

**IMPACT OF UMM EL-JIMAL ARCHAEOLOGICAL
SITE AS A TOURIST DESTINATION ON THE
DEVELOPMENT OF LOCAL SOCIO-ECONOMIC
FACTORS**

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OF LOCAL SOCIO-ECONOMIC FACTORS**

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تفويض

نحن الموقعين أدناه، نتعهد بمنح جامعة العلوم والتكنولوجيا الأردنية حرية التصرف في نشر محتوى الرسالة الجامعية، بحيث تعود حقوق الملكية الفكرية لرسالة الماجستير الى الجامعة وفق القوانين والأنظمة والتعليمات المتعلقة بالملكية الفكرية وبراءة الاختراع.

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DEDICATION

I dedicate this work to my precious Parents (Soud and Amina) who have given me all the love and support, who taught me to believe in myself and have always had faith in me. They are the reason I'm standing here today.

To my mentor and the one who showed me how all the hard work will pay off my dear uncle Prof. Hashem al Masaeid.

To the one I know that she would be proud of me the most, the one who is watching over me, my dear aunt Sua'd may her soul rest in peace.

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LIST OF ABBREVIATIONS

<u>Abbreviation</u>	<u>Description</u>
Aiest	International Association of Scientific Experts in Tourism
DoA	Department of Antiquities
DoS	Department of Statistics
HxH	Hand By Hand Heritage for Business Development
ICOMOS	International Council on Monuments and Sites
IUCN	International Union for the Conservation of Nature and Natural Resources
JTB	Jordan Tourism Board
MENA	Middle East and North Africa
MoTA	Ministry Of Tourism And Antiquities
NGO	Non-Governmental Organization
NORAD	Norwegian Agency for Development Cooperation
NRC	Norwegian Refugee Council
NTS	National Tourism Strategy
SCHEP	Sustainable Cultural Heritage Through Engagement of Local Communities Project
SPSS	Statistical Package for the Social Sciences
TALC	Tourist Area Life Cycle model
UJAP	Umm el-Jimal Archaeological Project
UJIHC	Umm el-Jimal Interpretive and Hospitality Center
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNSTAT	United Nations Statistics Division

<u>Abbreviation</u>	<u>Description</u>
UNWTO	United Nations World Tourism Organization
USAID	United States Agency for International Development
VNG	Vereniging van Nederlandse Gemeenten (Association of Netherlands Municipalities)
WCED	World Commission on Environment and Development
WEF	World Economic Forum
WTTC	World Travel and Tourism Council

ABSTRACT

IMPACT OF UMM EL-JIMAL ARCHAEOLOGICAL SITE AS A TOURIST DESTINATION ON THE DEVELOPMENT OF LOCAL SOCIO-ECONOMIC FACTORS

By

Dana Soud El-Farraj

Since 2014, Umm el-Jimal, the new 2021 Jordanian World Heritage List candidate, has undergone tourism enhancement and site development projects. This research documents different types of development projects at Umm el-Jimal and analyzed the residents' responses to these changes over time through a two-stage questionnaire survey (2017 and 2019). Moreover, it is distinguished from previous studies as it highlights residents' attachment, awareness, and analyzes the socio-economic impacts of the early stages of tourism enhancement and development. This thesis argues that the reactions and evaluations of residents' attitudes and perceptions must be considered by decision-makers and professionals when moving forward with tourism development. A mixed methodology of quantitative and qualitative methods was used, including a survey targeted residents and field observation over 24 months. Furthermore, results were analyzed through the Statistical Package for the Social Sciences (SPSS) software version 20 using the paired sample T-test and descriptive analysis. Results indicated that Umm el-Jimal residents encouraged tourism enhancement and development, as their positive responses slightly increased. In addition, community awareness of tourism development and services increased from a moderate level to a high level, where responses towards tourism options were classified as a high level, in addition, they responded positively to tourism and facilities related to it. This research proves that tourism enhancement has benefited Umm el-Jimal residents in both social and economic dimensions, however, it is necessary to track tourism enhancement and development over time, as well as residents' responses and needs, in order to maximize the benefits and minimize negative outcomes on the local community.

Chapter One: Introduction

Tourism is one of the world's fastest-growing sectors, contributing USD 8,811 billion to global gross domestic product (GDP) in 2018 and a share of 10.4% percent (WTTC, 2019). As one of the most important issues in the second half of the 20th century, tourism attracted the attention of governments and different disciplines including tourism operators and investors around the world as a new generator of development and economic growth (Fernandez, Escampa, & Vázquez, 2016). The United Nation World Tourism Organization (UNWTO) defined tourism as "the activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business, and other purposes." (Zamil, 2011, p. 43).

Countries worldwide compete for the development of the tourism sector as it plays a vital role in developing the economic and social situation, and helps in preserving cultural heritage and natural environment (ICOMOS, 1999; Nasser, 2003; Funa, Chiunb, Songanc, & Naird, 2014; Rhaman, 2016). In 2017 Jordan was ranked as 75 out of 136 globally in tourism numbers where it managed to be in the top ten countries in the Middle East and North Africa region (MENA) according to the World Economic Forum report of Travel and Tourism Competitiveness (WEF, 2017). As a leading country in the field of tourism, Jordan is witnessing development growth in which the tourism sector is considered to be a key contributor to the national economy with receipts average of 3,5 billion JD yearly (MoTA, 2019). In addition, an average of 2.3 million tourists visits Jordan annually due in part to its strategic location, moderate climate and political stability (Haija, 2011; MOTA, 2018).

The Ministry of Tourism and Antiquities (MOTA) and the Jordan Tourism Board (JTB) stated that various types of tourism are available, which provide a variety of touristic

destinations and activities, including fun and adventure, history and culture, eco and nature, leisure and wellness, and religion and faith. Furthermore, available trails are the Jordan Trail with a length of 650 km, the Salt and Madaba Heritage Trail, and the Ajloun, Irbid, Jerash, Aqaba and Ma'an Trails. Petra, Jerash and the Dead Sea are the most popular tourist destinations recognized in Jordan, as they receive the largest number of tourists (JTB, 2013; MOTA, 2018).

According to UNTWO, 1 out of 10 people around the world work either directly or indirectly in the tourism sector. In many regions, the participation of young people and women in tourism is greater than any other economic sector (UNTWO, 2018). The Jordanian Government, especially MOTA, prioritizes the development of the tourism sector as this provides 6% of total jobs with an annual growth rate of 1-2%. Around 51 thousand Jordanians work directly in the tourism sector where most of these workers are in hotel and restaurant sectors (40% share each), followed by travel agencies with a 10% share (MOTA, 2018) (Figure1).

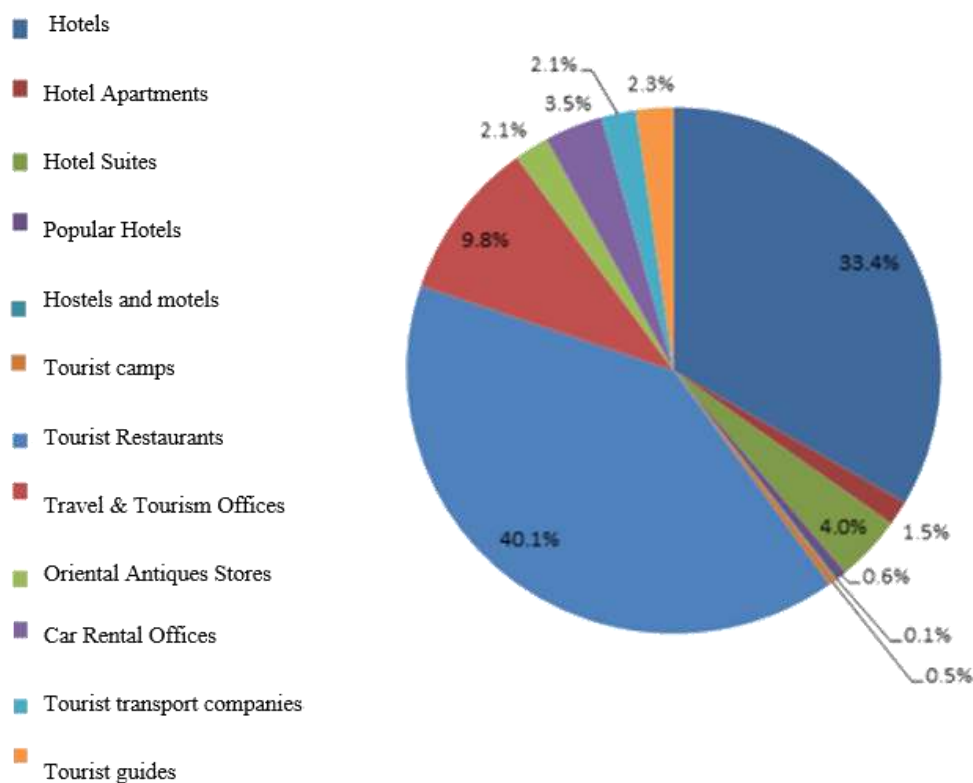


Figure 1: Distribution of tourism employees during 2017 (MOTA, 2018)

The Jordanian National Tourism Strategy (JNTS) established a four-pillar framework for 2011 - 2015 that guides the development of sustainable tourism. The first pillar is marketing and promotion that aimed to involve twelve different markets including cultural heritage and religious tourism, family holidays, health, conferences, adventure, and others. This pillar aims to increase the entry of high-yielding tourists from key emerging and currency markets, and expand the domestic tourism market. The second pillar is product development, which aims at diversifying and increasing tourism products as well as enhancing the 'Jordan Experience' to create an unforgettable tourism experience for tourists. The third pillar, labor market development, was designed to increase women's participation from 10% to 15% and to create an additional 25,000 direct job opportunities, as each direct job opportunity creates two indirect job opportunities. The final pillar, enabling environment, focuses on building a public-private partnership and creating an enabling environment that supports tourism growth (MOTA, 2010).

In the early 1990s, researchers underlined the importance of involving host communities in tourism planning and management, where this involvement was seen as fundamental to the effectiveness in planning and management that ensure tourism sustainability (Eshliki & Kaboudi, 2012; Styliadis, Biran, Sit, & Szivas, 2014). Host communities must be able to determine their willingness to participate and share culture and heritage as a result of various factors and indicators that may influence their attitudes and daily life (Zhuang, Yao, & Li, 2019). Investigating the relationship between the integration of host communities and the development of the tourism sector, Nzama (2008) clarified that it is a positive relationship. However, most supportive residents are those who benefited economically (Eshliki & Kaboudi, 2012).

Non-Governmental Organizations (NGOs) and governments around the world are encouraging the participation of host communities in tourism (Al-Oun & Al-Homoud, 2008). This integration process minimizes the negative impacts of tourism and enables host

communities to play a vital role as owners and service providers that ensure the continuity of traditions and culture for future generations. Host communities can provide tourists with different services such as food, tours guiding, hostels, and entertainment, and at the same time, they have the opportunity to raise their economic situation, meet people from different cultures, as well as expose themselves to new perspectives (Zaki, 2015).

As tourism generates benefits, particularly in developing countries, by motivating commercial activity and promoting infrastructure maintenance, it still has negative consequences (Fernandez, Castillo, & Salomao, 2014; Rhaman, 2016; UNTWO, 2018). In tourist flow, it has become a necessity to raise awareness among stakeholders of the socio-economic benefits and perception of host communities, who are among the most affected stakeholders as it affects their daily lives. According to Eatwell and other researchers, socio-economic means the "use of economics in the study of society", and refers to the impact of economic activity on the attitude of the community toward local behavior from social interaction (Becker, 1974; Eatwell, Milgate, & Newman, 1989).

The influence of tourism on socio-economic indicators varies among communities. This influence is linked to the social structure and the ability of a community to absorb the various tourism levels and values (Eshliki & Kaboudi, 2012; Diedrich & Aswani, 2016). Investigation of the impacts of tourism can help promote positive outcomes through creating opportunities, enhancing social identity, and improving both the image of the city and quality of life for the residents (Fernandez, Escampa, & Vázquez, 2016). However, there are still unavoidable negative impacts of tourism such as increasing levels of crime, traffic, drug use, taxes and cost of living (Haralambopoulos & Pizam, 1996; Byrd; et al, 2009; Phoummasak, Kongmanila, & Changchun, 2014).

The tourism development process includes evaluating economic, social and environmental dimensions (Choia & Sirakayab, 2006; Nocca, 2017). Evaluating tourism's

impact on the socio-economic indicators helps decision-makers and tourism professionals establishing a guideline for community tourism development that maintains tourism sustainability in an area and meets both the host community and tourists' needs (Nayomia & Gnanapalab, 2015; Dangi & Jamal, 2016). Such as this examination will protect future opportunities for further tourism development programs that result in preserving cultural integrity, social unity, and protecting the environment.

Regarding the available literature, it was difficult to find scholarly work that evaluates the impact of enhancing tourism on the development of local socio-economic factors of host the community within the same period in which the enhancement occurs in Jordan. In addition to the scarcity of academic research on the topic, most researchers were concerned only with evaluating the impact on well-known sites such as Petra, Jerash, and Madaba while they ignored the importance of perceptions and expectations of the host community in other sites such as Umm el-Jimal. Closing this gap should be the first step towards raising community perceptions within the same time period that tourism development occurs as this research investigates the impacts of tourism enhancement projects at Umm el-Jimal's'.

1.1 Study Area

Umm el-Jimal, an ancient settlement located in Jordan's Northern Badia near the Syrian border. Approximately 20 kilometers east of Al-Mafraq City, Umm el-jimal is a home for 4,886 people distributed over 942 houses (Figure 2) (DoS, 2018). Umm el - Jimal town, also known as the Black City, is famous for its unusually well-preserved archeological site, which for 2000 years has been home to different civilizations during the Nabataean, Roman, Byzantine, and all Islamic civilizations (De Vries, Bert, 1981).



Figure 2: Map of Jordan showing Umm el-Jimal location

The modern community of Umm el-Jimal consists of the Masa'eid tribe including Al-Gedair, Al-Smairan, Al-Sehaim, Al-Shabbar, Al-Wadi, and other families as well as a significant number of Syrian refugees representing 0.6% of the total Bedouin population in Jordan (Figure 3). The family size in Umm el-Jimal is 5.1 people/household which is higher than the national size of 4.8 people/household. The proportion of male gender in Umm el-Jimal is almost equal to the female gender since males represent 52% and females represent 48% of the community's total population (Figure 4) (DoS, 2018). Moreover, the proportion of the population under the age of 15 is estimated at 40.1%, which is higher in the Badia region than in the country as a whole. The proportion of the population aged 15 to 64 years is estimated at 57.3%, which leads to an increase in the demand for health care and education. There is a need to provide jobs and support the establishment of projects. Umm el-Jimal's local community works in the government, military, and agricultural sectors (Development and Employment Fund, 2017).

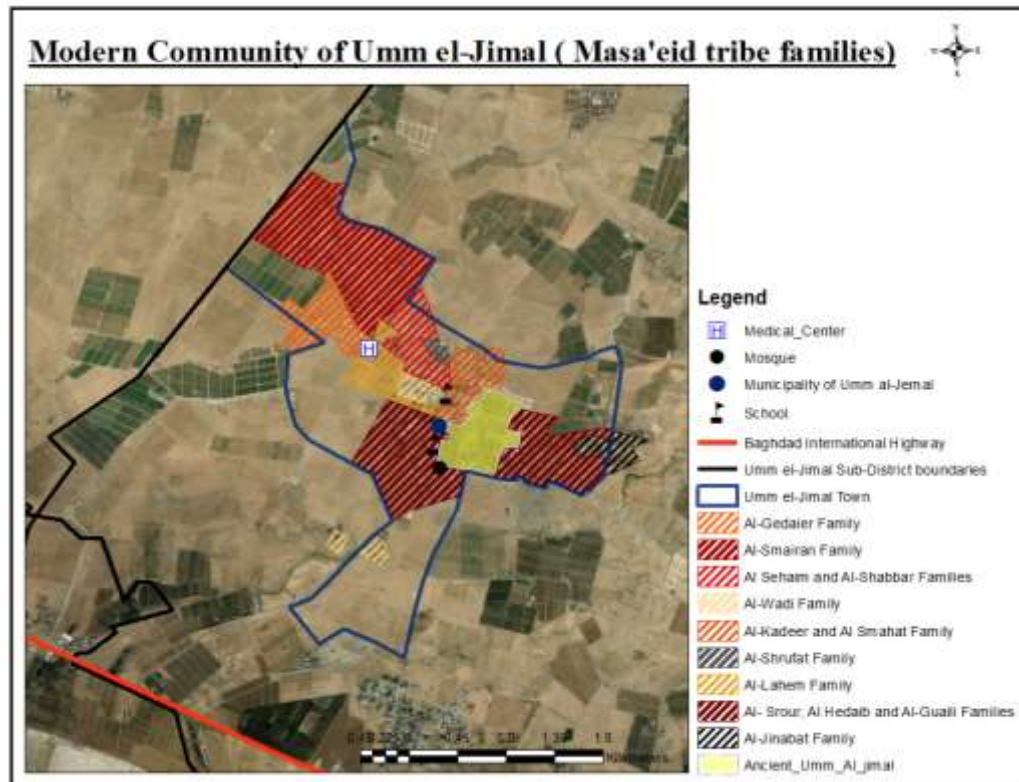


Figure 3: Masa'eid tribe families at Umm el-Jimal (By Author)

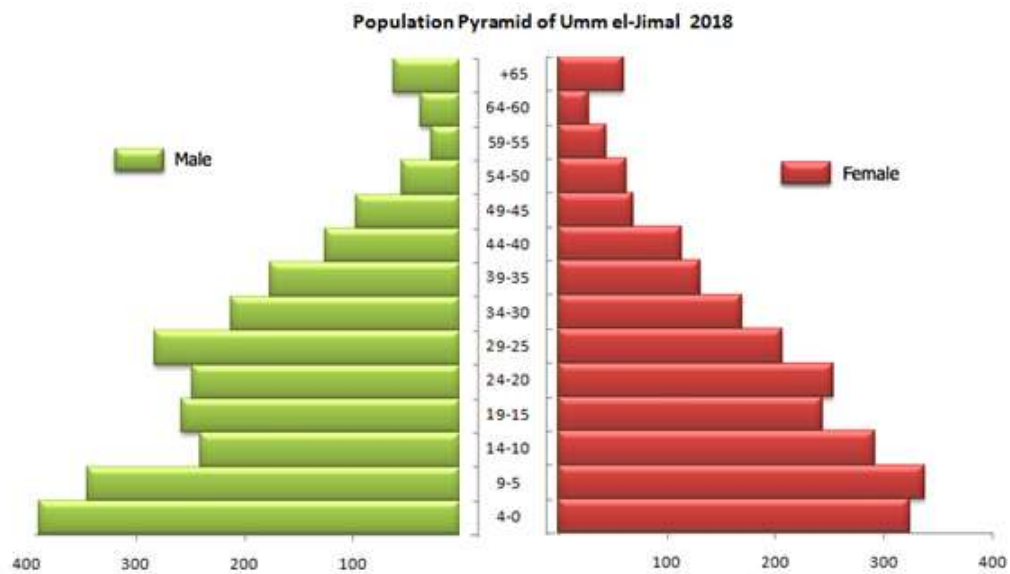


Figure 4: Population Pyramid of Umm el-Jimal (DoS, 2018) (By Author)

The Masa'eid tribe settled in the ancient ruins of Umm el-Jimal town in 1936, where they built their tents outside the ancient buildings (Figure 5). Over time they became strongly attached to the ruins as each family adopted its own spot and water reservoir. In

1972, the Department of Antiquities (DoA) banned them from living inside the site's boundaries and forced them to move to the surrounding areas. However, Masa'eid succeeded in maintaining their relationship to the ruins in the memories of successive generations. This historic connection became one of the reasons for protecting the ancient site (De Vries, 2019).



Figure 5: Masa'eid tent site location shown in white dots (UJAP, 2014)

In 2001, the ancient site Umm el-Jimal was named to the World Heritage Site program's tentative list (UNESCO, 2001). The archeological site was considered by UNESCO as an immovable cultural heritage site based on evidence of past human activities and technology (UNESCO, 1972; ICAHM, 1990). With a total area of 0.43 km², the archaeological site lies in the middle of the modern town of Umm el-Jimal and separates it into two parts (Figure 6).



Figure 6: Aerial photography for Umm el-Jimal town 2014 (UJAP, 2014)

The archeological site of Umm el-Jimal contains 107 houses, of which House XVIII is the most famous with its architectural details and 3 stories. The 16 churches represent a variety of architectural types: for example, some are basilicas, like the West Church, and others are hall churches, like the Julianos church. Finally, the site boasts an efficient ancient water system that includes 33 water reservoirs spread inside and outside the fence, and many of these are still used by the New Municipality of Umm el-Jimal. Also, this site includes other valuable buildings such as the Commodus Gate, the Praetorium, a 3rd-century Roman governmental building, and the Barracks, which dates back to 412 A.D and includes a tower standing 15m high (Figure 7) (Butler H. , 1913a).

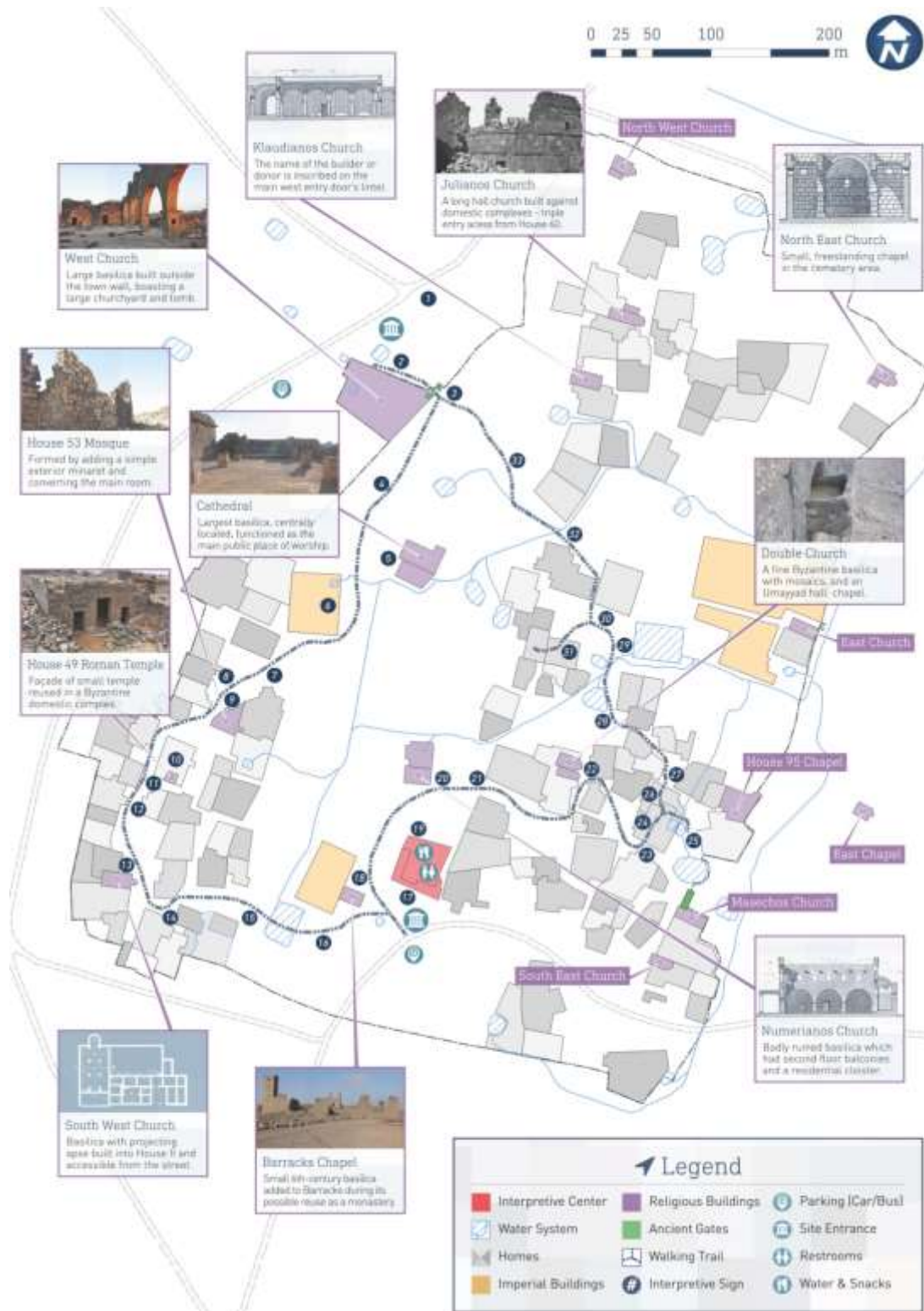


Figure 7: Umm el-Jimal Archaeological site Trail map (UJAP, 2015)

Despite its rich cultural heritage, Umm el-Jimal has not attracted many tourists as a result of the poor tourism environment and shortage of basic services. In the last ten years, Umm el-Jimal received 20,670 tourists in which Jordanians represent 48.02% (Table 1)

(MOTA, 2018). However, these numbers are not totally accurate as Umm el-Jimal suffers from poor management, so that the actual number of visitors is probably higher than the official record and may have reach its peak in March and April (Figure 8).

Table 1: Number of Visitors to Umm el-Jimal by Nationality 2005-2018 (By Author) (MOTA, 2018)

Year	Jordanian	Foreign	Total
2005	935	1950	2885
2006	1236	1199	2435
2007	816	1327	2143
2008	492	1732	2224
2009	876	1929	2805
2010	648	1117	1765
2011	770	1147	1917
2012	406	536	942
2013	1400	1044	2444
2014	1953	938	2891
2015	1524	240	1764
2016	540	379	919
2017	488	620	1108
2018	828	1063	1891

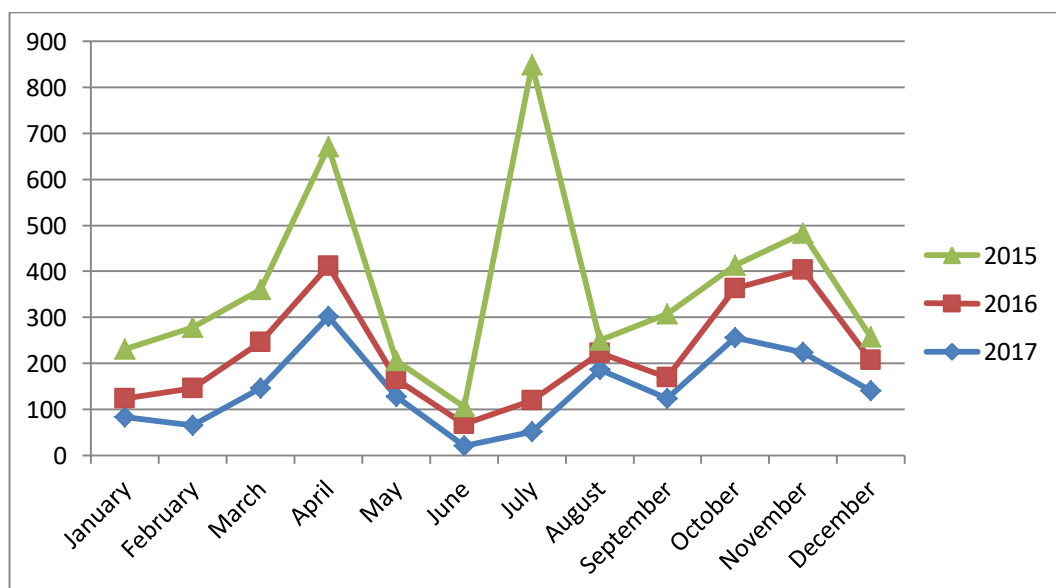


Figure 8: Monthly Number of Visitors to Umm el-Jimal monthly visitors 2015-2017 (By Author) (MOTA, 2018)

Tourism in Umm el-Jimal can be promoted on the basis of several outstanding characteristics: the best-preserved Byzantine town in the Southern Hauran region, religious buildings, distinguished architectural features, and an ancient water harvesting system. In addition, Umm el-Jimal witnessed various religious events that capture the attention of Jordanian tourists; on 2 July 2018 Maronite Cardinal Mar Bishara Boutros Al-Ra'i held worship at the archeological site in the Cathedral Church (Figure 9). The tourism enhancement process in Umm el-Jimal has involved improvement in facilities and site presentation through the re-use of House 119 as an Interpretive and Hospitality Center, installation of the Umm el-Jimal sign trail and the ongoing construction of the Umm el-Jimal West Entry Park to be enjoyed by visitors. Furthermore, a non-profit organization called; Hand by Hand Heritage (HxH Heritage) was established to operate the tourism industry by providing different services through Umm el-Jimal's residents (see Chapter 4).



Figure 9: Mar Bishara Boutros Al-Ra'i led worship in the Cathedral Church (UJAP, 2018)

Among Jordan's historical and cultural attractions are 14,500 archaeological sites, five of which are on UNESCO's World Heritage Site List; Petra, Qusair Amra, Um Er-Rasas, Wadi Rum and the Baptism Site (UNESCO, 2017). In September 2017, MOTA decided to make Umm el-Jimal archaeological site the new Jordanian candidate for World Heritage status for 2021 (MoTA, 2017). Nominating the archeological site of Umm el-Jimal and preparing it as a new tourism destination will capture the attention of tourism operators, investors, tourists and researchers from all over the world (UNESCO, 2018).

1.2 Problem Statement

Both governmental and private sectors in Jordan are seeking to achieve social and economic development for local residents by generating tourism development projects. Although these projects aimed to generate socio-economic benefits for residents, they were not followed up by governmental sectors which generated both positive and negative impacts on residents that affected the sustainability of the tourism sector. Accordingly, in achieving sustainable tourism development, it is necessary for tourism professionals and decision-makers to combine different interests of stakeholders in their plans (Byrd, 2007). The hypothesis of this study is tourism enhancement projects at Umm el-Jimal archaeological site has affected the development of local socio-economic indicators, whereas Umm el-Jimal is one of the poorest areas in the northern Badia of Jordan where the poverty rate is 29.5% according to the statistics 2107.

Evaluating the impact of enhanced tourism at Umm el-Jimal archaeological site on the socio-economic development of the local residents to help decision-makers to reach a comprehensive understanding of residents' perceptions and expectations that will ensure sustainability of tourism sector and lead to a better tourism environment that benefits residents and maintains the sustainability of tourism in the archaeological site.

1.3 Research Aim

Host communities are among the most affected stakeholders in the growth of the tourism industry, which has a direct and indirect impacts on the daily lives of the residents. This study aims to measure and evaluate the impact of tourism enhancement projects on residents. In addition, this study will evaluate data related to the development of the tourism sector in Umm el-Jimal to inform decision-makers and professionals who seek sustainable economic outcomes.

1.4 Research Objectives

- To clarify the existing situation in the town, raise the developments and highlight the results of previous work.
- To identify residents' attachment, awareness and desired level of tourism enhancement.
- To assess the socio-economic impact of enhanced tourism at the Umm el-Jimal archeological site on residents.
- Set recommendations that guide tourism industry at Umm el-Jimal.
- To investigate the urban growth and expansion for Umm el-Jimal 2050.

1.5 Research Significance

Identifying residents' perceptions, expectations and attachment is necessary in the first place to ensure the sustainability of the tourism industry. Promoting services and providing job opportunities for residents will raise awareness on the important role that tourism plays in benefiting residents by enabling them to start their own business, reducing unemployment and increasing the participation of female gender in the labor market.

Currently JNTS for MOTA is ineffective in terms of highlighting the role of residents in the tourism industry and the importance of studying the socio-economic

impacts on the local communities. This study will address this issue by investigating the perceptions of Umm el-Jimal's residents before and after tourism enhancement by conducting quantitative methodology using a survey questionnaire and observations, and will provide a clear vision of residents perception that decision-makers can then use as a base layer for tourism management in Umm el-Jimal town.

The obtained methodology in this study can be used to provide comprehensive insight for a better understanding of the perceptions and expectations of tourism in the host communities and to provide a clear strategy for the role of the local communities in the development of the tourism sector. In addition, the socio-economic indicator development documentation process will provide guidelines for tourism professionals and decision-makers to develop the tourism sector, maximize the benefits for host communities and reduce the negative impacts of tourism.

Chapter Two: Literature Review

2.1 Tourism Concept

The word tourism is a recent addition to language, first introduced in the early 19th century and has various meanings (Smith, 1989). Tourism generally refers to a wide variety of consumer activities that require products and services from a variety of economic industries (Camilleri, 2017). Tourism is a phenomenon of people moving within and across borders for different purposes (Mir, 2008).

Feuler (1905) clarified one of the earliest definitions of tourism, he described it as a modern sensory phenomenon based on the increased need for natural recovery and relaxation and enjoyment. Tourism, in particular, helps nations approach each other and develop industry, trade, and transportation. In 1910, Austrian economist, Schullard described it as an overall sum of operators, mainly economic, directly related to the entry, stay and movement of foreigners within and beyond a particular country, city or area (Singh, 2008). Both Hunziker and Krapf defined tourism as a sum of travel-related phenomena and relationships of non-residents, as long as it does not lead to a permanent residence or earned activity (Hunziker & Krapf, 1942; Robinson, 1967; Spode, 1998). In 1976, the United Kingdom Tourism Society defined tourism as people are being transported temporarily for a short period to destinations beyond the areas where they normally live and work (Beaver, 2002).

Another broad definition was given in 1981 by the International Association of Scientific Experts in Tourism (AIEST), which defined tourism as specific activities selected and carried out outside the home (AIEST, 2008). UNWTO and the United Nations Statistics

Division (UNSTAT) have defined tourism more as the activity of people traveling to and staying in places outside their normal environment for a period of less than one consecutive year for leisure, business and other purposes (UNWTO, 1993).

According to the UNWTO Recommendations on Tourism Statistics in 1994, tourism has three forms including domestic tourism, inbound tourism, outbound tourism (UNWTO, 2010). In fact, tourism may or may not involve an overnight stay (Kabia, 2005). In general, there are three common elements in the concept of tourism: the movement and traveling of people, the economic situation, and the interaction between meeting the needs and demand with the failing attempts of meeting these demands (Leung, et al, 2018).

The tourism industry involves three aspects: tourists' motivation and experiences, residents' expectations and modifications, and active agencies' role in moving, housing, feeding, and entertaining tourists. Furthermore, this industry includes five activities: transportation, accommodation, catering/retail, recreation, and travel-related services (Knowles, 2015). According to Kaul (2002), tourism's main characteristics are:

- Peoples' movement to different destinations outside their normal area or spatial boundaries, which has two key elements; journey and stay.
- This movement is of a temporary nature and the short duration distinguishes it from migration.
- Bringing in new activities that differ from residents' activities in host areas.
- In terms of participating in tourism, recreation is the main aim not the seeking of permanent residence or part-time job within the hosted area.
- The abstract concept of tourism is to delight activity implementation through the use of available incomes, free time and individuals own desires.

Figure (10) illustrates the conceptual framework, implications of tourism, and required elements to be found tourism sector.

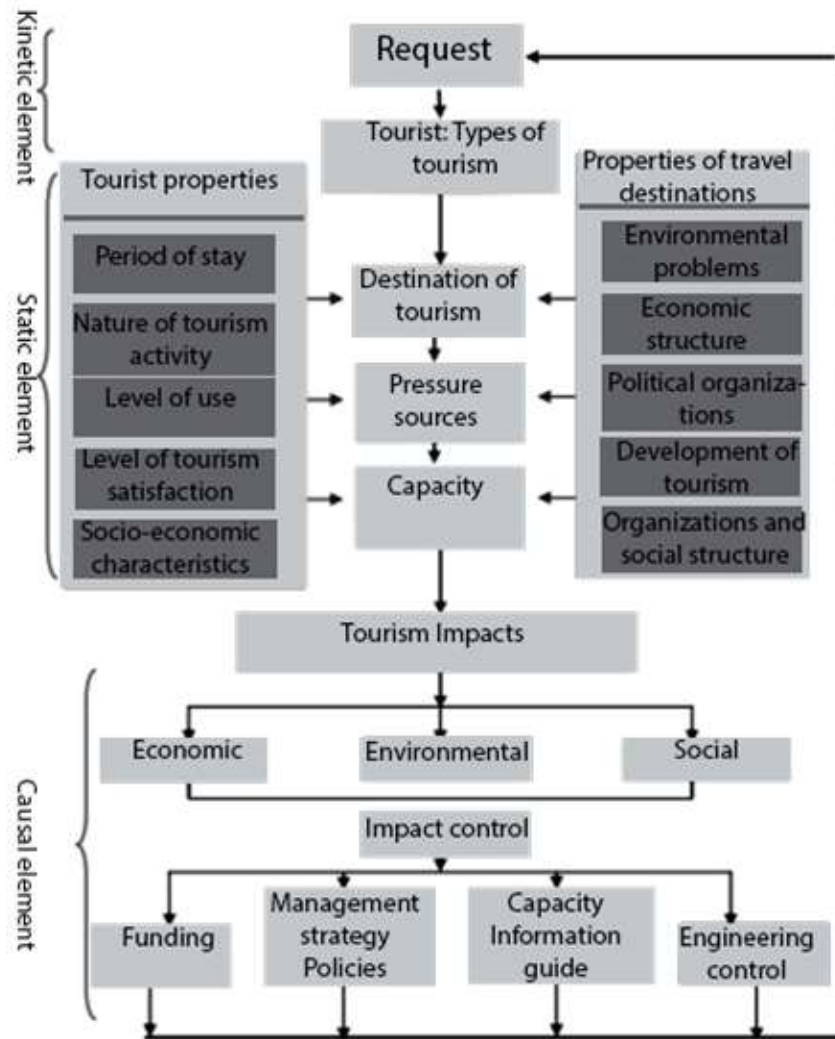


Figure 10: Conceptual framework of Tourism (Mathieson & Wall, 1982)

In general, governments in developing countries prioritize the importance of the tourism industry as a new generator for earning and bringing in foreign exchange, employment, and a modern lifestyle (Timothy & Suchi, 2014; Manzoor, et al., 2018). However, the development of tourism industry requires sophisticated attractions, infrastructure availability, and residents' hospitality. In addition, it is necessary to gain residents' support for tourism development by highlighting their perceptions expectations and the impacts of tourism (Alrwajfah, Almeida-García, & Cortés-Macías, 2019).

