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COLLABORATIVE PLANNING FOR THE ENVIRONMENTAL SUSTAINABILITY OF THE HAJJ

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Abstract

Every year over two million Muslim worshippers from around 183 different countries visit Mecca in Saudi Arabia to perform Hajj which is the fifth and last pillar of Islam. Tourism, especially a religious tourism attraction such as the Hajj, is expected to boost the economy and create new job opportunities for Saudi youth in the services sector. Yet, despite the many benefits, the Hajj itself has suffered adverse environmental impacts.

The government of Saudi Arabia has set many strategies and policies in an effort reduce the significant impact of the Hajj activities on environmental sustainability. However, these environmental strategies have not achieved their goals due to the lack of stakeholder collaborations.

The overarching aim of this research is to investigate how the environmental sustainability of the Hajj can be improved. With particular focus on how stakeholder collaborations in planning can be improved to achieve sustainable goals. This study applies Gray's (1989) collaborative planning model to investigate the nature of the collaboration process between Hajj stakeholders. This model establishes a three-phase planning process necessary to successfully achieve stakeholder collaborations and the strategic goals.

To achieve the aim, a qualitative approach was adopted as the appropriate strategy to understand why things occur, as opposed to what things occur in the social world. The specific methodologies used include unstructured and semi-structured interviews with representatives of public and private sector stakeholders.

The results show that the level of collaboration between stakeholders in the Hajj is fragile and requires significant improvement. Thus, from an analysis of findings, ways to improve the collaborative network between Hajj stakeholders when planning for protecting the environmental sustainability of the destination are explored.

Keywords: Hajj, environmental sustainability, stakeholders' collaboration

Introduction

Every year over two million Muslim worshippers visit Mecca in Saudi Arabia to perform Hajj, which is the fifth and last pillar of Islam. Muslims perform the rituals of the Hajj following the guidance and tradition of the Prophet of Islam Mohammed (peace be upon him). As the fifth pillar of Islam, the Hajj is an obligatory religious duty for adults who have the financial and physical ability to perform the rituals. The Hajj occurs annually on the twelfth month of the Islamic lunar calendar. Visitors from approximately 183 different countries and cultures visit Mecca to perform the Hajj in the specific place of Mecca, known as Al Mashaaer Al Mugaddassah and Al Kaaba Al Musharraf in AL Masjed Al Haram (Parker & Gaine 2019). The city of Mecca is the host city and according to the General Authority of Statistics in Saudi Arabia, in 2018, more than 2,300,000 pilgrims performed the Hajj (GASTAT 2018a). According to the objective of Vision 2030 of the Saudi Arabian government, the number of pilgrims was estimated to grow to 2.5 million in 2020 and that rate of increase would be 13% per year (Arabnews 2016). This goal, however, has not been achieved due to the COVID-19 pandemic. The pandemic compelled the government to severely reduce the number of pilgrims in 2020 to a maximum of 10,000. Muneeza and Mustapha (2021) investigated the impact the pandemic had on the Hajj stakeholders and found it had serious religious, economic, social and psychological effects. In the long run, it is reasonable to assume that this impact will not last and visitor numbers will increase again in future as the world recovers and learns to live with COVID-19.

The Hajj is an important event that attracts over two million people across the world to one specific place for a short period. It contributes to the Saudi Arabian economy, which is particularly important in the context of falling oil prices and the need for Saudi to diversify its economic base. In 2017, the revenue of the Hajj was approximately $5.3 - $6.7 billion and is expected to achieve more than $10 billion by 2030 (Gridini 2018). From a social perspective, the Hajj brings together millions of people from different races, cultures, languages and strengthens the sense of unity and equality with others (Clingingsmith et al., 2009). However, the Hajj activities have a significant and damaging impact on the environment (El Hanandeh 2013; Hassan et al., 2016). For example, Butenhoff et al., (2015) emphasised that during the Hajj the environmental pollution level is at a low level in most Saudi Arabian sites, but in Mecca it is excessive owing to the gathering of over two million people.

Measures to manage and protect the environment in the Hajj have been implemented by the Saudi Arabian government (Al-Lahibi 2007; Suleiman & Aldelwai 2010; Al-Kanani 2011; Al-Zaharani 2013; Urton 2014; Al-Kanani 2018; Almadina 2019; Halabi 2019). Despite these efforts, there is poor compliance by Hajj stakeholders. This has been a source of friction. For example, several hospitality agencies did not adopt and implement the Prepared Meal project (Hossain 2019). In addition, many hospitality agencies did not collaborate in implementing the Green Hajj project (Al-Hakim 2019). This continued lack of collaboration between Hajj stakeholders is an important consideration in addressing the environmental impact created by the Hajj activities, especially as the government plans to increase the number of pilgrims in coming years (Arabnews 2016).

The success of sustainability plans and projects in a tourism context requires collaboration between stakeholders from all sectors (Graci 2013; Li et al., 2021). Therefore, investigation of the nature of collaboration between Hajj stakeholders in the planning process may contribute to increasing the environmental sustainability of the area. To undertake this investigation this research applied Gray's (1989) collaborative planning model. This model establishes a three-phase planning process necessary to successfully achieve stakeholder collaborations and the strategic goals.

