESCO, pagoda trustees, one member from Heritage Trust, local tourist guides, an owner of handicraft enterprise, a hotel manager and owner of tour taxi were asked for concerning with “the impacts of tourism development” and stakeholders being involved in conservation affect the “cultural heritage conservation” in Bagan. The questionnaire for KII consists of three parts. Part one is tourism in Bagan and its impacts; Part two is involvement of government bodies for safeguarding the “cultural heritage sites” in Bagan and Part three deals with the contributions of stakeholders involving UNESCO, INGOs and NGOs, pagodas trustees and also local community’s involvement in safeguarding and protection of Bagan cultural heritage sites. 18 questions were constructed to cover the above three areas when discussing with the stakeholders at various levels.

(I) Impacts of Tourism in Bagan

Firstly, the questionnaire deals with the reasons why Bagan is famous for, carrying capacity, impacts of tourism development: benefits and costs of economic effects, culture effects and environmental effects of tourism development.

A local tourist guide remarked, “*Bagan attracts many visitors because it has various interesting places near Bagan such as Mount Popa, Salay, Law KaNandar and Zee O Forest besides pagodas and temples*” (Interviewee no.12)

Another local tourist guide expressed that “*Bagan involves more than 3500 surviving stupas, temples, monasteries, fortifications and other monuments and, set in an extensive landscape that also features archaeological deposits and remaining ancient water-management system*”. (Interviewee no.13)

One respondent said “*I believe that having a good tourism means having a good heritage site*” The main reason of increasing many visitors coming to destination is the highest value of the heritage in Bagan”. (Interviewee no.18)

One respondent claimed that “*Local and foreign visitors were increasing year by year because of better communications and transportation facilities, tourism infrastructure, media, and the nature in Bagan. Additionally, foreign visitors enter Bagan for different purposes: relaxation, regional and handicraft knowledge, business and academic studies*”. (Interviewee no. 10)

One respondent expressed, *“Tourism and culture heritage are interrelated and supported to each other; it can be developed for cultural heritage and it can be survived for tourism industry”*. (Interviewee no.5)

One government staff officer from Department of Archaeology (Bagan Branch) said that *“In my opinion, Bagan is a valuable heritage and a Buddhist site thus; tourism should have positive consequences on the Bagan heritage area and not negative effects”*. (Interviewee no.4)

As one respondent said that *“Carrying capacity in Bagan, I think the visitors coming to Bagan are less numbers than the acceptable capacity to be balanced between the tourism developments and maintaining the culture heritage in Bagan”*. (Interviewee no.2)

Regarding the response of Key Informant Interview, the findings are as follows: “natural heritage and cultural heritage” assets can be existed in Bagan cultural heritage zones. Moreover, the existing “outstanding universal value” of religious monuments and the growth of services sector in Bagan and its related areas and thus, the tourism sector significantly developed in those areas.

Economic Effects of Tourism Development

The questionnaire mainly focused on benefits and costs of “tourism development” in Bagan. The impacts of tourism in Bagan have both positive and negative effects. For the local populace development, tourism sector is vital to provide the livelihoods of local people in Bagan. It is said that *“Tourism development supported the livelihoods of the local people such as handicrafts and agricultural products, traditional lacquer ware production, traditional painting, silver ware and building craft: masonry works and carpentry, sand painting and soybean production”* (Interviewee no.6)

One respondent remarked *“I think the local related-businesses have been improved because the visitors buy local goods and souvenirs and the local residents in Bagan depend on the businesses such as hotel, guesthouses, other accommodations, restaurants, cane enterprises and handicraft enterprise supporting Bagan, e.g. cooperating in the rehabilitation process after happening the earthquake (2016) and building lampposts in the areas”* (Interviewee no.14)

Another respondent said that *“Through tourism industry, income and job opportunities such as particularly working in hotels, restaurants, as tour guides, sand painting drawing, taxi driving, e-bike renting, brick baking, etc. have been achieved in Bagan”* (Interviewee no15)

One member of Pagoda Trustee expressed that *“Tourists spend their expenditure mostly on tourism-related businesses. Thus, donations from local businesses can be advantageous for conservation of heritage”* (Interviewee no16)

Another Pagoda Trustee remarked that *“Donations from local visitors and tourists in Bagan-Nyaung Oo region are also funding for the pagodas conservation”* (Interviewee no16)

One respondent said that *“Together with the growth of tourism related businesses in Bagan-Nyaung Oo region, the government revenue from taxation also increase. So, these earnings can provide for conservation and regional development”*. (Interviewee no.15)

Another respondent also mentioned *“There will be more tourists visiting Bagan because of tourism development and also Bagan now has a World Culture Heritage Status and thus, more hotels and motels, restaurants and tourism facilities to accommodate these tourists”* (Interviewee no.9)

In regards of tourism-related businesses in Bagan positively contributes to local residents and their customary and Myanmar hand-made businesses. It leads to sustainable conservation in Bagan. The earnings from tourism-related businesses should be funded in both activities of “cultural heritage conservation” and development programs. Thus, it should control over commercialization on the growth of tourism-related businesses and it does not harm the “cultural heritage assets”.

Socio-Cultural Effects of Tourism Development

One pagoda trustee said that *“Although Bagan possesses more than 3000 pagodas; only 17 of the most visited have the administrative teams called Pagoda Trustee. Thus, the government officials should maintain the remaining pagodas in Bagan. Thus, not having Pagodas Trustees and no security, many alcoholics, both local and foreigners can have in the Bagan Archaeological Area.”* (Interviewee no.16)

One respondent expressed that *“Few local young people do not value their own custom and culture, trying to imitate foreign customs especially clothing and living style” (Interviewee no.19)*

One local tour guide said that *“The Pagodas Trustees have responsibility not to give permission for visitors who wear improper attire” (Interviewee no.19)*

One respondent expressed that *“In exchanging local culture and culture from different nationalities, local residents come to understand their own cultural standards and values more” (Interviewee no.3)*

As one respondent said, *“More tourists arrival in Bagan, the locals have more opportunities to display cultural activities and identities to others” (Interviewee no.4)*

Another respondent said that *“Tourism causes social knowledge being enriched and the separate existence of culture heritage can be known in Bagan” (Interviewee no.1)*

One respondent expressed that *“The culture from Myanmar and others can be comparatively studied” (Interviewee no.3)*

One respondent told that *“Different people with different cultural backgrounds enter into the country and they can negatively affect social, cultural, traditional and religious buildings and different social interactions entering into Myanmar society. Thus, this threatens the cultural values within community” (Interviewee no.1)*

Regarding authenticity and integrity, negative cultural effects, one respondent expressed this saying *“The establishment of big new hotels in front of or around ancient pagodas should not be really matched with remaining archaeological buildings and cultural practices. New modern hotels and ancient pagodas should not have within the same compound” (Interviewee no.1)*

“There are some ancient pagodas within the compounds of big hotels including ThiriPyitSayar, Adin and Sakura cannot be reached by the worshippers and those ancient pagodas cannot be maintained and the public should have access to these pagodas” (Interviewee no.1)

Regarding socio-cultural effects, the people around the world are concentrated in Myanmar cultural, customary practices, and religious activities and festivals. As tourism development, Myanmar cultural identities like culture and custom, language, literature, food and clothing of ethnic people can be worldwide well-known. Also, the local populace can learn culture and custom of tourists worldwide. Therefore, the

more positive effects can have rather than negative effects related to socio-cultural effects in Bagan. Besides, pagoda trustees and the local populace should maintain the cultural heritage assets by employing sufficient pagoda police securities in thousands of Bagan pagodas.

Environmental Effects of Tourism Development

Government officials, local organizations and Bagan Tourism Federation referred to their well experienced status with some issues for tourism in Bagan. Most respondents stated about the negative environmental effects on “cultural heritage sites” in Bagan.

“An influx of many tourists can also negatively affect Myanmar’s heritage; although it have some restrictions for climbing up the pagodas and watching the sunrise and sunset view, international tourists like to do the prohibited activities. Climbing on the monuments is too dangerous for visitors because the bricks of the pagodas are very old and it creates vibrations and instability of the pagodas in Bagan” (Interviewee no.2)

“More waste and rubbish and undisciplined waste disposal are the negative consequences of tourism in Bagan” (Interviewee no.2)

“During the holiday seasons in Bagan, it is unavoidable to encounter traffic jams for highway express buses and unsystematic cars’ parking. Moreover, when the big tour buses driving near and around that area; the ancient pagodas and temples can be seriously damaged” (Interviewee no.11)

“Allowing stalls and vendors near pagodas and temples negatively effect on good visual environment which cause the worshippers feel uncomfortable and thus, the responsible authorities should manage systematically such that the stalls and vendors near the temples do not disturb the tourists and worshippers” (Interviewee no.3)

“As tourism grows in Bagan, cultural heritage landscapes have been replaced by hotels, motels, restaurants, transportation aids, tourism facilities and modern buildings cannot be harmonious with preservation sites” (Interviewee no.4)

“Where tourism development has happened, there are more physical effects: graffiti, vandalism and waste, thus it should be pre-planned rules for those sites” (Interviewee no.2)

“There are some issues like going on picnic in cultural areas and shooting pre-wedding pictures and commercial videos which can affect the image of the sites. Now, it is lack of review to conserve the heritage sites” (Interviewee no.7) and one interviewee stated that “The actions against the cultural image like pre-wedding shooting should be prohibited” (Interviewee no.3)

“As a tourism attraction, installation of air-conditioners in ALo-Taw-Pyae pagoda can damage micro climates. Bagan cultural heritage site is in the dry zone, which cannot stand the moisture and in the harmonious condition of brick and mud” (Interviewee no.3)

“Renovating the ancient temples and pagodas can lose the authenticity and integrity. Modern designs should not be allowed when inactive monuments are conserved to be living one” (Interviewee no.2)

Thus, the legal framework should be monitored and the multi-sector should join together with the local populace for preservation. For tourism development, tourism management plans, integrated management frameworks and action plans are carried out. Engagement and genuine two-way communication and transparency by businesses with stakeholders have historically been absent. The State must accept the international participation and local community’s intervention. When Bagan was recognized by UNESCO, it will get technical transfer, financial aid and International Corporation.