2.2 Development and Tourism

2.2.1 Development Theory

The term 'development' is recognized as a process for changing the social and economic situation, priorities and choices in order to ensure a better life for humanity (Brundtland, 2019). Development is considered as one of the most important social life components in which researchers have long been discussing (Sharpley & Telfer, 2014; Harrison, 2015). According to Sharpley, the term development refers to the philosophy, procedure, and outcome of a plan that guides the process towards the desired goals (Sharpley R. , 2002). In addition, Ghosh stated that development for many people is a desire for fulfillment of basic needs for their livelihood and comfort, such as food, housing, jobs, health, education, safety, better services, communication, freedom, openness, mobility, and dignity (Ghosh, 2012). However, Lewis Preston, former president of The World Bank Group, stated that "Development Theory by itself has little value unless it is applied, unless it translates into results, and unless it improves people's lives" (Todaro, 2000, p. 77).

In origin, development theory focused on the economic dimension, and later it integrated the social, ethical and environmental dimensions (Telfer & Sharpley, 2015; Purvis, Mao, & Robinson, 2019). Theoreticians considered development as growth in the nation's wealth during the 16th century (Apostolides & Moncada, 2013). In addition, Ghosh indicated that developing societies competed in the 19th century to catch up with developed societies (Ghosh, 2012). At the beginning of the 20th-century development was perceived as an increase in economic progress (Martine & Alves, 2015). Furthermore, Payne and Phillips (2010) describe the "Golden Age" of development theory as the period from 1945 to the 1970s, and that modernization theory is the dominant perspective in the mid-1970s (Harrison, 2015, p. 54). Goldsworthy (1988) refers to development as moral and material ideas that deal with human promotion and realization through various options,

such as poverty reduction by optimizing the fair distribution of benefits (Sharpley & Telfer, 2014, p. 13).

The development theory is a collection of theories and include the modernization theory. The modernization theory is defined as a social and economic development that follows a path toward a goal represented by modern societies in North America and Western Europe (Sharpley & Telfer, 2014). In addition, (Reyes, 2001) defined the theory of modernization as one that uses a systematic process that proceeds to a more sophisticated level of development with underdeveloped countries. This theory focused more on industrial development than on the primary methods of production and consumption, and capital played a key development factor. However, Martinussen emphasized that the focus of modernization theory is the cultural change directed at the institutional structures of non-industrialized countries, and it explains inequality by identifying different values, systems and ideas held by several countries (Martinussen, 1997, pp. 61-66).

Development refers to economic growth, structural change, capitalism, socialism, and self-dependence. According to Harrison (2015, pp. 54-56), various attempts have been made to document the evolution of development theory over the past six decades. Sharpley (2009) succeeded in establishing a comprehensive outline for development theory from the 1950s to the 2000s that is generally accepted by scholars (Table 2).

Table 2: Development Theory from the 1950s to the 2000s (Sharples, 2009, p. 39)

Timeline	Development process	Key concepts and strategies
1950s– 1960s	Modernization theory	<p>Dominance of Western economic growth based models:</p> <ul style="list-style-type: none"> ▪ Stages of growth ▪ Structural theories ▪ Diffusion: growth poles and trickle down ▪ State intervention: regulation/ protectionism
1960s– 1970s	Modernization theory/ dependency theory	<p>Underdevelopment as the result of domination/exploitation by developed countries:</p> <ul style="list-style-type: none"> ▪ Economic restructuring, import substitution protectionism and domestic markets development ▪ Growth limits: neo-Malthusian theories in response to environmental concerns
1970– 1980s	Neo-liberalism	<p>Promotion of the free market:</p> <ul style="list-style-type: none"> ▪ Government intervention limits for economic activity ▪ Deregulation/privatization ▪ Structural adjustment programs ▪ New economic order: one world
1980s	Neo-liberalism/alternative development	<p>Awareness of effects of development on different cultures/societies:</p> <ul style="list-style-type: none"> ▪ Grassroots/people-centred development ▪ Basic needs: food, housing, education, health ▪ Local context/indigenous knowledge ▪ Environmental stability
1990s	Alternative/sustainable development	<p>Dominance of sustainable development paradigm but emergence of post-development school:</p> <ul style="list-style-type: none"> ▪ Grassroots/people- centred development ▪ Environmental management ▪ Engagement with globalization ▪ The development "impasse"
2000s	Beyond the impasse: A new paradigm?	<p>Post-development rejection of overarching development concepts:</p> <ul style="list-style-type: none"> ▪ Global environmental policies/protocols ▪ Transnational movements ▪ Micro-level strategies ▪ Poverty reduction ▪ State security and development

Gartner (2008) stated that the philosophical basis of development is to look forward to a desirable future that the community can achieve and effect policies and plans for development. Researchers have clarified that, in order to improve a society's lifestyle, there is a subcategory of economic development, that seeks to apply identified tools and approaches to developing countries' economic and social domains (Konys, 2018; Sánchez-Corcuera et al., 2019). In fact, tourism offers foreign exchange, increases job opportunities, encourages economic independence and attracts development for both foreign and domestic private capital (Anup, 2016). Furthermore UNWTO argued that tourism can lead to economic growth and development through its ability to create job opportunities and generate a multiplier effect from foreign exchange earnings (UNWTO, 2002).

Although tourism is considered as an effective tool for economic development in developed and developing countries, it still has negative characteristics such as low-level per capita income, unequal income distribution, low levels of industrial development, higher tax revenue, and inequalities in regional development (Rahman, 2010). In addition, both Torres and Momsen (2005) argued against tourism being a generator of economic development because it depends on foreign imported sources, predominantly volatile, which results in competition with local and small industries. Furthermore, Bryden argued that the local community of tourist areas in developing countries often do not receive a fair share of benefits; instead, the tourism companies, businessmen and national governments receive the largest share of benefits (Bryden, 1973).

On the other hand, tourism can be used in rural areas to achieve economic growth as it not only contributes to economic development but also helps to reduce the differentiation of income and infrastructure development between urban and rural areas (Ibănescu, et al., 2018). Accordingly, decision-makers in developing countries tend to employ tourism to generate socio-economic development as its impacts depend on tourism demand, tourism industry structure, and economic pattern (Manzoor, et al., 2018).

2.2.2 Sustainable Development

Over the past decades, researchers have been interested in the field of sustainable development. According to Bhuiyan, sustainable development is a result of a conflict between environment and development process (Bhuiyan, 2016). The International Union for the Conservation of Nature and Natural Resources defined sustainable development as the integration between conservation and development to maintain the worlds' indeed secure for the survival and wellbeing of all people (IUCN, 1980). Furthermore, The World Commission on Environment and Development carried out a comprehensive definition of sustainable development where sustainable development is the development that meets the needs of present generations without obstructing the ability of future generations' needs (WCED, 1987, p. 43). Sharpley (2000) criticized the WCED definition for sustainable development as not considering the social and political barriers to development. As he identified three principles for sustainable development: “(a) a holistic perspective is required, both development and environmental sustainability are global challenges; (b) the emphasis should be on the long-term future; and (c) although the focus of development should be people centered, the challenge is to achieve both intra and inter-generational equity; development should be fair and equitable for all people both within and between generations” (Sharpley, 2009, p. 45).

Accordingly, defining the concept of sustainable development caused conflicts between researchers and policymakers as it is hard to agree on a globally accepted definition. Researchers have indicated that sustainable development refers to an oriented and associated process that manages changes that lead to improvements in the conditions for the involved people (Liu et al., 2013). Furthermore, (Masud, 2010) stated that the focal point of sustainable development is the society, in addition to the environmental consequences that result from societal change, and the increase in economic activities. On the other hand, (UN, 2015) outlines various discussions about whether sustainable development refers to a

common principle of equity and justice, improving the conditions of poor people and protecting the rights of the future and in between generations.

2.2.3 Sustainable Tourism

Sustainable tourism refers to tourism and related infrastructures that operate within natural capacities to ensure the regeneration and productivity of natural resources for the future and recognize the contribution of host communities, tradition, and lifestyles in the tourists experience (Anup, 2016). Fayos-Solà (2018) pointed out that host communities must have a fair share of the economic benefits. The World Tourism Organization has defined sustainable tourism as tourism that meets the needs of current tourists and host communities while preserving and enhancing future opportunities (WTO, 1993: 7). In addition, Zolfani and other researchers (2015) clarified that sustainable tourism is tourism capable of maintaining its viability for an indefinite period.

Countryside Commission stated that sustainable tourism is a tourism that can sustain local economies without destroying the environment that it depends on (Countryside Commission, 1995). Sustainable tourism refers to all types of tourism that fit into sustainable development and contributes to that development: in addition, it requires a sustainable contribution of tourism in the economy and society and sustainable use of resources and the environment (Liu et al., 2013). Moreover, sustainable tourism should be able to add open economic opportunities to the host community without affecting the economic structure, as it should not interfere with the existing forms of social organization (del Río-Vázquez et al., 2019). A model of sustainable tourism values and principles was formulated by Hall, Jenkins, and Kearsley (1997) to improve the community economy, maintain equity and integrate the environment with the economy (Figure 11).



Figure 11: A model of sustainable tourism values and principles by Hall, Jenkins, and Kearsley 1997 (Murphy & Price, 2005, p. 175)

In 1966, United Nations World Tourism Organization and World Travel and Tourism Council summarized a set of principles and practices for sustainable tourism, including (UNWTO & WTTC, 1996):

- National and local sustainable development strategies should include tourism planning, development, and operation. In addition, different types of tourism development should be considered, as well as the ways they are linked with existing land and resources use and socio-cultural factors.
- Tourism should support local economic activities and take into consideration environmental costs and benefits. However, tourism is not allowed to control the economic foundation of an area.
- In collaboration with government, local communities should be integrated into the tourism industry and expected to participate in their planning and development. Indigenous people, women, and minority groups must be involved in this process to ensure a fair distribution of benefits.

- Organizations and individuals must respect the destination area's culture, environment, economy, and political structures.
- Stakeholders must be educated about the need to develop sustainable forms of tourism. The education and marketing processes include staff training, and raising awareness and responsibility of sustainability affairs among host communities and tourists.
- In order to monitor impacts, solve problems and to allow the local community and others to take advantage of opportunities, various research and evaluations should be held throughout tourism development and operation stages.
- To avoid potential conflict and to optimize the benefits for stakeholders different agencies, organizations, and individuals should cooperate and work together.

Zolfani (2015) argues that sustainable tourism preserves and promotes the natural and cultural origin of destinations, improves the quality of life of local residents, meets the needs and expectations of the tourism market and ensures the fair distribution of tourism costs and benefits between present and future generations.

2.2.4 Sustainable Tourism Development

In the late 1980s, the concept of sustainable tourism development has been widely accepted as a desirable and politically acceptable approach to tourism development (Godfrey, 1996; Sharpley, R, 2003). World Commission on Environment and Development reported that sustainable development referred to the development as meets the needs of the present without compromising future generations' ability to meet their own needs (WCED, 1987, p. 15). According to the World Tourism Organization (WTO), sustainable tourism development meets the present needs of tourists and host communities while protecting future opportunities. Moreover, WTO emphasizes that sustainable tourism development manages resources in a way that ensures economic, social, and aesthetic needs are met side

by side with the maintaining of cultural integrity, biological diversity, and life support systems (WTO, 1999).

The Brundtland Report adopted distinguished objectives for environment and development policies including preserving peace, reviving growth and changing its quality, addressing poverty problems and satisfying human needs, highlighting population growth problems, reorienting technology and managing risk and merging environment and economics in decision-making (WCED, 1987, p. 198).

2.3 Tourism Impacts

2.3.1 Dimensions of Tourism Impacts

The term tourism impact describes changes in the state of something related to tourism over time (Hall & Lew, 2009). Researchers have become more interested in highlighting the impacts of the tourism industry over the last few decades as it has been a growing phenomenon at both national and international level (Sharma, 2004). Various scholars showed that tourism has an impact on social, economic and environmental domains (Bhuiyan, 2016). Furthermore (Weed, 2008) emphasized the importance of understanding these impacts, noting that residents of host communities perceive these impacts differently as some residents receive benefits at the expense of others.

According to (Keyser H. , 2009) in the process of analyzing tourism impacts, it is necessary to highlight the possibility of tourism posing negative impacts on the host communities. Moreover, he highlighted the fact that environmental destruction and social disruption are some of the potential negative effects of tourism; therefore, it is important to assess the positive and negative consequences of tourism. Yudinaa and other researchers indicated that tourism has a noticeable impact on the social structure of a community where expansion of international tourism has increased the interaction among different communities and cultures (Yudinaa et al., 2016).

The term socio-economic impact deals with the social and economic situation of an area: social impact relates to lifestyle, level of education, level of crime, social cohesion, level of acceptance of foreign and tourist availability, community involvement in the tourism industry and interaction with tourists, whereas economic impact relates to infrastructure development, job opportunities, and property value (López-Guzmán, Borges, & María, 2011; Sindhu & Singh, 2014; Nayomia & Gnanapalab, 2015). The following table highlight the positive and negative socio-economic impacts of tourism by WTO.

Table 3: Tourism positive and negative socio-economic impacts (WTO, 2004, p. 25)

Positive Impacts	Negative Impacts
Economic benefits	Economic distortions
Employment and income opportunities	Increase lands and properties prices
Promoting the local businesses	Loss of cultural manifestations authenticity
Foreign exchange earnings	Social problems such as alcoholism, prostitution, and drug use
The multiplier effect on other economic activities	Demonstration effect (where locals absorb and copy the dress and behavior of tourists)
Improved financial situation and infrastructure of the area	Overcrowding of tourist attractions area
Preserving cultural heritage	Employing the non-residents in the area
Cultural exchange between tourists and local residents	Economic benefit exclusively for owners

2.3.2 The Social Impacts of Tourism

As cited by Donny and Mohd Nor (2012), social impacts address how tourism contributes to changes in community values, individual behavior, family relationships, lifestyles, traditional ceremonies, and community structure. Furthermore, Ogorelc (2009) pointed out that social impacts occur through direct interaction between local residents and tourists. According to Bagri and Kala (2016), there are three types of interactions between local residents and tourists: the first interaction occurs when tourists buy goods and services

from local residents; the second occurs when tourists and local residents share facilities; and the third occurs when tourists and residents meet for cultural exchange that contributes to mutual understanding and respect.

For a comprehensive understanding of tourism impacts on host communities Keyser (2002) combined social and cultural impacts into socio-cultural impacts. Keyser stated that social impacts refer to noticeable short-term changes in society's values and norms and that cultural impacts refer to a long-term change in art forms, rituals and community structures. The many impacts of tourism over the world have been both positive and negative (Mthembu, 2009). According to Brunt and Courtney (1999), the degree of socio-cultural impact depends on the number and type of visitors, the nature of tourism development, and other aspects related to the host community. Both Mathieson and Wall (1982) suggest that anything that affects the quality of life and human well-being should be considered when defining social impacts of tourism. In addition, Weed (2008) emphasizes the importance of classifying any social impact on society within social domains. Table (4) illustrates the socio-cultural positive impacts of tourism.

Table 4: Socio-cultural positive impacts of tourism (Easterling, 2004, p. 53)

Positive Impacts	Findings
Cross-cultural interaction	Residents enhanced their understanding of different cultures though interactions with foreigners
Revitalized traditional practices	Local communities share their traditions with tourists, and this strengthens those cultural traditions
Increased demand for local arts	The demand for local arts, historical and cultural exhibits was increased by tourism
Preserves/ Strengthens Cultural identity of hosts	Residents believe that tourism helped in preserving the identity of the host community
Greater pride in Community	Tourism development enhances community pride and cohesion
Improves Life quality	Tourism development is expected to improve the life quality of residents.
Promotes cultural exchange	Tourism is regarded as an opportunity to meet people from other cultures which encourage cultural exchanges

In general, tourism generates socio-cultural benefits for host communities because it motivates residents to present their traditions, cultures, and heritage to tourists leading to the preservation and enhancement of community identity (Gunay, 2008; Tsundoda & Mendlinger, 2009). It also contributes to improving the social well-being and quality of life and increasing recreational opportunities (Phoummasak, Kongmanila, & Changchun, 2014; Nayomia & Gnanapalab, 2015; Bhuiyan, 2016). Moreover, tourism can enhance communication and understanding between cultures (Brougham & Butler, 1981; Harrill R. , 2004; Easterling, 2004).

However, tourism can also have negative socio-cultural impacts. Dogan (1989) pointed out that tourism can affect residents' daily routines, social life, habits, beliefs and values. In one case study, Phoummasak, Kongmanila, and Changchun (2014) highlighted some of the negative cultural impacts of tourism in a city in Laos, including the spread of foreign fashion and hair dyeing, nontraditional body tattoo arts and short clothes mostly worn by young ladies. Additionally, residents of touristic areas are often concerned with the increase in crime rates, drug use, and sexual harassment (Tsundoda & Mendlinger, 2009). The following table illustrates the socio-cultural negative impacts of tourism development.

Table 5: Socio-cultural negative impacts of tourism (Easterling, 2004, p. 53)

Negative Impacts	Findings
Loss of native language	Residents indicated that their native language has been lost as a result of the influx of tourist languages
Increased Prostitution	Residents indicated that tourism leads to an increase in prostitution
Tourism destroys social cohesion	<ul style="list-style-type: none"> ▪ Erodes the social structure and leads to class divisions between residents ▪ Increases the inter-generational conflict
Resident attitudes worsen over time	<ul style="list-style-type: none"> ▪ Negative attitudes of residents might lead to hostile behaviors ▪ The unavoidable conflicts between the host communities and tourists
Tourism intensifies labor burdens	The burden of hosting visitors increases the stress of residents and exploits employees
Tourism leads to a loss of authenticity	Tourism creates inauthentic behavior on the residents part

2.3.3 The Economic Impacts of Tourism

As cited by Bhuiyan (2016) the economic impact examines the effect of a condition and situation on the economy in a specified region, ranging from a single neighborhood to the entire world. Moreover, economic impact entails the mutual influences of wealth production, distribution, and consumption on human society (Moffatt, 2008). Tourism is recognized as a tool for community development because it motivates economic activity within the tourist area (Athula Gnanapala & Sandaruwani, 2016). Although tourism has both a positive and negative influence on the economic situation of the destination, host communities are quite satisfied to see the flow of tourists in their areas (Tisdell, 2001; Byrd; et al, 2009).

The economic impact is considered one of tourism's most obvious effects. In terms of development, tourism generates revenue for the region, increases job opportunities, develops facilities production and services, and increases regional profits by providing demands for the host community and tourists (Alirzayev, 2011; Athula Gnanapala & Sandaruwani, 2016). Tourism motivates new infrastructure development, communication, and transportation (Milman & Pizam, 1988; Inskeep, 1991). Furthermore Ap and Crompton (1998) indicated that tourism contributes to improved living standards, job creations, development of infrastructure, and improvement of public services and transportation.

The recent studies focus more on the positive economic impacts of tourism than on the negative impacts (Andereck; et al, 2005). Tourism is considered as a potential economic foundation that provides elements to improve the quality of life such as providing job opportunities, encouraging festivals, restaurants, natural and cultural attractions, and outdoor recreation in addition to other economic diversification (Bhuiyan, 2016). Tourism generates direct and indirect expenditure through motivating opportunities and providing a variety of goods and services in where tourists spend money (Cooper, 1993; Athula Gnanapala & Sandaruwani, 2016). Tourism contributes to improving the balance of payments and

bringing in foreign currency; furthermore, tourism increases the central government revenue through employee taxes and taxes on goods (Swarbrooke, 2002). According to Ryan (2003), tourism expenditure is used to expand and grow businesses and hence the local economy; in addition, tourism expenditure is perceived as a profit mechanism for tourism businesses such as housing, food, drinks, and activities. The following table illustrates the positive economic impacts of tourism development.

Table 6: Positive economic impacts of tourism (Easterling, 2004, p. 51)

Positive Impacts	Findings
Employment opportunities	Tourism resulted in an increase in the employment rate and job opportunities
Standard of Living	Tourism increased the standard of living
Support for infrastructure	Tourism enhances investment, development, and infrastructure spending
Economic growth	Tourism is perceived to increase economic growth; a dominant factor in the economy

Even though tourism motivates positive economic benefits, it can also generate negative economic impacts. Negative economic impacts include higher land and houses prices, higher levels of inflation, and taxes and an increase in costs of goods and services (Haralambopoulos & Pizam, 1996; Ap & Crompton, 1998). Phoummasak, Kongmanila and Changchun (2014) emphasize that tourism drives higher prices of housing costs including rent. Furthermore, Mason (2008) clarified that inflation, which is often a by-product of tourism growth, leads to a general increase in the prices at the destination. The increase in the prices of goods, services and housing results in a higher cost living in touristic areas compared to non-touristic areas (Haralambopoulos & Pizam, 1996). An example of inflation is overpriced restaurants which are not suitable for local tourists and the host community members (Bhuiyan, 2016). Moreover Akis, Peristianis, and Wagn (1996) indicated that tourism impacts negatively on host communities as they suffer from the increases in the taxes.

According to Kreag (2001), the tourism industry creates a huge demand over limited resources such as food, electricity, water, and transportation that can lead to inflation that has negative impacts on the host community. Small destinations, especially in a developing country, tend to rely exceedingly on the tourism industry, as most local residents end up working related to it (Mason, 2008). The following table illustrates the negative economic impacts of tourism development.

Table 7: Negative economic impacts of tourism (Easterling, 2004, p. 51)

Negative Impacts	Findings
Increased cost of living	Tourism increased the costs of living for residents
Increased prices	Residents perceive that tourism results in increased food, services, goods, and land prices
Benefits not distributed	Residents believe that economic benefits accrue to a minority of residents
Employment is seasonal, temporary	Employment considered as seasonal and is for low wages with long hours
Increased economic instability	Residents believe that tourism is accountable for changes in income and prices

Tourism-related employment can lead to an over-dependence on tourism and can encourage local residents, especially youth, to ignore traditional ways of earning income. This dependence puts these communities at risk of economic crisis, as tourism can fluctuate and is highly dependent on external demand factors (Liu & Var, 1986). In many cases, seasonal tourism provides only temporary jobs (Swarbrooke, 2002). In this context, it is important to understand that tourism often includes a significant number of low-paying and part-time jobs, which then results in under-employment or unemployment during off-seasons (Kreag, 2001). Therefore, it is necessary to divide the tourism outcomes evenly between residents during the low seasons (Bestard & Rossello, 2007). Hosting events, extensive marketing and strategic pricing are some suggested solutions to promote tourism through the low seasons (Weed, 2008).

2.4 Tourism Stakeholders

Freeman (1984) recognizes that stakeholders are made up of several groups and individuals. He emphasizes that they should be considered as an important component of an organization or industry's structure where they participate in decision-making according to specific roles assigned for each stakeholder. According to Frooman (1999), stakeholder-theory attempts to answer three general questions: Who (or what are the stakeholders in the company) is defined as any groups or individual that may influence the achievement of the organization's objectives; What do they want? and How will they get there?

As cited by Oketch (2016), tourism stakeholders are identified as individuals directly or indirectly involved in or affected by the tourism industry. In more detail, UNWTO describes stakeholders in tourism development as national and local governments, tourism establishments and associations, financial supporters, tourism workers, professionals and consultants, local populations and host communities, educational and training centers, tourism operators and other people or organizations, such as NGOs that specialize in tourism and are directly involved in tourism projects and the supply of tourism services (UNWTO, 2005). In 2019, UNWTO clarified stakeholders and their roles in tourism and sustainable tourism development (Table 8) (UNWTO, 2019). Generally, stakeholders refer to community members, governments, external collaborators and other partners working together to estimate community needs and perceptions of the community and to assess their adaptation to tourism (Asker, Boronyak, Carrard, & Paddon, 2010).

Table 8: Stakeholders and their roles in tourism and sustainable tourism development (UNTWO, 2019)

Stakeholder type	Role in delivering sustainable tourism
International development assistance agencies <ul style="list-style-type: none"> Agencies and multilateral programs Bilateral agencies 	<ul style="list-style-type: none"> Tourism integration in the development policies and strategies Financial and technical assistance to sustainable tourism and individual programmers and projects
National Government <ul style="list-style-type: none"> Tourism Ministry Other Ministries Tourism agencies (Tourist Board) Other government delivery agencies Resource management bodies 	<ul style="list-style-type: none"> Tourism policy and strategy development and implementation Relating tourism to wider policies and strategies Legislation, standards and regulation relating to the sector Infrastructure planning and development Resource management Communication, information and marketing
Local Government & Destination bodies <ul style="list-style-type: none"> Regional government Local authorities 'District Councils' Destination management organizations 'public-private' 	<ul style="list-style-type: none"> Local strategic direction and planning Implementation of policy and regulations Local infrastructure development and management Stakeholder engagement, coordination and support
Private sector businesses <ul style="list-style-type: none"> Tourism trade associations, national and local Tourism service providers 'hotel businesses' Tour operators – international and incoming Suppliers to the sector 'food producers' Investors – international and domestic 	<ul style="list-style-type: none"> Representation of, and influence on, the tourism sector Operation of tourism services Link to domestic and international markets Product development, investment and improvement Employment creation and generating local income Reflecting sustainability of economic, social and environmental aspects in development and operations
Employees and related bodies <ul style="list-style-type: none"> Labour unions Individual workers in the sector 	<ul style="list-style-type: none"> Representing interests of employees Human resources planning and development Providing reliable services in returns to the income
NGOs – International, national and local <ul style="list-style-type: none"> Sustainable development NGOs Environment, conservation and cultural NGOs Social and community NGOs 	<ul style="list-style-type: none"> Representing different stakeholder interests Engaging in strategic planning and development Stakeholder coordination and supporting implementation Capacity building and provision of expertise

Stakeholder type	Role in delivering sustainable tourism
Education and training bodies <ul style="list-style-type: none"> ▪ Universities, colleges and teaching bodies ▪ Research institutions ▪ Technical experts and advisory bodies 	<ul style="list-style-type: none"> ▪ Knowledge gathering and dissemination ▪ Supporting policy and strategy development ▪ Capacity building and training ▪ Specific advice and expertise
Local community <ul style="list-style-type: none"> ▪ Community councils and representative bodies ▪ Traditional structures 'tribal chiefs/bodies' ▪ Organized groups 'women, youth' ▪ Local formal and informal traders ▪ Individual households 	<ul style="list-style-type: none"> ▪ Engaging in planning and decisions on tourism at a local level ▪ Representing and communicating local community interests ▪ Pursuing equitable benefit sharing within communities ▪ Interacting with tourists to mutual benefit ▪ Receiving income from tourist spending
Consumers/tourists <ul style="list-style-type: none"> ▪ Individual tourists ▪ Consumer networks, clubs and societies ▪ Travel media and social media users 	<ul style="list-style-type: none"> ▪ Providing the main source of income to the sector ▪ Behaving responsibly towards the environment and local communities in travel choice and actions ▪ Communicating information and opinions on destinations and sustainability issues accurately and fairly

Accordingly, awareness level, knowledge, and skills of tourism stakeholders are higher than the average of people unassociated with the tourism industry (Tkaczynski, Rundle-Thiele, & Beaumont, 2009; Aqueveque & Bianchi, 2017). The effectiveness of tourism stakeholders is measured by the ability to influence economic, environmental and social aspects (Lyon, Hunter-Jones, & Warnaby, 2017). Furthermore, the cooperation process among tourism stakeholders can leads to maximizing strategic benefits, enhancing destination marketing, community cohesion and visitor experiences (Van Huy, 2018). This cooperation empowers more practicable improvement plans that enable an immediately reacting to the local stakeholder's needs and ambition (Canavan, 2017).

2.5 Community and Tourism

2.5.1 Community Attitudes and Perceptions

The term attitude refers to the mental situation of a person towards a specific aspect of the environment (Allport, 1966; McDougall & Munro, 1987). According to Getz (1994), attitudes are strengthened by perceptions and faiths of reality but are related to deeply held values and personalities. Furthermore, few researchers clarified that attitudes are a durable predisposition towards a specific aspect of a person's environment that reflects the thought, feeling and behavior of the person in regard to that aspect (Carmichael, Christian, & Anderson, 2000). In addition, they classify the individual attitudes into three dimensions (cognitive, effective, and behavioral) that guide host communities' attitudes towards tourism development. Concerning peoples' attitudes, it is important to note that “what is perceived does not have to be true” (Andriotis & Vaughan, 2003).

Researchers focused on general issues related to economic, socio-cultural and environmental impacts (Kuvan & Akan, 2005). Tourism-based economics has had a positive and significant impact on community attitudes where local residents who perceive a higher level of economic tourism gain tend to have more positive attitudes towards it (Harrill R. , 2004; McGhee & Andereck, 2004). On the other hand, local residents who feel that tourism threatens their culture and identity are more likely to develop attitudes that are at best moderate and at worst active aggressive (Zhuang, Yao, & Li, 2019). In general, the attitudes of local residents who benefit from tourism through investment, ownership, or employment are more positive towards tourism development than other residents who do not benefit directly from tourism (Fredline & Faulkner, 2000). Furthermore, Capenerhurst (1995) argues that the reaction of local residents to the development of tourism depends on the population density in the host communities: smaller host communities have stronger reactions towards tourism development than large host communities since the development is more visible.

For a comprehensive understanding of community attitudes towards tourism development researchers has clarified three main factors that affect residents' perceptions, economic dependency, resident's social factor and level of local participation in tourism activities (Bhuiyan, 2016). Moreover, both positive and negative impacts of tourism are highlighted to examine the authentic meaning of tourism development and to clarify what economic benefits host communities receive. Researchers indicated that the determinants of local residents towards tourism development differed between developed and developing countries (Sirakaya, Teye, & Sönmez, 2002). Furthermore, Ward and Berno (2011) emphasis that local residents in developing countries tend to have a more positive attitude toward tourism activities in their community.

2.5.2 Community Participation

Community participation is an important generator of development and can reflect an upward or downward approach to problem-solving. In order to achieve sustainable tourism development, local communities must be involved in the decision-making process (Mowforth & Munt, 2009). In fact, this participation and involvement is a major principle and there should be local approach to be controlled by the Community and its resources (Giriwati et al, 2019).

Efficient participation for the host communities may generally lead to economic, social and political transformations in addition to social and personal empowerment (Weil & Gamble, 1995). However, it is important to advocate local residents involvement at the inception of the development process (Abdulla, 2013). Furthermore, (Jamal, 2004) argues that host communities must accept their responsibility for development with a full understanding of its repercussions.

According to (Arnstein, 1970), communities' participation results in a redistribution of power that allows local residents to be included in future planning, which will ensure the greatest social reform. In fact, host communities can be involved in tourism as owners, service providers and partners with government and non-government organizations (DeRose, 2003). Mowforth and Ian (2003) discuss seven models for community participation: "Manipulative participation, Passive participation, Participation by consultation, Participation for material incentives, Functional participation, Interactive participation, Self Mobilization".

In 1991 Drake identified the platform of community engagement in tourism development through empowerment (Giriwati et al, 2019): stating the community as the subject of development that plays a vital role in the planning procedure, community active role in the implementation, management, and development of programs, community role and position in implementing both individually and collectively significant economic and socio-cultural values benefits. Moreover, Drake divided this scheme into three main stages (Figure 12).

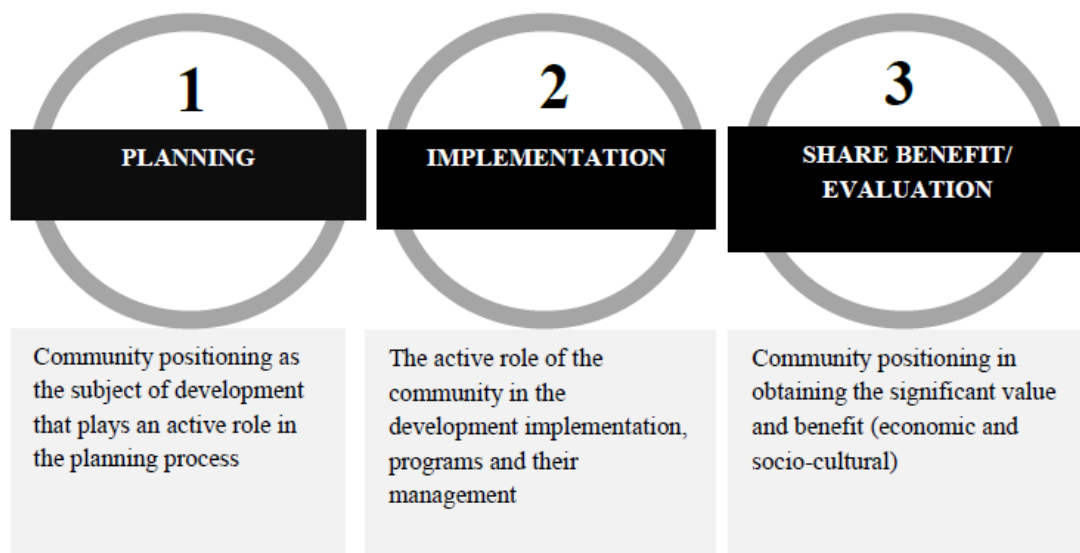


Figure 12: Community involvement in the development of tourism through empowerment (Giriwati et al, 2019)

2.6 Case Studies

1. Pro-poor tourism: residents' expectations, experiences and perceptions in the Kakum National Park Area of Ghana.

This study aimed to highlight residents' expectations, experiences, and perceptions towards tourism development and pro-poor interventions in the Kakum National Park Area of Ghana, an economically poor area but rich in tourism assets (Akyeampong, 2011). Data were collected using different methodologies such as fieldwork, structured interviews, and survey. The structured interviews were directed towards the key public organizations that deal with tourism promotion and is meant to formulate an overview of tourism development, and to highlight projects and communities that have benefited from tourism developments.

The survey questionnaire was designed using a 5-point Likert scale to measure respondents' perception of tourism development in the area through socio-economic characteristics. There were 207 survey respondents from four areas: two were selected purposively due to their location near to the park, and the other two were randomly selected from the surrounding regions. The Statistical Product for Service Solutions (version 12) software was used to analyze this survey.

The researcher hypothesis assumed that residents' perceptions and attitudes towards tourism development would be shaped through their own experiences. Therefore, he measured community experience through respondents' who were directly involved in the operations of tourism development, such as decision-makers and management members or respondents who benefited from pro-poor interventions such as micro-finance schemes, and craft training projects. Respondents' indicated that only a few members from the community benefited from tourism development as it provided them with part-time jobs, while others indicated that they were not totally involved in the decision-making process. On the other hand, residents' perceptions were measured using socio-economic factors, such as

educational attainment, length of stay and community of residence, age, sex and benefit from the micro-finance scheme. Results indicated that 58% of respondents were satisfied with tourism development, while only 8.8% were indifferent towards it. Despite benefiting from tourism development, respondents from the surrounding areas indicated that were unsatisfied or indifferent about tourism development in the area when it did not meet their expectations.

In general, results showed an inverse relationship between socio-economic benefits and residents' distance to the park: residents who live near the park are more likely to benefit from tourism than residents from the surrounding areas. This study highlighted the importance of raising communities' awareness of the ramifications of tourism development and the need for community participation in decision-making in order to achieve a sustainable tourism environment and fair distribution of tourism benefits. Regular studies of residents' perceptions and expectations need to be taken into consideration to monitor tourism impacts on host communities.

2. Sustainable Tourism Development between Potential and Prospects: Case Study of Guelma.

This study aimed to analyze the socio-economic and environmental impact of tourism on the sustainability of the tourism industry at Guelma, an Algerian wilaya (state), from the point of view of tourists and local residents. Guelma is renowned for its tourism resources such as mineral fountains and thermal stations, natural views, archaeological and historical sites (Azouzi, 2014/2015).

The methodology was divided into two stages: first, a theoretical investigation into tourism history and development in Algeria in general and Guelma in specific; second, a questionnaire survey and tourists about sustainable tourism and the socio-economic and environmental impacts, and its subsequent statistical analysis. The survey included 19

questions in a 5-point Likert scale and covered five main topics: demographic information, economic, socio-cultural, and environmental aspects, and the nature of Guelma as a sustainable tourism destination. The sample size was 287 tourists and 325 residents.

Survey data were analyzed using Spss statistical software version 20. Alphas' Cronbach test, Normality test, frequency and percentage, Standard deviation and ANOVA test were carried out in this study. Results indicated that the involvement of governmental, private and public institutions, tourists and local residents in tourism development and planning process will maximize tourism benefits and minimize the negative impacts such as random use and environmental pollution. Furthermore, unless residents of Guelma are involved with and aware of tourism, there will be a negative impact on tourism sustainability.

Comparing responses between tourists and residents indicated that tourists disagreed with the role of socio-economic impacts as a generator for sustainable tourism development because of a shortage in tourism facilities, the lack of the transportation system and high prices; however, they did find that environmental impact is a important generator tourism sustainability as tourism in Guelma rely on environmental resources as touristic destination. On the other hand, residents were more interested in socio-economic impacts and they agreed that the outcome benefits from tourism would enhance development and the economic situation in the area. In general, this study highlights the importance of integrating both local residents and tourists perceptions of tourism development plans. Satisfaction level of residents and tourists would ensure the maintenance of tourism and reduce the negative impacts of it.