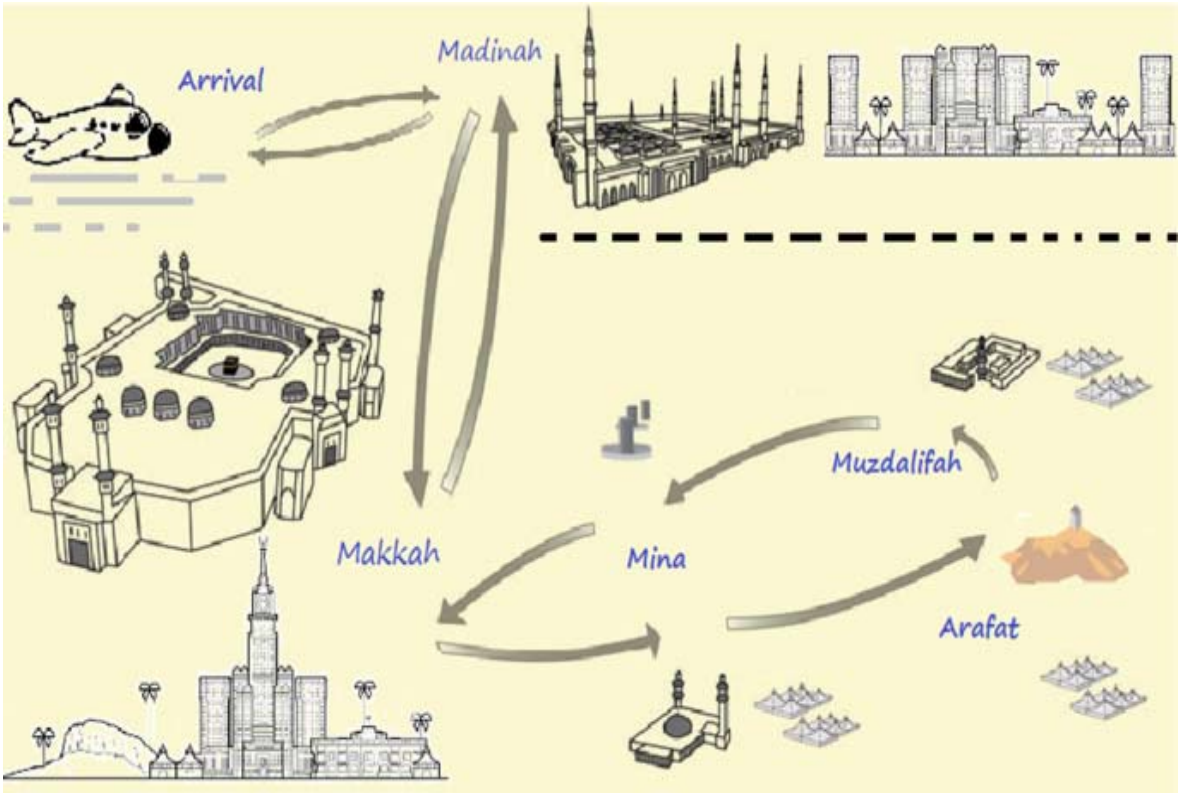
Literature Review

Contextual Background

Hajj Process

The Hajj occurs in Mecca, Saudi Arabia annually from 8 to 12 (or sometimes 13th) of Dul-Hijja which is the last month of the Islamic calendar. Pilgrims from 183 countries gather in one place to perform the ritual of pilgrimage. The processes of the pilgrimage are as follow (Figure 1).

Figure 1 The Hajj processes in Mecca.



Source: (Shambour & Gutub 2021).

Day 1: Pilgrims travel from Mecca to Mina either on foot or by bus. It is an 8 km journey. Pilgrims remain in Mina until dawn the next morning.

Day 2: Arafat's day is one of the most important days for pilgrims. On that day pilgrims move from Mina to Arafat, which is an additional place that each pilgrim should go and practice the ritual of pilgrimage. It is a 14.4 km journey. Pilgrims remain in Arafat until sunset, they then move to a place called Muzdalifa and remain there until the sun rise.

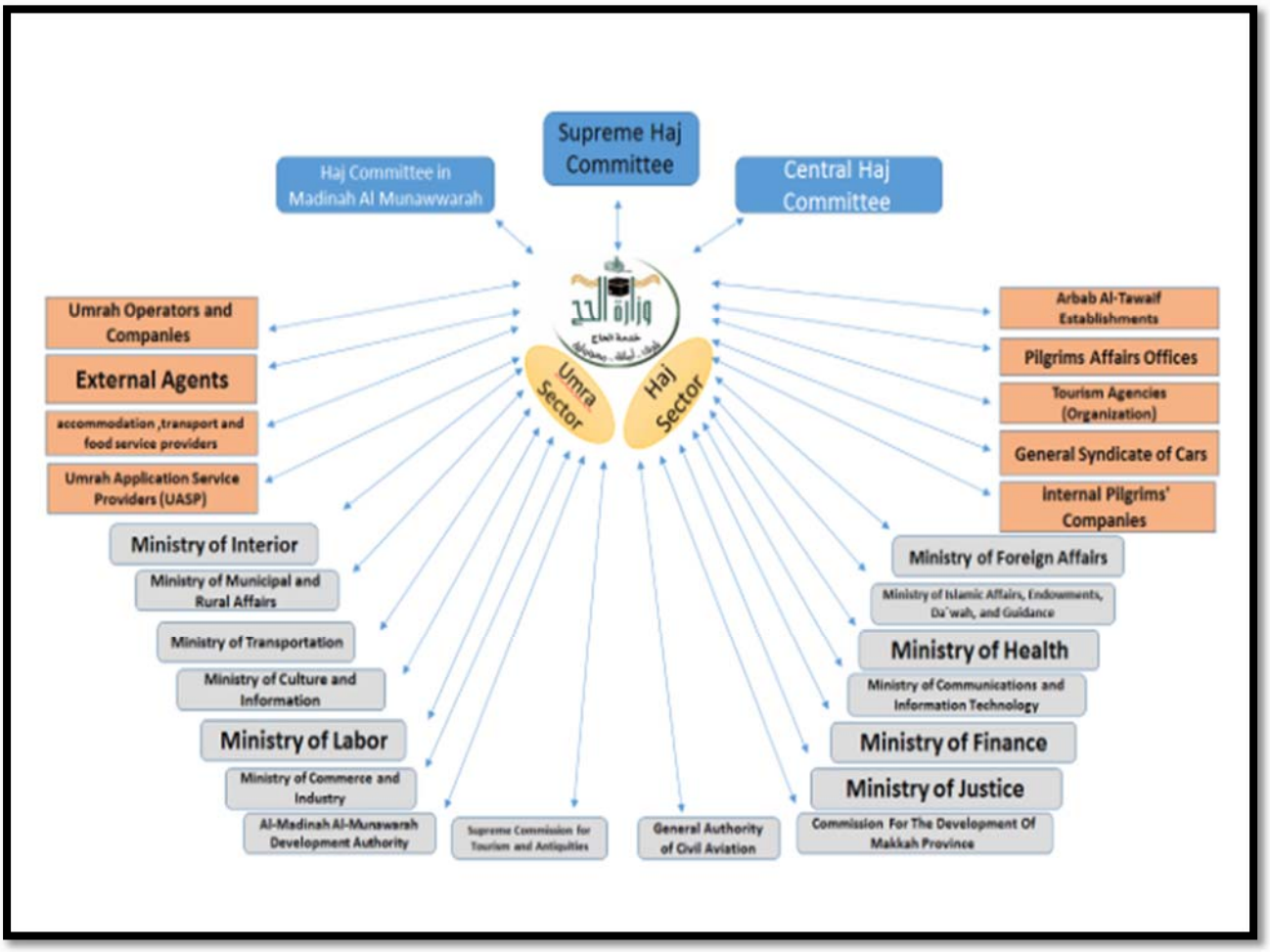
Day 3-5: On day 3 of the journey, pilgrims return to Mina to perform certain religious practices for 3–4 days. In this period, pilgrims remain in Mina inside the tents. On day 5 after completing rituals from Mina, pilgrims return to Mecca to perform the final ritual of the pilgrimage. Following the completion of the pilgrimage rituals, pilgrims visit other important places, such as Madinah, the second-holiest city in the Islamic faith, about 457 km north of Mecca.