Regarding environmental effects, the government should monitor the construction of hotel zones in Bagan. The tourism related transportation, setting the official distance between the monuments and the driving lane for the high-speed drive of tourism buses. Also, to prevent the rubbish throwing in those areas, the public and the local populace should set the signposts and notices on rubbish throwing in those sites. The local visitors and tourists should aware for showing respect on national and world heritage of Bagan region.

(II) Role of Government for Cultural Heritage Conservation

Moreover, in part two of the questionnaire for KII deals with effects of heritage preservation after implementing the “Protection of Cultural Heritage Region Law”, enacted in 1998 and 2009, results of building control plans for the “preservation zone” and the entrance fee and museum fees support to conservation in Bagan.

One respondent remarked that *“In 1996, when the tourism started to grow, it was defined and tourism promotion was favoured but preservation was weak and the wrong performance was seen. The proper government policy should be adopted for heritage sites” (Interviewee no.2)*

Another respondent expressed that *“After the Cultural Heritage Protection Law (2009) was set, there has been a protection against threats to some extent and a protection for the pagodas and historical ancient buildings in those area and they become better after the law had been enacted” (Interviewee no.14)*

One respondent expressed that *“The Protective Zone has been systematically conserved after the direction for conserving building was instructed by the government” (Interviewee no.3)*

One respondent remarked *“Department of Archaeology has maintained 375 monuments; grade I (7) monuments, grade II (16) monuments, grade III (232) monuments and others (20). (Interviewee no.4)*

One respondent expressed that *“Department of Archaeology performs research work for safeguarding in those sites: maintaining the paintings and conducting field research and excavation at cultural landscapes; inspection of ancient materials, keeping and taking photos records for conservation; maintaining accessories in ancient buildings; interviewing business owners and pagodas trustee for maintaining it.”(Interviewee no.3)*

One respondent said that *“The governmental funds such as zone fee and museum fee are provided for preservation in Bagan Region, and it is still insufficient for it while donations are for emergency conservations and also for regular conservation” (Interviewee no.15)*

One respondent expressed that *“Tourism revenue such as zone fees, museum fees, hot air balloons fees and other revenues should be shared for preservation in Bagan” (Interviewee no.7)*

Concerning with the responsibility of government on conservation, it should set laws, rules and regulation on the preventative measures. It is required to balance between tourism and maintaining the sites, not focusing only on one side. Also, the funding should be raised to undertake capacity building programs and programs for visitors' awareness related to preservation.

(III) The Contributions of UNESCO, INGOs & NGOs and Local Community

Furthermore, Part three of the questionnaire for Key Informant Interview is the collaboration of multi-organizations which conserve the heritage sites. Moreover, local community's attitude, cultural knowledge and awareness reduce negative consequences in Bagan.

One respondent expressed that *“The Government had carried out cultural heritage plans in cooperation with international organizations: UNESCO, ICOMOS, ASI and China Engineering Group” (Interviewee no.14)*

One respondent remarked *“UNESCO has closely participated in providing technical assistance for conservations and consulting the current system in Bagan”(Interviewee no.4)*

Another respondent said that *“Financial support was obtained for conservation after the earthquake in 2016 from Italy, Switzerland, Japan, National Federation of UNESCO, Association of Japan, WB and Heritage Emergency Fund” (Interviewee no.3)*

One respondent also mentioned that *“Department of Archaeology with UNESCO undertook in-kind collaboration from multi-organizations: Association of Myanmar Architects, Myanmar Engineering Society, Heritage agencies and INGOs including ICCROM, National Research Institute for Cultural Properties Tokyo and JICA”(Interviewee no.4)*

One respondent said that *“The local people must take care of property and monitored for sustainable cultural heritage assets” (Interviewee no.10)*

Another respondent expressed that *“Local communities must continue their customary practices and traditional activities for maintaining the culture in Bagan” (Interviewee no.11)*

One respondent expressed that *“Local organizations: Bagan Plastic Campaign, Bagan Regional Development and Bagan Heritage Trust are now undertaking activities: cleaning the garbage and plastics for preserving national assets” (Interviewee no.5)*

One Pagoda Trustee claimed that *“Based on the guidance of MORAC, the some Pagoda Trustees are now maintaining the pagodas in more durable form. We mainly take responsibilities of relocating donations under the guide lines of DOA and General Administration Department on conservation and other areas, cleaning and the securing of the pagodas”(Interviewee no.16)*

Another pagoda trustee said that “*We have to organize the pagoda and religious festivals*” (Interviewee no.17)

One local tourist guide expressed “*I try to explain about the pagoda, the customs of Myanmar people, the local food and festivals taken place throughout the year.*” (Interviewee no.12)

Regarding the collaboration of multi-organizations on preservation those sites, it can be studied the important role of the UNESCO and multi-organizations in activities in conservation. It is needed to have mutual understanding in implementing those activities and programs within these organizations.

Currently the government, MOHT should expand collaboration of INGOs, NGOs and Local Social Organizations. Through this cooperation, the monuments should be conserved in Bagan. The Local Social Organizations must have the knowledge about cultural heritage. As Bagan is a World historical heritage place in Myanmar, an online promotion about tourist attractions should be enhanced. If the stakeholders in the tourism sector and that “cultural heritage conservation” should cooperate, those cultural heritage sites will be improved.

4.5 Analysis of Survey Data

This section represents the analysis of the survey data including reliability test, descriptive analysis of measurement scale and multiple regression analysis for tourism impacts, preventive measures of stakeholders and cultural heritage conservation in Bagan. Appendix (D) describe the SPSS output.

4.5.1 Reliability Test

It is the commonly used coefficient of internal-consistency. The coefficient values for reliability range between 0 and 1. A coefficient of 0 does not mean reliability and 1.0 for reliability to excellence. Since all tests have some mistake, they never have 1.0. A Cronbach’s alpha and composite reliability estimate of 0.70 or higher indicate that the measurement scale that is used to measure a construct is acceptable.

Table (4.7) Results from Reliability test

Factors	Reliability Cronbach's Alpha	No. of Item
Economic impacts	0.861	6
Cultural impacts	0.760	4
Environmental impacts	0.746	6
Effects of preventive measures of Government	0.816	4
Effects of preventive measures of UNESCO	0.727	5
Effects of preventive measures of INGOs & NGOs	0.694	5
Effects of preventive measures of Local community	0.843	5
Cultural heritage conservation	0.834	7

Source: Survey Data (2018)

According to Table (4.7), reliability test for economic impacts, cultural impacts and environmental impacts, their Cronbach's alpha value are greater than the recommended value 0.7. These results reveal that internal consistencies of these factors are acceptable. Reliability test for effects of preventive measures of stakeholders except INGOs & NGOs, their Cronbach's alpha value are more than the recommended value 0.7. These results observe that internal consistencies of these factors are reliable. Reliability test for cultural heritage conservation, Cronbach's alpha value 0.834 is greater than the recommended value 0.7. The results of reliability, the computed Cronbach's values for all factors except INGOs & NGOs are more than 0.7. Thus, these statistical results are acceptable.

4.5.2 Descriptive Analysis of Measurement Scale

Descriptive results are the mean values of the observed variables which are respondents' perceptions of impacts of tourism development; preventive measures of stakeholders and conservation in Bagan.

(1) Economic Impacts

It is measured by 6 items and the following table presents the respondents' agreement regarding economic impacts.

Table (4.8) Perceptions on Economic Impacts

Sr. No.	Particular	Mean	Standard Deviation
1	Tourism revenue from local businesses supports the heritage conservation.	4.45	.605
2	Donations by individual, local people and tourists contribute funding for heritage conservation.	4.36	.454
3	Tourism generates substantial tax revenues which support heritage conservation. (Airport tax, Hotel tax, License fees, Income tax, and Sale tax)	4.27	.750
4	Tourism has increased demand for handicrafts which results in cultural restoration.	4.54	.515
5	The increased number of jobs in the community has helped conservation. (Tour guides, attendant, security personal and curio sellers, etc.)	4.52	.531
6	Entrance fees contribute to conservation in Bagan.	4.13	.719
	Overall Mean	4.38	

Source: Survey Data (2018)

Table (4.8) shows the perception on “economic impacts” score is high (greater than 3.5). It appears that the mean of respondents’ answer ranged from (4.13) to (4.54). The highest mean is for the statement: “Tourism development has increased demand for handicrafts which results in cultural restoration”. It is observed that tourism development promotes revitalization of handicrafts: lacquer ware, silver ware, woodcarving, sand paintings and bronze ware and basket weaving. The lowest mean value is for the statement “Entrance fees contribute to heritage preservation in Bagan”. It is indicated that 2 % of entrance fees provide for natural heritage conservation and other 2% for cultural heritage conservation. Although entrance fees support to conservation, this amount is insufficient for hiring experts and workers and research work for preservation.