3. Local Residents' Attitude toward Sustainable Rural Tourism Development.

In addition to analyzing residents' perceptions, this study aimed to highlight factors that influence sustainable tourism development in Nord-Vest in Romania. Nord-Vest includes six counties: Bihor, Bistrita-Nasaud, Cluj, Maramures, Satu-Mare, and Salaj. They

are rich in the natural environment, and landscape and offer a variety of cultural touristic areas that have high potential as tourism attractions (Muresan, et al., 2016).

A questionnaire survey (5-point Likert scale) with a 433 sample size was designed and divided into three main topics to measure residents' perception of tourism impact, support of tourism development and socio-demographic characteristics. Residents' perceptions of tourism development were measured using 4 factors: environment, social, economic and physical, and these were then divided into 22 sub-factors. Their support for tourism development was measured using 2 factors: sustainable development and destination development, which were then divided into 8 sub-factors. The data were analyzed using descriptive and inferential statistics, including Cronbach's alpha reliability test, P_value test, T-Test, and Kaiser-Meyer-Olkin (KMO).

Results indicated that participants perceived tourism development positively, as they see tourism as a generator for socio-economic development and as an environmental conservator. According to participants, tourism development improves life quality, creates job opportunities, generates general infrastructure developments, increases awareness towards the importance of nature conservation, and supports socio-cultural personal benefits such as arts and crafts development, and improvement of social life and facilities.

This study clarified the importance of residents' attitudes and perceptions toward tourism development as a useful tool for planners and policymakers in future development plans in order to enhance of sustainable tourism development and reduce tourism's negative impacts. Furthermore, it recommended long-term plans that follow changes in residents' attitudes and perceptions.

2.7 Chapter Conclusion

This chapter performed literature review that formulated the conceptual framework and design of this research. Tourism is a multidisciplinary sector, with active links to other fields that generate development. This research contributes to the debate on tourism development, socio-economic impacts, and residents perceptions. The socio-economic impact of tourism development on residents captured the attention of researchers, but it is still under research and not appreciated in developing countries.

Previous research studies suggested that the optimal approaches for tourism development were those that adopt a bottom-up model such as the community approach, the community-oriented approach, and the participatory planning approach, as discussed in this chapter. Accordingly, research related to tourism focused on economic, social and environmental aspects of tourism development; however, it did not measure the impact of enhancing tourism from residents' point of view. Although there is an increased demand for tourism expansion, the literature suggests that there are negative impacts on residents related to equality and fair distribution of benefits which might result in conflicts that affect tourism, tourists and residents in hosted areas. Therefore, exploring the impacts of tourism development is important to help formulate different ways in which residents can lead development with minimum negative impacts.

Tourism development in developing countries is largely determined by government policy and institutional control. In the case of Jordan, development is guided by the government with help from the private sector and NGOs, without integrating local communities.

Chapter Three: Methodology

3.1 Introduction

This research investigate Umm el-Jimal residents' perception towards tourism enhancement at the archaeological site, as well as its impact on the development of the local socio-economic situation. In order to fulfill these objectives, the research employed a mixed methodology including both quantitative and qualitative approaches. After determining the focus group, primary and secondary data were gathered. Primary data were created from surveys and observation, while secondary data were collected through the documentation and critical review of previous research (Figure 13; 14).

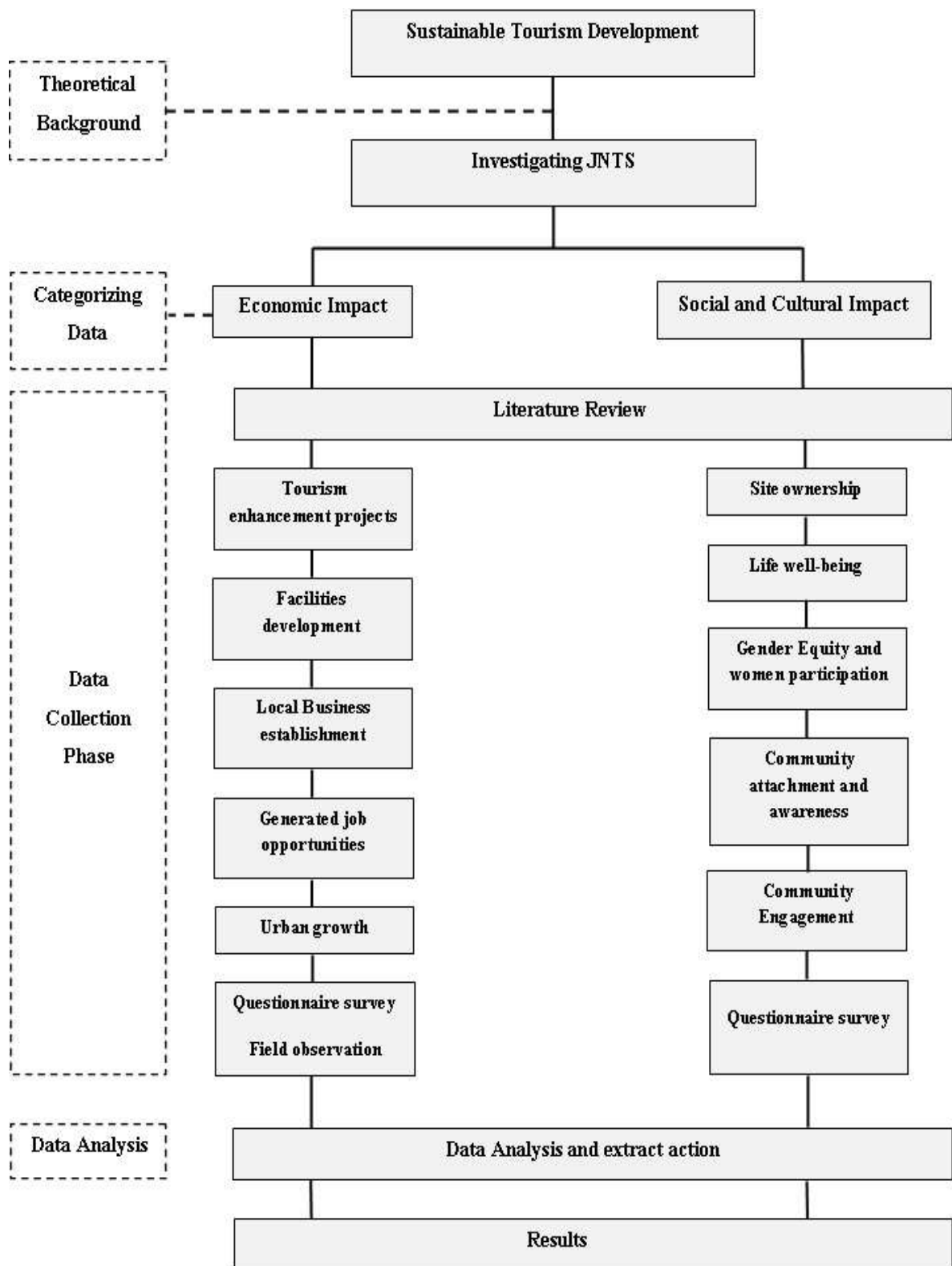


Figure 13: Flow chart of research methodology (Source: By Author)

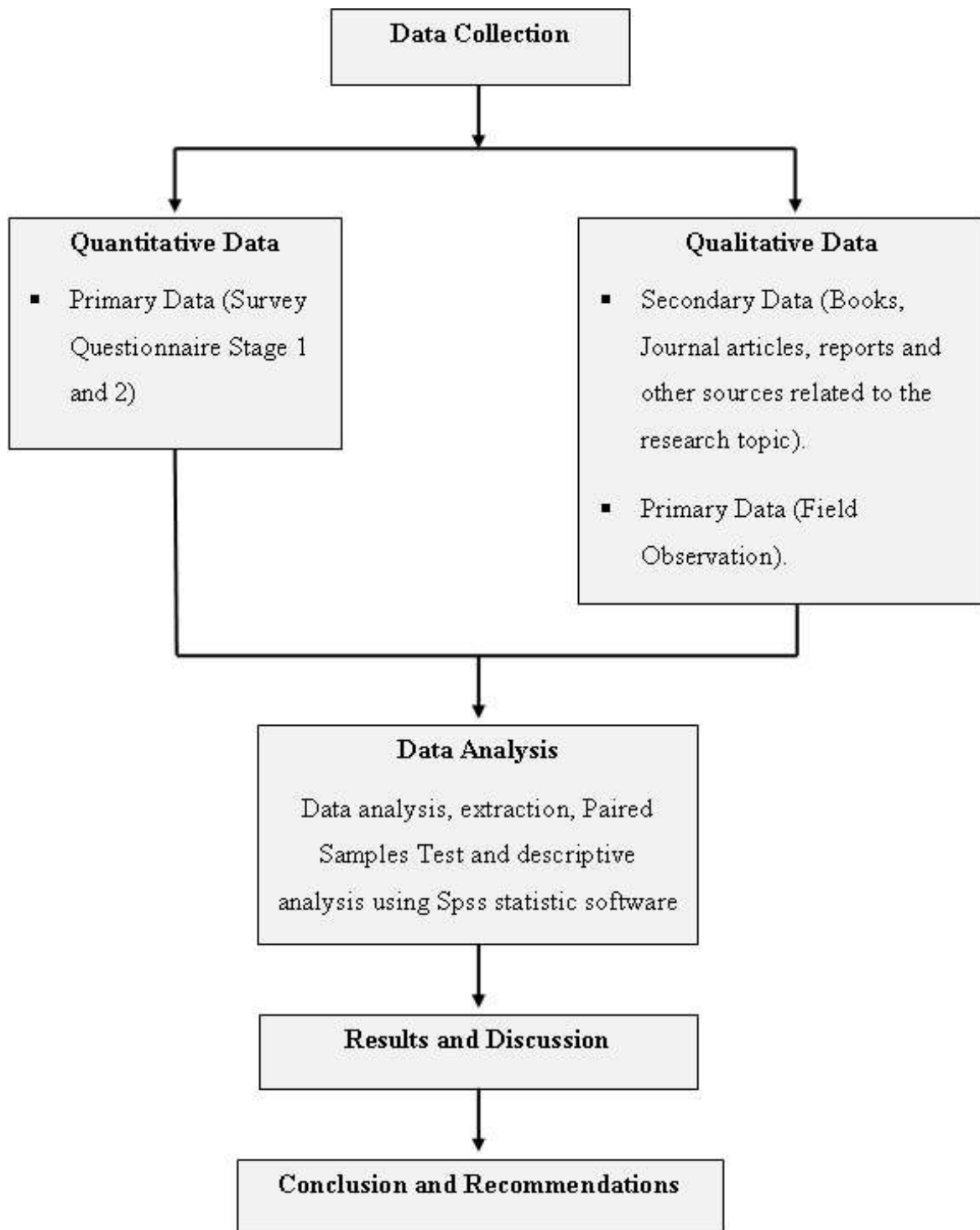


Figure 14: Flow chart of research methods (Source: By Author)

3.2 Target Group

The study targets the local community of the New Umm el-Jimal municipality. Umm el-Jimal town was intentionally chosen as a case study for different reasons as the researcher in origin is a local resident from the surrounding area of the case study who intends benefiting the local community of Umm el-Jimal. The importance of Umm el-Jimal archaeological site for being the new Jordanian candidate for the 2021 World Heritage list that could boost new tourism development. This highlights the need for investigating the local community perceptions of tourism and tourism development in the area based on socio-economic dimensions. The personal interest for the researcher is how tourism contributes and affects both social and economic situation in towns and rural areas of Jordan. Umm el-Jimal case study is a distinctive single study that aims to set out a base for operating and guiding tourism in it by measuring the impact of enhancing tourism at the Umm el-Jimal archaeological site through evaluating the impact of tourism enhancement projects on Umm el-Jimal residents.

3.3 Data Collection and Derivation

The fieldwork took place in Umm el-Jimal town, Northern Badia, Al-Mafraq Governorate from October 2017 to October 2019. This research was designed and carried out in qualitative and quantitative methods including a field questionnaire survey, field observation and secondary documents data.

3.3.1 Primary Research on the Case of Umm el-Jimal Town

Primary data refer to the original data that are collected and gathered to achieve a specific research goal. Primary data differ from secondary data as in every time primary data are gathered, new data are added to the existing knowledge database while secondary data represent the existing knowledge database that researchers created and made it

available for general research re-use for other researchers (Hox & Boeije, 2005). In this study, primary data include survey questionnaires (Table 9).

Table 9: Primary data sources (Source: By Author)

Material	Year	Source
Umm el Jimal community interest survey stage 1	2017	Umm el-Jimal Archaeological project
Umm el Jimal community interest survey stage 2	2019	Questionnaires
Umm el-Jimal Municipality Area	2019	Google Earth Pro

3.3.2 Questionnaire Survey

A survey was designed and conducted by The Umm el-Jimal Archaeological Project, an archaeological project for Calvin University based in Umm el-Jimal led by Dr. Bert de Vries, under the title of Umm el-Jimal Community Survey on Interest in Engagement with the Archaeological Site. The first stage occurred during the period of October-December 2017 in which the author participated as a member of the surveyors' team. This survey-first stage- deals with water-related, heritage-related and demographic questions (Appendix A). The water-related questions deal with the water supply and consumption patterns of the local community, as well as the local community understanding of the needs, and manners of supplying and reusing the harvested water from the ancient water system at the archaeological site. On the other hand, heritage-related questions deal with modern community perception, awareness and value of the archaeological site, and aimed to help to create a basis for community engagement with the archaeological site in order to achieve a better cultural and economic environment. Finally, the demographic-related questions targeted basic population information. In general, this stage aimed to measure the modern community awareness, interest, and benefit from the archaeological site as a heritage, water and employment resource (Figure 15).

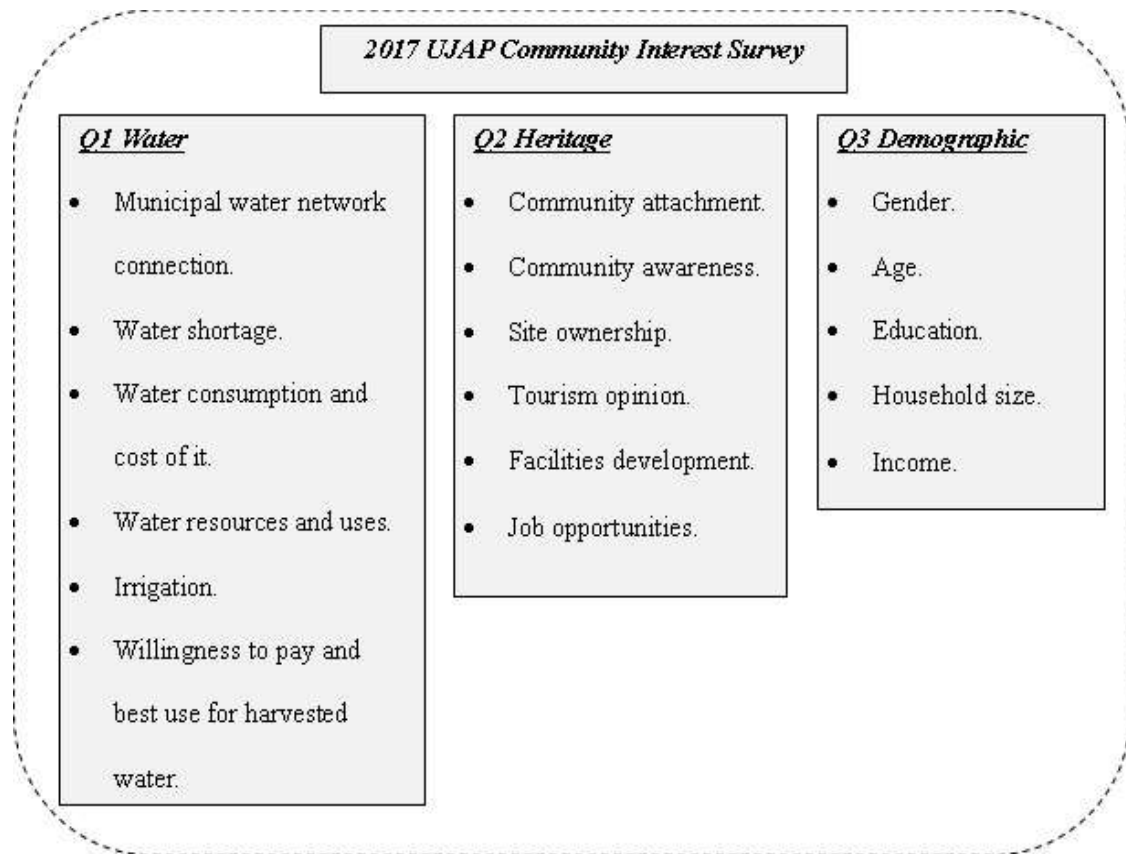


Figure 15: 2017 Umm el-Jimal Archaeological Project Community Interest Survey design (Source: By Author)

The second stage from Umm el-Jimal Community Interest survey occurred during August 2019. In cooperation with The Umm el-Jimal Archaeological Project, the author managed to design a set of questions testing community interest in enhancing tourism at Umm el-Jimal town. This stage deals with heritage-related, tourism-related, and demographic questions (Appendix B). The heritage-related questions track the changes in the community perceptions after the installation of site presentation facilities including the opening of Umm el-Jimal Hospitality and Interpretive center and the implementation of training, awareness and other related programs. Tourism-related questions are aimed to measure the community willingness for participating and enhancing tourism sector at Umm el-Jimal, in addition to, highlight the community understanding for socio-economic impacts and challenges associated with the development of tourism. The demographic-related questions targeted basic population information. This stage was designed in general to assess the

changing in the community's awareness and interest as well as highlight its' perception for enhancing tourism at Umm el-jimal (Figure 16).

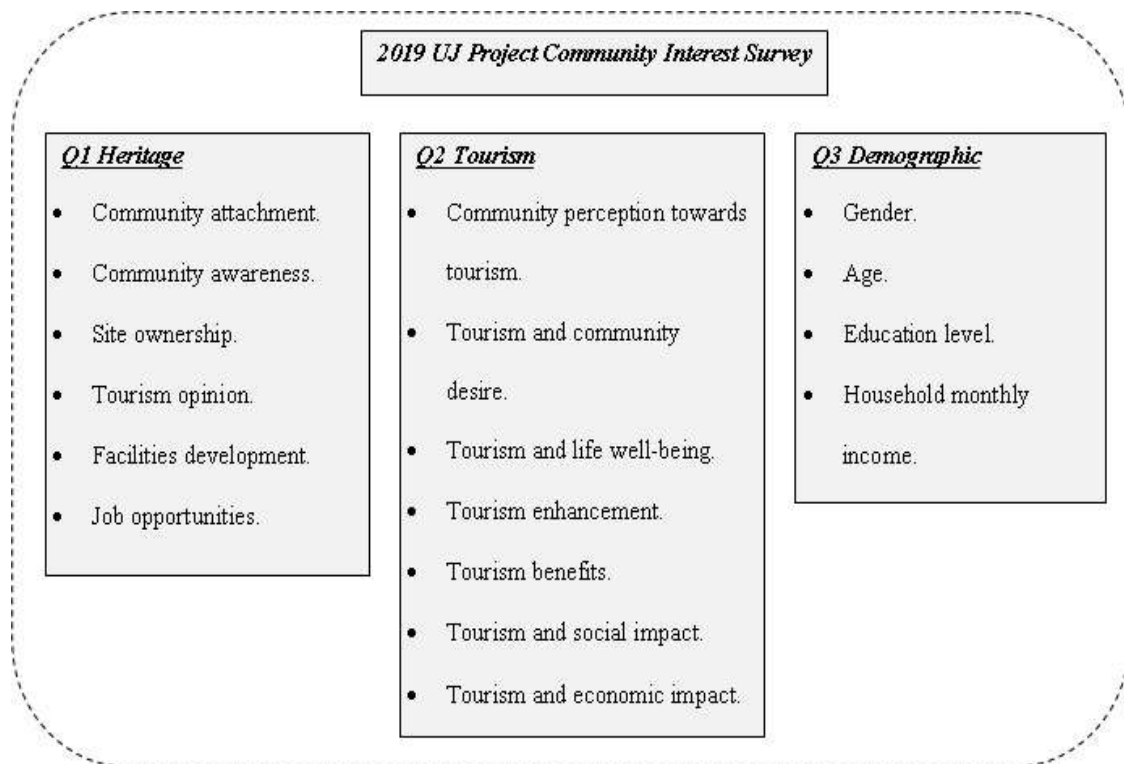


Figure 16: 2019 Umm el-Jimal Archaeological Project and author Community Interest Survey design (Source: By Author)

Tourism-related section consists of two main questions sought in measuring community perception towards tourism and their desired level of enhancing and participating in the tourism industry. These two main questions include 37 sub-questions in which they were extracted and formulated through previously literature reviews and other related case studies. The following table shows selected socio-economic indicators (Table 10).

Table 10: Socio-economic indicators (Source: By Author)

Type	Indicator	Source
Social Factor	Life well-being	(Phoummasak, Kongmanila, & Changchun, 2014) (Nayomia & Gnanapalab, 2015)
	Language	(Brougham & Butler, 1981) (Sheldon & Turgut, 1984)
	Education	(Ayers & Potter, 1989) (Wang & Wall, 2005) (Türker & Öztürk, 2013)
	Community attachment	(McCool & Martin, 1994) (Byrd; et al, 2009) (Nayomia & Gnanapalab, 2015)
	Social structure	(Akis, Peristianis, & Wagn, 1996) (Eraqi, 2007)
	Crime	(Ritzdorf, 1995) (Mason & Cheyne, 2000) (Byrd; et al, 2009)
	Traffic	(Mason & Cheyne, 2000) (Byrd; et al, 2009) (Nayomia & Gnanapalab, 2015)
	Noise	(Mason & Cheyne, 2000)
Economic Factor	Community tourism facilities and infrastructure	(Mason & Cheyne, 2000) (Vilayphone, 2009) (Phoummasak, Kongmanila, & Changchun, 2014) (Nayomia & Gnanapalab, 2015)
	Job opportunities	(Cooke, 1982) (Vilayphone, 2009) (Phoummasak, Kongmanila, & Changchun, 2014)
	Income	(Jordan, 1980) (Cooke, 1982) (Prentice, 1993) (Akis, Peristianis, & Wagn, 1996) (Lawson, Williams, Young, & Cossens, 1998) (Martin, McGuire, & Allen, 1998) (Phoummasak, Kongmanila, & Changchun, 2014) (Nayomia & Gnanapalab, 2015)

Type	Indicator	Source
	Cost of living	(Cooke, 1982) (Ross, 1992) (Phoummasak, Kongmanila, & Changchun, 2014)
	Business ownership	(Tyrell & Spaulding, 1984) (Husbands, 1989) (Tsundoda & Mendlinger, 2009) (Nayomia & Gnanapalab, 2015)
	Poverty reduction	(Phoummasak, Kongmanila, & Changchun, 2014)
	Taxes	(Akis, Peristianis, & Wagn, 1996) (Byrd; et al, 2009) (Phoummasak, Kongmanila, & Changchun, 2014)
	Property values	(Var, Kendall, & Tarakcioglu, 1985)

Originally, the groundwork for the Umm el-Jimal Community Interest Survey 2017 was established in 2014 through Umm el-Jimal Archaeological Project members as they created a body of questions focusing on demographics, water use and archaeological heritage issues related to how Umm el-Jimal's residents interact with the archaeological site. The Community Interest Survey for both first and second stages was legally conducted where The Umm el-Jimal Archaeological Project and the author tested the validity test by obtaining Internal Review Board (IBR) approval from Calvin University and worked under the memorandum of understanding with the Jordanian DoA for the academic research permit. Both stages were formulated in English and then translated into Arabic for field collection. The surveys questions were a choice of multiple answered using Likert Scale where 1 means strongly disagree and 5 means strongly agree in order to ease data collection and analyses in addition to a few open-ended questions (see Appendix A and B). A random sample was selected and targeted the adults' residents from Umm el-Jimal town in the age above 18 years old (Figure 17).

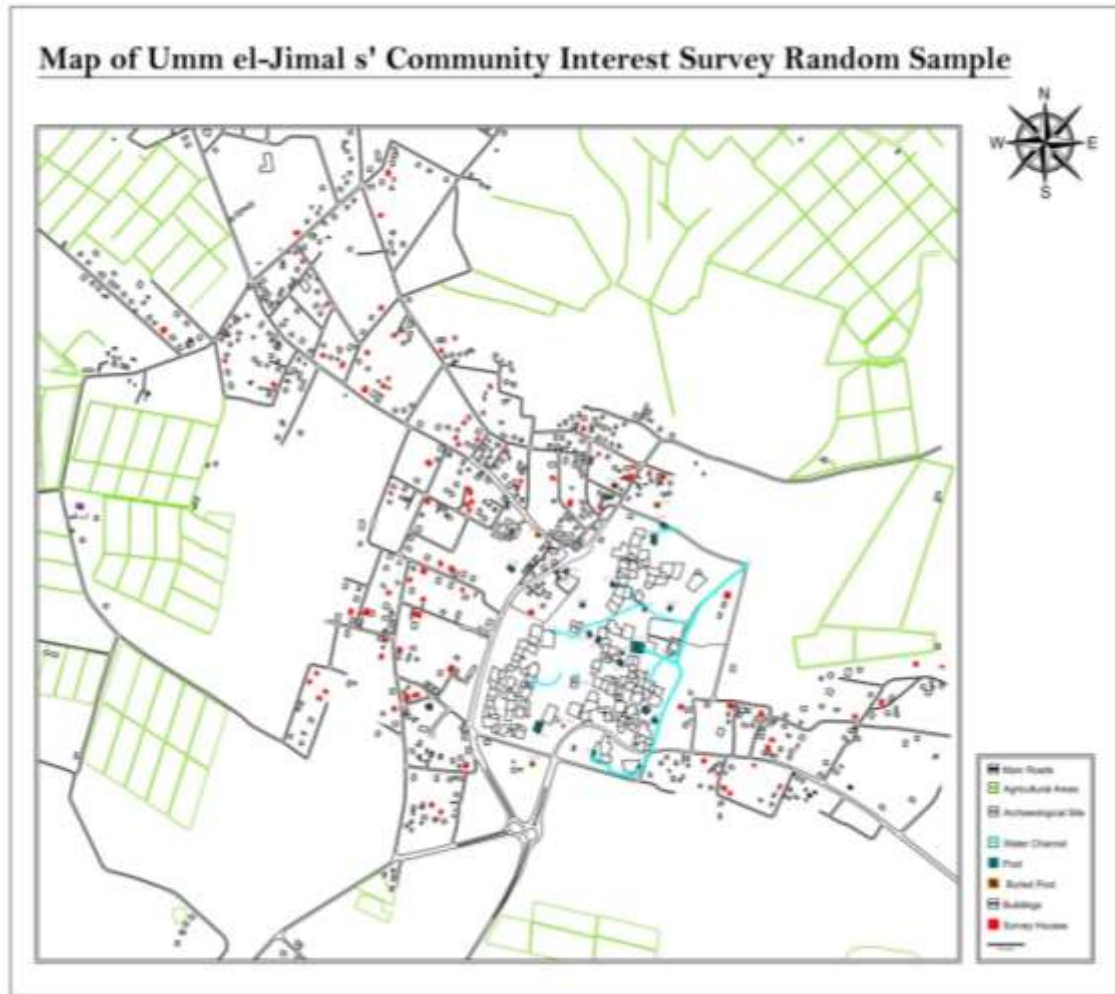


Figure 17: Community interest survey map (Source: By Author)

3.3.3 Statistical Tools for the Questionnaire Analysis

Likert scale was carried out in the five point scale as the statistical tool in order to analyze and measure the responses for both stage 1 and stage 2 in the survey using SPSS 20 statistical software (Table 11 & 12).

Table 11: 5-point Likert scale (Awang, Afthanorhan, & Mamat, 2016)

Response	Not at All	Not Really	Undecided	Somewhat	Very Much
Scores	1	2	3	4	5

Table 12: Likert scale scores description

Description	Interval	Difference
Low level	1.00 - 2.39	1.39
Moderate level	2.40 - 3.79	1.39
High level	3.80 - 5.00	1.39

The statistical analysis was carried out for the following scales:

1. Testing Alpha Cronbach's
2. Natural distribution Test
3. Paired Samples Test
4. Frequency and percentages
5. Standard deviation, arithmetic mean

3.3.4 Sample Size

The sample size for both stages was calculated using the following equation from Survey Monkey (SurveyMonkey, 2017):

$$\text{Sample size} = \frac{\frac{z^2 \times p(1-p)}{e^2}}{1 + \left(\frac{z^2 \times p(1-p)}{e^2 N}\right)}$$

N = population size

e = Margin of error expressed as a decimal percentage in decimal form

z = z-score (1.44 for 85% confidence interval)

P = Picking a choice percentage expressed as a decimal (0.5 in this study)

The following table includes the values of z-score (Table 13). The z-score represents the number of standard deviations a given proportion is away from the mean.

Table 13: The z-score values (SurveyMonkey, 2017)

Desired confidence level	z-score
80%	1.28
85%	1.44
90%	1.65
95%	1.96
99%	2.58

With a total population of 4,524 people (DoS, 2015), the sample size in both stages was 199 people with a percent confidence level of 85% and a Margin of error 5%. After distributing surveys randomly a 197 surveys from the first stage were successfully recorded, while 201 surveys from the second stage were successfully recorded. Furthermore, both surveys were recorded as a hardcopy through field questionnaire, and transformed from a hardcopy into softcopy through SPSS 20 software and Qualtrics website.

3.4 Field Observation

To highlight both tangible and intangible developments, site events, community participation and other ongoing projects that Umm el-Jimal town has been witnessing for the last 4 years as a result of tourism enhancement movement at the town, the researcher used a regular field weekly visit of 4 days for the town during the last 25 months. The researcher managed to record these developments through a camera side by side with mental notes and concentrated on community interactions and job opportunities through these projects. In addition to this researcher was able to communicate with the local community and other researchers from UJAP team members to verify from these developments especially in the first 2 years (2015-2016).

3.5 Population Projections and Urban Growth of Umm el-Jimal

3.5.1 Population Projection

Using the methodology in the preparation of population estimates in the Department of Statistics and the exponential equations, the estimated annual rate of population growth was as the following:

$$R = 1/t \ln(P_t/P_0) \dots \dots \dots (\text{DoS, 2018})$$

- R = Annual population growth rate.
- P_t = Population of the subsequent census.
- P_0 = Population of the previous census.
- t = the period of time in the intervening years between each two censuses.

Estimated for each year the population using the following equation:

$$P_1 = P_0 * e^{rt}$$

- P_1 = Population estimated for one year (subsequent year).
- P_0 = Population in base year (previous year).
- r = Annual growth rate of population calculated in the previous step $r = 0.0266$ " Low Scenario" (DoS, 2018).
- $e = 2.72$

3.5.2 Urban Growth of Umm el-Jimal

After calculating the expected increase in the population of Umm el-Jimal, the required services were determined based on the manual of the calibration of planning services for the Jordanian Ministry of Local Administration. The following table illustrates the criteria:

Table 14: Service needs of the population (MMA, 2018)

Services	Per capita ranges m ² / person
Residential	14
Commercial services	1.75
Entertainment	0.9
Green area	0.56
Health care	0.15
Religious Services	1.2
Total needed area	18.6

Every additional individual in Umm el-Jimal will need a total area of 18.6 m², including different services educational services, commercial services, entertainment, green area, health care , and religious building.

3.6 Secondary Research

A review of the available literature including books, journal articles, theses, and reports occurred to help guide the focus of this study and to formulate the theoretical framework form to set out methods of analyzing the impact of enhancing tourism in the development of local socio-economic indicators.

3.7 Conclusion

This chapter summarized the used methodology in this research. A mixed methodology including quantitative and qualitative methods was carried out to achieve research objectives. Quantitative methods were used to measure residents' attitudes, perceptions and their rate of satisfaction towards tourism enhancement and the socio-economic impact of tourism enhancement through questionnaires survey targeted local residents of Umm el-Jimal and was analyzed through Spss through descriptive methods. On the other hand, the qualitative method was used to highlight the socio-economic development in Umm el-Jimal town through field observations. The following chapter presented the results.

Chapter Four: Results

This chapter describes the author's field observation of tourism enhancement and presents the analysis of the Umm el-Jimal community interest survey (2017 and 2019).

4.1 Tourism Enhancement

Since 2014, Umm el-Jimal has been witnessing tourism enhancement as a result of cooperation between the governmental sector and NGO (Figure 18). According to the author's field observation, these movements included the development of infrastructure and tourism services (Figure 19).

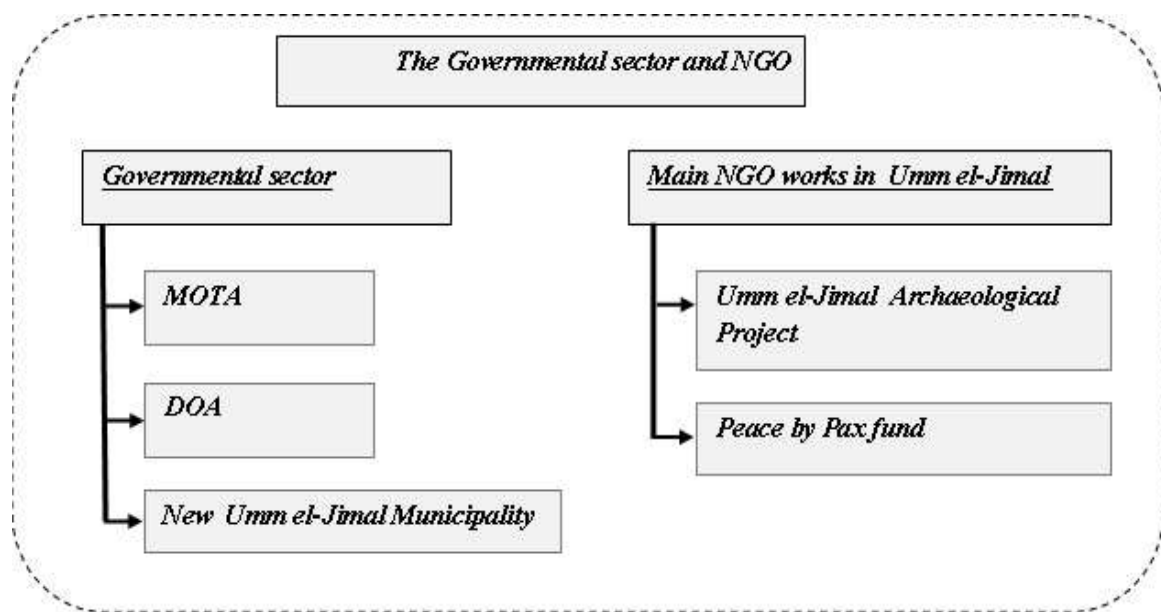


Figure 18: The Governmental sector and NGOs at Umm el-Jimal town (Source: By Author)

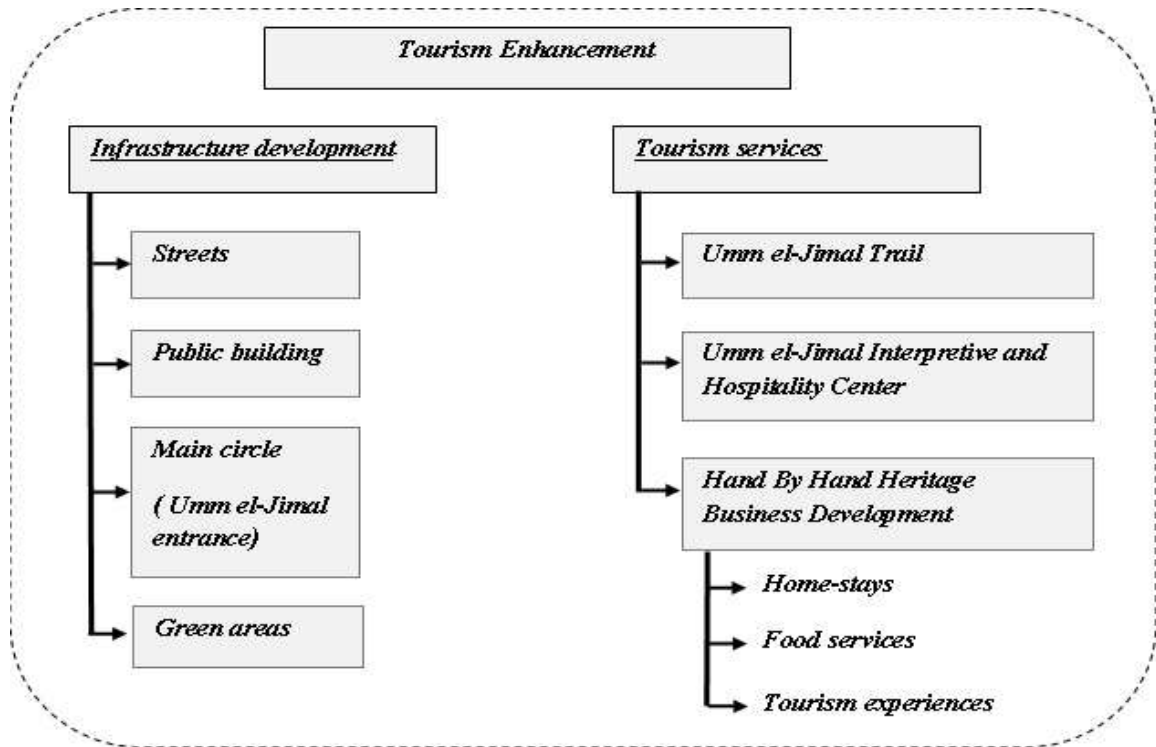


Figure 19: Tourism enhancement at Umm el-Jimal (Source: By Author)

4.1.1 Infrastructure Development

During the past 5 years, New Umm el-Jimal Municipality has been developing the basic infrastructure. Cooperation between UJAP and the municipality resulted in three architects from the town designing the Umm el-Jimal entry double circle (Figure 20). This entry double circle was designed to reflect the ancient ruins in a contemporary style that represents the modern community of Umm el-Jimal.