The Hajj Planning Process

The Kingdom of Saudi Arabia considers serving pilgrims during the Hajj season an honour. Every year, each governmental sector in Saudi Arabia outlines plans for the next Hajj after the end of the previous one (SPA 2017). Each sector is responsible for certain missions and tasks under the supervision of the Supreme Hajj Committee (see Figure 2). Regarding environmental management, the ministry of Environment, Water and Agriculture and the Ministry of Municipal and Rural Affairs are responsible for establishing environmental protection plans and strategies for the Hajj.

Key stakeholders from the private sector and non-governmental sectors have different roles and tasks. For example, there are seven hospitality organisations, known as Tawaf companies, which are responsible for providing transportation, housing, and other services. Each organisation serves certain countries from all over the world (MOHU 2021a). In addition, donation institutions have a role to distribute charitable goods to pilgrims such as food, water, etc. during the Hajj. Although these organisations have key roles in terms of serving pilgrims, they do not have the legitimacy to patriciate in the planning process.

Figure 2 Visual diagram of the governmental and non-governmental sectors working in the Hajj.



Source: (MOHU 2021b).

Sustainable Development in Tourism

In 1987 the World Commission on Environment and Development (WCED) also known as the Brundtland Commission, was the first to propose the concept of sustainable development. It was defined as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (WCED 1987 p. 43). Moreover, the Commission outlined sustainability principles, which included the need for better equilibrium of resources between nations, the need to conserve both human heritage and ecosystems, the need for strategic planning and strategy-making and the value of sustaining environmental processes (Scott et al., 2012). However, the Brundtland report did not address sustainable development in the tourism context (Burns & Novelli 2006).

The UN Conference on Environment and Development in 1992, the discussion on sustainable development was further elaborated and articulated in Agenda 21, including the negative environmental impacts of tourism (Giaoutzi & Nijkamp 2006). In the past 30 years, considerable

research and practice has driven the tourism sector to become more sustainable (Gossling et al., 2015; Spenceley 2021). In this context, stakeholder engagement in tourism planning is fundamental to the achievement of sustainable tourism goals (UNWTO 2013; Wondirad et al., 2020).

Stakeholders Collaboration in Tourism

Over the past few decades, the issue of multi-stakeholder collaboration has received increasing attention amongst tourism researchers and policymakers (Bramwell & Lane 2003; Bramwell 2013). Although, the term 'collaboration' in the context of planning has been defined several times (Gieseke 2019). Wood and Gray's definition has widely attributed:

> "*Collaboration occurs when a group of autonomous stakeholders engage in an interactive process, using shared rules, norms, and structures to act or decide on issues related to a particular problem domain*" (Wood & Gray 1991 p. 146).

Two vital principles of collaboration can be extracted from the above definition. Firstly, collaboration involves relationships between independent stakeholders when they interact with each other in the problem domain. The problem domain refers to a condition in which problems are complex and demand multi-inter-organisational stakeholder engagement (Ritchie & Campiranon 2014). Hence, collaboration can be developed when the problem domain is identified and recognised by stakeholders (Gray 1989).

Secondly, the interactive process amongst stakeholders requires that they share common rules, norms and structures to solve problems for which power is distributed amongst them so that they share collective responsibility for their decisions, actions and subsequent consequences of those actions (Gray 1989). Through this process, stakeholders develop holistic approaches to improve the sustainability of tourism destinations. A lack of collaboration among stakeholders has been shown to be a reason many destinations have not been able to achieve sustainability goals (Ladkin & Bertramini 2002; Wondirad et al., 2020). In contrast, enhancing the collaborative stakeholder network has resulted in improved destination sustainability (Graci, 2013).

Collaborative Planning Barriers in Tourism

Collaborative planning ("CP") has received considerable attention as a way of proactively managing development in tourism destinations (Byrd 2007). It has been considered a more comprehensive approach than other planning models in tourism as it encourages stakeholders to build consensus and define planning directions (Aicken et al., 2006). Yet, the CP approach to tourism planning can be complex as there is a need to incorporate multiple stakeholder perspectives and special interests

(Ladkin & Bertramini 2002; Almeida et al., 2018). Since there are multiple different stakeholders involved in tourism, debate exists around which stakeholders should participate (Byrd 2007). In fact, identifying the right stakeholders is a critical first step in the stakeholder engagement process and not getting this correct has consequences for outcomes (Araujo & Bramwell 1999).

Once stakeholders have been identified and involved, the legitimacy and distribution of power amongst stakeholders is another challenge. The issue of legitimacy and power is crucial when selecting stakeholders for collaboration as they can affect the success of the CP process. For example, the exclusion of legitimate stakeholders from the CP process has been proven to hinder the implementation of the plans (Ladkin & Bertramini 2002; Adu-Ampong 2017). In addition, even when the legitimate stakeholders have been identified, an imbalance of power between stakeholders can compromise the effectiveness and success of the collaboration (Almeida et al., 2018). Hence, Gray (1985) argued that this issue needs to be resolved at an early stage in the CP process.

A further obstacle in the development of CP is the role and characteristics of the convener (Jamal & Getz 1995; Nardi et al., 2015). A convener, is an individual or organisation with the role to gather all legitimate stakeholders to work on common issues, increase transparency, integrate resources and enhance accountability (Gray 1985). An effective convener is necessary to facilitate collaboration, build trust and support stakeholders to agree on a shared vision and plan. This role requires advanced application of key attributes and skills.

The literature identifies a broad range of skills and attributes necessary to perform a convener's position effectively. For instance, it has been indicated that a successful convener should have the authority, legitimacy and skills to convene stakeholders to facilitate the exchange of suggestions that lead to a common vision and plan (Wood & Gray 1991; and Jamal & Getz 1995). Yet, despite the barriers and complexities of the development of collaborations, the advantages of collaborations between stakeholders in planning are many and are well documented (Bramwell & Lane 2003; Kark et al., 2015).

Collaborative Planning Models

Numerous collaboration processes models have been reported in the literature (McCann 1983; Gray 1989; Jamal & Getz 1995; Selin & Chavez 1995) for application in a destination planning context (Parker 1999; Graci 2013). These collaborative models generally consist of several phases, from analysing the situation and key issues involved, moving to defining key objectives, a shared vision and a strategy to achieve the vision, goals and objectives, concluding with the monitoring and evaluation of the plan. Although these models can be useful, Gray's collaboration model is one of the extremely widely used and considered to be most effective (Fyall & Garrod 2005). Moreover, the model can be

applied to understand any form of collaboration. As Gray argues, "*while there is not a clearly prescribed pattern that characterised every collaboration, there appears to be some common issues that crop up repeatedly."* (1989 p. 55). Austin and Baldwin (1991) agreed that this theoretical model is one of the most useful to examine and understand the forms of collaboration between stakeholders. One of its key features is its practical applicability to many contexts, such as environmental dispute resolution and public policy making (Purdy et al., 2018). Thus, Gray's three-stage model is applied to understand the nature of collaboration in the Hajj context. The process of Gray's collaboration model is classified into three stages.