The mean (4.45) indicates the statement: “Tourism revenue from local businesses supports the heritage conservation” because financial resources from tourism revenue provide the preservation for long-term use. However, mass tourism can threaten the sites and cause exceeding capacity leading to damage the heritage

areas. The mean (4.36) indicates the statement: “Donations by individual, local residents and tourists contribute funding for heritage conservation” because a donation provides for regular conservation. The mean (4.27) indicates the statement: “Tourism generates tax which provides conservation of heritage” because tourism tax revenue partially supports to preservation programs. The mean (4.52) indicates the statement: “The increased number of jobs in the community helps heritage conservation” because job creation from tourism sector such as tour guides, tourism officials, attendants, and security personals can maintain the heritage. The overall mean (4.38), the respondents agreed that the economic impacts on the preservation in Bagan.

(2) Cultural Impacts

It is measured with 4 items and the following table presents the respondents’ agreement regarding cultural impacts.

Table (4.9) Perceptions on Cultural Impacts

Sr. No.	Particular	Mean	Standard Deviation
1	Tourism development promotes cultural exchange	4.20	.632
2	Tourists can appreciate and learn traditional culture	4.34	.616
3	Tourism development maintains customary practices and ethnic of historical area of heritage sites.	4.19	.615
4	Bagan tourism has raised cultural awareness	4.43	.603
	Overall Mean	4.27	

Source: Survey Data (2018)

Table (4.9) shows the perception on cultural impacts score is high (greater than 3.5). The mean value of respondents’ answer ranged from (4.19) to (4.43).The maximum mean value is for statement: “Bagan tourism has raised cultural awareness” because tourism development results understanding of “Myanmar cultural heritage” which help to restore the national culture. Lack of knowledge can cause danger the national heritage because of human threats. Better knowledge of stakeholders supports more cultural heritage preservation and reduces the threats of human behaviour to the whole sites. The minimum mean value is for statement: “Tourism development maintains customary practices and ethnics of historical area”. People in

the world are known as Myanmar culture, customary practices, religious festivals and activities which can promote Myanmar cultural identities for cultural restoration.

The mean (4.2) indicates the statement: “Tourism development promotes cultural exchange” because it actually helps to improve cultural knowledge and promote international friendship and goodwill between local residents and international visitors. The mean (4.34) is for the statement “Tourists can appreciate and learn traditional culture”. It is indicated that tourists are great desire to pay respect and value for traditional culture. Indeed, the respondents perception have positive attitude as shown through the overall mean (4.27), most respondents feel that cultural impacts promote the restoration of “culture heritage” in Bagan.

(3) Environmental Impacts

It is measured with 6 items and the following table presents the respondents’ agreement regarding environmental impacts.

Table (4.10) Perceptions on Environmental Impacts

Sr. No.	Particular	Mean	Standard Deviation
1	Tourism development increases tourists’ traffic in Bagan	3.54	.619
2	Climbing on the monuments	3.66	.585
3	Garbage in Bagan	3.58	.644
4	Lack of drainage and sewage disposal systems	3.68	.623
5	Vandalism and graffiti	3.67	.582
6	Driving vehicles around and close to monuments	3.71	.602
	Overall Mean	3.64	

Source: Survey Data (2018)

Table in (4.10) shows the perception on environmental impacts score is high (greater than 3.5). The mean of residents’ answer ranged from (3.54) to (3.71). Maximum mean value is for statement: “Driving vehicles around and close to monuments” which causes vibration and instability of monuments because of traffic congestion, lack of car parking and air and noise pollution negatively affect on the monuments in Bagan. Thus, the government should limit above three-ton vehicles and trucks entering the Bagan sites and its surrounding areas. The minimum mean value is

for statement: “Tourists traffic in Bagan” which has damaged the heritage sites because my visitors may be danger for that area and visitors’ pressure may destroy the monuments. Stakeholders including government officials and local community have to monitor the visitors’ arrival to cultural heritage areas.

The mean (3.66) is for the statement: “Climbing on the monuments” which has caused instability of monuments because it can threaten the ancient structure in Bagan. The mean (3.58) is for the statement: “Garbage in Bagan”. It is observed that garbage destructs the aesthetic beauty of Bagan. As the tourists continue to grow, tourism should be carefully planned and managed concerning environmental impacts. Stakeholders should work together to protect the environment. The mean (3.68) is for the statement: “Lack of drainage and sewage disposal systems” which causes environmental degradation. The mean (3.67) is for the statement: “Vandalism and graffiti in Bagan” which can diminish authenticity of the heritage sites because it adversely affects the physical structure of monuments in Bagan. The overall mean (3.64) shows most agreed that environmental impacts can negatively effect on the heritage preservation in Bagan.

(4) Perception on Effects of Preventive Measures of Government

Effects of preventive measures of government are measured with 4 items and Table (4.11) presents the respondents’ agreement regarding effects of preventive measures of government.

Table (4.11) Perception on Effects of Preventive Measures of Government

Sr. No.	Particular	Mean	Standard Deviation
1	The conservation of culture heritage improved after implementing the protection of cultural heritage region law	4.13	.649
2	Government takes responsibility and tried to promote Bagan	4.23	.710
3	Government has collaborated local and international organizations for conservation of cultural heritage in Bagan	4.26	.500
4	Department of Archaeology promotes capacity building for heritage conservation	4.17	.687
	Overall Mean	4.20	

Source: Survey Data (2018)

Table (4.11) shows the perception on the effects of preventive measures of government score is high (greater than 3.5). The mean of residents' answer ranged from (4.13) to (4.26). The maximum mean value is for statement: "Government has collaborated local and international organizations for preservation in Bagan" because international collaboration could gain the international protection for cultural heritage. The minimum mean value is for statement: "The conservation of culture heritage improved after implementing the protection of cultural heritage region law" because "Ministry of Culture" demarcated "ancient monument zone", "ancient site zone" and "protected and preserved zone" which reduce the negative impacts in Bagan such as excessive development projects, garbage problems, traffic congestion and insufficient supply of facilities.

The mean (4.23) is for the statement: "Government takes responsibility and tried to promote Bagan" because Bagan "World Cultural Heritage" Status has better conservation such as international assistance supported by UNESCO including aid, education and technical cooperation. The mean (4.17) is for the statement: "DOA (Bagan) promotes capacity building for heritage conservation" because it raises the human resource development for preservation programs. The overall mean (4.20)

describes most respondents agreed that preventive measures of government support to the cultural heritage conservation in Bagan.

(5) Perception on Effects of Preventive Measures of UNESCO

It is measured by 5 items and Table (4.12) presents the respondents' agreement regarding effects of preventive measures of UNESCO.

Table (4.12) Perception on Effects of Preventive Measures of UNESCO

Sr. No.	Particular	Mean	Standard Deviation
1	UNESCO has provided “emergency assistance” for sites “in immediate danger”.	4.03	.450
2	UNESCO has supported close consultation for safeguarding cultural heritage in Bagan.	3.86	.694
3	UNESCO has provided safeguarding Bagan cultural heritage by professional trainings.	4.09	.479
4	UNESCO has supported safeguarding Bagan cultural heritage by providing “technical assistance”.	4.18	.469
5	UNESCO contributes awareness for heritage conservation.	4.17	.511
	Overall Mean	4.07	

Source: Survey Data (2018)

Table (4.12) shows the perception on the effects of preventive measures of UNESCO score is high (greater than 3.5). The mean of residents' answer ranged from (3.86) to (4.18). The maximum mean value is for statement: UNESCO has supported safeguarding Bagan cultural heritage by providing “technical assistance” because UNESCO provides the long-term rehabilitation of heritage and better conservation for it. The minimum mean value is for statement: “UNESCO has supported close consultation for safeguarding in Bagan” because advice of UNESCO is vital for maintaining the “world cultural heritage” status level.

The mean (4.03) is for the statement: UNESCO has provided “emergency assistance” for sites “in immediate danger”. It is observed that it immediately helped for earthquake in Bagan. The mean (4.09) is for the statement: “UNESCO has provided safeguarding Bagan cultural heritage by professional trainings”. It is

indicated that human resources development for heritage in Bagan. The mean (4.17) is for the statement: “UNESCO contributes awareness for cultural heritage conservation” because it has promoted the cultural knowledge for maintaining the heritage in Myanmar. According to overall mean (4.07), most respondents agreed that preventive measures of UNESCO help the restoration of heritage in Bagan.

(6) Perception on Effects of Preventive Measures of INGOs & NGOs

Effects of preventive measures of INGOs & NGOs are measured with 5 items and Table (4.13) presents the respondents’ agreement regarding effects of preventive measures of INGOs & NGOs.

Table (4.13) Perception on Effects of Preventive Measures of INGOs & NGOs

Sr. No.	Particular	Mean	Standard Deviation
1	INGOs have contributed to funding for conservation of heritage in Bagan	4.05	.451
2	INGOs & NGOs have supported to in-kind collaboration for conservation of heritage in Bagan	4.04	.553
3	INGOs & NGOs have provided cultural heritage conservation through sustainable tourism development	4	.499
4	INGOs support public awareness campaigns for safeguarding cultural heritage property	3.94	.518
5	INGOs & NGOs should cooperate with government and Local community for heritage conservation	4.01	.414
	Overall Mean	4.00	

Source: Survey Data (2018)

Table (4.13) shows the perception on the preventive measures of INGOs and NGOs score is high (greater than 3.5). The mean of residents’ answer ranged from (3.94) to (4.05).The maximum mean value is for statement: INGOs have supported to funding for conservation of heritage in Bagan. Financing is the major problem for conservation task. It is observed that providing the funding for conservation has maintained the sustainable the heritage in Bagan. The minimum mean value is for the

statement: “INGOs support public awareness campaigns for safeguarding cultural heritage property” because public awareness campaign has promoted the knowledge of cultural preservation for sustainable tourism development.