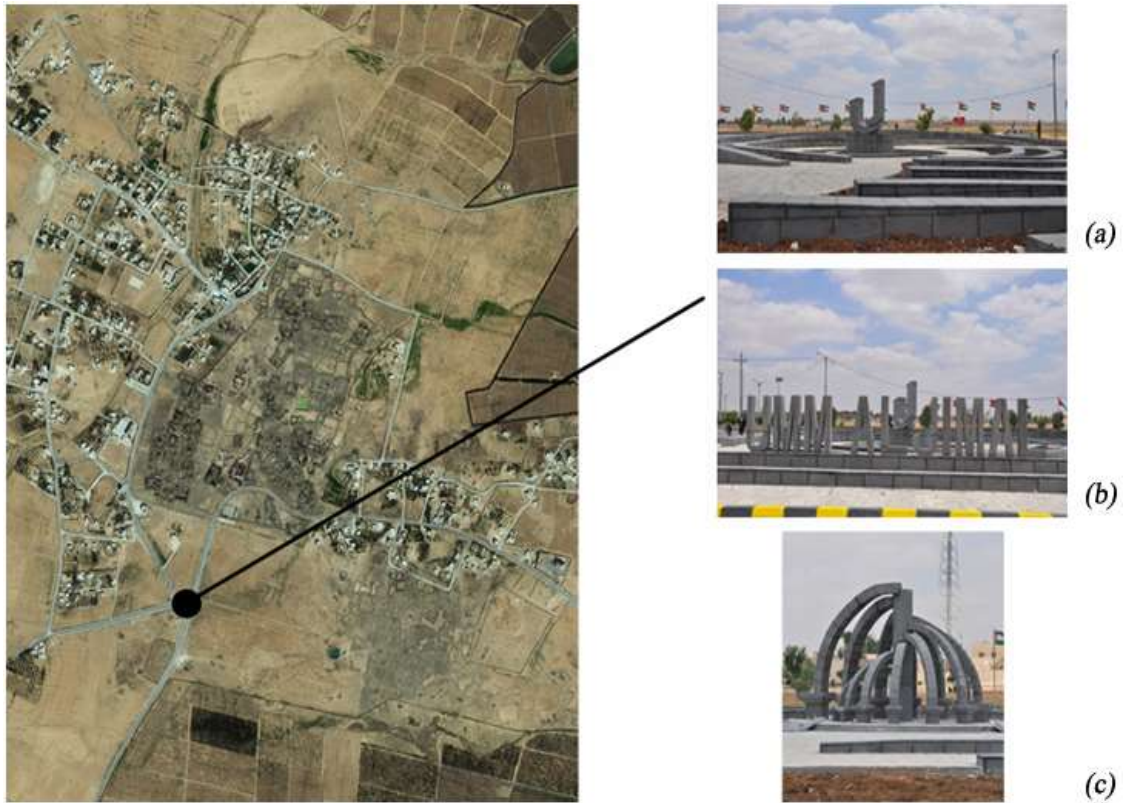


Figure 20: Umm el-Jimal entry double circle (a) and (b) east part from the double circle and (c) west part and include the 16 arch dome (Source: By Author).

The Municipality of New Umm al-Jimal has prioritized the importance of street renovation and maintenance. The main streets in Umm el-Jimal town have been renovated including the main arteries and downtown center area (Figure 21 & 22).

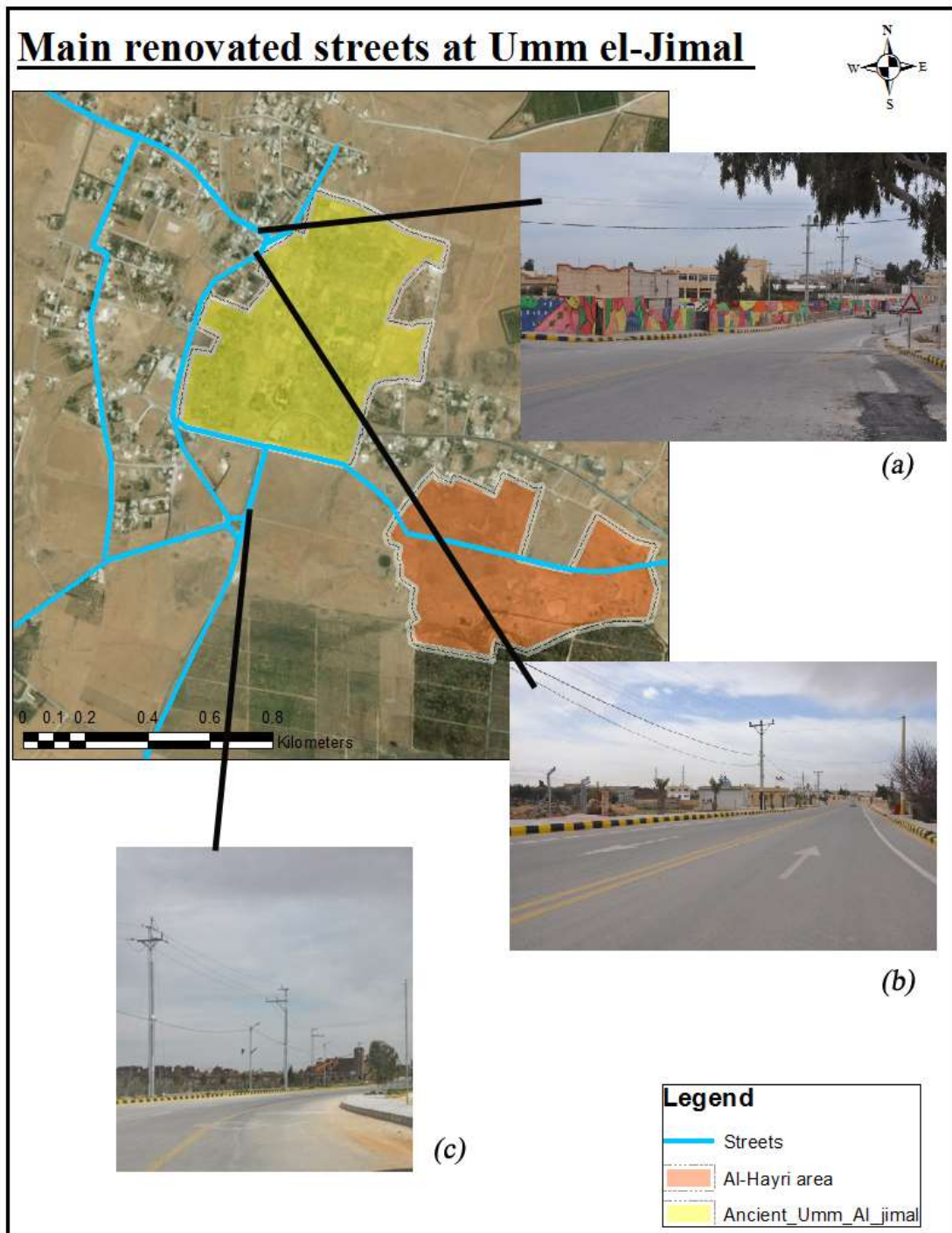


Figure 21: Map of main renovated streets (a) street that link downtown area to the west part of the town (b) the New Umm al-Jimal Municipality street and (c) street between Umm el-Jimal entry double circle and archaeological site (Source: By Author through GIS ArcMap).



(a)



(b)

Figure 22: Streets renovation at Umm el-Jimal (Source: (a) Before (UJAP, 2014); (b) After By Author)

In addition to street renovation, the municipality has installed pedestrian paths and street lighting using day-laborers hired from the local community (Figure 23).



Figure 23: Sidewalks and streets lighting at Umm el-Jimal (Source: By Author)

Umm el-Jimal's downtown area is recognized as the vibrant heart of the town where most services are located, such as shops, including a barber, and bakery, as well as a library, women's association, elementary school, and parks (Figure 23). The renovation plan for this area aimed to develop services provided for residents, by improving the aesthetic of the town and creating a souvenir market and cafeteria in the newly constructed Municipal "Black Building" (Figure 24 & 25).

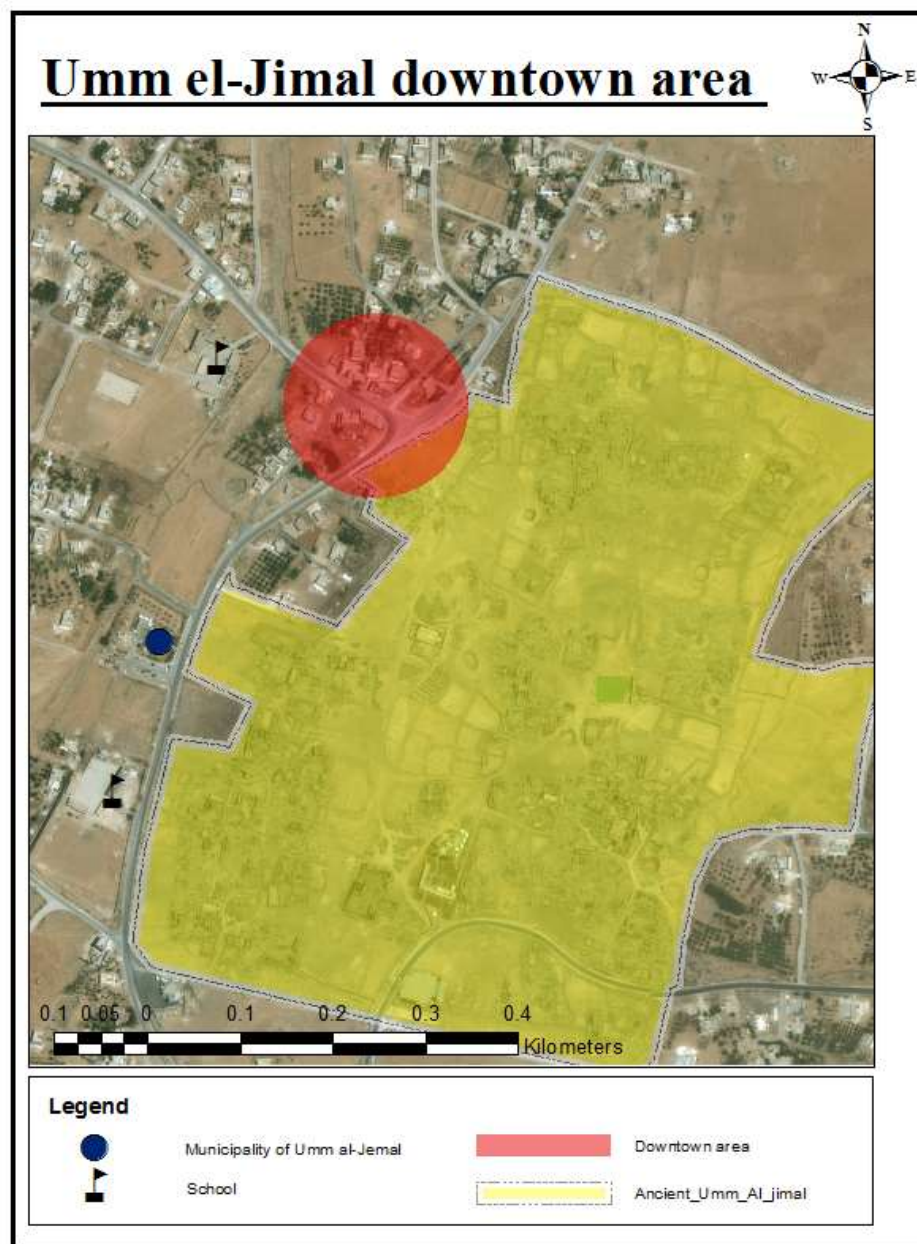


Figure 24: Umm el-Jimal downtown area (Source: By Author through GIS ArcMap)



Figure 25: Umm el-Jimal downtown area 2014 (UJAP, 2014)



Figure 26: Umm el-Jimal downtown area 2019 (Source: By Author)

The Black Building consists of two floors: the 1st floor includes souvenir shops and offices where residents display their own products, and the 2nd floor includes Municipality Hall where events are held with a panoramic view over the antiquities of the archaeological site (Figure 27).



Figure 27: Umm el-Jimal Black Building (Source: By Author)

Recently, the joint efforts of DoA, UJAP, New Umm el-Jimal municipality and Society of Dutch Municipalities (VNG) resulted in the establishment of Umm el-Jimal West Entry Park and the restoration of Umm el-Jimal Play area (Figure 28 & 29). The Umm el-Jimal West Entry Park is the result of archaeological conservation and site preparation that was done by UJAP through USAID-SCHEP fund. It establishes boundaries within the archaeological site which can be a public place where residents and tourists spent their time, and exchange their cultures and interests. The construction and restoration work for the two parks provides 100 temporary job opportunities for residents based on cash-for-work where women represent 50 percent of the total labors. VNG funded laborers' salaries and materials for paths and plantings while UJAP provided the architectural design, electric infrastructure, and lighting. The West Entry Park is owned by the DoA, but the Municipality will ensure the maintenance and upkeep of the facilities and plantings for both the West Entry Park and Umm el-Jima Play area.

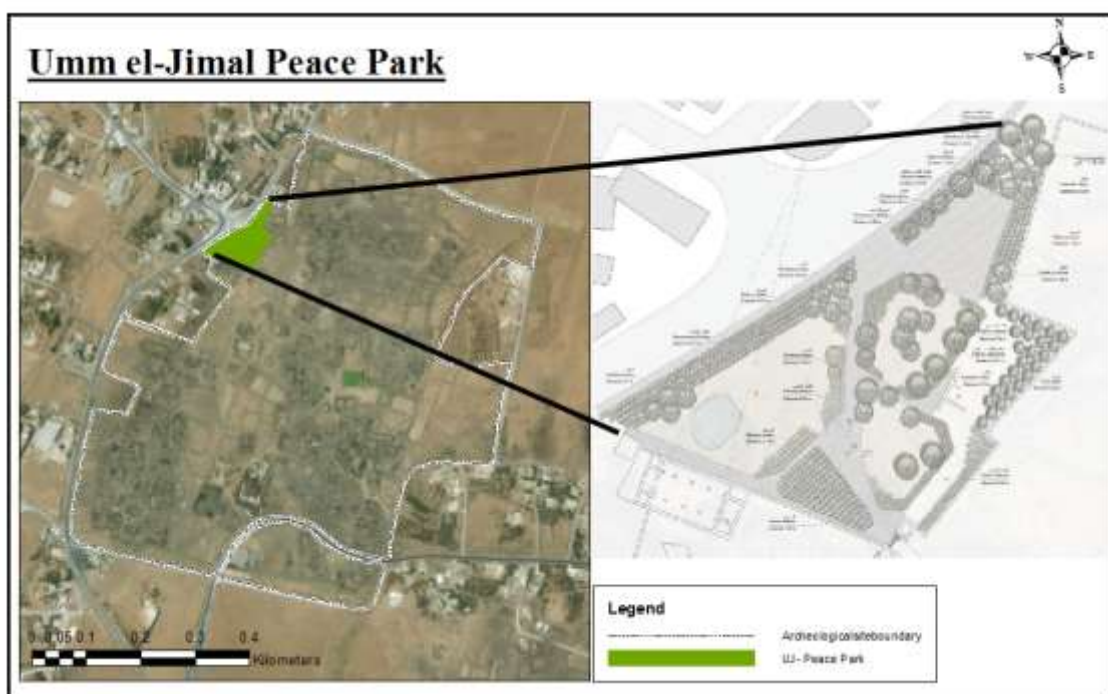


Figure 28: Umm el-Jimal West-Entry Park (Source: By Author)



Figure 29: Umm el-Jimal library park (Source: By Author)

4.1.2 Tourism Services

4.1.2.1 Umm el-Jimal Trails

Originally, the Umm el-Jimal trail was designed and produced in 2016 by the UJAP and included 20 signs that were distributed within the archaeological site boundary. In 2018, UJAP and DoA developed an additional 13 signs with a grant from USAID-SCHEP, which resulted in a new total of 33 signs across the site (Figure 30). This trail provides a self-tour and rich information about the history of the archaeological site, the plants and animals, and the modern community of Umm el-Jimal (Figure 31).

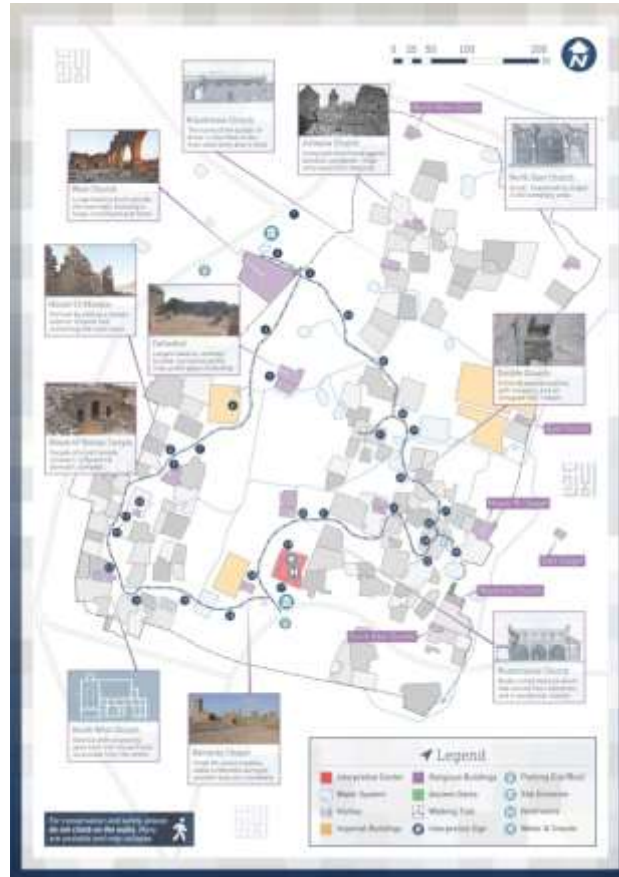


Figure 30: Archaeological site trail (UJAP, 2018)



Figure 31: Sign 33 at the archaeological site (Source: By Author)

Tourism enhancement projects included the creation of brochures and booklets that highlighted other interesting archaeological sites near to Umm el-Jimal, which illustrated how Umm el-Jimal is the perfect base from which to explore these regions. Home-stays, tours, and camping is arranged by Hand by Hand Heritage, a non-profit organization that helps in the development of the local business at Umm el-Jimal through engaging residents in the tourism industry. The first brochure, "Umm el-Jimal and the Southern Hauran" includes a tour starting from Umm el-Jimal and crossing northwest to Umm es-Surab, then east to Sabha, Umm el Quttein, Deir al-Kahf, Jawa and Qasr Burqu' (Figure 32). Tourists can choose to camp overnight in either Jawa, Qasr Burqu' or to return to a home-stay at Umm el-Jimal.

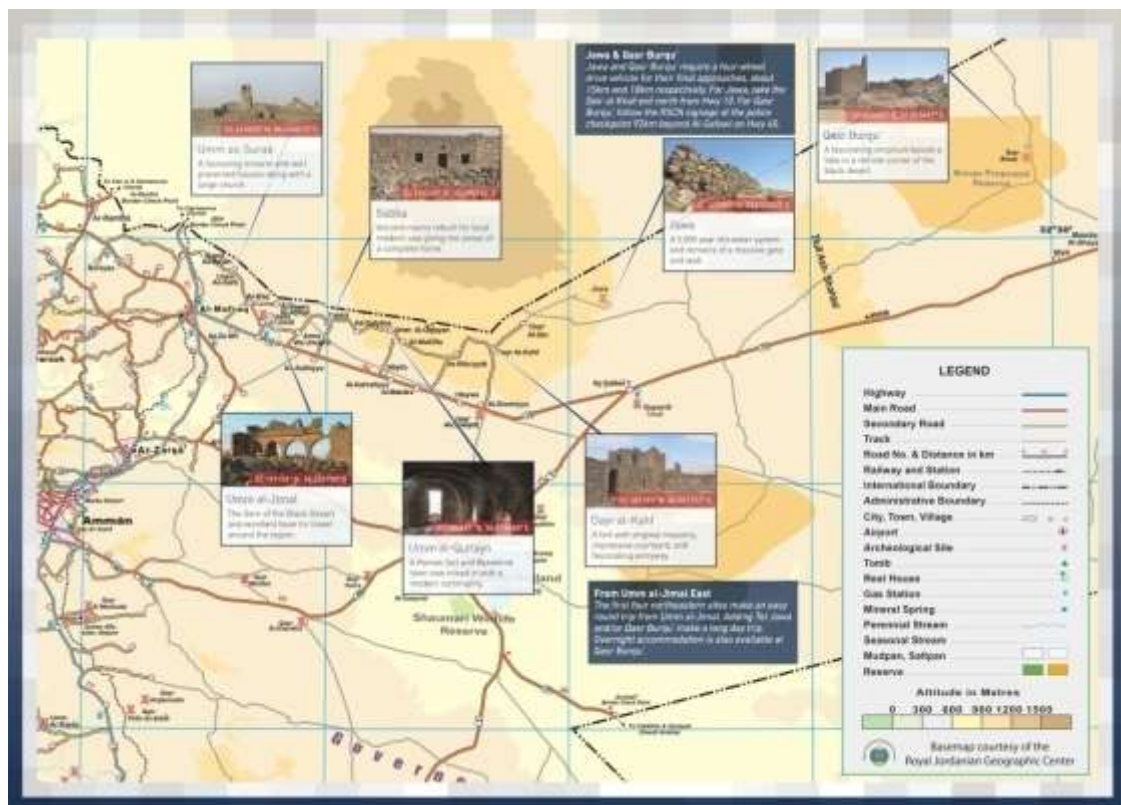


Figure 32: Umm el-Jimal and the Southern Hauran tour (UJAP, 2018)

The second suggested tour is "Umm el-Jimal and the Desert Castles", which provides a day tour starting from Umm el-Jimal and then crossing to Qasr al-Hallabat, Hammam as-Sarah, Al-Azraq, Qusayr' Amra and Qasr al-Kharaneh (Figure 33). From

Qasr al-Kharaneh, tourists can return to Umm el-Jimal to stay overnight, or can easily make their way to Amman, Madaba, or other nearby cities and sites.

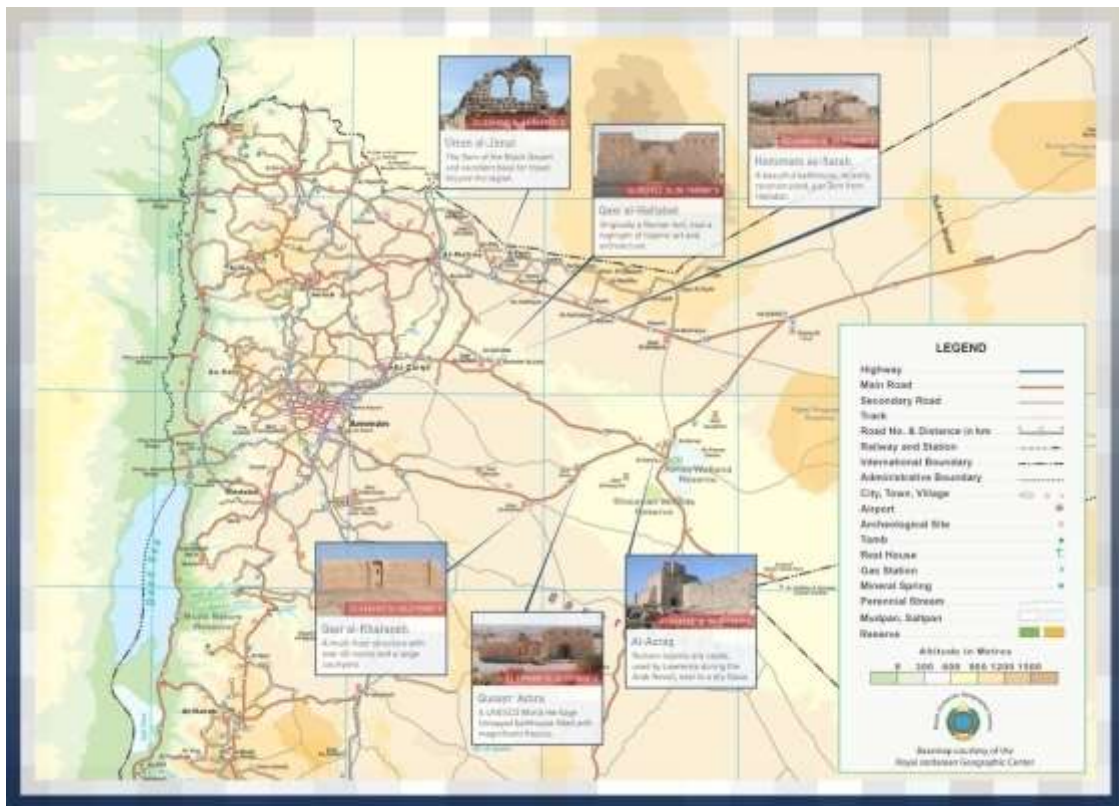


Figure 33: Umm el-Jimal and the Desert Castles tour (UJAP, 2018)

4.1.2.2 Umm el-Jimal Interpretive and Hospitality Center (UJIHC)

In 2015, MoTA, DoA, and UJAP agreed on to use House 119 at the archaeological site as the new Umm el-Jimal Interpretive and Hospitality Center (UJIHC). Originally, House 119 is the remains of an ancient L-shaped Umayyad house with an arched entry hall that leads to an interior courtyard and it was re-constructed to replicate the Islamic and the early modern construction techniques at the site by the DoA at the beginning of the 21st century (Figure 34).



(a)



(b)

Figure 34: House 119 (a) Before and (b) After rehabilitation (Source: (a) By (UJAP, 2010) & (b) By Author, 2019)

Umm el-Jimal's residents used House 119 for different community activities such as school graduations, cultural heritage lessons, and other community and national celebrations at Umm el-Jimal (Figure 35).



Figure 35: Community activities at House 119 (Source: By Author, 2019)

The rehabilitation process started in May 2018 and continued for 13 months. This process included roof reinforcing, facilities development, installation of the shade structure and construction of the inscription garden (Figure 36). Skilled workers from Umm el-Jimal's town were employed to reconstruct and perform maintenance on House 119 during the work period (Figure 37).



Figure 36: UJIHC outdoor Facilities (Source: By Author, 2019)



Figure 37: Umm el-Jimal's skilled workers during the rehabilitation of House 119 2018 - 2019 (Source: By Author, 2019)

The UJIHC provides different facilities including a site museum with five exhibitions tell the story of Umm el-Jimal's artifacts, history, and inscriptions, as well as a souvenir shop that promotes local handicrafts and arts, snack bar and toilets (Figure 38).



Figure 38: UJIHC indoor Facilities (Source: By Author, 2019)

On June 15, 2019, MoTA, DoA, UJAP, and Umm el-Jimal residents celebrated the debut of UJIHC as the newest cultural heritage tourism destination in Jordan, under the Patronage of His Royal Highness Prince Raad bin Zeid and Her Royal Highness Princess and UNESCO Goodwill Ambassador Dana Firas, with special gratitude to Dr. Bert de Vries for 50 years of archaeology and friendship in Jordan and especially in Umm el-Jimal (Figure 39).



Figure 39: June 15, 2019, the debut of UJIHC (Source: By Author, 2019)

4.1.2.3 Hand By Hand Heritage (HxH) for Business Development

Hand by Hand Heritage (HxH) is a non-profit organization established in Umm el-Jimal in 2018 with support from the Peace By Pax Peace by Pax Fund, USAID-ACOR-SCHEP, and the UJAP. HxH is led by a team of 4 Umm el-Jimal residents who are driven

by their passion and desire to share the historical and cultural heritage richness of Umm el-Jimal town with tourists, and also to preserve the archaeological site and improve the economic situation of residents.

HxH aims to create unique experiences for tourists by offering various activities in collaboration with Umm el-Jimal's residents such as home-stays, food and drinks, and tourism experiences. The first home-stay experiences were generated by HxH during the opening celebration of the UJIHC in June 2019 where 36 tourists booked 4 nights at Umm el-Jimal. Tourists were divided into 7 home-stays in the town where they shared their meals and culture with the hosted families. The hosted families were chosen according to specific criteria that ensures the quality of the provided services, such as the availability of comfortable rooms that ensured tourist privacy (Figure 40).

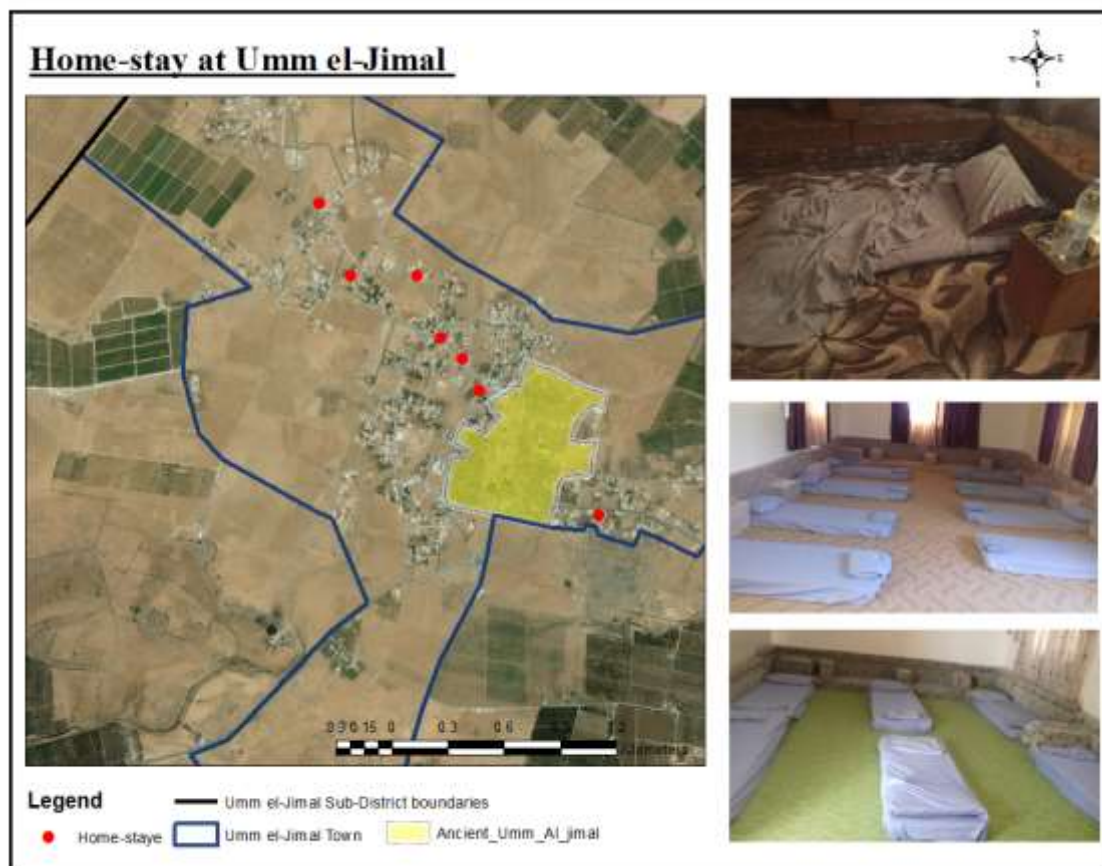


Figure 40: Home-stay map at Umm el-Jimal (Source: By Author, 2019)

Food services are provided through Umm al-Gimal women's cooperative in collaboration with HxH (Figure 41). This collaboration ensures demand and sustainability of food services as HxH generate trips through tourism operators companies and other organizations such as SCHEP and Friends of Archaeology.



Figure 41: Food Services (HxH, Hand by hand Heritage- Food services, 2019)

HxH and the Umm al-Gimal women's cooperative offer tourists a unique food experiences of traditional Jordanian cuisine prepared by Umm el-Jimal's families. Offerings include labanah, olives, salad, Rashof, Mansaf, Zarb, and traditional sweets such as lazaqiat, which are served with locally planted herbal tea and juices (Figure 42).



Figure 42: Rashof, traditional Bedouin food (Source: By Author, 2018)

In terms of tourism experiences, HxH facilitate various activities led by Umm el-Jimal residents including archaeological site tour, basalt stone carving, cooking lessons about traditional cuisine, camping in the Azaraq desert or Qasr Burqu', experiencing a nights in a Bedouin tent, bicycle adventures and experiencing Bedouin life by joining a shepherd in the countryside or riding camels (Figure 43).



Figure 43: Tourism experiences at Umm el-Jimal (HxH, Tourism experiences, 2019)

4.1.3 Projects at Umm el-Jimal

The three projects discussed in this section, water project, educational lessons, and the women's empowerment project, all seek to enrich and protect both the ancient site and the modern community.

4.1.3.1 Water Projects

The cooperation between UJAP, DoA and Calvin College Clean Water Institute resulted in the establishment of the Water Restoration project. This project occurred over different stages starting with the mapping of the water system and progressing to the re-use of harvested water in the ancient water reservoirs (Figure 44). From 2014 to 2018, UJAP led the excavation and refurbishing project of 6 ancient water reservoirs. This project was funded by the Norwegian Agency for Development Cooperation (NORAD).

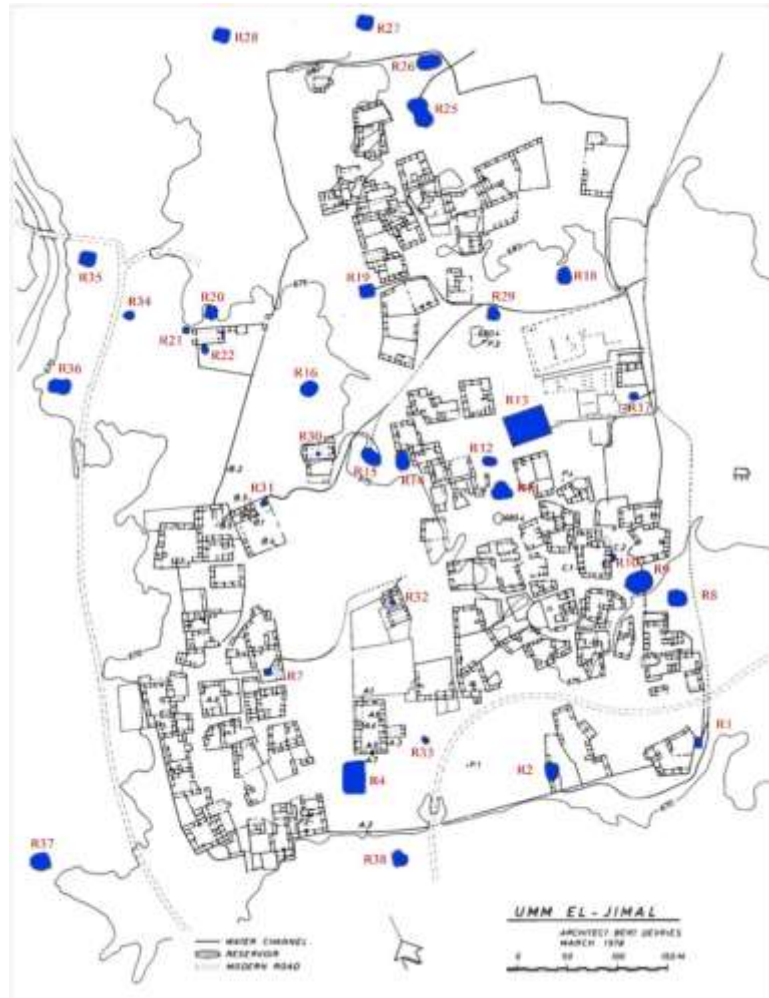


Figure 44: Map of Archaeological Reservoirs in Umm el-Jimal (UJAP, 2014)

In August 2019, DoA, UJAP, New Umm el-Jimal Municipality and Norwegian Refugee Council (NRC) collaborated to implement reservoir cleanout and reconditioning as a part of a wider project to establish a water storage and delivery system that was designed and developed by UJAP (Figure 45). This project aimed to prepare 15 reservoirs as components of the revived ancient water collection, storage and redistribution system. The collected water will be used for irrigation of the West Entry Park, experimental Byzantine Garden and Interpretive Center, as well as for offsite delivery. This system will end the use of water trucks on the site, which negatively impact the antiquities by disturbing the soil and stability of the structures. This project benefits Umm el-Jimal's residents and Syrian refugees in the Al Zaatari Camp by providing 100 job opportunities based on cash for work program paid by the NRC (Figure 46).