Problem setting: This phase is about identifying key stakeholders that should collaborate to establish plans to solve the key problems and build commitment between stakeholders. The six main issues that need to be addressed at this stage are: (1) stakeholders reach a shared understanding of the issues and problems, including acknowledgement of interdependence between them, (2) stakeholders build commitments to address the problems and issues, (3) stakeholders recognise and accept the legitimacy of other participants, (4) stakeholders identify other stakeholders whose involvement may be vital in the process, (5) stakeholders assign a convener who effectively guides them to collaborate and (6) stakeholders define the necessary resources needed to advance the CP.

Direction setting: This is the stage at which stakeholders discuss the issue in depth, define their priorities and interests and set common shared goals and solutions. This phase is characterised by six steps: (1) stakeholders set the rules, (2) set the agenda, (3) organise subgroups, especially when there are a large number of stakeholders, (4) stakeholders conduct a collective search of information and consider essential facts of the matter at issue, (5) stakeholders explore different options for future solutions by creating a consensus to achieve a shared vision or strategy and (6) stakeholders reach consensus on the course of action and the developed plans.

Implementation: this is the final phase of CP, which encompasses agreement between stakeholders to implement the plans. In this phase, the necessary four steps are: (1) stakeholders manage constituencies that are not directly participating in the planning process by informing them of the outcomes to gain support from them, (2) stakeholders collaboratively set structures for implementing the plans, (3) stakeholders ensure compliance by monitoring and measuring the plans and (4) stakeholders provide support to those mandated with implementing the plans.

Methodology

This research employed a qualitative methodology to understand why, as opposed to what occurs in the social world (Jennings 2001). The primary collection of data was conducted in two phases. Stakeholder interviews were unstructured in the first phase and semi-structured in the second phase. Both phases were conducted in Mecca-Jeddah, Saudi Arabia because most Hajj stakeholders' offices and institutions are in those two regions.

In qualitative studies, there is no agreement regarding the ideal sample size. As an alternative, it has been argued that the concept of saturation is the suitable approach when considering sample size decisions in qualitative studies (Morse 2000; Guest et al., 2006). Data saturation refers to the point in the research process when new information is no longer being obtained. It can be reached when information is recurrent and when the feasibility of adding further coding is not possible (Faulkner & Trotter 2017).

In total 27 interviews were conducted in the two phases (see Table 1 and 2 below). All interviews with Hajj stakeholders were conducted with senior level officials. Interviews were stopped at 27 as data collected appeared to be 'saturated'.

In the first phase, 15 interviews were conducted during March 2019 – April 2019. Potential participants from private and public sectors were identified through a snowballing technique and contacted by telephone through Umm Al Qura University, Department of Business Administration of Hajj and Umrah. The aim of the first round of interviews was to gain a broad understanding of the issues relating to planning for environmental sustainability of the Hajj as, based on the researcher's knowledge no previous studies have investigated the Hajj planning process (e.g., Can you please tell me about the plans that have been set to protect the environmental sustainability of the Hajj?). All transcripts were read several times to gain a deep understanding of the key issues that are related to planning for environmental sustainability of the Hajj. After considering the data, it was found that most stakeholders' answers were revolved around the issue of collaboration between Hajj stakeholders. Hence, the theoretical framework that would guide this project was identified.

In the second phase, interview questions were developed based on Gray's collaboration model to understand the nature of collaboration between Hajj stakeholders (e.g., What is your opinion about the commitment of stakeholders in implementing the environmental plans? why?). In this phase, 20 interviews were conducted in Mecca and Jeddah with key stakeholders from both public and private sectors. Four interviews were conducted with seniors' managers from hospitality agencies. Sixteen interviews were conducted with senior officials from the public sector as they are the main stakeholders who have the power to participate and develop environmental plans. It should be noted that eight participants from the public sector who participated in the first phase also have participated in the second phase.

All interviews in the first and second phases were conducted in a face-to-face setting at the participants' preferred time and location. Interviews ranged from approximately 30 to 45 minutes. However, unlike participants from private sector all participants from the public sector preferred not to have their voices recorded and instead suggested to write their answers in both phases. Once all interviews had been completed, the recorded and written interviews were transcribed into Arabic and were translated by the researcher into English at the data analysis stage.

The software package that was used in this study to analyse the data was ATLAS due to it is compatibility with Arabic (Friese 2015). To analyse collaboration among Hajj stakeholders in planning to enhance the environmental sustainability of the Hajj, the six-step thematic analysis framework that was developed by Braun & Clarke (2006) was followed for data analysis.

Table 1. Key stakeholder 1: Governmental sector

*Participant**	*Position level*	*Sector*	*Location*	*Phase*
PbS1	Senior	Government	Mecca	1& 2
PbS2	Senior	Government	Mecca	1& 2
PbS3	Senior	Government	Mecca	1& 2
PbS4	Senior	Government	Mecca	1
PbS5	Senior	Government	Mecca	1& 2
PbS6	Senior	Government	Mecca	1& 2
PbS7	Senior	Government	Mecca	1& 2
PbS8	Senior	Government	Mecca	1& 2
PbS9	Senior	Government	Mecca	1& 2
PbS10	Senior	Government	Jeddah	2
PbS11	Senior	Government	Mecca	2
PbS12	Senior	Government	Mecca	2
PbS13	Senior	Government	Mecca	2
PbS14	Senior	Government	Mecca	2
PbS15	Senior	Government	Mecca	2
PbS16	Senior	Government	Mecca	2
PbS17	Senior	Government	Mecca	2

*Public Stakeholders ("PbS")

Table 2. Key stakeholder 2: Private sector

*Participant**	*Position level*	*Sector*	*Location*	*Phase*
PrS1	Senior	Catering agency	Mecca	1
PrS2	Senior	Transportation company	Jeddah	1
PrS3	Senior	Hospitality agency	Mecca	1
PrS4	Senior	Hospitality agency	Mecca	1
PrS5	Senior	Hospitality agency and catering agency	Mecca	1
PrS6	Senior	Hospitality agency	Jeddah	1
PrS7	Senior	Hospitality agency	Mecca	2
PrS8	Senior	Hospitality agency representative	Mecca	2
PrS9	Senior	Hospitality agency	Mecca	2
PrS10	Senior	Hospitality agency	Mecca	2

*Private Sector Stakeholders ("PrS")

Results

The findings revealed multiple barriers to collaborative planning. Using Gray's (1989) model as a framework, each of the barriers to collaboration are discussed in relation to the three planning phases identified in the model (see literature review above). The discussion starts with the 'problem setting' phase.