The mean (4.04) is for the statement: “INGOs & NGOs have supported to in-kind collaboration for conservation in Bagan”. In-kind collaboration with INGOs and NGOs provides monument conservation, decorative work and emergency treatment for nominations of “world cultural heritage”. The mean (4) is for statement: INGOs & NGOs have provided the preservation through sustainable tourism development. The multi-organizations have initiated the activities such as trees planting and waste management activities to reduce negative environmental effects. The mean value 4.01 is for the statement: “INGOs & NGOs should cooperate with government and local community for cultural heritage conservation”. It is realized that multi-organizations should be collaborated with public for regional development and sustainability of cultural landscape in Bagan. The overall mean (4.00) states most respondents agreed that preventive measures of INGOs and NGOs strengthen the heritage conservation in Bagan.

(7) Perception on Effects of Preventive Measures of Local Community

Effects of preventive measures adopted by local community are measured with 5 items and Table (4.14) presents the respondents’ agreement regarding effects of preventive measures of local community.

**Table (4.14) Perception on Effects of Preventive Measures of
Local Community**

Sr. No.	Particular	Mean	Standard Deviation
1	Local community needs to be involved the restoration and preservation of cultural heritage assets	4.34	0.558
2	Local community should actively participate in heritage planning and management	4.30	.533
3	Local community owns rich knowledge of local social, cultural and traditions	4.41	.514
4	Local community carries out rituals and celebrations to maintain the cultural heritage assets	4.44	.523
5	Local community involves in cultural heritage tourism development	4.54	.525
	Overall Mean	4.41	

Source: Survey Data (2018)

Table (4.14) shows the perception on the preventive measures of local community score is high (greater than 3.5). The mean of residents' answer ranged from (4.30) to (4.54). The maximum mean value is for the statement: "Local community involves in cultural heritage tourism development". The local populace play a vital role such as service providers, craftspeople, security personals and sellers, etc who are responsible to maintain and protect the "cultural heritage". The minimum mean value 4.3 is for "Local community has to participate in heritage planning and management" because coordination and collaboration of activities is vital for effective conservation process.

The mean (4.34) is for the statement: "Local community needs to be involved the restoration and preservation of cultural heritage assets". Restoration and preservation of the sites supports for long-term use. The mean (4.41) is for the statement: "Local community owns rich knowledge of social, cultural and traditions and dealing with local issues of tourism development". The local populace have capability to overcome the socio-cultural issues and reduce negative consequences of tourism. The mean (4.44) is for the statement: "Local community carries out rituals and celebrations to maintain the cultural heritage assets". The ancient customs, rituals,

festivals and culture are encouraged by local communities for restoration in Bagan. The overall mean (4.41) states most respondents agreed that preventive measures of local community take part in restoration of heritage in Bagan.

(8) Perceptions on Cultural Heritage Conservation

It is measured by 7 items and the Table (4.15) presents the respondents’ agreement regarding the perceptions of the conservation in Bagan.

Table (4.15) Perception on Cultural Heritage Conservation

Sr. No.	Particular	Mean	Standard Deviation
1	Tourism development helps the preserving cultural identity of the host population.	4.45	.539
2	Cultural Knowledge and attitude leads to better heritage preservation and less harm to the heritage assets.	4.58	.525
3	Responsible visitors’ behavior making by employing heritage tour guides helps for the conservation of heritage.	4.49	.539
4	Legal protection could be taken against anyone who neglects the cultural heritage value for restoring cultural heritage assets.	4.49	.516
5	Revitalization of traditions, weaving and handicraft through tourism development support restoration of culture.	4.5	.527
6	Funding is essential to support heritage conservation.	4.53	.588
7	Using appropriate techniques for conservation according to guidelines of UNESCO	4.57	.511
	Overall Mean	4.52	

Source: Survey Data (2018)

Table (4.15) shows the perception on the conservation score is high (greater than 3.5). The mean of residents’ answer ranged from (4.45) to (4.58). The maximum mean value is for statement: “Cultural Knowledge and attitude leads to better heritage preservation and less harm to the heritage assets”. Preservation of heritage is required

the cultural knowledge which encourages the long-term utilization and rehabilitation of it. The minimum mean value is for the statement: “Tourism development helps the preserving cultural identity”. As a sequential effect of tourism development, international tourists are aware of Myanmar culture, customary practice and religious activities world which promote Myanmar cultural restoration.

The mean (4.49) is for the statement: “Responsible visitors’ behaviour making by employing heritage guides helps for the heritage sites”. It is observed that responsible tourism behaviour is significant for maintaining and protecting the nation’s heritage assets. The mean (4.49) is for the statement: “Legal protection could be taken against anyone who neglects heritage value”. The administrative and legislation procedures are necessary for conservation effort. Government takes responsibilities of conservation policies and implements the related protective measures. The mean (4.5) is for the statement: “Revitalization of traditions, weaving and handicraft through tourism support restoration of culture”. It is observed that tourism encourages traditional practices, language, merit-making activities, farming, performing art and traditional craftsmanship which support the restoration of heritage in Bagan. The mean (4.53) is for the statement: “funding is essential to support heritage conservation”. Funding is the best reward for preservation and provides successful rehabilitation, restoration and reconstruction programs for the sites. The mean (4.57) is for the statement: “Using appropriate conservation techniques according to guidelines of UNESCO.” It is realized that appropriate techniques supported by UNESCO for long term rehabilitation of pagodas and temples. The overall mean value (4.52) states it is observed that most residents feel that “conservation of cultural heritage” is important for “sustainable tourism development” in Bagan.

4.5.3 Multiple Regression Analysis

It is performed the relationship between the independent variables and dependent variables. The analysis identifies the individual effect of each explanatory variable. An explanatory variable’s coefficient estimates changing the dependent variable resulting from changing the particular independent variable while all other explanatory variables remain constant. Dependent variable is the residents’ perception on the heritage conservation and independent variables are residents’ perception on

economic impacts, cultural impacts, and environmental impacts, effects of preventive measures of government, UNESCO, INGOs & NGOs and local community.

The specific model for regression analysis is written as follows:

$$Y_{\text{CHC}} = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \beta_6 X_{6i} + \beta_7 X_{7i} + \varepsilon_i$$

Where;

Y_{CHC} = Residents' perception on Cultural Heritage Conservation

β_0 = Constant

X_{1i} = Residents' perception on economic impacts

X_{2i} = Residents' perception on cultural impacts

X_{3i} = Residents' perception on environmental impacts

X_{4i} = Residents' perception on effects of preventive measures of Government

X_{5i} = Residents' perception on effects of preventive measures of UNESCO

X_{6i} = Residents' perception on effects of preventive measures of
INGOs & NGOs

X_{7i} = Residents' perception on effects of preventive measures of
Local Community

ε_i = Error term

In this context, the model shows the relationship among the residents' perceptions on economic impacts, cultural impacts, and environmental impacts and effects of preventive measures of Government, UNESCO, INGOs and NGOs and the local populace and the heritage conservation in Bagan. The following Table (4.16) shows summary results of the model.

Table (4.16) Summary Results of Model

Particular	Model Perceptions on “Cultural Heritage Conservation”				VIF
	Coefficient	Beta	t	Sig	
Constant	1.146***	-	4.078	.000	
Economic-impacts	0.224***	0.271	5.997	.000	1.282
Cultural-impacts	0.060*	0.069	1.652	.099	1.089
Environmental-impacts	-0.074*	-0.071	-1.992	.055	1.016
Effects of preventive measures of Government	0.072**	0.097	2.184	.030	1.239
Effects of preventive measures of UNESCO	0.158***	0.150	3.148	.002	1.429
Effects of preventive measures of INGOs& NGOs	0.042	0.035	0.758	.449	1.374
Effects of preventive measures of local community	0.291***	0.315	6.583	.000	1.436
R	0.645				
R ²	0.416				
Adjusted R ²	0.405				
F Statistics	37.388			.000	
***, **, *,Statistical significant at 1%, 5%, 10% level respectively					

Dependent variable: cultural heritage conservation

Sources: Survey Data, July to December 2018

Table (4.16) shows the multiple regressions results which are interpreted as follows: Adjusted R square is 0.405 that reveals 40.5% of total variance in safeguarding of heritage in Bagan can be explained by seven independents variables. It is observed that the model as a whole is statistically significant at 1 percent level which is indicated by $F = 37.388$ (p value = .000). The multicollinearity statistics by using variance inflation factors (VIF) are also checked, indicating that no variables exceeding our “rule of thumb” of 10 for VIF. Therefore, this model can confirm that it does not present multicollinearity problems.

For the coefficient and significant level of each independent variables, the seven variables, including economic impacts, cultural impacts, environmental impacts, preventive measures of government, UNESCO, INGOs & NGOs and the local populace.