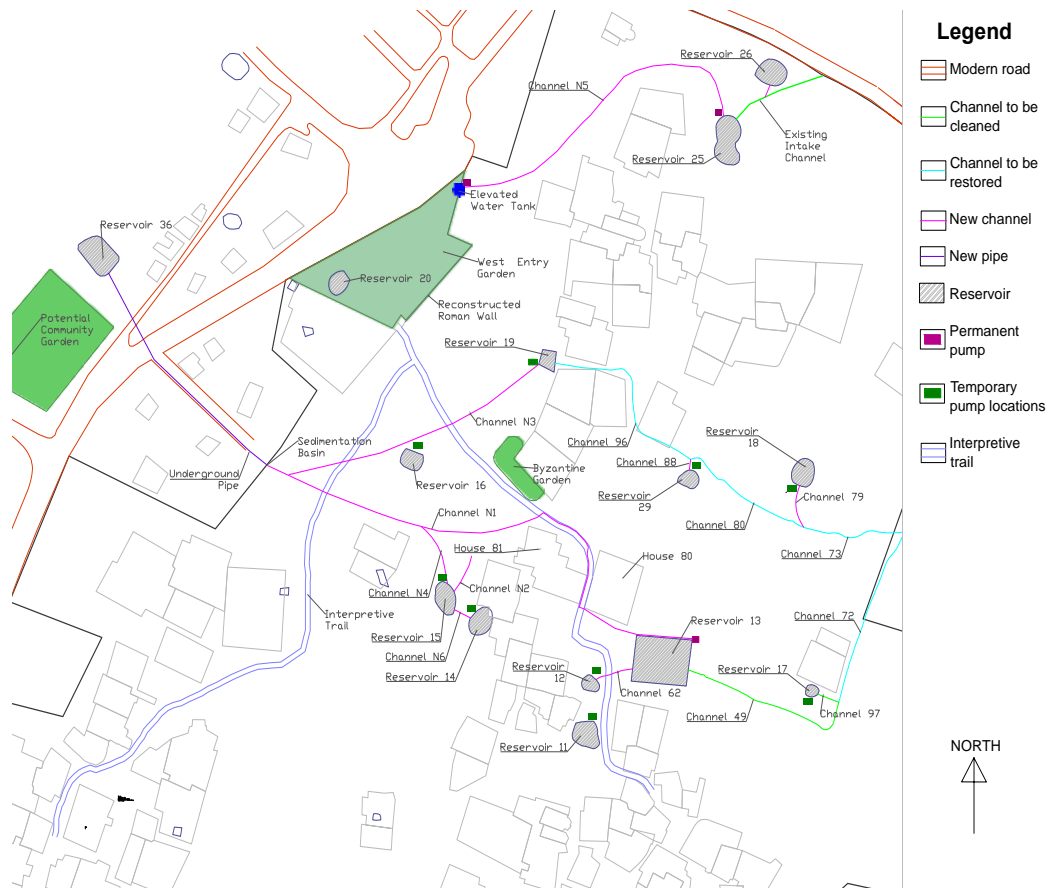


Figure 45: Water storage and delivery system design map (UJAP, 2018)



Figure 46: Cleaning process at reservoir number 25 (Source: By Author, 2019)

4.1.3.2 Educational Lessons

In 2016, Hauran Cultural Heritage educational lessons were established by Muaffaq Hazza from Umm el-Jimal and Ahmad Bayer from Syria in cooperation with Umm el-Jimal Women's Cooperative Society. The educational lessons were funded by the Gerda Henkel Foundation and aimed to enhance the children's cultural identity. The targeted groups for these lessons were Syrian and Jordanian children between 10 to 15 years living in Al-Zaatari camp, Umm al-Jimal and Princess Basma`s Rawda, east of Mafraq.

Educational lessons operated in phases each phase consisted of approximately two lessons per week over 3 months, and included an average of 60 students half Syrians and half Jordanians with an equal percent of gender participation. The theoretical framework for the educational lessons highlighted different topics including geography, history and traditional customs such as weddings, agriculture, cuisine, costumes, music and song, games and popular narratives in dialect. On the other hand, the practical framework included training to enrich children's knowledge of archeological field works by conducting their own excavations as well as experiencing trips to Umm el-Jimal, Umm Qais and Iraq al-Amir (Figure 47).



Figure 47: Hauran Cultural Heritage educational lessons at Umm el-Jimal archaeological site (Source: By Author, 2018)

Educational lessons occurred in two main stages. The first stage started on February 1st, 2016 and ended on April 30th, 2018 and, included 9 phases that taught a total of 217 children. The second stage started on May 1st, 2018 and will end by April 30th, 2020.

4.1.3.3 Women's Empowerment Project

Women's empowerment is recognized as a key factor for sustainable development and poverty reduction. Umm el-Jimal is one of the most active towns in Northern Badia in terms of women's participation and empowerment as Umm el-Jimal's women lead different cooperatives and associations with an aim to improve life well-being, to expand women's role in the community.

In 2014, UNESCO, UN Women and their partners (including MoTA, DoA, UJAP, the Queen Zain al Sharaf for Development (ZENID) and Al Hima Foundation) joined their efforts to generate projects that supported women in the in Al-Mafraq governorate and especially Umm el-Jimal under the title of 'Empowering rural women in Mafraq Governorate through the management and preservation of the Umm el-Jimal's archeological site in Jordan as income-generating activities' (UNESCO, 2014). This project attracted 12 women from Umm el-Jimal and aimed to teach handicrafts training in basalt carving and, North Jordan Embroidery, through the Umm el-Jimal Women's Cooperative Society (Figure 48).



Figure 48: Embroidery course at Umm el-Jimal (UJAP, 2014)

This project has enabled Umm el-Jimal's women to develop locally distinguished artwork products and sell them in bazaars and markets around Jordan as well as in the Black Building in Umm el-Jimal (Figure 49).



Figure 49: Rock arts carved by Umm el-Jimal women (Source: By Author, 2019)

4.1.4 Evaluation of Tourism Enhancement Projects

The following table illustrate the evaluation of tourism enhancement projects based on achieving the four-pillars of JNTS; marketing and promotion, product development, labor market and enabling environment.

Table 15: Evaluating tourism enhancement projects based on achieving the four-pillars of JNTS (Source: Author)

JNTS	Tourism Enhancement Projects
Marketing and promotion	<ol style="list-style-type: none"> 1. Umm el-Jimal archaeological site is promoted as a cultural heritage site. 2. A set of four brochures and Umm el-Jimal booklets were designed and developed in both Arabic and English languages including the Umm el-Jimal brochure, Umm el-Jimal Churches brochure, Umm el-Jimal and the Southern Hauran brochure and Umm el-Jimal and the Desert Castles brochure. 3. Establishment of Umm el-Jimal interpretive trail including 33 informational signs. 4. In 2019, Umm el-Jimal was included as one of the tourism destinations on the Jordan Jannah tourism program by MoTA and JTB.
Product development	<ol style="list-style-type: none"> 1. Handicrafts arts carved using basalt stone and, North Jordan Embroidery were developed as a distinguished feature that reflect Umm el-Jimal and Northern Badia. 2. Tourism services were established and developed including home-stays, local food services, basalt carving, camping and other activities.
Labor market	<ol style="list-style-type: none"> 1. Temporary job opportunities were generated. 2. Various local businesses were established by HxH for business development including food services, home-stays, site tour, and tourism experiences generated by local community. 3. Women participation has increased in Umm el-Jimal were different cervices such as basalt carving stone, food services as well as women participation in different enhancement project were equal to men participation such as West Entry Park installation and Umm el-Jimal play area maintenance.
Enabling environment	<ol style="list-style-type: none"> 1. A public-private partnership is not conducted at Umm el-Jimal. 2. Partnership was established between MoTA, JTB, DoA, UJAP, HxH, and tourism operators in order to enable partnership with local community based on generating tourist to Umm el-Jimal and engaging local residents in the tourism industry where HxH ensure quality of provided services by the residents.

According to the table (15), tourism enhancement has been developed based on the four-pillars of JNTS. The archaeological site was marketed and promoted as a cultural heritage site where informational materials were developed and designed including Umm el-jimal trails, a set of four brochures and Umm el-Jimal booklets. On the other hand, Umm el-Jimal was included as touristic destinations on the Jordan Jannah tourism program by MoTA and JTB. In terms of product development, artifacts were produced locally using basalt stones as a distinguishing feature for the town.

Investigating the labor market pillar at Umm el-Jimal, the corporation between HxH for business development and local residents has resulted in establishing various local businesses, increase women participation as well as generating temporary job opportunities. Finally, in terms of enabling environment pillar, the public-private partnership is not conducted at Umm el-Jimal where conducted partnership is between MoTA, JTB, DoA, UJAP, HxH, and tourism operators that ensure the engagement of local residents in the tourism industry.

Both positive and negative impacts of tourism enhancement project were investigated as the following table shows the results of each project.

Table 16: Evaluating positive and negative impacts tourism enhancement projects (Source: Author)

Tourism enhancement Projects	Positive Impact	Negative Impact
Infrastructure development	<ol style="list-style-type: none"> 1. Improving provided services for the residents including; <ul style="list-style-type: none"> ▪ Street renovations. ▪ Street lighting. ▪ Establishment of a public building. ▪ Increase green area plots. 	<ol style="list-style-type: none"> 1. Unfair distribution for infrastructure development projects where only main streets were renovated in Umm el-Jimal. 2. Green areas establishment were located in the downtown area while the rest of the town were not included. 3. Temporary job opportunities.
Umm el-Jimal Trails and UJIHC	<ol style="list-style-type: none"> 1. Establishing facilities that serve both tourists and residents. 2. Enhancing community attachment to the site by telling the story and civilizations that settled in the site including modern community of Umm el-Jimal. 3. Engaging Umm el-Jimal with other touristic routs which results in increasing tourists numbers. 4. UJIHC provides job opportunities for local residents. 5. The souvenir shop at UJIHC displays local community products and artifacts. 	Negative impacts were not found as the UJIHC is still in its' first-year operating.
Water harvesting system	<ol style="list-style-type: none"> 1. Community engagement in the work and preserving archaeological site. 2. Enhancing community attachment to the site. 3. Reactivating the ancient water harvesting system at the archaeological site. 4. Preserving the environment, as it contributes to harvesting rainwater and reuses it for irrigating 	Temporary job opportunities.
Educational lessons	<ol style="list-style-type: none"> 1. Enhancing social structure, community identity, awareness, and attachment to the site and local cultural heritage of Umm el-Jimal. 2. Targeting umm el-Jimals' children and enhance their identity. 	<ol style="list-style-type: none"> 1. Temporary lessons that relies on donors and funds. 2. Temporary job opportunities.
Women's empowerment project	<ol style="list-style-type: none"> 1. Enhancing community identity. 2. Increasing women participation in labor market. 3. Establishing local businesses. 4. Income resource. 	<ol style="list-style-type: none"> 1. Temporary project that relies on funds and support from different organizations including UNESCO, UN Women, UJAP, ZENID, Peace by Paxm and Al Hima Foundation. 2. Temporary job opportunities.

Evaluating positive and negative impacts tourism enhancement projects results indicated that Umm el-Jimal residents have benefited tourism enhancement projects where they received positive impacts including the improvement of provided services such as streets renovation and lighting, public building and green areas. The establishment of tourism facilities served both tourists and residents, while the water harvesting system managed to engage residents in maintaining and preserving the archaeological site. In general, these projects managed to enhance community identity, attachment, awareness, and increased women participation in the labor market. On the other hand, the negative impacts of tourism enhancement projects included unfair distribution for infrastructure development projects where only the main streets were renovated in Umm el-Jimal, the generated job opportunities were temporary. Finally, these are temporary projects that rely on funds and support from different organizations including UNESCO, UN Women, UJAP, ZENID, Peace by Paxm and Al Hima Foundation.

4.2 Questionnaires Analysis

4.2.1 Reliability and Consistency of Questionnaire

The data were collected by a community interest self-administered questionnaire and composed of: five dimensions: Community Attachment, 17 items; Community Awareness, 18 items; Tourism option, 25 items; Social impact, 18 items; and Economic impact, 23 items. The reliability was tested by:

1. Alpha Cronbach's Test:

In order to find questionnaire reliability, the internal consistency test was carried out using Alpha Cronbach's test of variables. In origin, the acceptable level of Alpha Cronbach's in exploratory is 0.60 or higher (Nunally & Bernstein, 1994).

Table 17: Alpha Cronbach's test for community interest surveys (Source: Spss 20 program outputs)

Dimension	Alpha Cronbach's coefficient	Number of paragraphs of the questionnaire
Community Attachment	0.819	17
Community Awareness	0.608	18
Tourism Option	0.835	25
Social impact	0.874	18
Economic impact	0.923	23
Questionnaire as a whole	0.942	94

The results of Alpha Cronbach's test for community interest surveys were higher than 0.6 which means that the reliability for the survey items is acceptable.

2. Normality Test

To achieve the requirements of the scientific tests, in this case hypothesis testing, the normality distribution test (P_value) was carried out to reveal if the data is natural distribution tracking or not. The Kolmogorov-Smirnov test was used since the sample size is higher than 60 individuals. Results indicate that all the variables trace their normality distribution data where the significance ratio is from 0.05, P_value <0.05, which is the level approved in the statistical processing of this study (Krzywinski & Altman, 2013).

3. Paired Samples t-test

To measure the impact of enhanced tourism on community attachment, community awareness and the community's desire for tourism, the Paired Samples Test was undertaken over two periods of time, 2017 and 2019. The results were as shown below.

- Hypothesis were;

1. The null hypothesis H_0 : There is no difference in mean for pre- and post- Tourism enhancement.

2. The alternative hypothesis H_1 : There is a difference in mean for pre- and post-Tourism enhancement.

Table 18: Paired Samples t-test for community interest surveys 2017-2019 (Source: Spss 20 program outputs)

Dimension (Post – Pre)	Mean	T calculated	df	P_value
Pair1 Community Attachment 2019-2017	0.27	3.91	196	$P < 0.001$
Pair2 Community Awareness 2019-2017	0.06	0.94	196	$P < 0.001$
Pair3 Tourism Option 2019-2017	- 0.07	-1.11	196	$P < 0.001$

According to Table (18), the Paired Samples t-test results showed that there is a statistically significant difference between the mean of the pre- and post-tests for each community attachment, community awareness, and tourism option since all null hypotheses are rejected at 5% significance level, which calculated indicates that there is an impact of enhanced tourism.

The repeated-measures t-test found that the difference in Community attachment 2019-2017 to be significant, $t(196) = 3.91$, $p < 0.001$ where community attachment significantly increased from 2017 to 2019, and the community awareness 2019-2017 to be significant, $t(196) = 0.94$, $p < 0.001$ where community awareness significantly increased from 2017 to 2019, while the tourism option 2019-2017 to be significant, $t(196) = -1.11$, $p < 0.001$ though tourism option significantly decreased from 2017 to 2019.

4.2.2 Descriptive Statistical Analysis

Descriptive Statistical analysis was carried out to highlight community attachment, community awareness, tourism options, especially social impact and economic impact as a result of data limitation for both social and economic dimensions. Categorical data were expressed in frequency and percentages, continued data expressed in mean, \pm SD, and

Alpha level set at 0.05 considered statistically significant, with a study power 85. Data were analyzed by SPSS software version 20.

4.2.2.1 Description of Study Sample Properties

Descriptive statistics analysis were used to illustrate the extraction of frequencies and the percentages of participant's respondents to the demographic-related questions in the surveys. The following table indicates the results for both community interest surveys 2017 and 2019 (Table 19).

Table 19: Statistical description for 2017 and 2019 community interest survey (Source: Spss 20 program outputs)

Questions	2017		2019	
	Frequency	Percent%	Frequency	Percent%
Sex				
Male	98	49.7%	114	56.7%
Female	99	50.3%	87	43.3%
Total	197	100.0%	201	100%
Age				
18-25	63	32.0%	47	23.4%
26-40	95	48.2%	98	48.8%
41-60	34	17.3%	46	22.9%
More than 60	5	2.5%	10	5%
Total	197	100.0%	201	100%
Educational level				
Little to none	15	7.6%	28	13.9%
Grade school	22	11.2%	17	8.5%
Secondary school	75	38.3%	62	30.8%
Trade school	14	7.1%	24	11.9%
Bachelor's	68	34.7%	70	34.8%
Graduate degree (Master or PHD)	2	1.0%	201	100%
Total	196	99.5%		
Average monthly household income				
Less than 200	9	4.6 %	18	9 %
Between 200 and 350	71	36.0 %	56	27.9 %
Between 350 and 500	103	52.3 %	96	47.8 %
More than 500	14	7.1 %	31	15.4 %
Total	197	100.0 %	201	100 %

In 2017, the percentage of gender participation was almost the same with a 0.6% increase in female gender participation, where most participants members are within the 26-40 age category with a total percent of 48.2%. The education level results indicate that most participants are people with secondary school degrees with a percentage of 38.3% followed by bachelor's degrees with a percentage of 34.7%. The result of the monthly average for household income was between 350 and 500 JD with a total percentage of 52.3%.

The results of the community interest survey 2019 indicated that the participation of males was higher this time with a total percentage of 56.7% for males participants. However, most participants members are again within the 26-40 age category with a total percent of 48.8%. The education level results indicate that most participants have a bachelor's degree with a percentage of 34.8% followed by a secondary school degree with a percentage of 30.8%. Finally, the monthly average for household income was the same: between 350 and 500 JD with a total percentage of 47.8%.

4.2.2.2 Community Perception

4.2.2.2.1 Community Attachment

The following tables show the arithmetic averages and standard deviations of participants' responses that measure community attachment with the archaeological site in both 2017 and 2019. This dimension includes 17 questions: 15 of them follow the five-point Likert scale format, one investigates site visit frequency, and the final one is in "yes or no" format (Tables 20; 21).

Table 20: Responses to community attachment by Umm el-Jimal Residents 2017 (Source: Spss 20 program outputs)

Questions		Not at All	Not Really	Undecided	Somewhat	Very Much	Mean	Std. Deviation	P-value	Rank
1. I know about the history of my family	N	6	9	62	43	73	3.87	1.07	P < 0.001	4
	%	3.1	4.7	32.1	22.3	37.8				
2. I know about the history of my community	N	4	44	46	41	57	3.54	1.20	P < 0.001	4
	%	2.1	22.9	24.0	21.4	29.7				
3. I find the Umm el-Jimal archaeological site important to my family's history	N	14	34	50	34	60	3.48	1.30	P < 0.001	4
	%	7.3	17.7	26.0	17.7	31.3				
4. I know about the archaeological site	N	13	58	37	44	41	3.22	1.27	P < 0.001	3
	%	6.7	30.1	19.2	22.8	21.2				
5. I learn/learned about the site from my school	N	82	51	30	13	15	2.10	1.25	P < 0.001	2
	%	42.9	26.7	15.7	6.8	7.9				
6. I learn/learned about the site from my family	N	41	46	36	36	34	2.88	1.41	P < 0.001	3
	%	21.2	23.8	18.7	18.7	17.6				
7. I learn/learned about the site from my friends	N	69	38	33	28	25	2.50	1.43	P < 0.001	2
	%	35.8	19.7	17.1	14.5	13.0				
8. I am interested in archaeology	N	42	65	42	19	24	2.58	1.28	P < 0.001	2
	%	21.9	33.9	21.9	9.9	12.5				
9. I am interested in the history of the site	N	13	34	61	42	42	3.34	1.20	P < 0.001	2
	%	6.8	17.7	31.8	21.9	21.9				

Questions		Not at All	Not Really	Undecided	Somewhat	Very Much	Mean	Std. Deviation	P-value	Rank
10. I will visit the Interpretive and Hospitality Center when it is complete	N	7	13	27	55	90	4.08	1.10	P < 0.001	4
	%	3.6	6.8	14.1	28.6	46.9				
11. How much do you value the archaeological site?	N	9	13	54	44	76	3.84	1.15	P < 0.001	4
	%	4.6	6.6	27.6	22.4	38.8				
12. How much do you value your sense of ownership of the site?	N	10	22	54	41	69	3.70	1.21	P < 0.001	4
	%	5.1	11.2	27.6	20.9	35.2				
13. How much do you value protecting the site from theft and vandalism?	N	18	9	39	52	78	3.83	1.26	P < 0.001	4
	%	9.2	4.6	19.9	26.5	39.8				
14. How much do you value the accessibility of the site to you?	N	6	13	39	62	76	3.96	1.06	P < 0.001	4
	%	3.1	6.6	19.9	31.6	38.8				
15. How much do you value the community heritage celebrations for the community on the archaeological site?	N	3	8	40	65	80	4.08	0.96	P < 0.001	4
	%	1.5	4.1	20.4	33.2	40.8				
Weighted Mean									3.41	
Std. Deviation									0.76	



Figure 50: Results of "How often do you visit the site?" in 2017 (Source: Spss 20 program outputs)

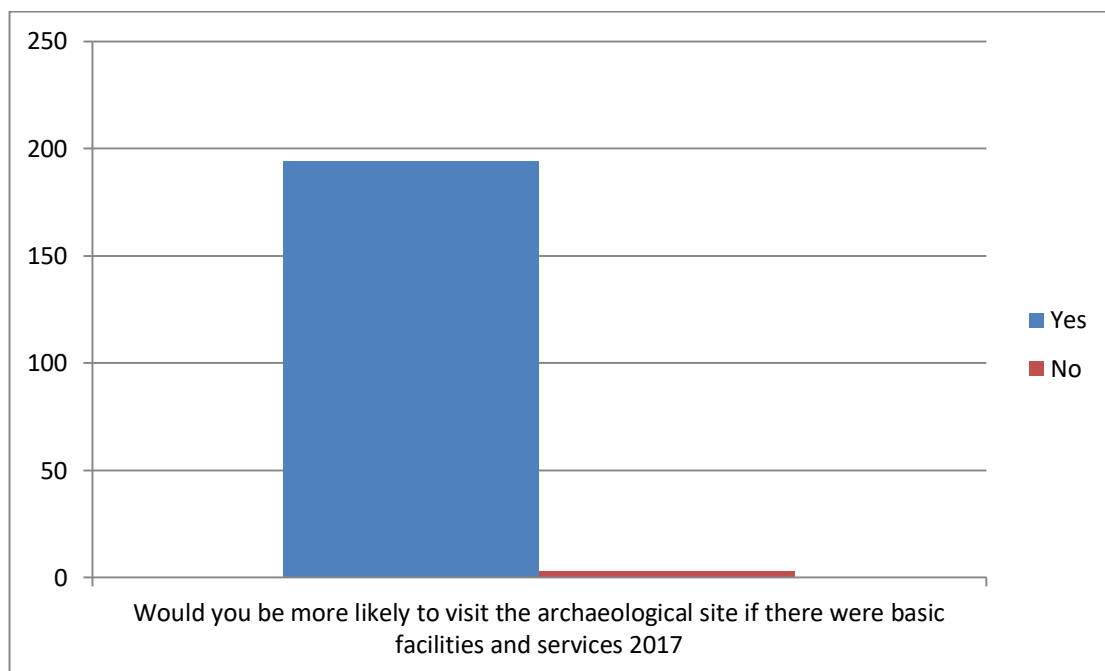


Figure 51: Results of "Would you be more likely to visit the archaeological site if there were basic facilities and services?" in 2017 (Source: Spss 20 program outputs)

Regarding community attachment, table (20) shows Umm el-Jimal residents' responses for 2017 survey were the highest average responses showed that people wanted to visit the interpretive Center (Q10); that they value celebrations on the archaeological site (Q16); that the value accessibility to the site (Q15); and that they would increase their visit to the archaeological site if there are basic facilities and services (Q17). On the other hand, the lowest average showed that they did not learn about the site from school (Q5), or from their friends (Q7); and that they were not interested in archaeology (Q8).

The community attachment in 2017 considered a Moderate level since the weighted average 3.41 lies in [2.40 - 3.79] with a successful Std. deviation of 0.76 that lies in the successful interval of 5 points [0.5 - 1]. Although the community attachment to the archaeological site is moderate, it tends to be more to a high level. These results are shown clearly in the following chart (Figure 52).

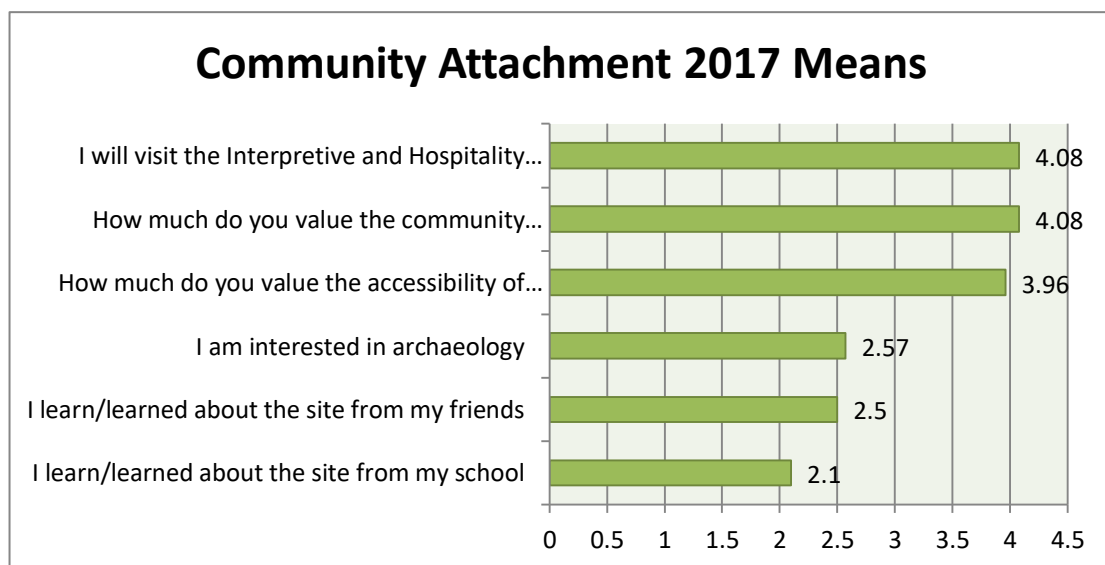


Figure 52: Community attachment 2017 Means (Source: Spss 20 program outputs)

The following table shows the output results for the community attachment by Umm el-Jimal residents in the 2019 survey.

Table 21: Responses to community attachment by Umm el-Jimal Residents 2019 (Source: Spss 20 program outputs)

Questions		Not at All	Not Really	Undecided	Somewhat	Very Much	Mean	Std. Deviation	P-value	Rank
1. I know about the history of my family	N	3	6	39	76	77	4.08	0.91	P < 0.001	4
	%	1.5	3.0	19.4	37.8	38.8				
2. I know about the history of my community	N	2	11	56	64	68	3.92	0.96	P < 0.001	4
	%	1.0	5.5	27.9	31.8	33.8				
3. I find the Umm el-Jimal archaeological site important to my family's history	N	2	10	55	70	64	3.92	0.94	P < 0.001	4
	%	1.0	5.0	27.4	34.8	31.8				
4. I know about the archaeological site	N	1	51	54	45	50	3.46	1.13	P < 0.001	4
	%	0.5	25.4	26.9	22.4	24.9				
5. I learn/learned about the site from my school	N	67	84	36	11	3	2.00	0.93	P < 0.001	2
	%	33.3	41.8	17.9	5.5	1.5				
6. I learn/learned about the site from my family	N	12	29	48	70	42	3.50	1.15	P < 0.001	4
	%	6.0	14.4	23.9	34.8	20.9				
7. I learn/learned about the site from my friends	N	19	45	77	45	15	2.96	1.06	P < 0.001	3
	%	9.5	22.4	38.3	22.4	7.5				
8. I am interested in archaeology	N	14	64	76	29	18	2.87	1.04	P < 0.001	3
	%	7.0	31.8	37.8	14.4	9.0				
9. I am interested in the history of the site	N	6	15	45	79	56	3.82	1.02	P < 0.001	4
	%	3.0	7.5	22.4	39.3	27.9				

Questions		Not at All	Not Really	Undecided	Somewhat	Very Much	Mean	Std. Deviation	P-value	Rank
10. I will visit the Interpretive and Hospitality Center when it is complete	N	4	17	31	67	82	4.02	1.04	P < 0.001	4
	%	2.0	8.5	15.4	33.3	40.8				
11. How much do you value the archaeological site?	N	0	3	29	102	66	4.16	0.72	P < 0.001	4
	%	0	1.5	14.5	51.0	33.0				
12. How much do you value your sense of ownership of the site?	N	2	8	21	51	118	4.38	0.90	P < 0.001	5
	%	1.0	4.0	10.5	25.5	59.0				
13. How much do you value protecting the site from theft and vandalism?	N	4	7	20	72	97	4.26	0.92	P < 0.001	5
	%	2.0	3.5	10.0	35.8	48.5				
14. How much do you value the accessibility of the site to you?	N	1	4	21	62	111	4.40	0.80	P < 0.001	5
	%	0.5	2.0	10.6	31.2	55.8				
15. How much do you value the community heritage celebrations for the community on the archaeological site?	N	2	31	68	37	62	3.63	1.11	P < 0.001	4
	%	1.0	15.5	34.0	18.5	31.0				
Weighted Mean									3.69	
Std. Deviation									0.59	

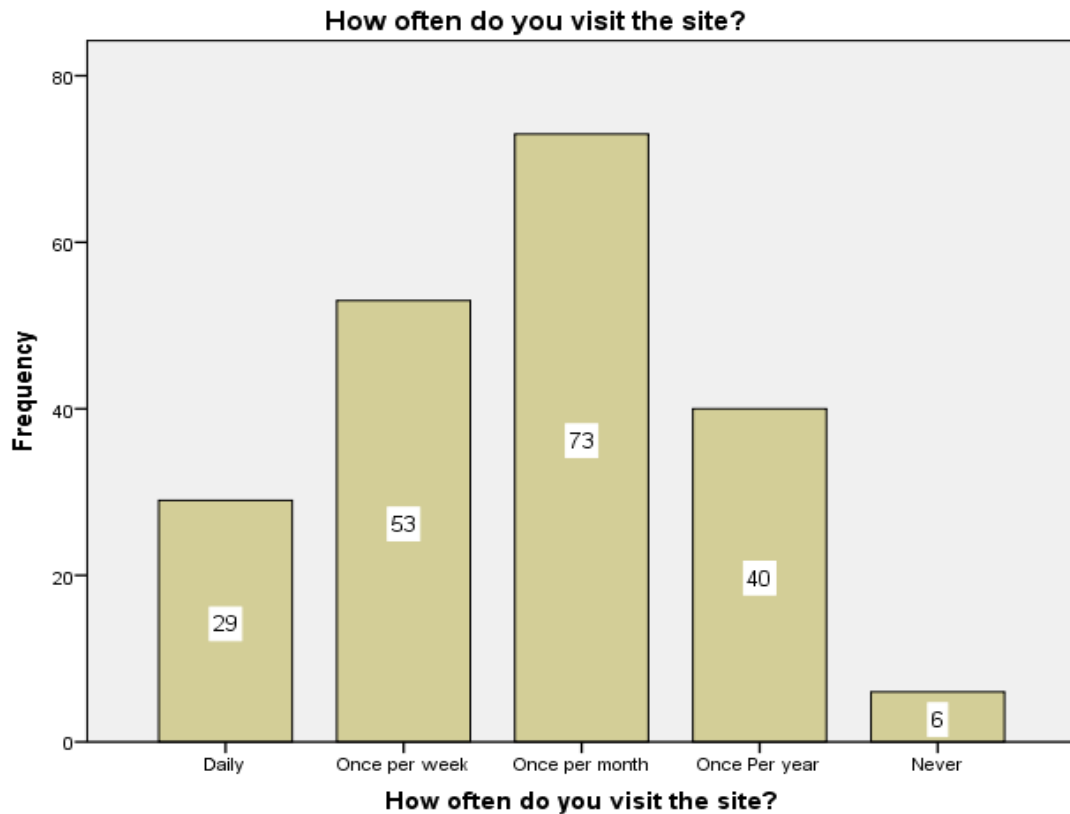


Figure 53: Results of "How often do you visit the site?" in 2019 (Source: Spss 20 program outputs)

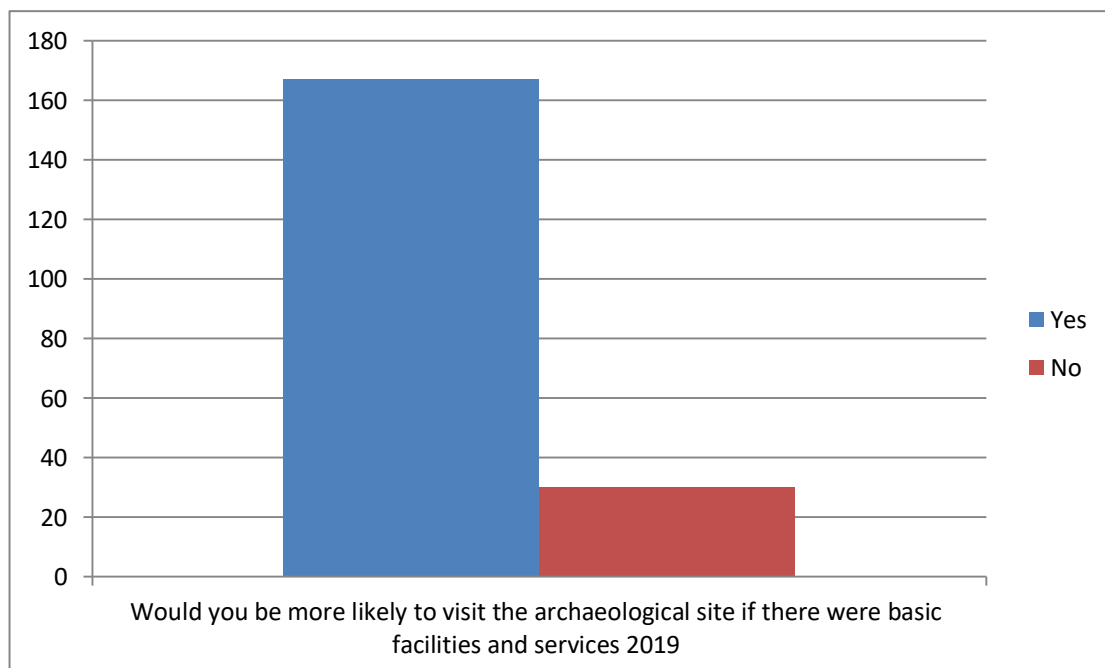


Figure 54: Results of "Would you be more likely to visit the archaeological site if there were basic facilities and services ?" in 2019 (Source: Spss 20 program outputs)

Regarding community attachment, Table 21 shows Umm el-Jimal Residents' responses for 2019 survey where the highest average responses showed that people valued their accessibility to the site (Q15); they valued their sense of site ownership (Q13); they valued site protection from theft and vandalism (Q14); and that they would increase their visit to the archaeological site if there are basic facilities and services (Q17). Questions 15 and 17 were also among the highest average in the 2017 survey. The lowest average responses were the same as in 2017 and showed that they did not learn about the site from school (Q5); they were not interested in archaeology (Q8); and they did not learn about the site from their friends (Q7).

The community attachment 2019 considered a Moderate level since the weighted average 3.69 lies in [2.40 - 3.79] with a successful Std. deviation of 0.59. Community attachment to the archaeological site increased between 2017 and 2019, where it still moderate but tends to be more to a high level. These results are shown clearly in the following chart (Figure 55).

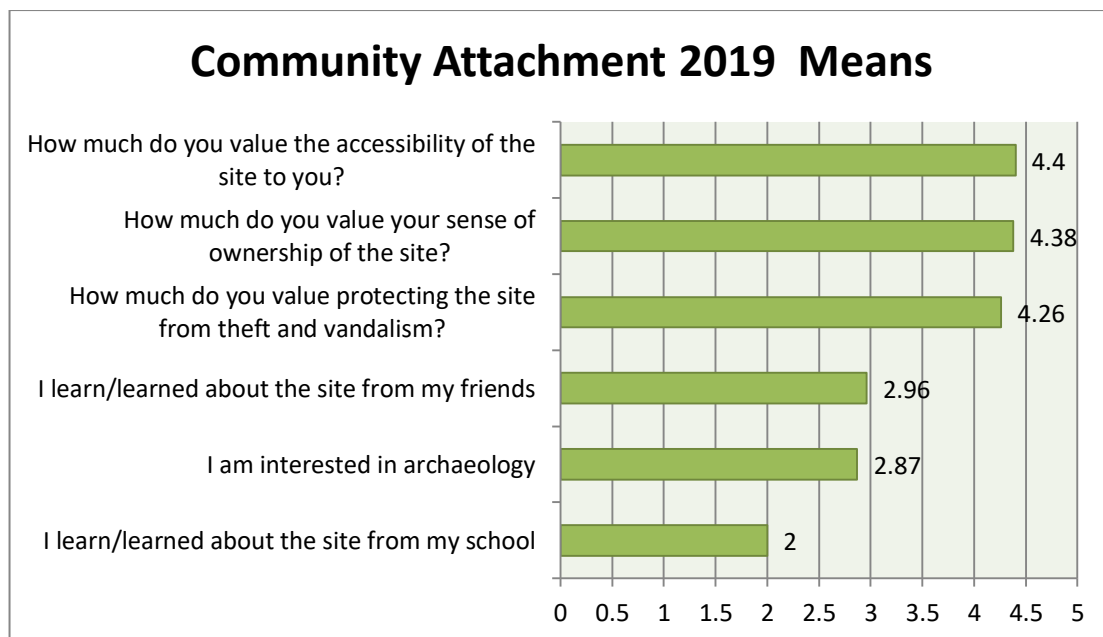


Figure 55: Community attachment 2019 Means (Source: Spss 20 program outputs)

4.2.2.2.2 Community Awareness

The following tables show the arithmetic averages and standard deviations of participants' responses for the measurement of community awareness of the value of the archaeological site and the potential benefits and opportunities in 2017 and 2019. This dimension includes 18 questions: 12 of them follow the five-point Likert scale format, 5 of them are in "yes or no" format, and the final one measures potential job opportunities created by the archaeological site (Table 22; 23).