Problem Setting Stage

Lack of Private Stakeholders' Participation

This study finds that the PbS plays a key role in developing environmental plans and making decisions and the level of participation by PrS is almost non-existent. Even when meetings are held to discuss challenges affecting hospitality agencies, such as the waste issues, they are not invited to attend meetings with public stakeholders:

> *"No, hospitality agencies don't attend the meetings, the people who attend meetings to discuss the problem of waste are from the public sector and it is these people who make the decisions."* (PrS-11).

In addition, the PrS does not have the power or authority to reject any decisions or projects that are imposed on them by the PbS. This was asserted by one of the participants who works in the PbS and owns a hospitality agency:

> *"You can say whatever you want but they will do whatever they want, and we, as the private sector, will implement their final decisions because we are the executive arm of the public sector." (*PrS-11).

Based on the response of the participants, it is evident that relations between PbS and PrS stakeholders are formed on a top-down approach and decisions are centralised in the hands of PbS stakeholders. Thus, it is not surprising to find that many plans and decisions made by the PbS did not satisfy the hospitality stakeholders, nor are their needs and interests considered:

> *"No, they don't consider our interests. They (referring to the public sector) made a decision to implement the Prepared Meal program and it is expected that next year 45% of hospitality agencies will provide pilgrims with Prepared Meals, but the issue is that you cannot force pilgrims to eat such food."* (PrS-8).

Although some of the decisions made by the PbS were not compatible with the needs of the stakeholders of the hospitality agencies, they were obliged to implement them, especially if they were legislated by the government.

Lack of Environmental Awareness

Findings showed that a lack of environmental awareness was a major factor impeding collaboration which, in turn influenced motivations to collaborate in developing plans to resolve the Hajj environmental problems:

> *"The lack of awareness is the primary reason that they (referring to some PbS stakeholders) have no interest in the environment." (*PbS-12).

The problem is exacerbated by decision makers who have little awareness or knowledge about the consequences of neglecting the environment:

> *"The problem is that sometimes you need to look at who makes the decision. There are some decision-makers that don't have the environmental knowledge to make decisions."* (PbS-3).

Consequently, many environmental projects and plans were either rejected or took a long time to be implemented:

> *"Look, many ideas and projects to reduce the wastes in the Haj were proposed. Although they did not cost high, but unfortunately, unfortunately, there are some decision-makers who have old mentality, they rejected these ideas."* (PbS-7).

Some participants believe that some decision-makers are not well prepared to make environmental decisions because they have not had any form of environmental education:

> "*Unfortunately, many decision-makers have not attended environmental courses except those who are responsible for the environment. Thus, they (referring to stakeholders from environmental sector) are aware of the environmental aspect."* (PbS-1).

The main reason that they don't have the sufficient knowledge or awareness is because of the education system of the country:

> *"We have a fundamental problem in the education program. There are no environmental subjects in our education program at school, so there is no environmental awareness."* (PrS-4).

Other participants indicated that the environmental sustainability affairs are a relatively new topic for the country. This may explain why many decision-makers and hospitality agencies did not obtain sufficient awareness about the importance of sustaining the environment of the Hajj:

> *"Let us be realistic, the environmental subject is new in the country, they just started to considerer it few years ago."* (PbS-6).

Hence, it is logical to find that many of Hajj stakeholders from the PbS do not have sufficient awareness to understand all aspects of environmental sustainability except those who work in the environmental fields, which resulted in making them undervalue the potential negative impacts of neglecting the environmental sustainability dimension of tourism.

Public Stakeholders Lack of Commitment to Collaborate

Commitment to the problem at hand is a crucial component in collaborative relationships to develop creative solutions to solve problems (Ramayah et al., 2011). in the case of Hajj, there is a lack of commitment by PbS stakeholders to collaborate to solve environmental issues. Participants noted that the lack of commitment occurs between stakeholders because each of them have differing priorities. As a result, some stakeholders were more reluctant to commit to environmental plans and projects because self-interest dominates the collective interest among Hajj stakeholders as each sector seeks its own benefit and priorities. This has led many stakeholders from the PbS to try either to evade or not commit to collaboration with stakeholders who work in the environmental sectors as the environmental plans may affect their priorities and goals:

> *"They say we can support but there are limitations that we cannot exceed. Always, they (referring to stakeholders from public sector) try to ensure that environmental plans and projects don't impact their plans and priorities."* (PbS-14).

Lack of Convener Attributes

This study found that the convener of the meetings between key stakeholders of Hajj does not have the sufficient attributes to convene the meeting between Hajj stakeholders. For instance, a convener who is assigned by AMA, which is a PbS that has authority in Mecca, shares equal power and authority with other stakeholders from the PbS:

> *"The power is shared between us, but the convener roles are sending the outcomes of the meetings to AMA to identify our roles and missions in the meetings."* (PbS-14).

According to Wood and Gray (1991), one of the central attributes of the convener is having formal power to initiate collaboration between stakeholders. They argue that if the convener does not have formal power, the knowledge regarding the problem can be one of the keys to persuade stakeholders to participate and collaborate. However, in the context of the Hajj, all these attributes are lacking.

Coupled with low environmental awareness, the shared authority among stakeholders and the impression that the convener will not take coercive action if the environmental tasks were not implemented effectively have contributed to providing little incentive to act. This has resulted in some Hajj stakeholders either evading or rejecting the environmental missions and tasks:

> *"AMA assigns the roles and missions, but stakeholders try to evade from them."* (PbS-11).

The development of collaboration between Hajj stakeholders to solve environmental issues will be difficult with the current convener. This was evident as one participant indicated that the issues of removing waste from the Hajj areas have not been solved:

> *"The problem between us has not been resolved yet. Man, we have met with AMNH many times. For instance, last year we met with them with the present of a person from AMA and we finished the meeting without any agreements."* (PrS-8).

Until recently, the convener has not been able to facilitate collaboration between Hajj stakeholders in the planning process. Coupled with other barriers, solving the remaining issues are unlikely.

Lack of Financial Support

Interview responses revealed that one of the major barriers to collaboration between stakeholders is the lack of financial support. Most participants claimed that many environmental plans and projects were not adopted. This caused disagreement between public stakeholders in meetings about who should take the responsibility for adopting and executing the environmental plans and projects:

> *"Everyone has a specific amount of budget and they work based on their budgets. So, when we talk to them to collaborate they say we cannot because we have certain budget."* (PbS-15).

In fact, the lack of financial support not only hinders collaboration between PbS agencies, but the private sector also encounters the same dilemma:

> *"The idea of the Green Hajj project is to put recycling bins inside the tents during the Hajj. In the first stage, some hospitality agencies applied the project, but unfortunately in the second stage the project was intensely rejected because the project is very costly to them, so the project was discontinued."* (PbS-7).