Economic impacts have a positive relationship with cultural heritage conservation. The coefficient of economic impacts is 0.224 at a 1 percent significant level (p value=.000). It presents that tourism is the major income-generating source for many heritage sites. Moreover, tourism revenue from entrance fees, museum fees, donations and tax revenue can contribute for the preservation in Bagan. But, enough funding getting from tourism revenue provides for safeguarding for those heritage sites. Tourism can create job opportunities which provide the conservation in Bagan. Furthermore, it gives rebirth for handicraft production: lacquer ware, woodcarving, silver ware, handloom which support to cultural restoration in Bagan.

Cultural impacts have a positive relationship with the conservation and the coefficient of cultural impacts is 0.060 at a 10 percent significant level (p value =.099). It represents that tourism development improves cultural knowledge and mutual understanding between tourists and residents. It leads to promote traditional art, craft, dance, music for cultural restoration in Bagan.

Environmental impacts have a negative relationship with the conservation and the coefficient of environmental impacts is -.074 at a 10 percent significant level (p value=.055). It represents those environmental impacts: over-crowding, climbing on the monuments, transportation related problems, vandalism and graffiti and also lack of drainage and sewage disposal system can negatively effect on cultural landscape. It leads to physical damage on the whole cultural heritage sites in Bagan.

Effects of preventive measures of government have a positive relationship with the conservation and the coefficient of preventive measures of government is .072 at a 5 percent significant level (p value=.030). It represents that government's rules and regulation can safeguard from destruction cultural heritage region and promote high value of national heritage. Bagan WCH could have better opportunities for conservation work supported by UNESCO and international organizations. Moreover, DOA has collaborated with multi-organizations for the sustainable cultural heritage in Bagan.

Effects of preventive measures of UNESCO have a positive relationship with conservation and the coefficient of preventive measures of UNESCO is 0.158 at a 1

percent significant level (value=.002). UNESCO helps the conservation of heritage in Bagan by supporting “emergency assistance” for earthquake, conservation guide lines, close consultation for safeguarding, professional training, awareness and technical assistance. It has also supported Bagan as WCH Status in 2019 and also gives cultural knowledge and education for sustainable heritage in Bagan.

Effects of preventive measures of INGOs and NGOs are not statistically significant because programs and activities undertaken by INGOs & NGOs contribute to not only regional development but also tourism development. Moreover, INGOs and NGOs also promote the preservation in Bagan. However, INGOs & NGOs implement programs for development rather than the preservation in Bagan.

Effects of preventive measures of the local populace have a positive relationship with preservation of heritage and the coefficient of preventive measures of the local populace is 0.291 at a 1 percent significant level (p value=.000). It represents that local community have to involve the custom practices, cultural activities and religious practices: festivals, ancient customs, rituals and daily activities to maintain cultural restoration in Bagan. Moreover, stakeholders’ collaboration should solve the problems related with heritage sites.

Regarding the results of the economic, cultural and environmental impacts have agreed and have a significant level of 1 percent, 10 percent and 10 percent respectively. Economic and cultural impacts of tourism development positively related with cultural heritage conservation in Bagan and these impacts provide to the protecting and safeguarding of cultural heritage assets in Bagan. However, environmental impacts have a negative relationship with cultural heritage conservation in Bagan. Thus, these impacts destruct the process of cultural heritage conservation and also destroy the cultural heritage landscapes and damage the physical structure of monuments in Bagan.

Moreover, effects of preventive measures adopted by stakeholders especially government have a positive relationship with preservation and have a of 5 percent significant level. Thus, government’s rules and regulation, collaboration effort, promoting Bagan to the “World Heritage Status” and development of “capacity building” can contribute the sustainable heritage for development. Effects of preventive measures of UNESCO have a positive relationship with heritage conservation and have 1 percent significant level. It is a key stakeholder which provides current “World Cultural Heritage Status”. Effects of preventive measures of

local community have a positive relationship with heritage conservation and have 1 percent significant level. Local community plays a vital role to involve and support preservation and sustainable development in Bagan.

Appendix (E) describes Histogram, Normal P-P plot of Regression standardized Residual and Scatter Plot for testing of Multiple Regression Analysis. The next chapter will present conclusion.

CHAPTER V

CONCLUSION

5.1 Findings

Several scholars indicated that protection and conservation of cultural heritage plays an important role in implementing sustainable tourism development in Myanmar. Bagan, the UNESCO WCH sites experienced many impacts on these cultural heritage assets since the tourism developed along with the political and economic liberalization.

Bagan has more than 3000 ancient monuments. Additionally, Bagan long-standing monuments are not only national symbols of Myanmar people but also a national pride in Myanmar. Bagan at present is the main tourist destination in Myanmar which attracts many visitors. The tourist arrivals to Bagan have increased, with the average annual growth rate of 12.32 %. The arrival of international visitors increased by 4.28 times in 2018 compared to statistics in 2001. However, unfortunately, the events of Saffron Revolution in 2007 and the Cyclone Nargis in 2008, tourist arrival in Bagan has decreased in 2007-2008 because tourists feel reluctant to visit Myanmar due to these negative consequences.

Bagan occupies various interesting sites: natural farming landscapes in and around the Bagan Archaeology Area. Places like Min Nan Thu and West Pwa Saw are popular for Community-Based-Tourism where tourists can learn the village life in Bagan. As regards tourism season in Bagan, it starts from October and end in March every year. Tourism in Bagan is seasonal and lasts for approximately six months. The largest tourist arrivals to Bagan were from France, Germany, Italy, Spain, China and Thailand from 2001 to 2018. In 2018, the largest tourist arrival to Bagan came were from China, second was from America and the third was from France.

Zone fee increases year by year and only a minimum about 2% of zone fees are used for maintaining the heritage. Unsurprisingly, it is insufficient amount for conservation in Bagan. If adequate funding from zone fees is provided, international

and local experts and workers can be hired for cultural heritage conservation in Bagan.

This study examined several impacts of tourism on this heritage preservation in Bagan- Nyaung Oo Area. Regarding response from survey questionnaire, about 51.5% were females and 48.5% males. Most respondents are young and middle-aged people of between 25 to 44 years. It was observed that 40.3% respondents were mainly employed in the government sector, about 37.9% as private company staff was and 11.2% as self-employed. Among the 375 respondents, 188 (50.1%) earned income from tourism-related businesses and the remaining earned their income from other different sources. Majority of respondents are Bagan natives 72.3% and the longest length of residing in Bagan is more than 6 years. Most respondents (36.5%) are observed as active participation in heritage preservation in Bagan.

Regarding the perception of economic impacts is found to have positive and significant affects on conservation of heritage in Bagan. This refers to the revenues from tourism sector can support the conservation and specially, entrance and museum fees are also funding to the preservation on it.

Additionally, tourism generates substantial tax including airport tax, hotel tax, license fees, and income tax and sales tax revenues which provide conservation of heritage in Bagan. Furthermore, tourism- related businesses, foreign tourists and local people made contributions of the donation money for maintaining in Bagan. Other findings include due to tourism development, the numbers of jobs in the local community such as tour guides, attendants, photographers and security personal and curio sellers have increased. It helps to serving the conservation process in Bagan.

It also discovered that tourism development gives renaissance to the cottage and other supportive industries such as sand-art painting, wood-carving, lacquer ware, silver ware, basket and cloth weaving that supported much to the restoration of intangible cultural heritage. Besides, the competition in the business environment has largely increased the prices of housings, hotels, guest houses and transportation costs.

With regards to perception on cultural impacts, the study found that there were both positive and considerable effects concerning the restoration of intangible cultural heritage in Bagan. The observation was that cultural exchange between residents and tourists enhances cultural knowledge and mutual understanding between the host community and tourists.

It was discovered that visitors made new communication networks and studied the way of rural traditional life in these tourism destinations. Locals as well have the opportunity to see foreign culture through these tourists. Tourists, as observed through questionnaires, come to appreciate Myanmar custom and traditional culture.

Tourism development in Bagan is found to encourage increasing awareness of “Myanmar cultural heritage” which helps restore the cultural heritage assets. This can cause the positive effects like promotion of Myanmar cultural identities. Alternatively, different people with different cultural backgrounds come into Bagan and can harmfully affect social, cultural, traditional and religious buildings through different social interactions. It leads to further threaten the existence of cultural values within the local populace. Big hotels in front of ancient monuments are not matched or appropriate with long-standing archaeological buildings and cultural practices. It was observed that some ancient pagodas within the compounds of hotels are unable to be visited by local worshippers and placing difficulties for conservation of those ancient pagodas.

Similar to cultural effects, the environmental impacts are found to have contributed negative and harmful effects of cultural heritages sites in Bagan. In the questionnaire surveys, respondents agreed that environmental impacts have negative effects regarding of heritage conservation in Bagan. Due to tourism development, environmental consequences such as overcrowding in high seasons, tourism-related problems such as traffic congestion, lack of parking, noise pollution, climbing on monuments, drainage and sewage problems, garbage, graffiti and vandalism damage the physical structure and heritage in Bagan.

It was further discovered that the preventive measures adopted by stakeholders involved in conservation in particular that of the role of Government have significant effects on the protection and “safeguarding” of heritage sites. The essential factor concerning preventive measures is in fact Government rules and regulations for protection of the sites in Myanmar.

The “Ministry of Culture” demarcated zones like “ancient monument zone”, “ancient site zone” and “protected and preserved zone” reduce the negative consequences of tourism development. The Government collaborated with multi-organizations which can benefit for preservation from the international protection. Bagan can acquire better conservation practices from UNESCO such as funding, technology and professional advices for successful conservation tasks.