Table 22: Responses to community awareness by Umm el-Jimal Residents 2017 (Source: Spss 20 program outputs)

Questions		Not at All	Not Really	Undecided	Somewhat	Very Much	Mean	Std. Deviation	P- value	Rank
1. I think that the site benefits the modern community of Umm el-Jimal	N	8	8	34	77	65	3.95	1.03	P < 0.001	4
	%	4.2	4.2	17.7	40.1	33.9				
2. I understand what the archaeologists are doing	N	5	10	29	72	77	4.07	0.99	P < 0.001	4
	%	2.6	5.2	15.0	37.3	39.9				
3. I will visit the Interpretive and Hospitality Center when it is complete	N	7	13	27	55	90	4.08	1.10	P < 0.001	4
	%	3.6	6.8	14.1	28.6	46.9				
4. I have seen tourists coming to visit the site	N	21	42	42	42	45	3.25	1.33	P < 0.001	3
	%	10.9	21.9	21.9	21.9	23.4				
5. I have seen tourists coming to visit the UJ village	N	76	38	21	25	31	2.46	1.51	P < 0.001	2
	%	39.8	19.9	11.0	13.1	16.2				
6. How much do you value the archaeological site?	N	9	13	54	44	76	3.84	1.15	P < 0.001	4
	%	4.6	6.6	27.6	22.4	38.8				
7. How much do you value more visitors coming to the UJ community?	N	13	29	35	50	68	3.67	1.27	P < 0.001	4
	%	6.7	14.9	17.9	25.6	34.9				
8. How much do you value protecting the site from theft and vandalism?	N	18	9	39	52	78	3.83	1.26	P < 0.001	4
	%	9.2	4.6	19.9	26.5	39.8				

Questions		Not at All	Not Really	Undecided	Somewhat	Very Much	Mean	Std. Deviation	P- value	Rank
9. How much do you value the installation of the Interpretive and hospitality center on the archaeological site?	N	7	10	27	59	93	4.13	1.06	P < 0.001	4
	%	3.6	5.1	13.8	30.1	47.4				
10. How much do you value the installation of the signs explaining the archaeological site on the site?	N	1	7	22	68	98	4.30	0.85	P < 0.001	5
	%	0.5	3.6	11.2	34.7	50.0				
11. How much do you value the installation of the preserved and safe buildings on the archaeological site?	N	2	4	14	39	135	4.55	0.80	P < 0.001	5
	%	1.0	2.1	7.2	20.1	69.6				
12. How much do you value the informational tours on the archaeological site?	N	16	31	47	42	59	3.50	1.29	P < 0.001	4
	%	8.2	15.9	24.1	21.5	30.3				
Weighted Mean									3.75	
Std. Deviation									0.61	

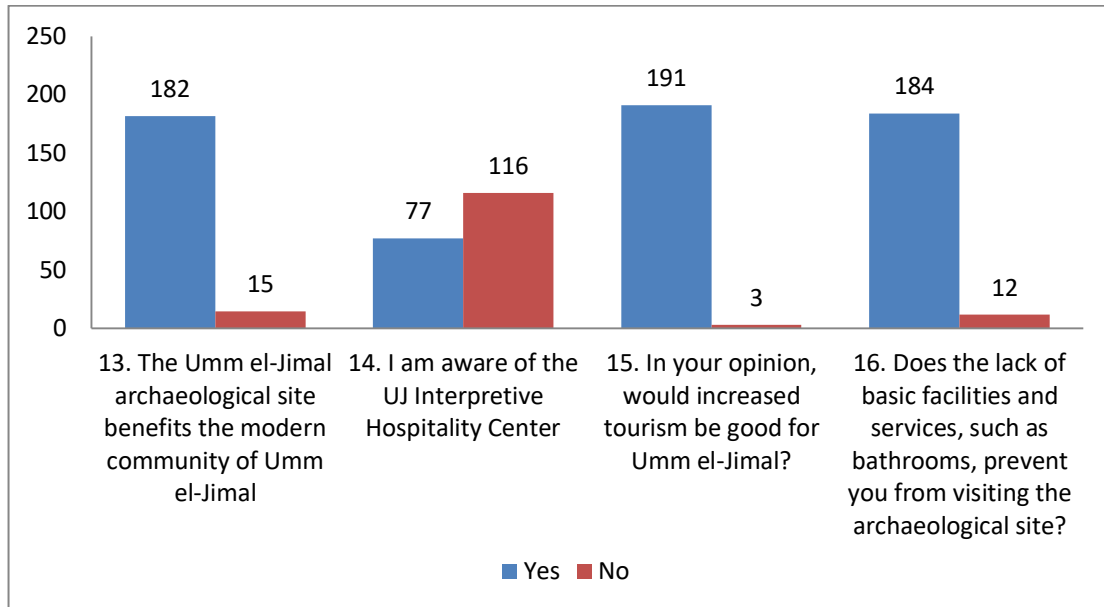


Figure 56: Results of community awareness 2017 "Yes or No" format

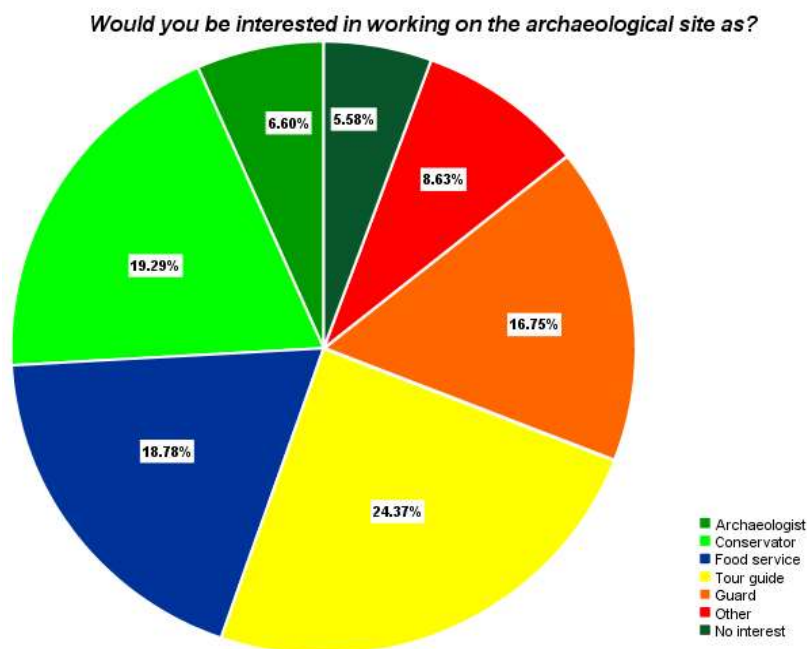


Figure 57: Results of the potential job opportunities at the archaeological site 2017 (Source: Spss 20 program outputs)

Regarding community awareness, table (22) shows that Umm el-Jimal residents' highest average responses in 2017 indicate that people valued: the installation of the preserved and safe buildings on the archaeological site (Q11); the installation of the signs explaining the archaeological site on the site (Q10); the installation of the Interpretive and hospitality center on the archaeological site (Q9). The lowest average responses showed that

they did not see tourists visiting the village (Q5); or the archaeological site (Q4). The results of the “yes or no” questions show figure (54) that people believe that Umm el-Jimal archaeological site benefits the community and that increased tourism will be positive for the people of Umm el-Jimal. Most were not aware of the UJIHC, and most indicated that better basic facilities and services would make them more likely to visit the site.

In response to the final question, Umm el-Jimal residents were aware of the potential job opportunities that the archaeological site provides and the highest responses indicated that tour guiding, conservation, and food services were the most popular fields. Less than 6% of people expressed no interest in working at the site, which was the lowest of the responses.

The community awareness for the 2017 survey considered a Moderate level since the weighted average 3.75 lies in [2.40 - 3.79] with a successful Std. deviation of 0.61. Although community awareness is moderate, it reaches the peaks of moderate level and tends to be more to a high level. These results are shown clearly in the following chart (Figure 58).

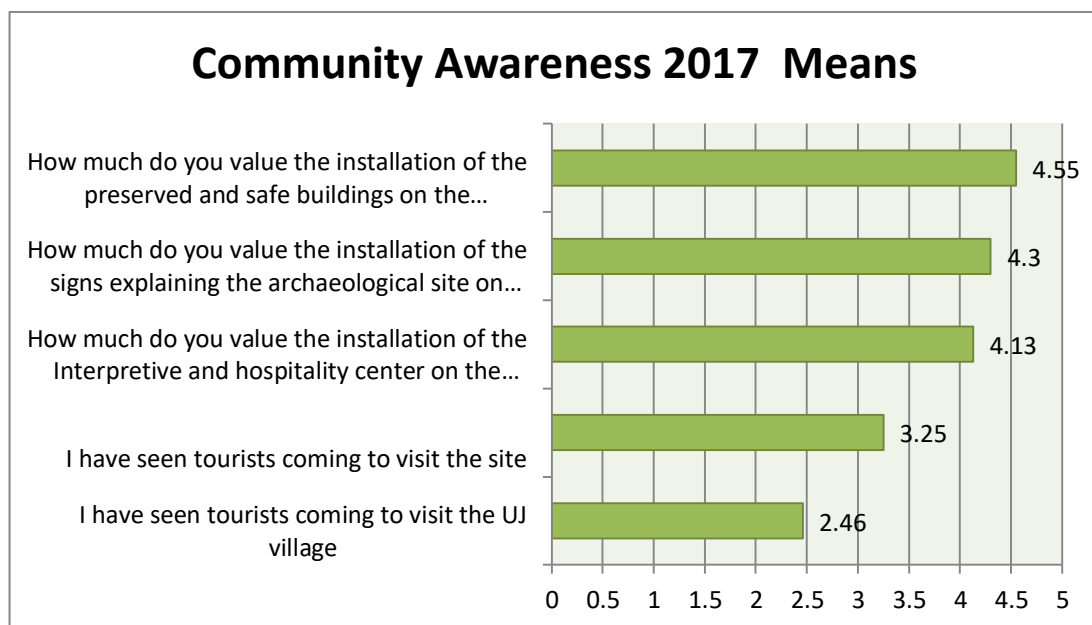


Figure 58: Community awareness 2017 Means (Source: Spss 20 program outputs)

The following tables show the output results for the community awareness by Umm el-Jimal Residents for the Umm el-Jimal community interest survey 2019.

Table 23: Responses to community awareness by Umm el-Jimal Residents 2019 (Source: Spss 20 program outputs)

Questions		Not at All	Not Really	Undecided	Somewhat	Very Much	Mean	Std. Deviation	P-value	Rank
1. I think that the site benefits the modern community of Umm el-Jimal	N	2	14	66	59	60	3.80	0.98	P < 0.001	4
	%	1.0	7.0	32.8	29.4	29.9				
2. I understand what the archaeologists are doing	N	0	11	43	81	66	4.00	0.87	P < 0.001	4
	%	0.0	5.5	21.4	40.3	32.8				
3. I will visit the Interpretive and Hospitality Center when it is complete	N	4	17	31	67	82	4.02	1.04	P < 0.001	4
	%	2.0	8.5	15.4	33.3	40.8				
4. I have seen tourists coming to visit the site	N	6	43	77	43	32	3.26	1.06	P < 0.001	3
	%	3.0	21.4	38.3	21.4	15.9				
5. I have seen tourists coming to visit the UJ village	N	33	86	50	23	9	2.45	1.04	P < 0.001	2
	%	16.4	42.8	24.9	11.4	4.5				
6. How much do you value the archaeological site?	N	0	3	29	102	66	4.16	0.72	P < 0.001	4
	%	0.0	1.5	14.5	51.0	33.0				
7. How much do you value more visitors coming to the UJ community?	N	1	10	49	46	94	4.11	0.98	P < 0.001	4
	%	0.5	5.0	24.5	23.0	47.0				
8. How much do you value protecting the site from theft and vandalism?	N	4	7	20	72	97	4.26	0.92	P < 0.001	5
	%	2.0	3.5	10.0	36.0	48.5				

Questions		Not at All	Not Really	Undecided	Somewhat	Very Much	Mean	Std. Deviation	P-value	Rank
9. How much do you value the installation of the Interpretive and hospitality center on the archaeological site?	N	0	5	46	86	62	4.03	0.80	P < 0.001	4
	%	0.0	2.5	23.1	43.2	31.2				
10. How much do you value the installation of the signs explaining the archaeological site on the site?	N	0	2	34	82	80	4.21	0.76	P < 0.001	5
	%	0.0	1.0	17.2	41.4	40.4				
11. How much do you value the installation of the preserved and safe buildings on the archaeological site?	N	1	2	12	60	125	4.53	0.70	P < 0.001	5
	%	0.5	1.0	6.0	30.0	62.5				
12. How much do you value the informational tours on the archaeological site?	N	0	11	95	59	36	3.60	0.84	P < 0.001	4
	%	0.0	5.5	47.3	29.4	17.9				
Weighted Mean									3.87	
Std. Deviation									0.56	

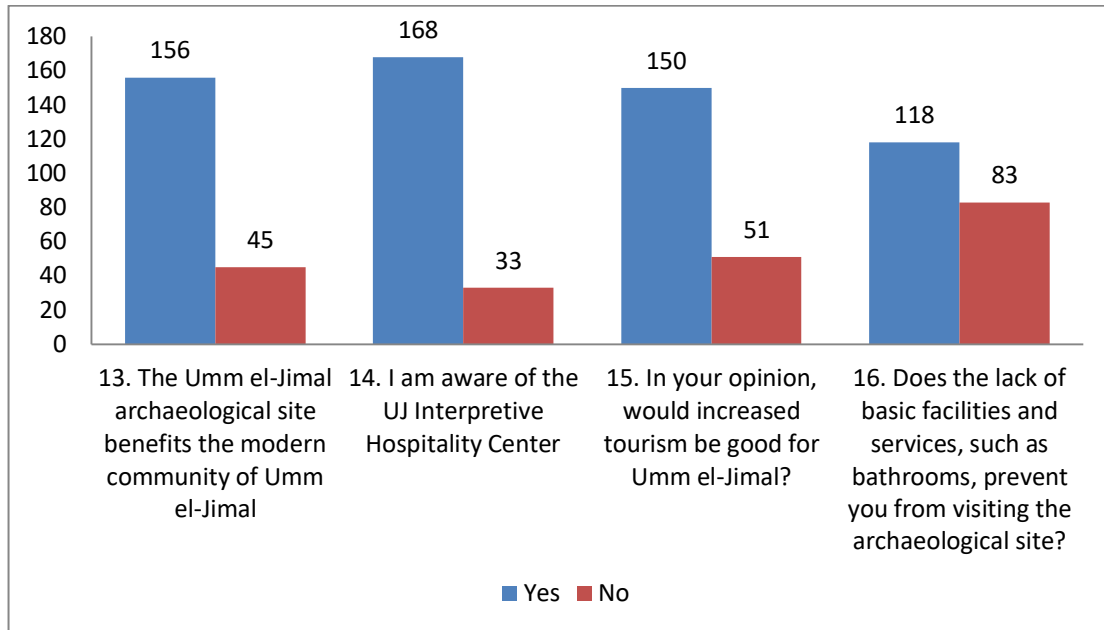


Figure 59: Results of community awareness 2019 "Yes or No" format

The following chart shows the responses for potential job opportunities created by the archaeological site (Figure 60).

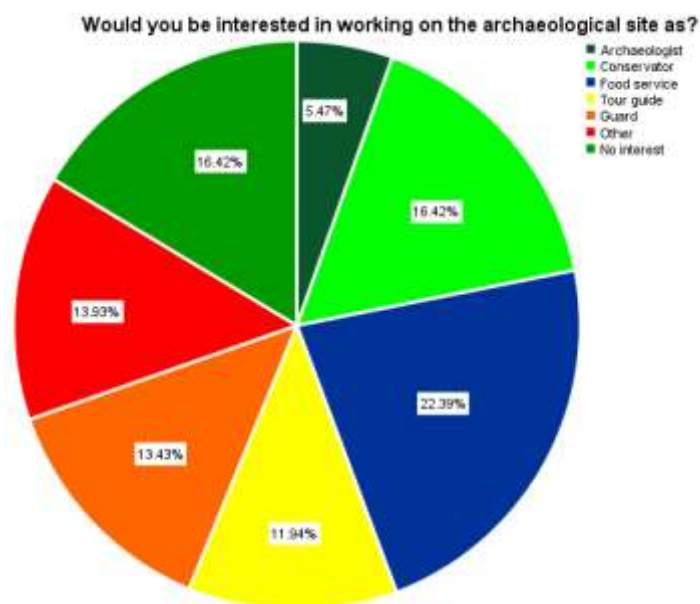


Figure 60: Results of the potential job opportunities at the archaeological site 2019 (Source: Spss 20 program outputs)

Regarding community awareness in 2019, table (23) shows Umm el-Jimal residents' responses where the highest average responses indicate that people valued the installation of the preserved and safe buildings on the archaeological site (Q11); site protection from theft

and vandalism (Q8); and installation of the signs explaining the archaeological site (Q9). As in the 2017 survey, the lowest average responses showed that they did not see tourists visiting the village (Q5); or the archaeological site (Q4).

Responses to the “yes or no” questions (Figure 59) show that people support the role of Umm el-Jimal archaeological site and increased tourism in benefiting the modern community of Umm el-Jimal. The awareness of the UJIHC was very high compared to the low awareness in 2017. Lack of basic services did impact site visits, but less than in 2017.

In terms of potential job opportunities provided by the site, food service and conservation remained top responses, but this time residents with no interest were highly represented, with the same percentage as conservation.

The Community awareness for the 2019 survey considered a High level since the weighted average 3.87 lies in [3.80 - 5] with a successful Std. deviation of 0.56. Community awareness increased from a moderate level in 2017 to a high level in 2019 which indicates that residents are more aware of the archaeological site and the potential benefits and opportunities. These results are shown clearly in the following chart (Figure 61).

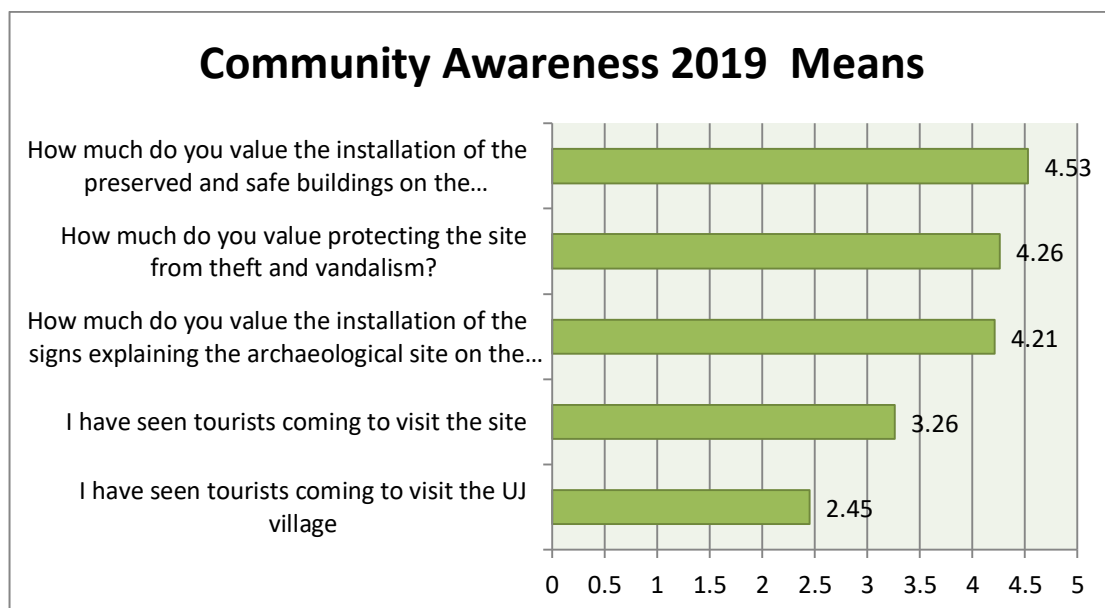


Figure 61: Community awareness 2019 Means (Source: Spss 20 program outputs)

4.2.2.2.3 Tourism Option

The following tables show the arithmetic averages and standard deviations of participants' responses for tourism options 2017 and 2019. This dimension includes 25 questions: 8 follow the five-point Likert scale format, 3 are in "yes or no" format, and 14 are responded with " You & your family" or "Tourist" or "Both" (Table 24; 25; 26; 27).

Table 24: Responses to tourism option by Umm el-Jimal residents Part 1 (2017) (Source: Spss 20 program outputs)

Questions		Not at All	Not Really	Undecided	Somewhat	Very Much	Mean	Std. Deviation	P-value	Rank
1. I will visit the Interpretive and Hospitality Center when it is complete	N	7	13	27	55	90	4.08	1.10	P < 0.001	4
	%	3.6	6.8	14.1	28.6	46.9				
2. How much do you value more visitors coming to the UJ community?	N	13	29	35	50	68	3.67	1.27	P < 0.001	4
	%	6.7	14.9	17.9	25.6	34.9				
3. How much do you value the installation of the Interpretive and hospitality center on the archaeological site?	N	7	10	27	59	93	4.13	1.06	P < 0.001	4
	%	3.6	5.1	13.8	30.1	47.4				
4. How much do you value the installation of the signs explaining the archaeological site on the site	N	1	7	22	68	98	4.30	0.85	P < 0.001	5
	%	0.5	3.6	11.2	34.7	50.0				
5. How much do you value the informational tours on the archaeological site?	N	16	31	47	42	59	3.50	1.29	P < 0.001	4
	%	8.2	15.9	24.1	21.5	30.3				

Questions		Not at All	Not Really	Undecided	Somewhat	Very Much	Mean	Std. Deviation	P-value	Rank
6. Rate the degree to which you would want visitation to the archaeological site to increase among Local visitors (UJ Municipality)	N	3	8	50	65	70	3.97	0.96	P < 0.001	4
	%	1.5	4.1	25.5	33.2	35.7				
7. Rate the degree to which you would want visitation to the archaeological site to increase among Jordanian tourists	N	2	3	9	47	132	4.58	0.75	P < 0.001	5
	%	1.0	1.6	4.7	24.4	68.4				
8. Rate the degree to which you would want visitation to the archaeological site to increase among Foreign tourists	N	2	1	7	34	147	4.69	0.67	P < 0.001	5
	%	1.0	0.5	3.7	17.8	77.0				
Weighted Mean									4.11	
Std. Deviation									0.60	

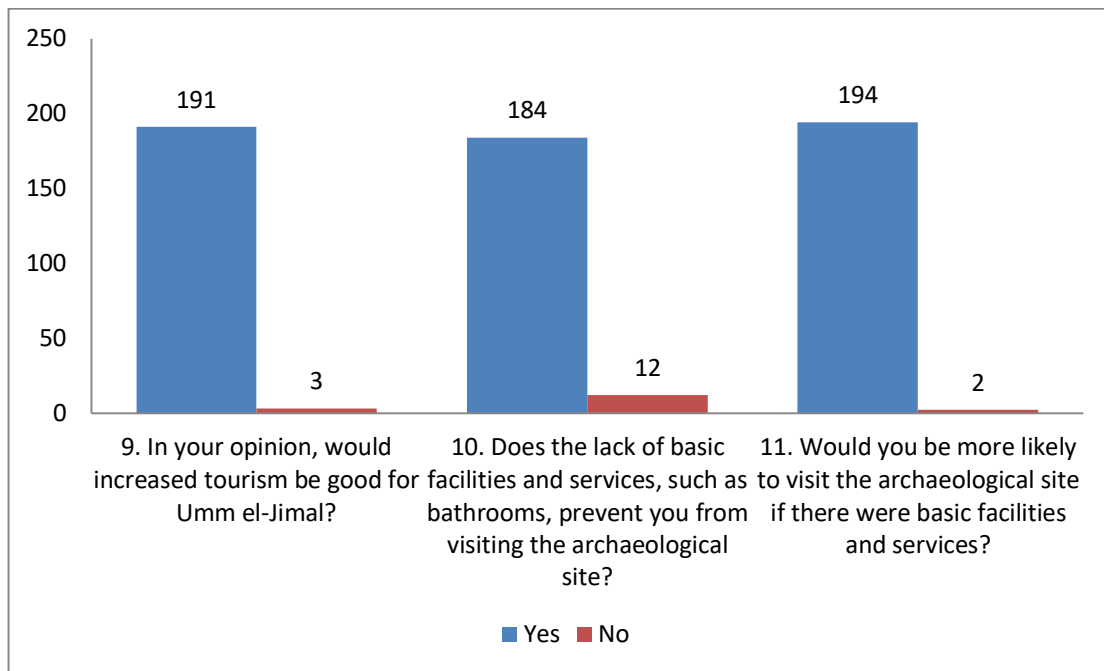


Figure 62: Results of tourism option 2017 in "Yes or No" format

Table 25: Responses to tourism option by Umm el-Jimal residents Part 2 (2017) (Source: Spss 20 program outputs)

Questions		You and your family(1)	Tourists (2)	Both of them(3)	Mean	Std. Deviation	P-value	Rank
12. Which of the following facilities and services do you think would benefit from the park	N	57	7	133	2.39	0.91	P < 0.001	2
	%	28.9	3.6	67.5				
13. Which of the following facilities and services do you think would benefit from the landscaping	N	33	34	130	2.49	0.77	P < 0.001	2
	%	16.8	17.3	66.0				
14. Which of the following facilities and services do you think would benefit from the benches/seating	N	10	22	164	2.79	0.52	P < 0.001	3
	%	5.1	11.2	83.7				
15. Which of the following facilities and services do you think would benefit from the shade structures	N	12	52	133	2.61	0.60	P < 0.001	3
	%	6.1	26.4	67.5				
16. Which of the following facilities and services do you think would benefit from the games/play area	N	75	10	111	2.18	0.96	P < 0.001	2
	%	38.3	5.1	56.6				
17. Which of the following facilities and services do you think would benefit from the bathrooms	N	11	74	112	2.51	0.60	P < 0.001	2
	%	5.6	37.6	56.9				
18. Which of the following facilities and services do you think would benefit from the drinks/Food	N	7	105	85	2.40	0.56	P < 0.001	2
	%	3.6	43.1	43.1				

Questions		You and your family(1)	Tourists (2)	Both of them(3)	Mean	Std. Deviation	P-value	Rank
19. Which of the following facilities and services do you think would benefit from the informational signs	N	8	114	75	2.34	0.55	P < 0.001	2
	%	4.1	57.9	38.1				
20. Which of the following facilities and services do you think would benefit from the educational materials	N	46	94	54	2.04	0.72	P < 0.001	2
	%	23.7	48.5	27.8				
21. Which of the following facilities and services do you think would benefit from the educational program	N	58	77	59	2.11	1.63	P < 0.001	2
	%	29.9	39.7	30.4				
22. Which of the following facilities and services do you think would benefit from the community events	N	50	24	121	2.36	0.86	P < 0.001	2
	%	25.6	12.3	62.1				
23. Which of the following facilities and services do you think would benefit from the tours/field trips	N	5	120	72	2.34	0.53	P < 0.001	2
	%	2.5	60.9	36.5				
24. Which of the following facilities and services do you think would benefit from the visitor center	N	4	79	114	2.56	0.54	P < 0.001	2
	%	2.0	40.1	57.9				
25. Which of the following facilities and services do you think would benefit from the event space	N	19	99	78	2.30	0.64	P < 0.001	2
	%	9.7	50.5	39.8				
Weighted Mean							2.38	

Tables (24, 25) illustrate residents' responses towards the tourism option 2017 survey. According to the table (24), the highest average 2017 responses showed that people wanted to increase site visitation among foreign tourists (Q8); they wanted to increase site visitation among Jordanian tourists (Q7); and they valued the installation of the signs explaining the archaeological site on the site (Q4). The lowest average responses showed that they did not value the informational tours on the archaeological site (Q5) and they did not value more visitors coming to the Umm el-Jimal community (Q2).

In response to the “yes or no” questions figure (62), residents indicated that enhancing tourism would be good for Umm el-Jimal and that having better facilities and services at the site would encourage both locals and tourists to visit the antiquities.

For the final set of responses to tourism benefits, shown in table (25), it is clear that they believe that both residents and tourists would benefit from many of the developments. Residents were willing to share public spaces such as parks, playing areas, the shade structure, and seating areas with tourists and to exchange their culture with tourists through community events, educational programs, and the visitor center.

The tourism option for the 2017 survey considered a High level since the weighted average 4.11 lies in [3.80 - 5] with a successful Std. deviation of 0.60. This indicated that residents encourage tourism industry and enhancement at umm el-Jimal. The results are shown clearly in the following chart (Figure 63).



Figure 63: Tourism option 2017 Means (Source: Spss 20 program outputs)

The following tables show the output results for the tourism option by Umm el-Jimal residents for Umm el-Jimal community interest survey 2019.

Table 26: Responses to tourism option by Umm el-Jimal residents Part 1 (2019) (Source: Spss 20 program outputs)

Questions		Not at All	Not Really	Undecided	Somewhat	Very Much	Mean	Std. Deviation	P-value	Rank
1. I will visit the Interpretive and Hospitality Center when it is complete	N	4	17	31	67	82	4.02	1.04	P < 0.001	4
	%	2.0	8.5	15.4	33.3	40.8				
2. How much do you value more visitors coming to the UJ community?	N	1	10	49	46	94	4.11	0.98	P < 0.001	4
	%	0.5	5.0	24.5	23	47				
3. How much do you value the installation of the Interpretive and hospitality center on the archaeological site?	N	0	5	46	86	62	4.03	0.80	P < 0.001	4
	%	0.0	2.5	23.1	43.2	31.2				
4. How much do you value the installation of the signs explaining the archaeological site on the site	N	0	2	34	82	80	4.21	0.76	P < 0.001	5
	%	0.0	1.0	17.2	41.4	40.4				
5. How much do you value the informational tours on the archaeological site?	N	0	11	95	59	36	3.60	0.84	P < 0.001	4
	%	0.0	5.5	47.3	29.4	17.9				
6. Rate the degree to which you would want visitation to the archaeological site to increase among Local visitors (UJ Municipality)	N	0	12	85	49	55	3.73	0.93	P < 0.001	4
	%	0.0	6.0	42.3	24.4	27.4				

Questions		Not at All	Not Really	Undecided	Somewhat	Very Much	Mean	Std. Deviation	P-value	Rank
7. Rate the degree to which you would want visitation to the archaeological site to increase among Jordanian tourists	N	0	5	40	78	78	4.14	0.82	P < 0.001	4
	%	0.0	2.5	19.9	38.8	38.8				
8. Rate the degree to which you would want visitation to the archaeological site to increase among Foreign tourists	N	0	3	14	73	111	4.45	0.69	P < 0.001	5
	%	0.0	1.5	7.0	36.3	55.2				
Weighted Mean									4.04	
Std. Deviation									0.57	

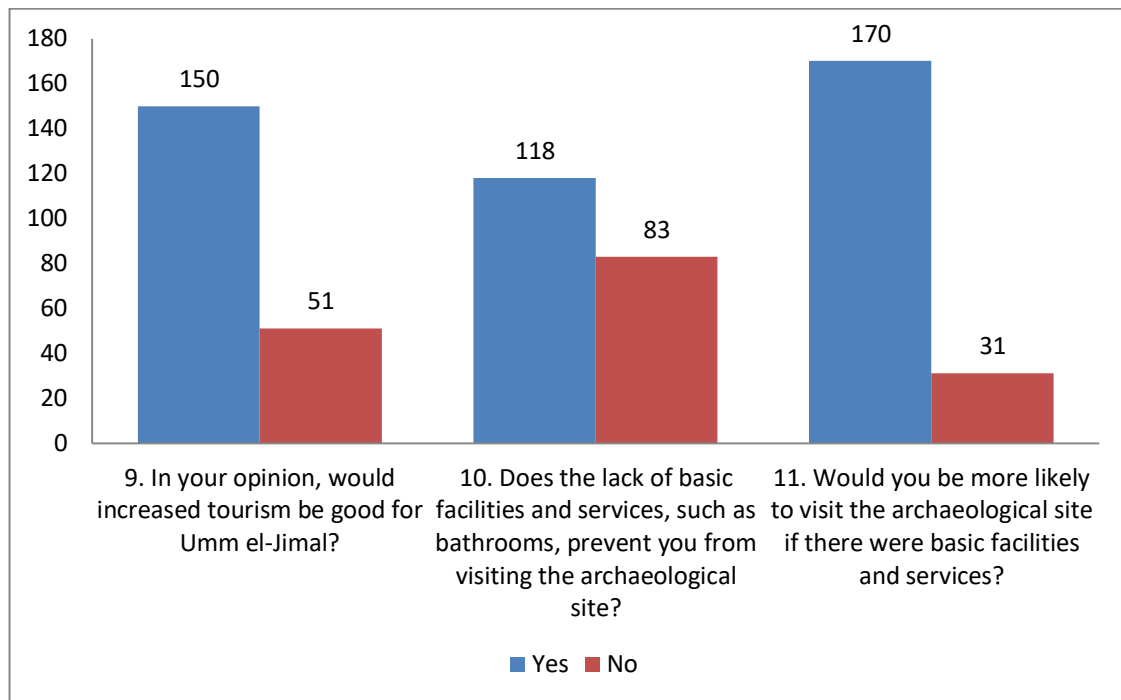


Figure 64: Results of tourism option 2019 in "Yes or No" format

Table 27: Responses to tourism option by Umm el-Jimal residents Part 2 (2019) (Source: Spss 20 program outputs)

Questions		You and your family(1)	Tourists (2)	Both of them(3)	Mean	Std. Deviation	P-value	Rank
12. Which of the following facilities and services do you think would benefit from the park	N	68	5	128	2.30	0.94	P < 0.001	2
	%	33.8	2.5	63.7				
13. Which of the following facilities and services do you think would benefit from the landscaping	N	17	43	141	2.62	0.64	P < 0.001	3
	%	8.5	21.4	70.1				
14. Which of the following facilities and services do you think would benefit from the benches/seating	N	10	14	177	2.83	0.49	P < 0.001	3
	%	5.0	7.0	88.1				
15. Which of the following facilities and services do you think would benefit from the shade structures	N	9	16	176	2.83	0.48	P < 0.001	3
	%	4.5	8.0	87.6				
16. Which of the following facilities and services do you think would benefit from the games/play area	N	82	4	115	2.16	0.98	P < 0.001	2
	%	40.8	2.0	57.2				
17. Which of the following facilities and services do you think would benefit from the bathrooms	N	4	101	95	2.45	0.54	P < 0.001	2
	%	2.0	50.5	47.5				
18. Which of the following facilities and services do you think would benefit from the drinks/Food	N	3	137	61	2.29	0.49	P < 0.001	2
	%	1.5	68.2	30.3				
19. Which of the following facilities and services do you think would benefit from the informational signs	N	7	79	115	2.54	0.57	P < 0.001	2
	%	3.5	39.3	57.2				

Questions		You and your family(1)	Tourists (2)	Both of them(3)	Mean	Std. Deviation	P-value	Rank
20. Which of the following facilities and services do you think would benefit from the educational materials	N	85	16	100	2.07	0.96	P < 0.001	2
	%	42.3	8.0	49.8				
21. Which of the following facilities and services do you think would benefit from the educational program	N	84	8	109	2.12	0.97	P < 0.001	2
	%	41.8	4.0	54.2				
22. Which of the following facilities and services do you think would benefit from the community events	N	44	7	150	2.53	0.83	P < 0.001	2
	%	21.9	3.5	74.6				
23. Which of the following facilities and services do you think would benefit from the tours/field trips	N	2	116	83	2.40	0.51	P < 0.001	2
	%	1.0	57.7	41.3				
24. Which of the following facilities and services do you think would benefit from the visitor center	N	5	55	141	2.68	0.52	P < 0.001	3
	%	2.5	27.4	70.1				
25. Which of the following facilities and services do you think would benefit from the event space	N	7	99	77	2.38	0.56	P < 0.001	2
	%	3.8	54.1	42.1				
Weighted Mean							2.44	

Tables (26, 27) illustrate residents' responses towards the tourism option 2019 survey. The highest average responses were the same as in 2017 and showed that people wanted to increase site visitation among foreign tourists (Q8); that they valued the installation of the signs explaining the archaeological site on the site (Q4); and that they wanted to increase site visitation among Jordanian tourists (Q7). The lowest average responses showed that they did not value the informational tours on the archaeological site (Q5); they did not want to increase site visitation among local visitors (Umm el-Jimal residents) (Q6).

The responses to the “yes or no” questions were the same as 2017, showing that more tourism would be beneficial for the town and that better facilities would help bring tourists to the site; however, there were more “no” responses to the questions than in 2017.

The final series of questions showed that as in 2017, residents believed that facilities would benefit both the locals and tourists, and were willing to share public spaces and open up community events to tourists.

The tourism option for the 2019 survey considered a High level since the weighted average 4.04 lies in [3.80 - 5] with a successful Std. deviation of 0.57. Results in 2019 slightly decreased comparing to 2017, which indicated that residents still encourage the tourism industry and enhancement at umm el-Jimal though they are more conservative now. The results are shown clearly in the following chart (Figure 65).