Direction Setting Stage

Silos Between Hajj Public Stakeholders

The nature of work between public stakeholders in the planning stage relies heavily on centralisation and operational silos. Most participants indicated that each sector has the power and autonomy to design its plans and make decisions:

> *"Each sector put its plans by its own self."* (PbS-17).

Although stakeholders share their plans with each other, it appears that similar to the situation mentioned between PbS and the private sector, the centralisation of authority dominates the nature of the relationship between Hajj stakeholders from the PbS. This was evident because although the PbS shares their plans with each other, it appears that they only share them to inform the other PbS of their plans:

> *"They share (referring to the public sector) their plans with us to take our recommendations about them, but do they follow our recommendations?"* (PbS-17).

Consequently, many conflicts between Hajj stakeholders from environmental sector and PbS occur in terms of reaching joint environmental plans agreement:

> *"Unfortunately, there is no holistic environmental plans. To put you in the picture, there is individual efforts to set plans for protecting the environment of the Hajj."* (PbS-8).

Lack of Transparency Between Public Stakeholders

A lack of transparency between stakeholders emerged as a theme with participants claiming that there is very little exchange of information between Hajj public sector stakeholders:

> *"No, not everyone is transparent when giving the information. Some of them try to hide some information they have."* (PbS-9).

One participant from environmental sector claimed that there is no transparency in sharing information between stakeholders from other environmental sectors:

> *"No, they don't share their information with us (referring to the other environmental sectors)."* (PbS-17).

Another participant from the environment sector indicated that a lack of transparency in sharing environmental information and data is also present among stakeholders from the same sector. For instance, one environmental sector has two different branches (Jeddah and Mecca). Although the two branches fall under one sector, they do not share all environmental data with each other:

> *"There is no transparency on sharing the environmental data. The sector in Jeddah does not share all environmental data with us even if we asked them to get the data."* (PbS-11).

It was noted that the absence of transparency is a result of the tendency of some decision-makers to gain full credit for the success of any environmental project:

> *"Look, some of decision-makers don't disclose all they got because they want to show to the leader that he has done the whole work."* (PbS-9).

Environment is Not a Priority

A further important theme emerging was that environmental sustainability is not one of the main priorities for the government:

> *"It is not a priority. We have many other priorities that we consider. We have the safety of pilgrims, housing, transportation and other priorities."* (PbS-15).

Thus, it can be understood why many stakeholders are not concerned about environmental sustainability issues that occur during the Hajj given that public sectors concerns are driven by the government priorities. The key priority for the government is the safety of pilgrims and collaboration between Hajj stakeholders to improve the pilgrim's safety issue is very powerful:

> *"We have a lot of buildings for pilgrims housing, but the most important thing for us is the safety only."* (PbS-5).

Environmental issues, however, are low on the agenda and planning to protect the environment of the Hajj is declining:

> "*Look, in our meetings the percentage of environmental issues are considered let's say 10%. There are other problems that have higher percentage such as pilgrim's safety, housing, transportation. So, we put our attention to solve these issues first."* (PbS-15).

Lack of Shared Environmental Vision and Objective

As mentioned previously, many environmental projects have been undertaken to reduce environmental issues during the Hajj, such as Green Hajj and the Prepared Meal projects. However, despite the approval of these projects to be implemented by stakeholders, this study found a conflict between Hajj stakeholders in understanding the goal of designing the environmental projects. This was evident because stakeholders from the environmental sector considered the Prepared Meal project objective as the increase in environmental sustainability of the Hajj by reducing the volume of food wastes. Conversely, stakeholders from hospitality agencies considered the objective of the project as to increase the safety of pilgrims' health:

> *"The prepared meal plan is very environmentally idea. The idea behind it is to provide the food to pilgrims in sealed containers. By that we provide a high quality of food and protect the environment by reducing the number of food waste."* (PbS-8).

However, participants from hospitality agencies denied that the objective behind the Prepared Meal project was to increase or protect the environmental sustainability of the Hajj:

> *"Who told you that this project was made to protect the environment? We and MnH (a public sector organisation) looked at the project from safety aspect and not from the environmental aspect."* (PrS-8).

Deficiencies in Environmental Roles and Responsibilities

A theme arising from the interviews was that there was a lack of clarity around who is responsible for environmental management. This lack of clarity created confusion between stakeholders around roles and duties:

> *"They want (referring to AMNH) us to dispose the waste during the Hajj and this is not our responsibility, this is their responsibility."* (PrS-10).

In fact, the issue of lack of understanding responsibilities between Hajj stakeholders is not only limited to the public and private sector, but also exists between stakeholders from public sector:

> "*In determining the responsibilities phase, the problem usually revolves around specifying the responsibilities, duties and roles. So, you may find that one sector does the role of another sector." (PbS-16).*

This conflict has led to many disagreements between Hajj stakeholders in meetings about reaching consensus in determining responsibilities and roles, which impacted the level of coordination between Hajj stakeholders:

> *"They say (referring to the public sector stakeholder) that the waste landfills are their responsibility, but they should take our approval first because we are the environmental department."* (PbS-17).

Implementation Stage

Lack of Environmental Regulation

Many participants from the public sector claimed that there was a lack of environmental regulation in the Hajj season. The only environmental regulation that is in place is that hospitality agencies stakeholders should throw the garbage in the bins and keep their tents clean during Hajj:

> *"No, there is no regulation. The only rule is that we keep the tent clean from inside and throw the garbage in the bins."* (PrS-6).

This absence of holistic environmental regulation has affected the quality of environmental sustainability of the Hajj; many hospitality agencies provide food and beverages over and above what pilgrims need during the Hajj, resulting in food waste during the Hajj:

> *"Many hospitality agencies bring tonnes of food to their pilgrims such as rice, meats, snacks … so you will find some of them (referring to hospitality agencies) produce too much waste."* (PbS-1).

Moreover, the existence of donation services contributes to even more waste. This is because they enter the Hajj areas with large trucks and distribute food to pilgrims in a random manner, which results in the production of tonnes of waste:

> *"Once, I was informed by one of the managers that he went with some staff members to the Hajj areas at night with a truck and collected as much as he could from the charitable foods and drinks that untouched (meaning sealed and not used) and were thrown on the ground. Imaging, he spent 3 months to distribute all the foods and drinks to poor people."* (PbS-2).

Thus, owing to the high volume of waste produced in the Hajj and lack of regulation, it is not surprising to find that the bins the government places in the Hajj areas are not enough to contain the amount of food waste produced:

> *"We have placed around 40-50 thousand (size 240L) and 1100 waste compactors and 30 waste underground containers. All that can hold up to 40,000 tonnes for the five days of the Hajj. However, imagine that only in one day in Mina the quantity of food waste exceeds 30,000 tonnes. It means even if I increased the capacity 100% it would not be sufficient."* (PbS-2).