Additionally, the preventive measures of UNESCO appreciably affected the “safeguarding” of Bagan cultural heritage sites. It supported emergency assistance to the reconstruction of damage areas of Bagan after the 2016 earthquake. For safeguarding such cultural heritage, UNESCO has also provided Bagan with technical assistance which creates professional conservation practices for sustainable cultural heritage assets. Also it has supported in achieving “World Cultural Heritage Status” and provided technical trainings for human resources development for conservation process. Moreover, it contributes to increased awareness of preservation in Bagan.

Effects of preventive measures of INGOs and NGOs have positively but not significantly affected the preservation in Bagan. INGOs and NGOs are found to focus on the tourism and regional development rather than the heritage conservation in Bagan.

Also, effects of preventive measures by the local populace are observed that these significantly affected the preservation because the local populace do play a key role and are an essential factor for participation in restoration and prevention of cultural heritage assets. Moreover, the local community should be more involved in heritage planning and management because its coordination and collaboration efforts are vital for effective conservation process. Besides, the local populace carries out rituals and celebrations to maintain these cultural heritage assets that could generate sustainability in Bagan.

5.2 Recommendations

The tourism of the country was gradually developed when Myanmar opened up the economy. In 2011, several reforms are found that these encouraged private sector development which includes the expansion of it. Apparently, tourism has positive and negative effects on the heritage sites in Bagan. Positive effects do support further tourism development and protection of cultural heritage assets whereas negative effects can have some challenges for their protection.

It is unquestionable that cultural heritage is vitally important for national identities, past and ongoing social cohesion in the social context. Thus, it becomes essential to focus on it which further stimulates many local economic activities and promote sustainability of tourism development in Bagan. Several suggestions are recommended for the balanced growth between tourism development and cultural heritage conservation for sustainability tourism development.

Multi-sectors concerning tourism along with “cultural heritage conservation” should implement conservation of monuments, ancient buildings and landscapes which will preserve these valuable heritage sites and maintain authenticity and integrity of natural surroundings in Bagan. The legal framework should also be revised while community members and the private should go together with the Government strictly following the rules. For sustainability, certain plans leading to tourism management, integrated management and action are effectively implemented.

To achieve the “world cultural heritage” status in Bagan with “sustainable development”, both the national and regional governments obviously need cooperation with the local community. Moreover, Bagan must be valued as national heritage site based on nationalistic patriotism. To be recognized as a “World Cultural Heritage”, community livelihoods such as handcrafts and artistic works of Buddha should be maintained and restored as valuable intangible cultural heritage in Bagan.

Allowing the food stalls and vendors near the sites can have negative effects concerning an excellent visual environment. These negative effects will also make many Buddhist pilgrims and worshippers feel uncomfortable. Government officials should systematically manage these stalls and vendors near the temples and it must not disturb tourists and worshippers. Concerned with tourism development, there are more physical and environmental effects on the heritage sites such as graffiti, vandalism and garbage. There must be pre-planned rules for conservation and cleanliness of these valuable heritage sites. Several issues like going for picnic in cultural areas, photography and commercial video can affect the image of the heritage. These actions should not be allowed and regular reviews of the cultural heritage assets should be done.

Causing more waste and rubbish are the negative consequences of due to tourism development in Bagan. Preventing from rubbish throwing in cultural heritage areas, the government and local community should set the signposts and notices on rubbish throwing in cultural areas. As tourism development in Bagan, certain demand for hotels increases leading to extension of hotel construction. It must be remembered that importance of conservation awareness must be placed before these business development in Bagan.

Modern designs are found to be inappropriate to conserve the ancient sites and thus, such renovations could only damage the “authenticity” and “integrity”. It is noticed that renovation is importantly needed without destroying its natural

authenticity and integrity. Although zone fees increased year by year, it is found that more funds are required for effective maintenance of the heritage sites. If more funding can be supported, it will then be used for better conservation works in Bagan.

To raise the public awareness concerning the value of the national cultural heritage, cultural heritage education becomes essential to promote greater awareness and participation of all stakeholders. Government officials must establish training programs for local populace and tourism-related businesses in Bagan. For all the above reasons, collective efforts must be made by public organizations such as “Ministry of Culture”, “Ministry of Hotel and Tourism”, “Government Administrative Department” (Nyaung Oo), Mandalay Regional Government, Magway Regional Government, INGOs and NGOs.

5.3 Needs for Further Study

This study focused on the residents’ perception on economic impacts, cultural impacts, environmental impacts, stakeholders involved in conservation such as government, UNESCO, INGOs and NGOs, local community. However, visitors’ perceptions especially those of locals and international visitors are not included in this study. Further, it is found that additional research will be conducted in other tourism destinations such as Yangon, Mandalay, Inle and later make comparisons with Bagan. In-depth studies are still needed to further examine visitors’ perception regarding responsible behaviour providing for sustainable heritage assets. It is widely believed that it will be a more comprehensive review on sustainability of these valuable assets. Further, such comparison studies will be more knowledge sharing between cultural and tourist development concepts which will benefit more to Bagan cultural heritage conservation works. The further studies will lead to factors enhancing these valuable cultural heritage sites along with tourism development in the Bagan area.

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APPIDEX (A)
Questionnaire Survey
Questionnaire on
Economic and Environmental impacts of Tourism Development on
Cultural Heritage in Bagan
Key Informants Interview and Survey Method

In order to achieve the objectives of the study, it will take by using analytical methods of Key Informant Interview (KII) and using primary survey.

Survey questionnaire has three parts. Part one deals with the respondents' background and whereas part two deals with key informants' interviews with Government responsible persons of Ministry of Hotels and Tourism, Ministry of Religious Affairs and Culture and NyaungOo General Administrative Department. It captures the Government responsible persons' perceptions of the impacts of tourism development, government supporting, INGOs & NGOs and Local Community on support for cultural heritage in Bagan. Part three deals with Survey method with Stakeholders. Also it captures the Stakeholder's perceptions of the impacts of tourism development, government supporting, INGOs & NGOs and Local Community on support to cultural heritage in Bagan.

Please fill in the questions appropriately by writing in full or ticking the suitable alternatives to the answer provided.

I. Interviewee Background Data.

1. Sex: Male Female
2. Age: 15-24 25-34 35-44 45-54
 55-64 ≥ 65
3. Occupation: Daily worker Government staff Private Organization staff
 Professional Self-employed Retired Volunteer Student
 Unemployed
4. Highest level of education: Monastery Education High School
 Primary School University and above
 Middle School Others
5. What are sectors of the main income sources of your households?
 Tourism Hotel Tourism Transportation Cultural-oriented services
 Tourism related work Trading Others
6. If others' please specify:
7. Are you originally from Bagan /Nyaung U?
 Yes No
8. If no, please specify:
9. How long have you lived in Bagan/Nyaung U?
 Within 1 year between 1 and 3 years
 between 3 and 6 years more than 6 years
10. Have you word in any activities of culture or cultural heritage?
 Yes No
11. If yes, which cultural activities are you participated in?

Key Informants Interview

II. Perceptions of Government responsible persons on tourism impacts, government supporting, UNESCO, INGO & NGOs and local community involvement and Support for cultural heritage.

(I) Impacts of Tourism.

1. Who are the tourists in Bagan area?

2.(a) Are you aware of other attractions beside pagodas in the Bagan area?

Yes..... No..... No idea.....

(b) If yes, please name them

3. Do you think that the number of the tourists who visit to Bagan is higher than that for carrying capacity?

significantly higher a bit higher normal less very few

4.(a) Do you receive more local visitors than international tourists in Bagan?

Yes No No idea

(b) If yes, the consequences of a lot of local visitors in Bagan.

5. Please briefly explain the positive impacts tourists have on the visited places in Bagan.

(a)Economic benefits

(b) Physical and natural environment Benefits.

(c) Social and Cultural benefits.

6. Please briefly explain the negative impacts tourists have on the visited places in Bagan.

(a) Economic damages.

(b) Physical and natural environment damages.

(c) Social and Cultural damages.

7.(a) Does tourism contribute to the conservation of the cultural heritage sites in Bagan?

Yes No No idea.....

(b) If yes, please briefly explain your perceptions on conservation of cultural heritage in Bagan.

(c) Do you participate cultural heritage conservation?

Yes No No idea

(d) If yes, how do you participate the conservation of cultural heritage in Bagan?

8.(a) Why is Bagan Cultural Heritage Sites/Monuments famous for?

(b) Which places of pagodas in Bagan are always visited by a large number of tourists?

9. What activities are your visitors engaged in while on the site?

10.(a) Are there any rules or guidelines to be followed by people visiting site/monuments?

Yes No No idea

(b) If no, what are these rules or guidelines on your visitors have penalty?

11. What further observations you have regarding the effects tourists have on the sites/monuments.

12. What further observations do you have regarding on cultural heritage conservation in Bagan?

(II) Government Supporting

14.(a) How do you think the conservation of cultural heritage after implementing the protection of cultural heritage regions law enacted in 2009?

(b) How many pagodas have been maintained after implementing the protection of cultural heritage regions law enacted in 2009?

(c) How do you think the outcome of cultural heritage regions law enacted in 2009?

(d) How do you think the results of guide lines of Building Control Plans for the preservation zone?

(e) Does Government funding such as entrance fees and museum fees support to cultural heritage conservation in Bagan?