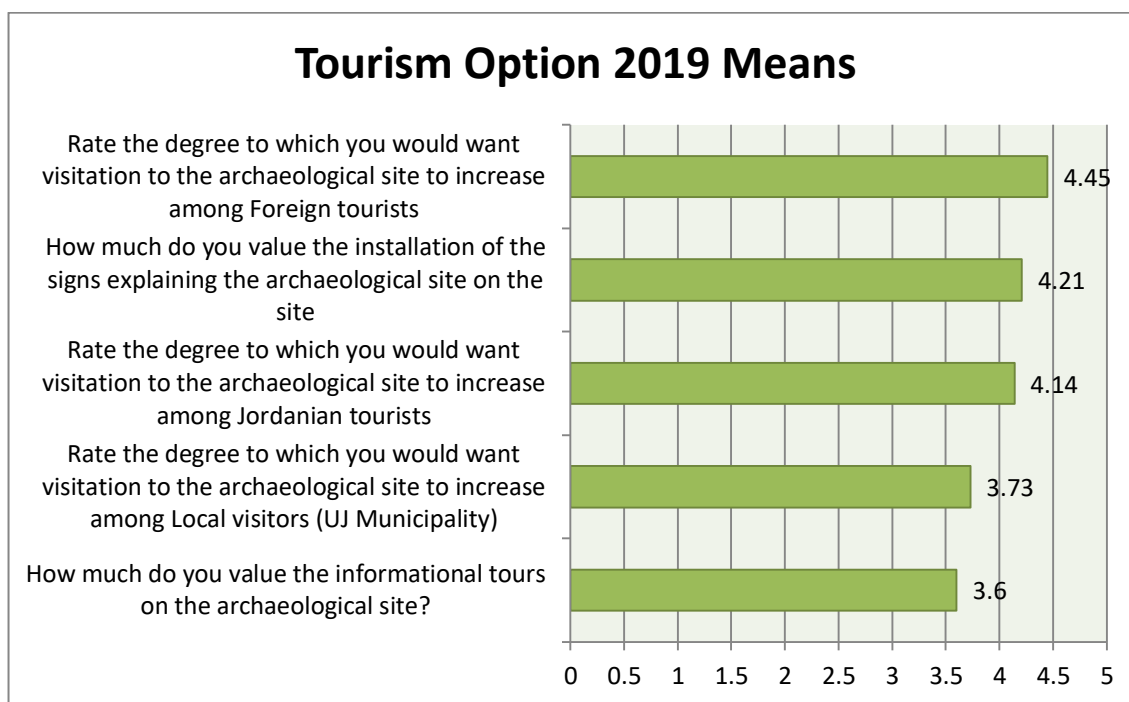


Figure 65: Tourism option 2019 Means (Source: Spss 20 program outputs)

4.2.2.2.4 Social Impact

The following table shows the arithmetic averages and standard deviations of participants' responses to the social impacts of enhanced tourism. This dimension includes 18 questions that follow the five-point Likert scale format. This survey was only given to residents in 2019.

Table 28: Responses to social impacts of enhanced tourism by Umm el-Jimal residents (2019) (Source: Spss 20 program outputs)

Questions		Not at All	Not Really	Undecided	Somewhat	Very Much	Mean	Std. Deviation	P-value	Rank
1. Increased tourism will support a peaceful community	N	2	15	87	62	35	3.56	0.90	P < 0.001	4
	%	1.0	7.5	43.3	30.8	17.4				
2. Increased tourism jobs will prevent crime	N	21	40	47	58	35	3.23	1.25	P < 0.001	3
	%	10.4	19.9	23.4	28.9	17.4				
3. Rate the degree to which you agree with tourism contributes to the improvement of life and well-being of UJ residents	N	1	7	86	68	39	3.68	0.84	P < 0.001	4
	%	0.5	3.5	42.8	33.8	19.4				
4. Rate the degree to which you agree with tourism encourages the study of additional languages	N	24	50	80	28	17	2.82	1.09	P < 0.001	3
	%	12.1	25.1	40.2	14.1	8.5				
5. Rate the degree to which you agree with tourism encourages increased study of local cultures	N	9	39	61	61	31	3.33	1.09	P < 0.001	3
	%	4.5	19.4	30.3	30.3	15.4				
6. Rate the degree to which you agree with tourism encourages the study of other cultures	N	12	38	72	55	24	3.20	1.07	P < 0.001	3
	%	6.0	18.9	35.8	27.4	11.9				
7. Rate the degree to which you agree with tourism encourages cultural exchange	N	2	21	67	56	52	3.68	1.01	P < 0.001	4
	%	1.0	10.6	33.8	28.3	26.3				
8. Rate the degree to which you agree with tourism contributes to the enhancement of UJ residents cultural identity	N	1	16	50	80	52	3.83	0.93	P < 0.001	4
	%	0.5	8.0	25.1	40.2	26.1				
9. Rate the degree to which you agree with tourism increases traffic at UJ	N	20	56	62	36	25	2.95	1.17	P < 0.001	3
	%	10.1	28.1	31.2	18.1	12.6				
10. Rate the degree to which you agree with tourism increases the ambient decibel level at UJ	N	25	35	88	44	9	2.89	1.03	P < 0.001	3
	%	12.4	17.4	43.8	21.9	4.5				

Questions		Not at All	Not Really	Undecided	Somewhat	Very Much	Mean	Std. Deviation	P-value	Rank
11. Rate the degree to which you agree with tourism contributes to the increase in crime at UJ	N	23	42	100	30	6	2.77	0.94	P < 0.001	3
	%	11.4	20.9	49.8	14.9	3.0				
12. Rate the degree to which you agree with tourism effects social structure positively	N	2	34	100	57	8	3.17	0.79	P < 0.001	3
	%	1.0	16.9	49.8	28.4	4.0				
13. Rate the degree to which you agree with tourism enhances the social structure of the UJ residents	N	2	21	90	78	10	3.36	0.78	P < 0.001	3
	%	1.0	10.4	44.8	38.8	5.0				
14. Rate the degree to which you encourage the participation of UJ residents in the tourism industry	N	1	9	64	71	55	3.85	0.90	P < 0.001	4
	%	0.5	4.5	32	35.5	27.5				
15. Rate the degree to which you encourage enhancing tourism at UJ	N	2	23	51	58	66	3.82	1.05	P < 0.001	4
	%	1.0	11.5	25.5	29	33				
16. Rate the degree to which you encourage the involvement of UJ residents in the tourism industry	N	2	9	64	68	57	3.85	0.92	P < 0.001	4
	%	1.0	4.5	32	34	28.5				
17. Rate the degree to which you encourage cultural exchange between UJ residents and tourists	N	6	41	73	50	30	3.29	1.05	P < 0.001	3
	%	3.0	20.5	36.5	25	15				
18. Rate the degree to which you encourage interaction between UJ residents and tourists	N	7	36	75	52	30	3.31	1.04	P < 0.001	3
	%	3.5	18	37.5	26	15				
Weighted Mean									3.36	
Std. Deviation									0.57	

Table (28) illustrate residents' responses to the survey, showing that they encouraged the enhancement of tourism at Umm el-Jimal (Q14); they encouraged the involvement of Umm el-Jimal residents in the tourism industry (Q15); and they agreed that tourism contributed to the enhancement of Umm el-Jimal residents' cultural identity (Q8). The lowest average responses showed that they agreed that tourism did not encourage the study of additional languages (Q4); and did not affect social structure positively (Q9).

In terms of social positive impacts, the highest average responses showed that enhanced tourism would: a peaceful community (Q1); help to prevent crimes through the generated job opportunities (Q2); and improve their life well-being (Q3). The moderate average responses showed that enhanced tourism did not play a role in increasing the ambient decibel level and crimes (Q10, Q11), while low average responses indicated that tourism would not increase traffic at Umm el-Jimal (Q9).

The Social impact for the 2019 survey considered a Moderate level since the weighted average 3.36 lies in [2.40 - 3.79] with a successful Std. deviation of 0.57. This indicates that residents receive positive outcomes from tourism enhancement. The results are shown clearly in the following chart (Figure 66).

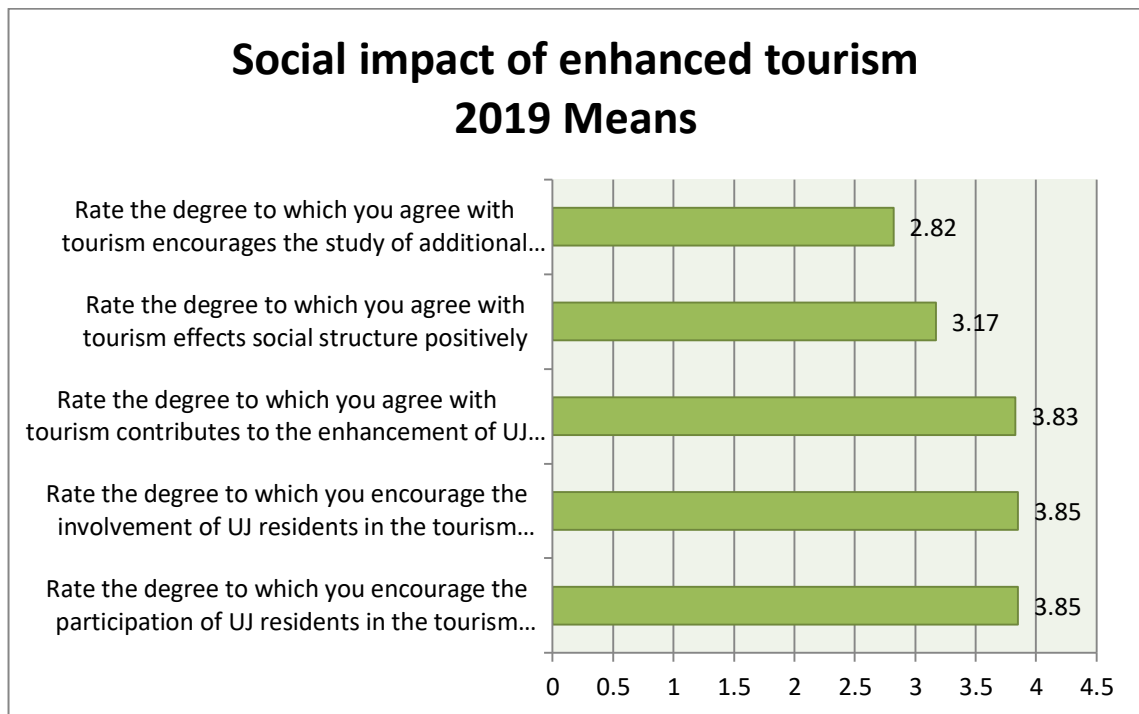


Figure 66: Social impacts of enhanced tourism 2019 Means (Source: Spss 20 program outputs)

4.2.2.2.5 Economic Impact

The following table shows the arithmetic averages and standard deviations of participants' responses to the economic impacts of enhancing tourism. This dimension includes 23 questions that follow the five-point Likert scale format. This survey was only administered in 2019.

Table 29: Responses to economic impacts of enhancing tourism by Umm el-Jimal residents (2019) (Source: Spss 20 program outputs)

Questions		Not at All	Not Really	Undecided	Somewhat	Very Much	Mean	Std. Deviation	P-value	Rank
1. Rate the degree to which you agree with tourism contributes to the improvement of the quality of services provided for UJ residents	N	0	6	45	86	64	4.03	0.81	P < 0.001	4
	%	0.0	3.0	22.4	42.8	31.8				
2. Rate the degree to which you agree with tourism contributes economic improvement for UJ residents	N	4	61	47	51	38	3.29	1.15	P < 0.001	3
	%	2.0	30.3	23.4	25.4	18.9				
3. Rate the degree to which you agree with tourism improves the infrastructure at UJ	N	1	7	26	75	92	4.24	0.86	P < 0.001	5
	%	0.5	3.5	12.9	37.3	45.8				
4. Rate the degree to which you agree with tourism increase the demand for services	N	4	38	99	30	29	3.21	0.98	P < 0.001	3
	%	2	19	49.5	15	14.5				
5. Rate the degree to which you agree with tourism increase the income of the host community	N	2	40	89	45	25	3.25	0.95	P < 0.001	3
	%	1.0	19.9	44.3	22.4	12.4				
6. Rate the degree to which you agree with tourism provides job opportunities for the host community	N	0	11	72	75	43	3.75	0.85	P < 0.001	4
	%	0.0	5.5	35.8	37.3	21.4				
7. Rate the degree to which you agree with tourism increases the income of the local residents/ families	N	2	29	96	45	29	3.35	0.93	P < 0.001	3
	%	1.0	14.4	47.8	22.4	14.4				
8. Rate the degree to which you agree with tourism contributes to the reduction of unemployment	N	11	42	64	52	32	3.26	1.12	P < 0.001	3
	%	5.5	20.9	31.8	25.9	15.9				

Questions		Not at All	Not Really	Undecided	Somewhat	Very Much	Mean	Std. Deviation	P-value	Rank
9. Rate the degree to which you agree with tourism contributes to poverty reduction	N	26	76	61	25	13	2.62	1.07	P < 0.001	3
	%	12.9	37.8	30.3	12.4	6.5				
10. Rate the degree to which you agree with tourism increases the cost of plots of land	N	4	9	37	81	70	4.01	0.95	P < 0.001	4
	%	2.0	4.5	18.4	40.3	34.8				
11. Rate the degree to which you agree with tourism increases commercial rent rates in UJ	N	44	74	51	22	9	2.39	1.08	P < 0.001	2
	%	22	37	25.5	11	4.5				
12. Rate the degree to which you agree with tourism increases the cost of basic necessities	N	80	39	55	15	10	2.18	1.19	P < 0.001	2
	%	40.2	19.6	27.6	7.5	5.0				
13. Rate the degree to which you agree with tourism increases the cost of living	N	19	37	85	27	31	3.07	1.15	P < 0.001	3
	%	9.5	18.6	42.7	13.6	15.6				
14. Rate the degree to which you agree with tourism raises property values	N	3	9	46	67	72	3.99	0.96	P < 0.001	4
	%	1.5	4.6	23.4	34	36.5				
15. Rate the degree to which you agree with tourism increases economic growth in the region	N	0	25	82	50	42	3.55	0.96	P < 0.001	4
	%	0.0	12.6	41.2	25.1	21.1				
16. Rate the degree to which you agree with tourism is considered a secondary source of family income	N	1	8	32	70	88	4.19	0.88	P < 0.001	4
	%	0.5	4.0	16.1	35.2	44.2				
17. Rate the degree to which you agree with tourism encourages the establishment of new businesses	N	2	29	73	60	35	3.49	0.98	P < 0.001	4
	%	1.0	14.6	36.7	30.2	17.6				

Questions		Not at All	Not Really	Undecided	Somewhat	Very Much	Mean	Std. Deviation	P-value	Rank
18. Rate the degree to which you agree with tourism attracts the attention of Jordanian Government to UJ	N	2	6	39	80	74	4.08	0.88	P < 0.001	4
	%	1.0	3.0	19.4	39.8	36.8				
19. Rate the degree to which you agree with tourism attracts the attention of public institutions to UJ	N	8	32	66	56	39	3.43	1.09	P < 0.001	4
	%	4.0	15.9	32.8	27.9	19.4				
20. Rate the degree to which you agree with tourism attracts the attention of investors to UJ	N	32	31	65	35	38	3.08	1.31	P < 0.001	3
	%	15.9	15.4	32.3	17.4	18.9				
21. Rate the degree to which you encourage participation of UJ residents in tourism industry	N	1	9	64	71	55	3.85	0.90	P < 0.001	4
	%	0.5	4.5	32	35.5	27.5				
22. Rate the degree to which you encourage enhancing tourism at UJ	N	2	23	51	58	66	3.82	1.05	P < 0.001	4
	%	1.0	11.5	25.5	29	33				
23. Rate the degree to which you encourage the establishment of tourism industry businesses at UJ	N	20	53	58	39	30	3.03	1.21	P < 0.001	3
	%	10	26.5	29	19.5	15				
Weighted Mean									3.44	
Std. Deviation									0.62	

Table (29) illustrates residents' responses to the economic impacts of enhanced tourism 2019 survey. The highest average responses showed that people agreed that tourism improves the infrastructure at UJ (Q3); is considered a secondary source of family income (Q16); and that it attracts the attention of the Jordanian Government to Umm el-Jimal (Q21). The lowest average responses showed that residents believe that tourism does not increase the cost of basic necessities (Q12) or the cost of commercial rent rates in Umm el-Jimal (Q11).

In terms of economic positive impacts, responses showed that people agreed that tourism would increase the income of the host community and therefore also in family income (Q5, Q7); contribute to the economic improvement of Umm el-Jimal and economic growth in the region (Q2, Q15); and provide job opportunities and encourage the establishment of new business that contribute to the reduction of unemployment (Q6, Q17, Q8). Residents expressed a moderate response towards the role of enhanced tourism in increasing the cost of living (Q13). The lowest responses indicated that respondents did not believe that tourism helped to reduce poverty (Q9) and that they agreed that tourism did not increase the cost of basic necessities (Q12).

The economic impact for the 2019 survey considered a Moderate level since the weighted average 3.44 lies in [2.40 - 3.79] with a successful Std. deviation of 0.62. This indicates that residents receive positive outcomes from tourism enhancement. The results are shown clearly in the following chart (Figure 67).

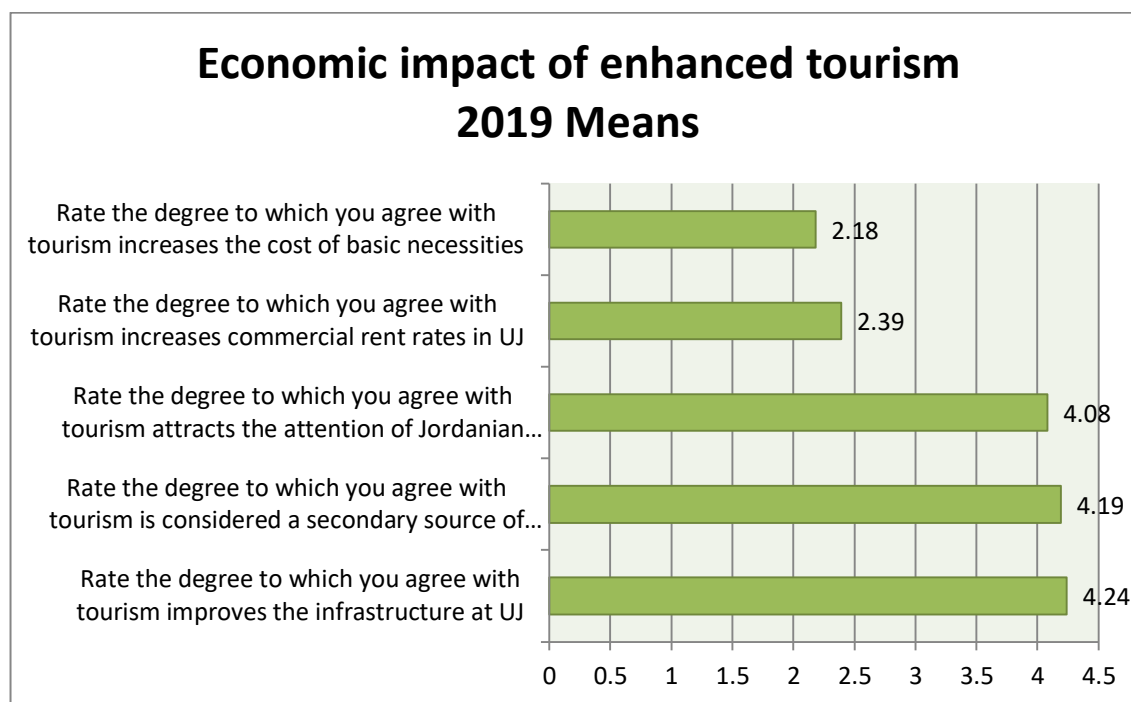


Figure 67: Economic impacts of enhanced tourism 2019 Means (Source: Spss 20 program outputs)

4.3 Population Projections and Urban Growth of Umm el-Jimal

4.3. 1 Population Projections

The population size estimated by one year for all years within five censuses. This situation applies to periods in which population dynamics are almost stable. The population growth rate was determined on 0.0266 as "low scenario" according to the Jordanian department of statistic (2018) where the population at Umm el-Jimal is expected to increase 6559 people by 2050. The following table shows the expected population every five years.

Table 30: Population projection for Umm el-Jimal (Source: by Author)

Year	Population
2015	4524
2018	4886
2020	5153
2025	5886
2030	6723
2035	7680
2040	8772
2045	10020
2050	11445

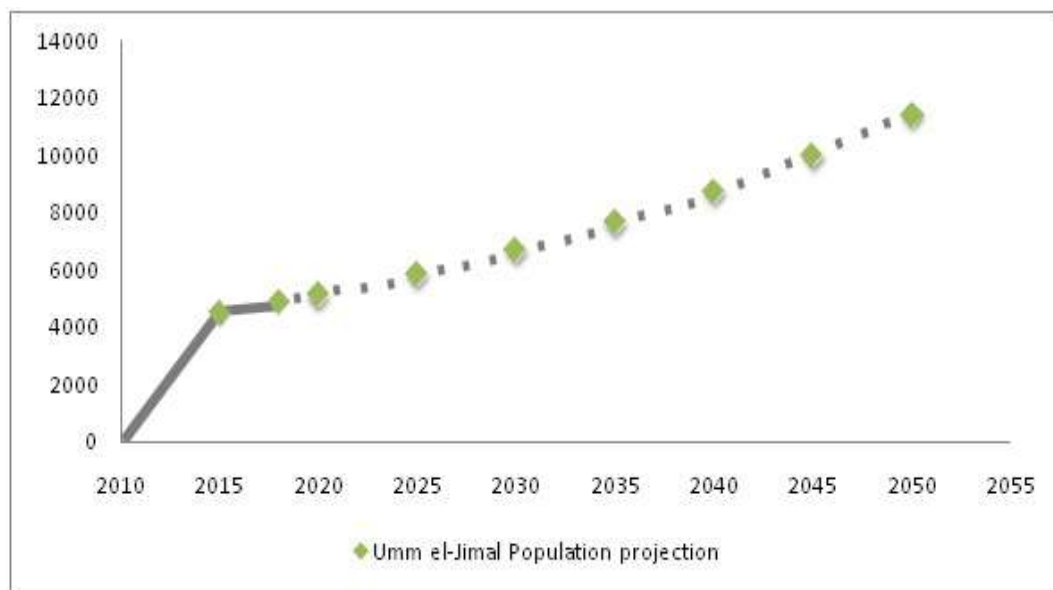


Figure 68: Population projection for Umm el-Jimal (Source: by Author)

4.3.2 Urban Growth of Umm el-Jimal

The total area of Umm el-Jimal is 7 km² where the built-up area represents 3.24% with the total area of 0.226831 km² while the vacant area represents 96.76% with the total area of 6.773169 km². As a result of population growth, the needed services were calculated according to the following criteria (Table 14).

By 2050 Umm el-Jimal population will increase reaching 6559 which will increase the demand for services that results in urban expansion. Accordingly, this population will need a total services area of 0.123 km² where the residential needed area is 0.092 km², the commercial needed area is 0.012 km², the entertainment needed area is 0.006 km², the green needed area is 0.004 km², the health services needed area is 0.001 km², and the religious services needed area is 0.008 km². The urban growth of the Umm el-Jimal is directed towards North-West of the town taking into consideration the proposed buffer zone of the archaeological by DoA and UJAP for the world heritage nomination (UJAP, 2018).

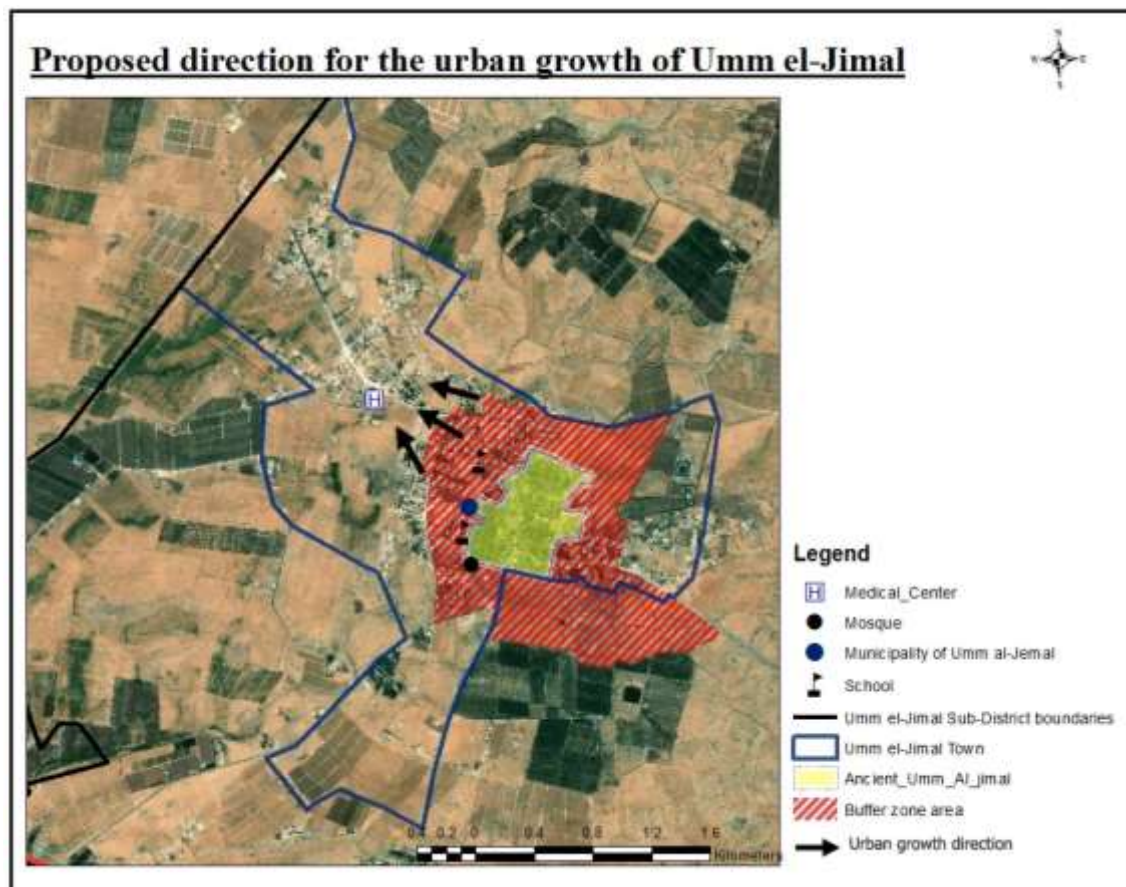


Figure 69: Proposed direction for the urban growth of Umm el-Jimal 2050 (Source: by Author)

Chapter Five: Conclusion

5.1 Summary of Findings

The obtained results support the hypothesis of this study that highlights the role of evaluating the impact of enhanced tourism on the development of the local socio-economic indicators and perceptions that helps decision-makers and professionals reaching a better understanding of residents' expectations. Enhanced tourism at the archaeological site of Umm el-Jimal has benefited the development of the local socio-economic situation of residents, where they took the advantages from different projects undertaken by MoTA, DoA, UJAP, and the Municipality of New Umm el-Jimal.

The most important projects that affected residents in a monetary way were cash for work projects including both the West Entry Park and Water Project. Other projects have had an impact in emotional, social and cultural ways, such as educational lessons, the Umm el-Jimal trail and brochures, and the Umm el-Jimal Interpretive and Hospitality Center. These projects confirm that enhanced tourism positively impacts the development of the local socio-economic situation of Umm el-Jimal residents.

Field observation indicated that Umm el-Jimal has been witnessing various tourism enhancement projects, and that these projects have influenced residents in different ways. The infrastructure development projects included designing the Umm el-Jimal Entry Double Circle to reflect the modern community identity, improving the provided infrastructure services (including streets, lighting, and sidewalks), as well as the establishment of a public building and public green spaces. However, infrastructure projects didn't follow a master urban plan where these developments were focused on the downtown and around the archaeological site while the other areas were neglected.

On the other hand, tourism services development followed a master plan that was created by UJAP in cooperation with MoTA and DoA. Tourism services development included the creation of Umm el-Jimal trail and brochures, the UJIHC and the development of the local HXH corporation. The brochures, which propose tours through the Hauran and to the Desert Castles, have ensured the integration of Umm el-Jimal in Jordanian touristic routes. In fact, in June 2019, Umm el-Jimal was chosen to be one of twelve destinations in MoTAs' touristic program, Jordan Jannah.

The current Umm el-Jimal entrance and trail starts from House 119, where most tourists don't interact with residents; however, in future developments, entry will be at the West Entry Park, which would increase interaction between tourists and residents.

The Umm el-Jimal Interpretive and Hospitality Center (UJIHC) introduce the story of Umm el-Jimal's artifacts, history, and inscriptions to tourists, and offers facilities that serve both tourists and residents including a souvenir shop that promotes local handicrafts and arts, a snack bar and toilets, and a shade structure and paved courtyard where school graduations, cultural heritage lessons, and other community and national celebrations can take place. In addition, Umm el-Jimal residents have benefited from other projects such as the water system cleanout and reconditioning project, the West Entry Park and Play area Park. These projects generated temporary job opportunities for the residents while also, developing Umm el-Jimal's facilities and services.

HxH Business Development in cooperation with MoTA, UJAP, Peace by Pax Fund, and UNESCO Women's Empowerment project created a distinctive tourism experience by engaging Umm el-Jimal residents in the tourism industry. These projects influenced residents positively by generating job opportunities such as food service, home-stays, tourism experiences, and creating basalt-rock artifacts and marketing the local products in Umm el-Jimal and other parts of Jordan. Moreover, these projects developed the interaction and

cultural exchange between residents and tourists. Furthermore, these projects have enabled Umm el-Jimal women in society and helped them to produce and promote the local products where they became financially independent and self-reliant.

In order to confirm residents' attachment, awareness and desired level of involvement in the tourism industry as well as the socio-economic impact of enhanced tourism, a survey questionnaire was distributed over two stages targeting residents in order to measure their opinions and then to confirm the previous findings. The results of residents' responses between 2017-2019 showed that their attachment to the archaeological site had slightly increased, though it remained at a moderate level. Community awareness results increased from a moderate level to a high level, which indicated that the awareness among Umm el-Jimal residents towards the potential benefits that the archaeological site and enhanced tourism generate has increased. Responses towards tourism options were positive, indicating that Umm el-Jimal residents encouraged tourism enhancement.

Residents indicated moderate responses toward the socio-economic impact of enhanced tourism. Although tourism enhancement in Umm el-Jimal generated an additional source of income it cannot be fully relied upon because tourism is seasonal and job opportunities have been temporary.

It is important to note that, the tourism industry in Umm el-Jimal is still in the early stages where there are a small number of tourists with irregular visitation patterns, which bring brings fewer benefits to residents.

5.2 Recommendations

Tourism is a significant factor in Umm el-Jimal for its archaeological site and cultural heritage richness and it is necessary to exploit tourism to achieve maximum socio-economic benefits for residents. Furthermore, when residents participate in tourism planning and tourism development in both direct and indirect ways, negative outputs and impacts will be minimized.

The following measures will help to engage residents with tourism and to increase their benefits from it:

- Improve the effectiveness of partnerships between the governmental sectors, NGOs and residents must be effective in order to establish tourism investment projects independently led by Umm el-Jimal residents.
- Hold educational workshops for stakeholders especially Umm el-Jimal residents, highlighting the relationship and interaction between them and tourists and how to deal with the tourism industry as a development generator. Moreover, these workshops should spread the awareness of tourism positive and negative outputs and its importance at both national and local levels among the residents, municipality, schools, university, and other related bodies.

In terms of tourism service providers, evaluations should take place to ensure the sustainability of tourism products, efficiency, and the quality level of the provided services in order to create positive experiences for tourists that meet their needs, and extend their stay, which in turn will enhance the economic benefits for residents:

- Supporting handicrafts and local product owners and engaging them at both national and local levels will provide job opportunities and increase residents' income.
- Enrich tourist experiences in Umm el-Jimal by engaging tourists in the Bedouin lifestyle and modern community lifestyle through home-stays and camping at Umm el-Jimal, which will increase income and provide jobs.

- Conduct a questionnaire periodically to track residents' and tourists' perceptions, expectations and needs as well as the socio-economic impact of tourism to help decision-makers and tourism professionals ensure that there are the benefits of Umm el-Jimal residents and not only for tourists.
- Move the archaeological site entrance from its current location to the proposed location by UJAP in Umm el-Jimal archaeological site trail for the benefit of residents, where it will increase the interaction between residents and tourists, as well as it will motivate commercial activities and increase traffic to souvenir shops.
- Master urban plan of Umm el-Jimal should be developed and activated where the urban growth direction must take into consideration the buffer zone of the archaeological site and municipal organizational boundaries which will protect the archaeological site and cohesion of the urban fabric of the town.

References:

- Ababneh, A. (2015). Managing Heritage Tourism in the Decapolis Sites of Jordan: Planning Opportunities and Challenges. *Tourism Culture & Communication*, 141-156.
- Ababneh, D. W. (2017). Assessment of Visitor Management at the Archaeological Site of Umm Qais: Condition and Problems. *Conservation & Management of Archaeological Sites*, 322-340.
- Abdulla, N. (2013). Stakeholder Perspectives on Tourism Development in Waterloo Region. Waterloo, Ontario, Canada: University of Waterloo.
- Akis, S., Peristianis, N. & Wagn, J. (1996). Residents' attitudes to tourism development: The case of Cyprus. *Tourism Management*, 17(7), 481-494.
- Al Kurashi, Kumar, Sinha. (2016). Urban Land Cover Change Modelling Using Time-Series Satellite Images: A Case Study of Urban Growth in Five Cities of Saudi Arabia. *Remote Sensing*, 1-24.
- Al-Shorman, A., et al. (2017). Travel and Hospitality in Late Antiquity: A Case Study from Umm el-Jimal in Eastern Jordan. *Near Eastern Archaeology*, 80(1), 22.
- Andriotis, K. & Vaughan, R. D. (2003). Urban Residents Attitudes toward Tourism Development: *The Case of Crete*. *Journal of Travel Research*, 42, 172-187.
- Ap, J. (1992). Residents' Perceptions on Tourism Impacts. *Annals of Tourism Research*, 19 = (5), 665-690.
- Ap, J. & Crompton, J. L. (1998). Developing and testing a tourism impact scale. *Journal of travel research*, 2(37), 120-130.
- Aqueveque, C. & Bianchi, C. (2017). Tourism Destination Competitiveness of Chile: A Stakeholder Perspective. *Tourism Planning & Development*, 14(4), 420-447.
- Athula Gnanapala, W. K. & Sandaruwani, J. A. (2016). Socio-economic Impacts of Tourism Development and Their Implications on Local Communities. *International Journal of Economics and Business Administration*, 2(5), 59-67.
- Awang, Z., Afthanorhan, A. & Mamat, M. (2016). The Likert scale analysis using parametric based Structural Equation Modeling (SEM). *Computational Methods in Social Sciences (CMSS)*, "Nicolae Titulescu" *University of Bucharest, Faculty of Economic Sciences*, 4(1), 13-21.
- Azouzi, K. (2014/2015). Sustainable Tourism Development between Potential and Prospects - Case Study of Guelma Province. *Economie*. Guelma: PHD Thesis at Guelma University.

- Bagri, S. C. & Kala, D. (2016). Residents' Attitudes toward Tourism Development and Impacts in Koti -Kanasar, Indroli, Pattayur Tourism Circuit of Uttarakhand State, India. *PASOS Journal of Tourism and Cultural Heritage*, 14(1), 23-39.
- Bestard, A. B. & Rossello, J. (2007). Modelling environmental attitudes toward tourism. *Tourism Management*, 28(3), 688-695.
- Bhuiyan, M. B. (2016). Socio-Economic Impact of Tourism in Cox's Bazar: A Study of Local Residents' Attitude. (Master's Thesis, University of Dhaka, Dhaka, Bangladesh).
- Brand, Laurie A. (2016). Resettling, Reconstructing and Restor(y)ing: Archaeology and Tourism in Umm Qays. *Middle East Report*, 28-31.
- Brundtland. (2019). Towards Sustainable Development. United Nations World Commission on Environment and Development.
- Butler, H. (1913a). "Ancient Architecture,". Publications of the Princeton University Archaeological Expedition to Syria (Div. II, Part 3, Umm Idj-Djimal, Leyden), 149-213.
- Butler, R. W. (1993). Tourism - an evolutionary perspective. In J. G. Nelson, R. W. Butler, & G. Wall, *Tourism and Sustainable Development: Monitoring, Planning, Managing* (pp. 27-44). Waterloo, Ontario: University of Waterloo, Department of Geography.
- Byrd, E. T. (2007). Stakeholders in sustainable tourism development and their roles: applying stakeholder theory to sustainable tourism development. *Tourism Review*, 62(2), 6-13.
- Byrd, E. T., Bosley, H. E. & Dronberg, M. G. (2009). Comparisons of stakeholder perceptions of tourism impacts in rural eastern North Carolina. *Tourism Management*.
- Camilleri, M. A. (2017). The Tourism Industry: An Overview. In M. A. Camilleri, *Travel Marketing, Tourism Economics and the Airline Product: An Introduction to Theory and Practice* (pp. 3-27). Milan, Italy: Springer.
- Canavan, B. (2017). Tourism stakeholder exclusion and conflict in a small island. *Leisure Studies*, 36(3), 409-422.
- Clark. (1982). *Urban Geography: An Introductory Guide*. Taylor & Francis. London: p.231.
- Dangi, T. B. & Jamal, T. (2016). An Integrated Approach to "Sustainable Community-Based Tourism". *Sustainability*, 8(5), 475.
- De Vries. (2019). Community Archaeology at Umm el-Jimal: Including the Recently Settled Umm el-Jimal Community in the Heritage of the Ancient Archaeological Site. The Umm el-Jimal Project / Calvin Collage.