As mentioned previously, the waste issue is considered one of the major problems to occur during the Hajj. The conflict between Hajj stakeholders over the issue has been longstanding. Consequently, it is believed that because of the absence of regulation, the level of support and collaboration between private and public sector to solve the environmental problems will be minimal:

> *"Look, if there is no regulation, they (referring to hospitality agencies) can collaborate and apply the project today but tomorrow they can withdraw. Did you get my point?"* (PbS-8).

Absence of E-Government

E-government refers to "the use of information and communication technologies and particularly the internet, as a tool to achieve better government" (OECD 2003 p. 22).

In the Hajj, there is an absence of electronic systems to connect all stakeholders together. All stakeholders' work relies on old-fashioned (paper-based) methods. The way that stakeholders share information, data, reports and so on is either via email or by hand – there is no central system:

> *"There is no electronic system, we either send the papers via email or by hand."* (PbS-11).

As a result, some participants argued that the absence of the electronic system has resulted in inconsistencies in coordination between stakeholders in monitoring the environmental procedures. This is particularly evident, as shown before in the overlapping of duties and roles between Hajj stakeholders:

> *"In the Hajj, everyone gives fines. So, one sector could come to the tent and give a fine, then another sector gives you the same fine… there is no coordination because there is no stage that gather them to inform them about other actions."* (PrS-11).

Vision 2030 the Future of Change

Vision 2030 is the country's long-term development plan to reform the economy and society. Through Vision 2030, Saudi Arabia has set an agenda for achieving more balanced growth in environmental development (Alsharif et al., 2021). Since the sectors priorities are driven by government priorities, many participants indicated that as a result of Vision 2030, environmental sustainability has become a priority for Hajj stakeholders:

> *"Environmental issues were not important in the discussion in the past, but now they will be discussed vigorously. Environmental issues are mentioned in Vision 2030 document. So, you have to keep this in mind, since the government mentioned environmental issues in the vision, it means that it has become a fundamental issue and not a complement."* (PbS-13).

In fact, after the government outlined Vision 2030, many institutional structural changes have occurred. For example, the government has established new governmental sectors with specific clear missions, roles and responsibilities for protecting the environment:

> *"Look, the government now has established new national centres that will take the role of environmental matters in more professional and effective way. In the past, HM was responsible for the environmental affairs but now the government has given the responsibility for the environment to those centres. The roles were clearly distributed so each centre has specific role for the environmental matters. For example, now we have one centre for forecasting and another centre for waste. These centres were established not only for the national scale but also for the Hajj and Haramin."* (PbS-13).

The institutions will also act as convener between Hajj stakeholders and ensure environmental compliance. Moreover, the government has established a new institution whose responsibility is to monitor the environmental aspects for all Hajj stakeholders:

> *"The environmental police that the government is going to establish will take the role and power to monitor the environmental actions during Hajj and they will increase the environmental performance of all Hajj stakeholders."* (PbS-12).

More importantly, Vision 2030 has started to encourage and promote collaborative network between Hajj stakeholders:

> *"Definitely, now the work and mentality has become more participatory to achieve one goal. It is not like before every manager acts individually and does whatever he wants … it has started from the beginning of the launch of the national programs. Now, the work is in this way. Let's sit with each other and discuss how we can support the private sectors. Many things have been improved."* (PbS-16).

Discussion

Vision 2030: The Main Pillar Towards Achieving the Environmental Sustainability in the Hajj

As discussed, the issue of environmental sustainability has only been recently recognised as a policy priority in Saudi Arabia. Before Vision 2030, the environmental sustainability of the Hajj was not on the government's list of priorities. This lack of governmental interest is reflected across Saudi institutions, such as education and public–private sectors, which make little effort towards contributing to environmental sustainability (Hashmi et al., 2015; Alkhayyal et al., 2019).

Similarly, there has been little interest in the environmental sustainability of the Hajj. The data show that during the planning process, Hajj stakeholders showed little interest in environmental sustainability; thus, it was a very low planning priority. This has created much conflict between Hajj stakeholders. This was illustrated as stakeholders from environmental sector were more concerned about discussing the environmental issues, while other stakeholders from different sectors were less interested in the environmental sustainability.

After launching the vision, the government has shifted its focus on sustaining not only the economy, but also the environment (Alsharif et al., 2021). This new vision of the country has resulted in requiring that all sectors in the country follow the government sustainability goals, which include environmental sustainability. Many participants emphasised that the government has begun to focus on solving environmental sustainability issues and many organisational and structural changes have taken place as a result.

Vision 2030 is evidence of increasing government interest in improving the environmental sustainability of Hajj and placing it on the national agenda. If successful, the main stakeholders in the Hajj from all sectors will consider environmental sustainability on their agendas and consider this issue a priority. Having a common vision and goals between Hajj stakeholders will make the collaborative work more effective owing to the acknowledgement of shared problems that need to be resolved (Werner et al., 2011). More importantly, it will drive them to work collectively to achieve the sustainability in the destination (Graci 2013).

However, despite the current positive changes, the findings of this study have several key barriers that need to be considered and addressed by Hajj stakeholders.

Implications for Achieving Environmental Sustainability in the Hajj

The research findings reveal clear barriers to collaboration between Hajj stakeholders that undermine any efforts to protect the environmental sustainability of the destination. Hence, there are several key considerations for the improvement of environmental sustainability of the Hajj.

One of the critical barriers is the low level of environmental awareness, which is a common problem in developing countries (Lee et al., 2015). Given that there are inadequate environmental education and training systems in place, this issue will continue to dampen efforts to improve the sustainability of the destination. Thus, there is a need to develop and deliver adequate training relevant to environmental sustainability issues as a key to improve the quality of collaboration and effective planning (Ardoin et al., 2020; Graci et al., 2021). In addition, this training needs to be integrated into the education and training system to prepare a new generation with the relevant expertise (Hashmi et al., 2015).

Moreover, as discussed, the centralised system is a major barrier to stakeholder inclusion and many environmental plans in the Hajj have been designed without engaging legitimate Hajj stakeholders in the planning process. Failure to identify the right stakeholders would affect the success of the development of collaboration and the outcome of the project (Jamal & Stronza 2009), which is evident in the Hajj. Therefore, decentralising the planning process by engaging Hajj stakeholders from various sectors may minimise uncertainty and conflict, and increase the level of collaboration, which ultimately may reflect positively in the quality of plans and sustainability of the destination in the longer term. This has been achieved in comparable destinations such as in Gili Trawangan, Indonesia, where improved collaboration between tourism stakeholders has led to increased sustainability of the destination (Graci 2013).