Yes No No idea

(f) If yes, Please briefly explain your perception on government funding.

(g) How do you think donation goes to cultural heritage conservation in Bagan?

(III) UNESCO, INGOs & NGOs and Local Community involvement

15.(a) Does Government cooperate with international organizations to conserve the cultural heritage in Bagan?

Yes..... No..... No idea.....

(b) If yes, mention name of INGOs and their activities on cultural heritage conservation.

(c) How do you think government cooperates with INGOs for conserving the cultural heritage in Bagan?

16. How do you think what UNESCO supports the assistance to cultural heritage conservation in Bagan?

17. How do you think INGOs cooperate with Local Community for restoring the cultural heritage in Bagan?

18. How do you think local community's attitude, cultural knowledge and awareness to reduce the negative impacts of cultural heritage in Bagan?

Survey Method

III. Stakeholders' perceptions on tourism impacts, government supporting, UNESCO, INGO and local community involvement in Support to cultural heritage.

Please read each item carefully and circle the appropriate number that indicates how much you agree or disagree with each of the tourism development impacts statements, government supporting statements, involvement of INGOs and Local Community statements on support of cultural heritage in Bagan.

1= Strongly Disagree 2= Disagree 3= neither Disagree nor Agree 4= Agree

5= Strongly Agree

Perceptions on Economic Impacts of Tourism Development

No	Particular	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
1.	Tourism revenue from local businesses support to cultural heritage conservation.					
2.	Donation by individual, local people and tourists contributes funding for cultural heritage conservation					
3.	Tourism generates substantial tax revenues which support conservation of culture heritage. (Airport tax, hotel tax, license fees, income tax and tax on sales...)					
4.	Tourism has increased demand for handicrafts which results in cultural restoration.					
5.	The increased number of jobs in the community has helped cultural heritage conservation. (tour guides, attendants, photographers, and security personal and curio sellers)					
6.	Entrance Fees contribute to cultural heritage conservation in Bagan.					

Perceptions on Cultural Impacts of Tourism Development

No	Particular	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
1.	Tourism development promotes cultural exchange.					
2.	Tourists can appreciate and learn traditional culture.					
3.	Tourism development maintains customary practices and ethnic of historical area of cultural heritage sites.					
4.	Bagan tourism has raised cultural awareness.					

Perceptions on Environmental Impacts of Tourism Development

No	Particular	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
1.	Tourism development increases tourists' traffic in Bagan.					
2.	Climbing on the monuments.					
3.	Garbage in Bagan.					
4.	Lack of drainage and sewage disposal systems for hotels and restaurants.					
5.	Vandalism and graffiti.					
6.	Driving vehicles around and close to monuments.					

Perceptions on Government Involvement in Conservation of Cultural Heritage

No	Particular	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
1.	The conservation of culture heritage improved after implementing the protection of cultural heritage region law					
2.	Government takes responsibility and tried to promote Bagan					
3.	Government has collaborated local and international organization for conservation of cultural heritage in Bagan.					
4.	Department of Archaeology, National Museum and Library promotes capacity building for heritage conservation					

Perceptions on UNESCO Involvement in Cultural Heritage Conservation

No	Particular	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
1.	UNESCO has provided emergency assistance for sites in immediate danger.					
2.	UNESCO has supported close consultation for safeguarding cultural heritage in Bagan					
3.	UNESCO has provided safeguarding Bagan cultural heritage by professional trainings					
4.	UNESCO has supported safeguarding Bagan cultural heritage by providing technical assistance.					
5.	UNESCO contributes awareness for cultural heritage conservation.					

Perceptions on INGOs & NGOs Involvement in Cultural Heritage Conservation

No	Particular	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
1.	INGOs have contributed to funding for conservation of cultural heritage in Bagan.					
2.	INGOs & NGOs have supported to in-kind collaboration for conservation of cultural heritage in Bagan.					
3.	INGOs & NGOs have provided cultural heritage conservation through sustainable tourism development in Bagan.					
4.	INGOs support public awareness campaigns for safeguarding cultural heritage property.					
5.	INGOs & NGOs should cooperate with government and Local community for cultural heritage conservation					

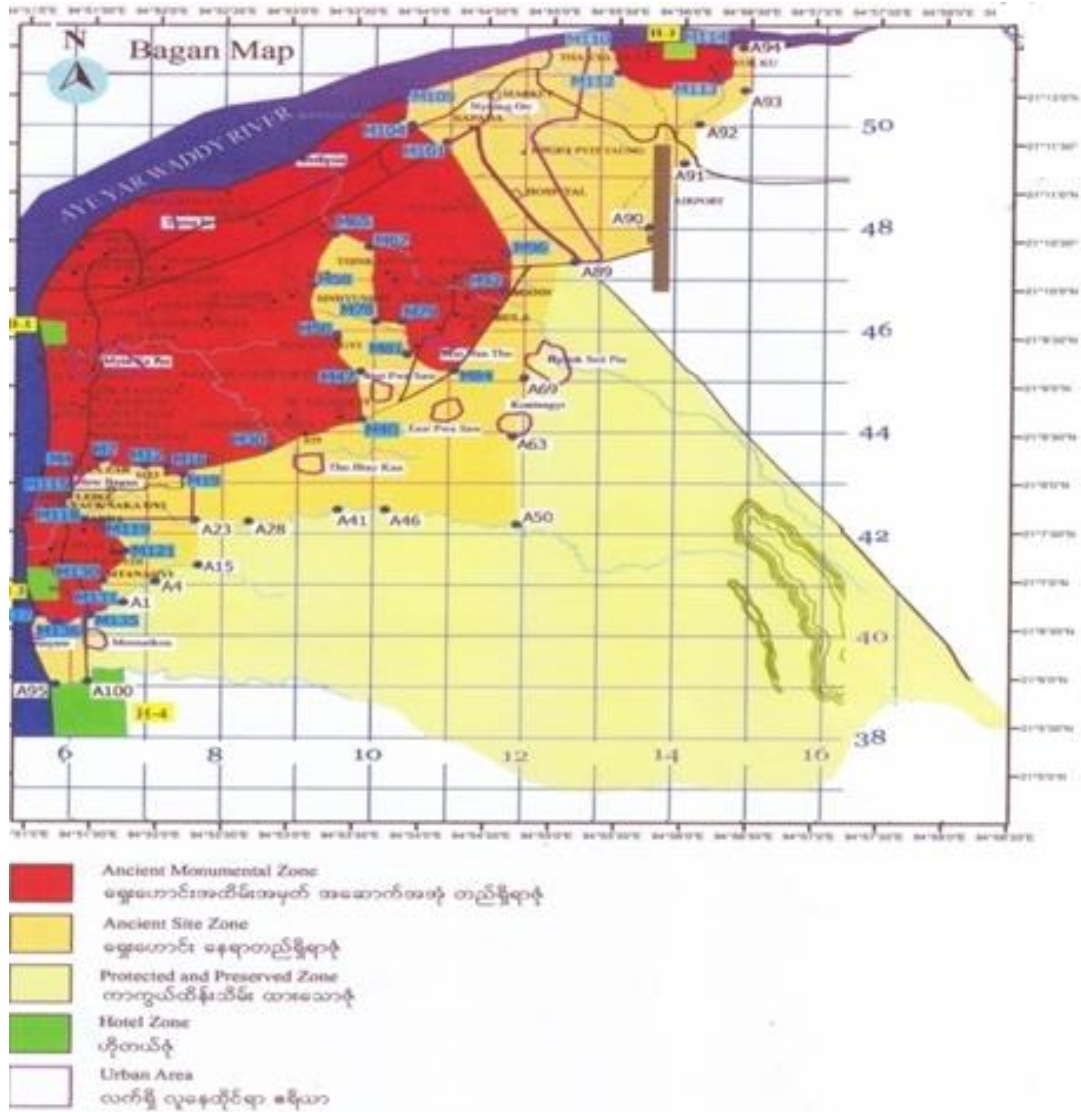
**Perceptions on Local Community's Involvement in Cultural Heritage
Conservation**

No	Particular	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
1.	Local community needs to be involved in the restoration and preservation of cultural heritage assets.					
2.	Local community should actively participate in heritage planning and management.					
3.	Local community owns rich knowledge of social, cultural and traditions.					
4.	Local community carries out rituals and celebrations to maintain the cultural heritage assets.					
5.	Local community involves in cultural heritage tourism development.					

Perceptions on Cultural Heritage Conservation

No	Particular	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
1.	Tourism development helps in preserving the cultural identity of the host people.					
2.	Cultural Knowledge and Attitude leads to better heritage preservation and less harm to the heritage assets.					
3.	Responsible visitors' behavior making by employing heritage guides for helping the conservation of the heritage sites.					
4.	Legal Protection could be taken against anyone who neglects the cultural heritage value for restoring the cultural heritage assets.					
5.	Revitalization of traditions weaving and handicraft through tourism development support restoration of culture.					
6.	Funding is essential to support cultural heritage conservation.					
7.	Using appropriate conservation techniques according to guidelines of UNESCO.					