- De Vries, B. (1979). Research at Umm el-Jimal, Jordan, 1972-1977. *Biblical Archeologist*, 42.
- De Vries, B. (1981). The Umm el-Jimal Project 1972-1977. *Bulletin of the American Schools of Oriental Research*, 53–72.
- del Río-Vázquez et al. (2019). "Relevance of Social, Economic, and Environmental Impacts on Residents' Satisfaction with the Public Administration of Tourism. *Sustainability*, 11(22), 1-15.
- DeRose, A. (2003). Special Bulletin on Global Processes. Durban, South Africa.: Fifth IUCN World Parks Congress.
- Development and Employment Fund. (2017). Survey of investment opportunities for small and medium enterprises in the Northern Badia Governorate Mafrqa. Development and Employment Fund.
- Diedrich, A. & Aswani, S. (2016). Exploring the potential impacts of tourism development on social and ecological change in the Solomon Islands. *AMBIO A Journal of the Human Environment*, 45(7), 808–818.
- Dogan, H. S. (1989). Socio-cultural impacts of tourism. *Annals of Tourism Research*, 16, 216-236.
- Donny, S. & Mohd Nor, N. A. (2012). Community-based Tourism (CBT): Local Community Perceptions toward Social and Cultural Impacts. 1st Tourism and Hospitality International Conference (p. 9). De Palma Ampang, Kuala Lumpur, Malaysia: Tourism and Hospitality International Conference.
- DoS. (2015). The Estimated Population of the Kingdom by Administrative Divisions. Amman: Department of Statistic.
- DoS. (2018). The Estimated Population of the Kingdom by Administrative Divisions. Amman: Department of Statitics.
- Eshliki, S. A. & Kaboudi, M. (2012). Community Perception of Tourism Impacts and Their Participation in Tourism Planning: A Case Study of Ramsar, Iran. *Procedia - Social and Behavioral Sciences*, 36, 333 – 341.
- Fernandez, D. B., Castillo, L. A. & Salomao, E. A. (2014). Tourist use of historic cities. Review of international agreements and literature. *International Humanities Studies*, 1-11.
- Fernandez, D. B., Escampa, M. H., & Vázquez, A. B. (2016). Tourism Management in The Historic City. The Impactof Urban Planning Policies. *International Journal of Scientific Management and Tourism*, 379-391.

- Fernández, R. S., Iniesta-Bonillo, M. A. & Taulet, A. C. (2019). Exploring the concept of perceived sustainability at tourist destinations: a market segmentation approach. *Journal of Travel & Tourism Marketing*, 36(2), 176-190.
- Fredline, E. & Faulkner, B. (2000). Host community reactions: A cluster analysis. *Annals of Tourism Research*, 27(3), 763-784.
- Funa, F. S., Chiunb, L. M., Songanc, P. & Naird, V. (2014). The impact of local communities' involvement and relationship quality on sustainable rural tourism in rural area, Sarawak. The moderating impact of self-efficacy. *Procedia - Social and Behavioral Sciences*, 144, 60 – 65.
- Gartner, C. M. (2008). Tourism, development, and poverty reduction: a case study from Nkhata Bay, Malawi. Canada: University of Waterloo.
- Ghosh, B. (2012). Discourses on Development. Jaipur and New Delhi: Rawat Publication.
- Giannouklidi, L.-M. (2017). The Effect of Films on Tourism: The Case of Greece. Netherlands: Erasmus School of History, Culture and Communication Erasmus University.
- Giriwati et al., (2019). Local Community Participation in Ecotourism Development: The Case of Sumberwangi Hamlet Destination, East Java, Indonesia. *International Journal of Social Sciences*, 5(1), 81-98.
- Godfrey, K. (1996). Towards sustainability? Tourism in the Republic of Cyprus. In L. Harrison, & W. Husbands, *Practicing Responsible Tourism: International Case Studies in Tourism Planning, Policy, and Development* (pp. 58-79). Wiley.
- Hafiza, K. M. (04 Apr 2013). Finding suitable locations for ecotourism development in Cox's Bazar using Geographical Information System and Analytical Hierarchy Process. *Geocarto International*, 29, 256–267.
- Haija, A. A. (2011). Jordan: Tourism and conflict with local communities. *Habitat International*, 93-100.
- Harrison, D. (2015). Development theory and tourism in developing countries: What has theory ever done for us? *International Journal of Asia Pacific Studies*, 11, 53-82.
- HxH. (2019, October 20). Hand by hand Heritage- Food services. (D. El-Farraj, Interviewer)
- HxH. (2019). Tourism experiences. Retrieved from Hand by hand Heritage: <https://www.handbyhandheritage.com/>
- Ibănescu, et al. (2018). The impact of tourism on sustainable development of rural areas: Evidence from Romania. *Sustainability*, 10(10), 19.

- ICAHM. (1990). The Protection and Management of the Archaeological Heritage. In Icomos. Lausanne: 9th General Assembly.
- ICOMOS. (1999). Managing Tourism at Places of Heritage Significance. International Cultural Tourism Charter.
- IUCN. (1980). World Conservation Strategy: Living Resources Conservation for Sustainable Development. Gland, Switzerland: World Conservation Union.
- Jamhawi, M. V., Al-Shorman, A., Zidan, R. J. & Hajahjah, Z. A. (2016). Sustainable Tourism Impacts in the City of Madaba, Jordan. *British Journal of Education, Society & Behavioural Science*, 12 (2), 1-10.
- Kazi Masel Ullah, A. M. (December 2014). Evaluation of Land Suitability for Urban Land-Use Planning: Case Study Dhaka City. Transactions in GIS.
- Keyser, H. (2009). Developing tourism in South Africa: Towards competitive destinations. Cape Town: Oxford University.
- Khila Dahal; Eric Lindquist. (2017). Spatial, Temporal and Hierarchical Variability of the Factors Driving Urban Growth. A Case Study of the Treasure Valley of Idaho, USA.
- Krzywinski, M. & Altman, N. (2013). Significance, P values and t-tests. *Nature Methods*, 10(11), 809–810.
- Lane. (2011). Future Urban Growth and Archaeological Heritage Management: Some Implications for Research activity in Africa. *Conservation & Management of Archaeological Sites*, 134-159.
- Lee, L. Y.-S. (2016). Weaving the future of Asian city tourism: drivers and implications. Cairns, Queensland, Australia: James Cook University.
- Leung, et al. (2018). Tourism and visitor management in protected areas: Guidelines for sustainability. *Best Practice Protected Area Guidelines Series*. 27, 120. Gland, Switzerland: IUCN.
- Liu et al. (2013). Improving metro–airport connection service for tourism development: Using hybrid MCDM models. *Tourism Management Perspectives*, 6, 95-107.
- Lyon, A., Hunter-Jones, P. & Warnaby, G. (2017). Are we any closer to sustainable development? Listening to active stakeholder discourses of tourism development in the Waterberg Biosphere Reserve, South Africa. *Tourism Management*, 61, 234-247.
- Maher M Aburasa, S. H. (September 2016). Land suitability analysis of urban growth in Seremban Malaysia, using GIS based Analytical Hierarchy Process. *Procedia Engineering*, 1128 – 1136.

- Maher Milad Aburas, S. H. (2015). A Review of Land Suitability Analysis for Urban Growth by using the GIS-Based Analytic Hierarchy Process.
- Manzoor, et al. (2018). The Contribution of Sustainable Tourism to Economic Growth and Employment in Pakistan. *International Journal of Environmental Research and Public Health*, 16, 14.
- Masud. (2010). Exploring The Socio-economic Impacts of Tourism: A Study of Cox's Bazar, Bangladesh. UK: Cardiff School of Management, University of Wales Institute.
- Mathieson, A. & Wall, G. (1982). Tourism: Economic, Physical, and Social Impacts (illustrated ed.). Longman.
- McCool, S. F. & Martin, S. R. (1994). Community attachment and attitudes toward tourism development. *Journal of Travel Research*, 32(2), 29-34.
- Milman, A. & Pizam, A. (1988). Social impacts of tourism on central Florida. *Annals of Tourism Research*, 15, 191–204.
- Mir, A. H. (2008). Impact of Tourism on the Development n Kashmir Valley. Aligarh: Aligarh Muslim University.
- MMA. (2018). Manual of the calibration of planning services. Amman: Jordanian Ministry of Local Administration.
- MOTA. (2010). Jordan National Tourism Strategy 2011-2015. Amman: Ministriy of Tourism and Antiquities.
- MOTA. (2018). Ministry of Tourism & Antiquities. Retrieved from: <http://www.mota.gov.jo/Contents/StatisticsAr.aspx>
- MOTA. (2018). Ministry of Tourism and Antiquities Strategic Plan 2018-2020. Amman: Ministry of Tourism and Antiquities.
- MOTA. (2018). Number of Employees in different Tourism Activities, 2017 -2018*. Amman: Ministry of Tourism & Antiquities.
- MOTA. (2018). Number of Visitors to Umm el-Jimal by Nationality. Amman: Ministry of Tourism and Antiquities.
- MoTA. (2017). Tourism Receipts & Expenditures 2005-2015. Amman: Ministry of Tourism and Antiquities.

- MoTA. (2019). Tourism Receipts & Expenditures 2018. Amman: Ministry of Tourism and Antiquities.
- Mowforth, & Ian. (2003). Tourism and Sustainability: New Tourism in the Third World. London: Routledge.
- Mowforth, M. & Munt, I. (2009). Tourism and Sustainability Development, Globalisation and New Tourism in the Third World (3rd Edition ed.). London: Routledge.
- Mowforth, M. & Munt, I. (1998). Tourism and Sustainability: New Tourism in the Third World. Psychology Press.
- Mthembu, N. (2009). Tourism Crime, Safety and Security in the Umhlathuze District Municipality, Kwazulu-Natal. Johannesburg: University of Zululand.
- Muresan, I. C., Oroian, C. F., Harun, R., Arion, F. H., Porutiu, A., Chiciudean, G. O., et al. (2016). Local Residents' Attitude toward Sustainable Rural Tourism Development. Settings, 100-114.
- Nasser, N. (2003). Planning for urban heritage places: Reconciling conservation, tourism, and sustainable. *Journal of Planning Literature*, 467– 479.
- Nayomia, G. & Gnanapalab, A. (2015). Socio-Economic Impacts on Local Community through Tourism Development with Special Reference to Heritage Kandalama. Tourism, Leisure and Global Change.
- Oketch, C. A. (2016). Opportunities, Challenges and Development of Community Based Tourism Land Uses in Got Ramogi. Nairobi, Kenya: University of Nairobi.
- Phoummasak, K., Kongmanila, X. & Changchun, Z. (2014). The Socio-Economic Impact of Tourism and Entrepreneurs in Luang Prabang Province, Lao PDR. *International Journal of Business and Management*, 9(12), 275-284.
- Purvis, B., Mao, Y. & Robinson, D. (2019). Three pillars of sustainability: in search of conceptual origins. *Sustainability Science*, 14, 681–695.
- Rhaman, R. (2016). The Socio-Economic Importance of Tourism and Its Impact on the Livelihood in South Asia Case Rangamati, Bangladesh. Centria University of Applied Sciences.
- Saaty. (2016). Axioms of the Analytic Hierarchy Process (AHP) and its Generalization to Dependence and Feedback: The Analytic Network Process (ANP).
- Sánchez-Corcuera et al., R. N.-M.-S.-J. (2019). Smart cities survey: Technologies, application domains and challenges for the cities of the future. *International Journal of Distributed Sensor Networks*.

- Sharifi, M. M. (2016). Analysis of land suitability for urban development in Ahwaz County in southwestern Iran using fuzzy logic and analytic network process (ANP). *Environ Monit Assess*.
- Sharpley. (2009). *Tourism Development and the Environment: Beyond Sustainability?* (1st ed.). London: Earthscan.
- Sharpley, R. (2003). Rural tourism and sustainability – A Critique. In D. Hall, L. Roberts, & M. Mitchell, *New directions in rural tourism* (pp. 38-53). Ashgate.
- Sharpley, R. (2002). Rural tourism and the challenge of tourism diversification: the case of Cyprus. *Tourism Management*, 23, 233-244.
- Sharpley, R. & Telfer, D. J. (2014). *Tourism and Development: Concepts and Issues* (Vol. 36). Channel View Publications.
- Shen, L. Y. (2011). The application of urban sustainability indicators. In a. c. practices, *Habitat International*, 35(1), 17–29.
- Shiyab, A., Al-Shorman, A., Alawneh, F., Tarboush, M. & Alrahabneh, A. (2017). Discovery of Hellenistic Temple at Umm Qeis Site Gadara in Northern Jordan: First Results. *Mediterranean Archaeology and Archaeometry*, 137-148.
- Shiyab, S., Alawneh, T., Rahabneh. (2017). Discovery of Hellenistic Temple At Umm Qeis Site Gadara In Northern Jordan: First Results. *Mediterranean Archaeology & Archaeometry*, 137-148.
- Sindhu, D. & Singh, D. (2014). Ecotourism and local Perception about its impacts A Study of Village SAM, Jaisalmer, Rajasthan. *International Journal of Environment, Ecology, Family and Urban Studies (IJEEFUS)*.
- Spode, H. (1998). Geschichte der Tourismuswissenschaft. In C. K. Günther Haedrich, *Tourismus-Marketing und Fremdenverkehrsplanung* (pp. 911-924). Berlin: De Gruyter.
- Stylidis, D., Biran, A., Sit, J. & Szivas, E. M. (2014). Residents' support for tourism development: The role of residents' place image and perceived tourism impacts. *Tourism Management*, 45, 260-274.
- SurveyMonkey. (2017). Sample size calculator. Retrieved from Survey Monkey: <https://www.surveymonkey.com/mp/sample-size-calculator/>
- Telfer, D. J. & Sharpley, R. (2015). *Tourism and Development in the Developing World* (Routledge Perspectives on Development). Routledge.

- Timothy, F. & Suchi, D. (2014). Managing Tourism as a source of Revenue and Foreign direct investment inflow in a developing Country: The Jordanian Experience. *International Journal of Academic Research in Economics and Management Sciences*, 3(3).
- Türker, N. & Öztürk, S. (2013). Perceptions of Residents towards the Impacts of Tourism in the Küre Mountains National Park, Turkey. *International Journal of Business and Social Science*, 4 (2), 45-56.
- UJAP. (2015). The Umm el-Jimal Archaeological Project Churches Brochures. Umm el-Jimal: The Umm el-Jimal Archaeological Project.
- UJAP. (2014). The Umm el-Jimal Project.
- UJAP. (2018, October 4). The Umm el-Jimal Project. Retrieved from The Umm el-Jimal Project:<http://blog.ummeljimal.org/2018/10/04/visual-report-maronite-cardinal-mar-bishara-boutros-al-rai-visit-july-2-2018-tue/>
- UN. (2015). United Nations Development Programme (2004) Reducing disaster risk: A challenge for development. New York: United Nations.
- UNESCO. (1972, November 16). Convention concerning the protection of the world cultural and natural heritage adopted by the General Conference at its seventeenth session.
- UNESCO. (2017). <http://www.unesco.org/new/en/amman/culture/world-heritage/>. Retrieved from The United Nations Educational, Scientific and Cultural Organization.
- UNESCO. (2018). Umm al-Jimal - UNESCO World Heritage Centre. Retrieved from UNESCO World Heritage Centre: <https://whc.unesco.org/en/tentativelists/6335/>
- UNESCO. (2014, October 18-19). UNESCO. Retrieved September 30, 2019, from: <https://en.unesco.org/news/cultural-heritage-celebration-umm-jimal>
- UNESCO. (2001, June 18). World Heritage Convention. Retrieved from: <http://whc.unesco.org/en/tentativelists/1553/>
- UNTWO. (2018). Global Report on Inclusive Tourism Destinations: Model and success stories. World Tourism Organization.
- UNTWO. (2005). Report on the WTO Survey on the Implementation of the Global Code of Ethics for Tourism. Madrid: United Nations World Tourism Organization.
- UNTWO. (2019). Sustainable Tourism for Development Guidebook 'Enhancing capacities for Sustainable Tourism for development in developing countries'. Madrid: World Tourism Organization.

- UNWTO & WTTC. (1996). Agenda 21 for the Travel and Tourism Industry: Towards Environmentally Sustainable Development. Madrid: United Nations World Tourism Organization & World Travel and Tourism Council.
- UNWTO. (2018). Global Report on Inclusive Tourism Destinations: Model and success stories. World Tourism Organization.
- UNWTO. (1993). Recommendations on Tourism Statistics. Madrid: World Tourism Organization.
- UNWTO. (2010). Recommendations on Tourism Statistics for 1994. New York: United Nations.
- UNWTO. (2002). Tourism and Poverty Alleviation. Madrid: World Tourism Organization.
- UNWTO. (2001). Tourism Satellite Account: Recommended Methodological Framework. Luxembourg, Madrid, New York, Paris: United Nations and World Tourism Organization.
- Urman, D. (2006). Rafid on the Golan A profile of a Late Roman and Byzantine village. Oxford, United Kingdom: BAR Publishing.
- Van Huy, N. (2018, April 21). A systematic literature review of stakeholder's collaboration in tourism settings. Retrieved from <https://osf.io/preprints/socarxiv/gk2hs/>
- Wang, Y. & Wall, G. (2005). Sharing the Benefits of Tourism: A Case Study in Hainan, China. *Environments Journal*, 33(1), 41-59.
- Ward, C. & Berno, T. (2011). Beyond social exchange theory: Attitudes toward Tourists. *Annals of Tourism Research*, 38(4), 1556-1569.
- WCED. (1987). Our Common Future. Brundtland: World Commission on Environment and Development.
- WCED. (1987). The Brundtland Report 'Our Common Future'. United Nations, Oxford University Press.
- Weed, M. (2008). Sport & Tourism: A Reader (illustrated ed.). Routledge.
- WEF. (2017). Travel and Tourism competitiveness report. Geneva: World Economic Forum.
- Weil, M. O. & Gamble, D. N. (1995). Community practice models. In R. L. Edwards, & J. G. Hopps, *Encyclopedia of Social Work*, 19th Edition (Vol. 3, pp. 577-594). Washington, DC: NASW Press.

- Wilson, E. A. (2003). Development of a geospatial model to quantify, describe and map urban growth. *Remote Sensing of Environment*, 86(3), 275–285. .
- WTO. (1993). Sustainable Tourism Development: Guide for Local Planners. Madrid: World Tourism Organization.
- WTO. (2004). Turismo y desarrollo local sostenible: elemento para un debate. World Tourism Organization.
- WTO. (1999). Yearbook of Tourism Statistics. Madrid: World Tourism Organization.
- WTTC. (2019). Travel & Tourism Economic Impact 2019 World. World Travel and Tourism council.
- Yeh, A. &. (2001). Environment and Planning B: Planning aA constrained CA model for the simulation and planning of sustainable urban forms by using GIS.nd Design. 28(5), 733–753.
- Yudinaa et al. (2016). Tourism in a Globalizing World. *International Journal Of Environmental And Science Education*, 11 (17), 10599-10608.
- Zaki, T. A. (2015). The study of online hospitality exchange : The case of couch surfing network. Vaasan Ammattikorkeakoulu, *University of Applied Sciences, Master Thesis Business economics and Tourism*, 62.
- Zhuang, X., Yao, Y. & Li, J. (2019). Sociocultural Impacts of Tourism on Residents of World Cultural Heritage Sites in China. *Sustainability*, 11, 840.
- Zolfani, H., Sedaghat, M. & Maknoon, R. (2015). Sustainable tourism: a comprehensive literature review on frameworks and applications. *Economic Research-Ekonomska Istraživanja*, 28(1), 1-30.
- Zulaikha Hana Mohd and Uznir Ujang. (2016). Integrating Multiple Criteria Evaluation and Gis in Ecotourism.

Appendices

Appendices A: Questionnaire Community Intrest survey 2017

Q2.1 Please rank the following statements (1 being 'None at all' and 5 being 'Very much'):

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)
I know about the history of my family. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I know about the history of my community. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find the Umm el-Jimal archaeological site important to my family's history. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I know about the archaeological site. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I learn/learned about the site from my school. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I learn/learned about the site from my family. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I learn/learned about the site from my friends. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I learn/learned about the site from the tv news or newspaper. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I learn/learned about the site from the internet. (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am interested in archaeology. (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am interested in the history of the site (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think that the site benefits the modern community of Umm el-Jimal. (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I understand what the archaeologists are doing. (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will visit the Interpretive and Hospitality Center when it is complete. (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have seen tourists coming to visit the site. (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have seen tourists coming to visit the UJ village. (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am interested in the history of other countries. (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have much in common with the Syrian refugees. (18)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have Syrian friends. (19)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The history of the archaeological site is common to Jordanians and Syrians. (20)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q2.2 How often do you visit the site?

	Daily (1)	Once per week (2)	Once per month (3)	Once per year (4)	Never (5)	Other (Please specify) (6)
How often do you visit the site? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q2.3 How much do you value (1 being 'None at all' and 5 being 'Very much')....

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)
The archaeological site? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More visitors coming to the UJ community? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your sense of ownership of the site? (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your interest in becoming an archaeologist? (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Protecting the site from theft and vandalism? (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The availability of animal grazing on the site? (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The accessibility of the site to you? (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The installation of the Interpretive and hospitality center on the archaeological site? (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The installation of the signs explaining the archaeological site on the site? (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The installation of the preserved and safe buildings on the archaeological site? (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The community heritage celebrations for the community on the archaeological site? (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The informational tours on the archaeological site? (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q2.4 Please respond 'Yes' or 'No' to following statements:

	Yes (1)	No (2)
I feel welcome on the site. (1)	<input type="radio"/>	<input type="radio"/>
I would like to know more about what archaeologists do on the site. (2)	<input type="radio"/>	<input type="radio"/>
The Umm el-Jimal archaeological site benefits the modern community of Umm el-Jimal. (3)	<input type="radio"/>	<input type="radio"/>
I am aware of the UJ Interpretive Hospitality Center. (4)	<input type="radio"/>	<input type="radio"/>

Q2.5 Would you be interested in working on the archaeological site as (choose one or more):

☐ Archaeologist (1) ☐ Conservator (2) ☐ Food service (3)

☐ Tour guide (4) ☐ Guard (5) ☐ Other (6) ☐ No interest (7)

Q2.6 Rate the degree to which you would want visitation to the archaeological site to increase among:

	Much more (1)	Somewhat more (2)	About the same (3)	Somewhat less (4)	Much less (5)
Local visitors (UJ Municipality) (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jordanian tourists (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Foreign tourists (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q2.7 In your opinion, would increased tourism be good for Umm el-Jimal?

☐ Yes (1) ☐ No (2)

Q2.9 Does the lack of basic facilities and services, such as bathrooms, prevent you from visiting the archaeological site?

☐ Yes (1) ☐ No (2)

Q2.10 Would you be more likely to visit the archaeological site if there were basic facilities and services?

☐ Yes (1) ☐ No (2)

Q2.11 Which of the following facilities and services do you think would benefit (1) you and your family or (2) tourists:

	(1) You and your family (1)	(2) Tourists (2)
Park (1)		
Landscaping (2)		
Benches/seating (3)		
Shade structures (4)		
Games/play area (5)		
Bathrooms (6)		
Drinks/Food (7)		
Informational signs (8)		
Educational materials (9)		
Educational programs (10)		
Community events (11)		
Tours/field trips (12)		
Visitor center (13)		
Event space (14)		

End of Block: Heritage Related Survey

Start of Block: Demographic information

Q3.1 Gender

☐ Male (1) ☐ Female (2)

Q3.2 Age

- ☐ 19-25 (1)
- ☐ 26-40 (2)
- ☐ 41-60 (3)
- ☐ older than 60 (4)

Q3.3 Educational Level

- ☐ Little to none (1)
- ☐ Grade school (2)
- ☐ Secondary school (3)
- ☐ Trade school (4)
- ☐ Bachelors degree (5)
- ☐ Graduate degree (Masters or PHD) (6)

Q3.8 What is your household monthly average income (JD)?

- ☐ Less than JD 200 (1)
- ☐ Between JD 200 and 350 (2)
- ☐ Between JD 350 and 500 (3)
- ☐ More than JD 500 (4)

End of Block: Demographic information

Appendices B: Questionnaire Community Interest survey 2019

(Questionnaire Community Interest survey 2017+ Tourism-related Part).

Q2.1 Rate the degree to which you agree with the following (1 being 'None of all' and 5 'Very Much'):

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)
1. Tourism contributes to the improvement of life and well-being of the local community of Umm el-Jimal (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Tourism contributes to the improvement of the quality of services provided for the local community of Umm el-Jimal (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Tourism contributes economic improvement for the local community of Umm el-Jimal (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Tourism improves the infrastructure of Umm el-Jimal town (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Tourism increase the demand for services (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Tourism encourages the study of additional languages (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Tourism increase the income of the host community (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Tourism provides job opportunities for the host community (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Tourism increases the income of the local residents/ families (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Tourism encourages increased study of local cultures (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Tourism encourages the study of other cultures (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Tourism contributes to the reduction of unemployment (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Tourism contributes to poverty reduction (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Tourism increases the cost of plots of land (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Tourism increases commercial rent rates in Umm el-Jimal (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Tourism increases the cost of basic necessities (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. Tourism increases the cost of living (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. Tourism raises property values (18)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. Tourism increases economic growth in the region (19)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)
20. Tourism encourages cultural exchange (20)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. Tourism is considered a secondary source of family income (21)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. Tourism encourages the establishment of new businesses (22)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. Tourism contributes to the enhancement of cultural identity in the Umm el-Jimal community (23)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. Tourism increases traffic at Umm el-Jimal (24)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. Tourism increases the ambient decibel level at Umm el-Jimal (25)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. Tourism contributes to the increase in crime at Umm el-Jimal (26)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. Tourism effects social structure positively (27)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28. Tourism enhances the social structure of the local Umm el-Jimal community (28)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29. Tourism attracts the attention of Jordanian Government to Umm el-Jimal town (29)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30. Tourism attracts the attention of public institutions to the Umm el-Jimal town (30)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
31. Tourism attracts the attention of investors to the Umm el-Jimal town (31)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

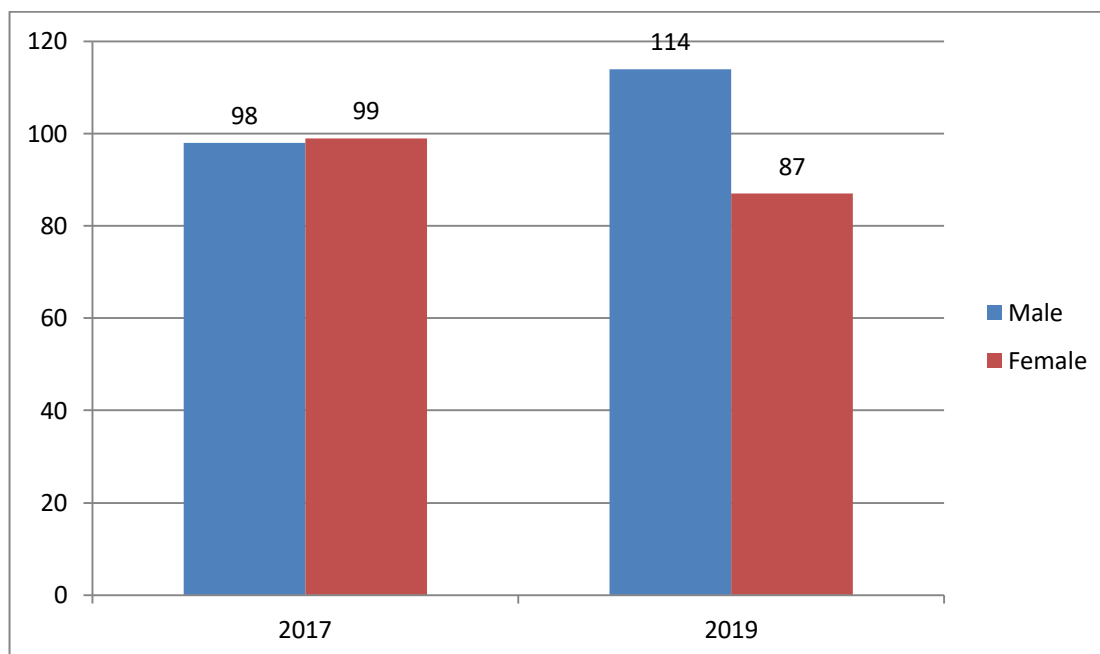
Q2.2 Rate the degree to which you encourage the following (1 being 'Much less' and 5 'Much more'):

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)
1. The participation of local community in tourism industry (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Enhancing tourism at Umm el-Jimal town (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. The involvement of Umm el-Jimal local community in the tourism industry (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. The establishment of tourism industry businesses at Umm el-Jimal (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Cultural exchange between Umm el-Jimal local community and tourists (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Interaction between Umm el-Jimal local community and tourists (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

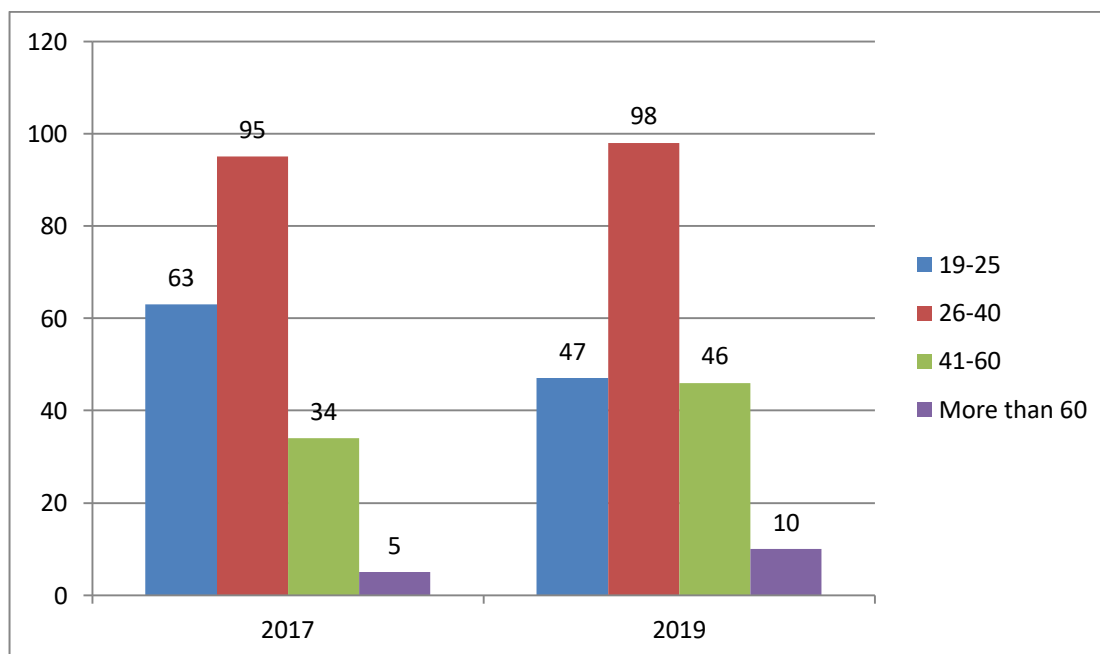
End of Block: Tourism Survey

Appendices C: Umm el-Jimal demographic Dimension 2017 and 2019

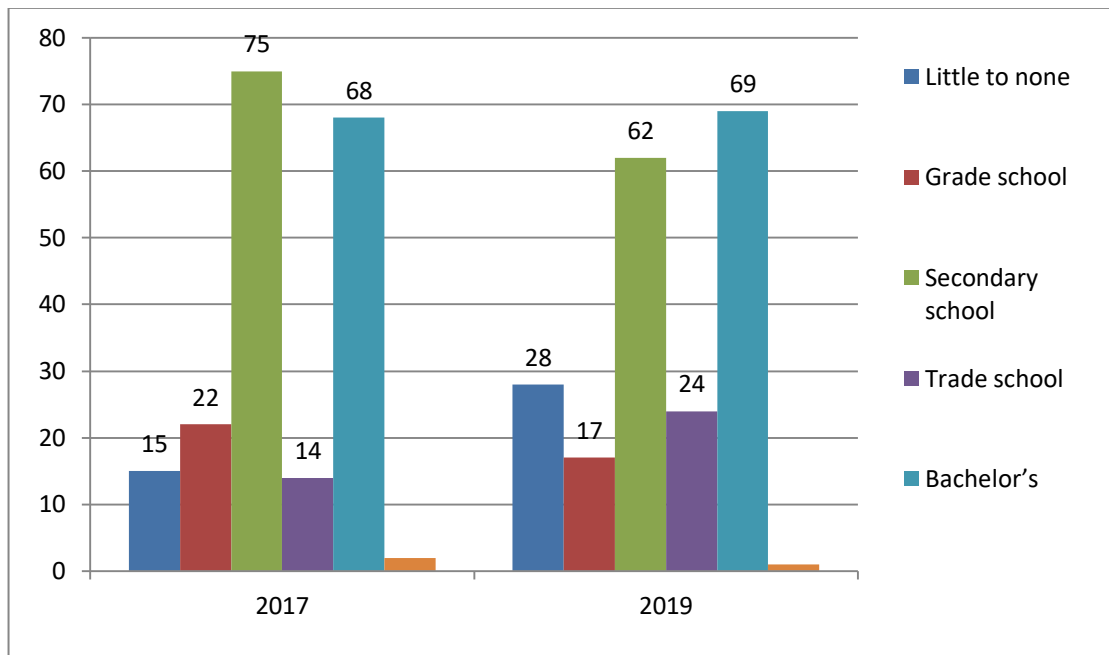
1. Sex



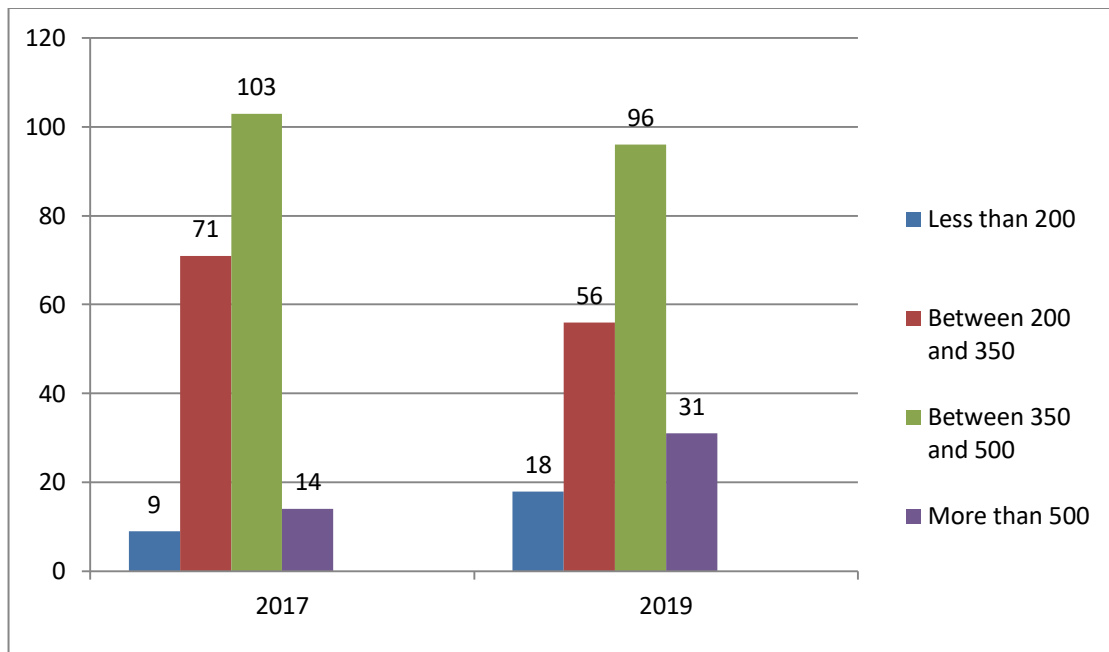
2. Age



3. Educational level



4. Average monthly household income



تأثير موقع أم الجمل الأثري كمقصد سياحي على تطور العوامل الاجتماعية الاقتصادية المحلية

إعداد: دانه سعود رفة الفراج

الملخص

منذ عام 2014، خضعت أم الجمل، المرشحة الجديدة لقائمة التراث العالمي الأردني 2021، لعملية تعزيز السياحة ومشاريع تطوير في الموقع، يقوم هذا البحث بتوثيق مشاريع التطوير في أم الجمل، وتحليل استجابات السكان للتغيرات المصاحبة لهذه المشاريع مع مرور الوقت من خلال استبيان أقيم على مرحلتين (2017 و 2019)، علاوة على ذلك، تتميز هذه الدراسة عن الدراسات السابقة بأنها تسلط الضوء على ارتباط السكان ووعيهم وتحلل الآثار الاجتماعية والاقتصادية للمراحل المبكرة لتعزيز السياحة وتنميتها، تقول هذه الأطروحة أن صناع القرار والمهنيين يجب بأن ينظروا إلى ردود فعل وتقييمات مواقف السكان عند المضي قدماً في تطوير السياحة، تم استخدام منهجية مختلطة للطرق الكمية والنوعية، بما في ذلك إجراء مسح للسكان ومراقبة ميدانية على مدار 24 شهراً، تم تحليل نتائج الاستبيان من خلال برنامج الحزمة الإحصائية للعلوم الاجتماعية (SPSS) إصدار 20 باستخدام نموذج اختبار T المقترن وتحليل وصفي، أشارت النتائج إلى أن سكان أم الجمل شجعوا على تعزيز السياحة وتطويرها، حيث زادت ردودهم الإيجابية بشكل طفيف، بالإضافة إلى ذلك، زاد الوعي المجتمعي بتطوير السياحة والخدمات من مستوى معتدل إلى مستوى عالٍ، حيث تم تصنيف الاستجابات تجاه خيارات السياحة على أنها مستوى عالٍ، بالإضافة إلى أنها استجابت بشكل إيجابي للسياحة والمرافق المرتبطة بها، يثبت هذا البحث أن النهوض بالسياحة قد أفاد سكان أم الجمل من حيث الأبعاد الاجتماعية والاقتصادية، ومع ذلك، فمن الضروري تتبع أثر تعزيز السياحة وتطويرها واستجابات السكان واحتياجاتهم مع مرور الوقت، من أجل تحقيق أقصى قدر من الفائدة وتقليل الآثار السلبية على المجتمع المحلي.