Improvements in the regulation of environmental plans is also an important priority. As discussed, many plans and projects such as Green Hajj and others were developed to improve the environmental sustainability of the Hajj but were not implemented due to a lack of regulation to ensure compliance. Simultaneously, even though hospitality agencies were not satisfied with the Prepared Meal projected, it was implemented because it had been regulated. The current centralised approach that excludes Hajj stakeholders from setting environmental regulations will not solve existing conflict between public and private stakeholders. This is because regulations are devised centrally without considering the interests of other stakeholders (Tosun 2000). This was evident in the implementation of the Prepared Meal project where, although the scheme was regulated, and many stakeholders from hospitality agencies were forced to implement it, they were not satisfied with the project due to the

conflicts of interests. Such a process will ultimately hinder government efforts towards full coordination and support from Hajj stakeholders as evident in many tourism destinations in developing countries (Tosun 2000). Thus, there is a need to decentralise decision-making by allowing key Hajj stakeholders from different sectors to participate in formulating regulations. Such a measure is likely to lead to greater commitment, compliance and collaborative synergies to achieve the environmental sustainability in the destination (Roxas et al., 2020).

Another critical priority is the need for strong leadership. The findings show that the nature of work among stakeholders in the Hajj takes place within silos, where each government sector designs their plans without any real collaboration to improve the environmental sustainability of the destination. Of course, every sector in the Hajj should have a certain level of autonomy, but consensus through collective strategies that transcend silos is essential for decision-making to constructively manage the differences between them (Cockburn-Wootten et al., 2018). The silo mentality that exists between Hajj stakeholders has contributed to the creation of a competitive rather than a collaborative environment in their relations, which has ultimately hindered the creation of solutions necessary to protect the environmental sustainability of the Hajj. This was evident as until recently, there was no holistic collaborative plan that shares Hajj stakeholders' objectives, priorities and visions. Thus, the presence of an effective leader is vital in this stage to break down the siloed structure that exists between them (Edmondson et al., 2019), bring different interests together (Selin & Chavez 1995) and induce collaboration to resolve the environmental issues. This was evident in the case of Victoria, Australia, where strong leadership played critical role in encouraging stakeholders including the community to preserve the environmental sustainability of the tourism destinations (Getz & Timur 2012).

Further, since the government now aims to redefine and redistribute environmental responsibilities among the Hajj stakeholders, it is expected in the beginning that some Hajj stakeholders may not be satisfied or may be confused about the new changes. An effective leader can address this issue by understanding their concerns and taking proactive measures to reduce them (Lin et al., 2018). Moreover, an effective leader plays a critical factor at this stage to clarify the new roles and responsibilities between Hajj stakeholders (Valente et al., 2014). This eventually will lead to successful collaborative initiatives between Hajj stakeholders in enhancing the environmental sustainability of the destination (Adu-Ampong 2017). Yet, having effective leaders without offering adequate resources is not sufficient to encourage collaboration for improving the sustainability of the destination.

The findings of this study showed that the lack of financial support has made some Hajj stakeholders from the public sector evade collaboration with stakeholders from the environmental sector to plan or implement environmental projects. This is unsurprising given that each public institution has different priorities and plans, and each sector in the Hajj spends their budgets implementing their own

plans and projects. Hence, the limited financial resources would logically make certain groups reluctant to collaborate with stakeholders from the environmental sector in designing or implementing the environmental plans and projects. This situation has also occurred in other tourism destinations, where lack of financial resources hindered the collaboration process between the stakeholders for improving the sustainability of the destination (Adu-Ampong 2017; Jamal & Stronza 2009). Therefore, the provision of adequate financial support is vital in stimulating collaboration between Hajj stakeholders to improve the sustainability of the destination.

Another change that is vital is the adoption of e-government. The result of this study shows that there are many barriers that hindered the development of collaborative network between Hajj stakeholders for improving the environmental sustainability in Mecca such as lack of transparency, lack of shared vision and lack of commitment. All these elements are necessary for inducing collaboration and achieving sustainability in the tourism destination (Wondirad et al., 2020). Implementing e-government will enhance the collaborative process by bringing all legitimate Hajj stakeholders from various sectors into one digital platform. This may lead to raise the awareness of transparency, accountability, evaluation, measurement and communication between them (Kalbaska et al., 2017). Ultimately, this will reflect positively in improving the sustainability in the destination.

Conclusion

The intention of this research was to contribute to the emerging efforts of the Saudi Arabian government to contribute to global efforts to address climate change, as mentioned in the national document of Vision 2030. It has done this through a focus on the Hajj, one of the world's largest religious events. The results of this study show that initiatives to reduce the adverse impact of the Hajj activities on the environment will not achieve their goals without stakeholder collaboration in the planning process from the outset. Hence, the results of this study are vital to Hajj stakeholders because this is one of the first studies to illustrate the barriers and drivers that affect their collaborative network in the planning process. These include improvements in education, governance and resources.

Indeed, this study is timely as it was revealed in a recent study conducted by the Massachusetts Institute of Technology that pilgrimages to the Hajj are under threat owing to global warming. The study found that the amount of heat and humidity during the Hajj will exceed the critical threshold by 20% in the period from 2045 to 2053, and by 42% between 2079 and 2086 (Kang et al., 2019), hence, the urgent need for Hajj stakeholder collaboration to reduce the greenhouse gases emissions of the activities to prevent this catastrophe.

In addition, since improving the sustainable development of all religious events requires key stakeholders' involvement and collaboration (Lin 2021), the findings may have some valuable insights

for other developing countries that have similar events to the Hajj. For example, it has been found that one of the main reasons for the ongoing negative environmental impacts of the Kumbh Mela and the Arba'een religious events is the lack of coordination and collaboration between stakeholders (Singh & Bisht 2014; Abdulredha et al., 2020). Accordingly, the findings may contribute to enhancing the sustainability of religious tourism destinations by sensitising religious event stakeholders in developing countries to the main barriers and drivers that affect the success of collaboration.

Future Research

This is the first study to have investigated the collaborative planning process in the Hajj context revealing opportunities for future research. Firstly, future research could focus on further clarifying the elements that this study identified in the development of collaboration between Hajj stakeholders. For example, it would be useful to focus on specific issues such as how Hajj stakeholders can set a plan to increase financial support in an effective way that does not impact other processes to build successful collaboration between them.

Secondly, this research and the few studies conducted in Mecca focused solely on the Hajj and neglected the Umrah, which is another religious ritual that contributes to harming the environmental sustainability of Mecca (Nizam et al., 2015). Hence, future studies could focus on the Umrah, which has attracted less interest from researchers. Such an investigation would contribute to the discussions about environmental sustainability and stakeholder collaboration in Saudi Arabia and other developing countries that also conduct major religious events.

Finally, given that this study was conducted in a developing country where there are limited studies available on stakeholder collaboration compared to those in developed countries (Adu-Ampong 2017), future research in other developing countries that conduct major religious events can draw on this study to reach a clearer understanding of the weakness that hinders the development of collaboration and of the drivers that may enhance collaboration between stakeholders in the planning stage of an event.

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