APPENDIX (B)
Figure (4.1) Bagan Map



Source: Annual Report of Government Administrative Department (2018)

APPENDIX (C)

Demographic Profile of Interviewees from Key Informant Interview (KII)

Interviewee Number	Age	Gender	Status of Occupation	Organization	Type of Organization	Interview Date
1.	55	Female	National Project Officer	UNESCO (Myanmar Project Office)	International Organization	16.5.2018
2.	48	Male	Director	Department of Archaeology	Government	26.7.2018
3.	39	Female	Deputy Director	Department of Archaeology	Government	26.7.2018
4.	45	Female	Staff Officer	Department of Archaeology	Government	26.7.2018
5.	63	Male	Vice President	Heritage Trust	Local Organization	26.7.2018
6.	55	Male	Owner (Handicraft Enterprise)	Bagan Souvenir Entrepreneurs Association	Bagan Tourism Federation	26.7.2018
7.	38	Male	Assistant Director	Directorate of Hotel and Tourism (Bagan)	Government	27.7.2018
8.	59	Male	Staff Officer	Directorate of Hotel and Tourism (Bagan)	Government	27.7.2018
9.	58	Female	Staff Officer	Directorate of Hotel and Tourism (Bagan)	Government	27.7.2018
10.	50	Female	Hotel Manager	Bagan Hoteliers Association	Bagan Tourism Federation	27.7.2018
11.	48	Female	Hotel Accountant	Bagan Hoteliers Association	Bagan Tourism Federation	27.7.2018
12.	45	Male	Local Tour Guide	Bagan Tourists Guides Association	Bagan Tourism Federation	28.7.2018
13.	51	Male	Local Tour Guide	Bagan Tourists Guides Association	Bagan Tourism Federation	28.7.2018
14.	38	Male	Assistant Director	General Administration Department	Government	28.7.2018
15.	36	Male	Assistant Director	General Administration Department	Government	28.7.2018
16.	52	Male	Member	Board of Pagoda Trustee (Htilominlo Pagoda)	Local Community	24.11.2018
17.	55	Male	Member	Board of Pagoda Trustee (Ananda Temple)	Local Community	24.11.2018
18.	40	Male	Taxi Owner	Bagan Tourism Transportation Association	Bagan Tourism Federation	24.11.2018
19.	42	Male	Ward Administrator	Nyaung-Oo Township	Local Community	24.11.2018
20.	50	Male	Restaurant Owner	Bagan Restaurants Association	Bagan Tourism Federation	24.11.2018

Source: Key Informant Interviews during May to November 2018

APPENDIX (D)

SPSS OUTPUT

(A) FREQUENCY TEST

GENDER

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid female	193	51.5	51.5	51.5
Valid male	182	48.5	48.5	100.0
Total	375	100.0	100.0	

AGE

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 15-24	61	16.3	16.3	16.3
Valid 25-34	157	41.9	41.9	58.1
Valid 35-44	81	21.6	21.6	79.7
Valid 45-54	51	13.6	13.6	93.3
Valid 55-64	18	4.8	4.8	98.1
Valid 65-80	7	1.9	1.9	100.0
Total	375	100.0	100.0	

OCCUPATION

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Daily worker	16	4.3	4.3	4.3
Valid Government staff	151	40.3	40.3	44.5
Valid Private staff	142	37.9	37.9	82.4
Valid Professional	6	1.6	1.6	84.0
Valid Self-employed	42	11.2	11.2	95.2
Valid Retired	4	1.1	1.1	96.3
Valid Volunteer	2	.5	.5	96.8
Valid Unemployed	12	3.2	3.2	100.0
Total	375	100.0	100.0	

EDUCATION

	Frequency	Percent	Valid Percent	Cumulative Percent
Middle education	20	5.3	5.3	5.3
High school education	84	22.4	22.4	27.7
Valid University and above	256	68.3	68.3	96.0
Others	15	4.0	4.0	100.0
Total	375	100.0	100.0	

INCOME SOURCES

	Frequency	Percent	Valid Percent	Cumulative Percent
Tourism	33	8.8	8.8	8.8
Hotel	87	23.2	23.2	32.0
Tourism transportation	21	5.6	5.6	37.6
Valid Cultural oriented services	2	.5	.5	38.1
Tourism related work	45	12.0	12.0	50.1
Others	187	49.9	49.9	100.0
Total	375	100.0	100.0	

NATIVE

	Frequency	Percent	Valid Percent	Cumulative Percent
not native	104	27.7	27.7	27.7
Valid Native	271	72.3	72.3	100.0
Total	375	100.0	100.0	

HOWLONG

	Frequency	Percent	Valid Percent	Cumulative Percent
Within 1 year	14	3.7	3.7	3.7
Between 1-3 years	36	9.6	9.6	13.3
Valid between 3-6 years	37	9.9	9.9	23.2
more than 6 years	288	76.8	76.8	100.0
Total	375	100.0	100.0	

PARTICIPATE

	Frequency	Percent	Valid Percent	Cumulative Percent
no activities	238	63.5	63.5	63.5
Valid Any activities	137	36.5	36.5	100.0
Total	375	100.0	100.0	

(B)RELIABILITY TEST

Cultural Heritage Conservation

Reliability Statistics

Cronbach's Alpha	of Items
.834	7

Economic Impacts of Tourism Development

Reliability Statistics

Cronbach's Alpha	of Items
.861	6

Cultural Impacts of Tourism Development

Reliability Statistics

Cronbach's Alpha	of Items
.760	4

Environmental Impacts of Tourism Development

Reliability Statistics

Cronbach's Alpha	of Items
.746	6

Preventive Measures of Government

Reliability Statistics

Cronbach's Alpha	of Items
.816	4

Preventive Measures of UNESCO

Reliability Statistics

Cronbach's Alpha	of Items
.727	5

Preventive Measures of INGOs & NGOs

Reliability Statistics

Cronbach's Alpha	of Items
.694	5

Preventive Measures of Local community

Reliability Statistics

Cronbach's Alpha	of Items
.843	5

(C) Descriptive Statistics

Cultural Heritage Conservation

Item Statistics

	Mean	Std. Deviation	N
CH1	4.45	.539	375
CH2	4.58	.525	375
CH3	4.49	.593	375
CH4	4.49	.516	375
CH5	4.50	.527	375
CH6	4.53	.588	375
CH7	4.57	.511	375

Economic Impacts of Tourism Development

Item Statistics

	Mean	Std. Deviation	N
Ecoimpact1	4.45	.605	375
Ecoimpact2	4.36	.454	375
Ecoimpact3	4.27	.750	375
Ecoimpact4	4.54	.515	375
Ecoimpact5	4.52	.531	375
Ecoimpact6	4.13	.719	375

Cultural Impacts of Tourism Development

Item Statistics

	Mean	Std. Deviation	N
Culimpact1	4.20	.632	375
Culimpact2	4.34	.616	375
Culimpact3	4.19	.615	375
Culimpact4	4.43	.603	375

Environmental Impacts of Tourism Development

Item Statistics

	Mean	Std. Deviation	N
Envimpact1	3.54	.619	375
Envimpact2	3.66	.585	375
Envimpact3	3.58	.644	375
Envimpact4	3.68	.623	375
Envimpact5	3.67	.582	375
Envimpact6	3.71	.602	375

Preventive Measures of Government

Item Statistics

	Mean	Std. Deviation	N
Government1	4.13	.649	375
Government1	4.23	.710	375
Government1	4.26	.500	375
Government1	4.17	.687	375

Preventive Measures of Government

Item Statistics

	Mean	Std. Deviation	N
UNESCO1	4.03	.450	375
UNESCO2	3.86	.694	375
UNESCO3	4.09	.479	375
UNESCO4	4.18	.469	375
UNESCO5	4.17	.511	375

Preventive Measures of INGOs & NGOs

Item Statistics

	Mean	Std. Deviation	N
INGOs & NGOs1	4.05	.451	375
INGOs & NGOs2	4.04	.553	375
INGOs & NGOs3	4.00	.499	375
INGOs & NGOs4	3.94	.518	375
INGOs & NGOs5	4.01	.414	375

Preventive Measures of Local community

Item Statistics

	Mean	Std. Deviation	N
Localcom1	4.34	.558	375
Localcom2	4.30	.533	375
Localcom3	4.41	.514	375
Localcom4	4.44	.523	375
Localcom5	4.54	.525	375

D. REGRESSION RESULT

MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					F change	Df1	Df2	Sig F change
1	.645 ^a	0.416	0.405	.29704	37.388	7	367	.000

a. Predictors: (Constant), MeanLocal1, Meanenv1, MeanINGO1, Meangov1, Meaneco1, Meancul1, MeanUNESCO1

b. Dependent Variable: cultural heritage conservation

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig
1 Regression	23.092	7	3.299	37.388	.000 ^b
Residual	32.382	367	.088		
Total	55.474	374			

a. Dependent Variable: Culturalheritage conservation

b. Predictors: (Constant), MeanLocal1, Meanenv1, MeanINGO1, Meangov1, Meaneco1, Meancul1

MeanUNESCO1

COEFFICIENT

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1							
Constant	1.146	.281	-	4.078	.000	-	-
Meaneco1	.224	.037	0.271	5.997	.000	.780	1.282
Meancul1	.060	.036	0.069	1.662	.099	.919	1.089
Meanenv1	-.074	.038	-0.077	-1.922	.055	.984	1.016
MeanGov1	.072	.033	0.097	2.184	.030	.807	1.239
MeanUNESCO1	.158	.050	0.0150	3.148	.002	.700	1.429
MeanINGO1	.042	.055	0.035	.758	.449	.728	1.374
MeanLocal1	.291	.044	0.036	6.583	.000	.696	1.436

Dependent Variable: Cultural heritage conservation

APPENDIX (E)

DIAGRAMS

