# Enhancing Private Health Sector Preparedness in Oman: An Evaluation of Effective Public-Private Partnerships in Healthcare Disaster Management

**Huda Al Mashari**

**Bournemouth University**

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# ABSTRACT

The continuous increase in frequency of disasters, their overwhelming impact on public healthcare systems worldwide, and the resultant increasing demand to integrate the private sector into healthcare disaster management efforts, together demonstrate the importance of building effective Public Private Partnerships (PPPs). PPPs – largely developed in the West – provide a framework for integration and achievement of mutual benefits for both sectors. In addition, the Sendai framework for Disaster Risk Reduction 2015–2030, international organisations, and advocates for PPP, prioritise its adoption and recognise it as a promising future agenda.

The extensive proliferation of PPP projects in developed countries, and PPP's increasing popularity in developing countries, highlights the growing need to investigate the various aspects of their operation in order to ensure the achievement of their target outcomes. The thesis argues that existing literature to date does not sufficiently elucidate inter-organisational relationships (IORs) within PPPs and contends that understanding the relational alongside the structural and economic aspects of PPPs is key to managing them effectively.

This thesis, a path-finding study in terms of Oman, addresses the gap in the literature by creating an analytical baseline for Oman, as a non-Western Middle East country, it employs a case study methodology with an exploratory qualitative approach to critically investigate the current situation of PPPs between public and for-profit private healthcare sectors, their underlying IORs, and the factors and challenges that can shape them.

The broad aim of this research is to extend the research on PPPs in the healthcare DM in Oman and to examine whether the promise of PPPs, implied in theory and supported by literature, is relevant in the Omani context. Furthermore, this thesis proposes an integrative framework, derived from well-established literature, to guide data collection and analysis.

The research finds that the organisational, contextual and motivational factors within a specific context could play a significant role in influencing PPPs and shaping their underlying IORs. Understanding the country context is essential for managing these

factors and predicting the most effective PPP framework, with the best synergistic outcomes, for that specific context.

Moreover, the thesis highlights the limitations of the current PPP situation in Oman. It stresses the importance of building a comprehensive framework that sets up the infrastructure for effective PPPs, and that mitigates limitations such as the lack of regulatory and financial frameworks, and deficiencies in preparedness within the private sector.

The empirical findings of this research predict that effective PPPs could be attained for the Omani context, within its hierarchical governance structure setting, with contractual IORs, their asymmetrical balance and a repetitive cyclical flow of process.

The thesis calls for attention to the categorisation and classification of PPP arrangements in order to provide greater understanding into alternative types of PPPs. Finally, it provides empirical evidence on the applicability of PPPs to the developing country context, and therefore contributes to extending the spectrum of PPP research.

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# DEDICATION

For my parents: my dad, Hilal, who despite his death years ago, is still an inspiration to me with his hard work and diligence, and my mom, Asila, who supported me unconditionally to achieve my goal;

my sisters, Muneera, Amal and Suad, for their unconditional love, utmost support, prayers, and for being there when I needed them;

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and my country, Oman, for giving me the opportunity. I hope that my work can contribute to the knowledge and practice of disaster management in healthcare.

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A special appreciation to the soul of the late ruler of Oman, His Majesty Sultan Qaboos, our special legend, who spent his life in building, improving and developing Oman and its people, may his soul rest in peace.

Finally, I could not have completed this thesis without the support, prayers and encouragement of my mother, sisters, nieces and nephews, and friends. They are the great blessings in my life.

# AUTHOR'S DECLARATION

This research reported in this thesis has been conducted entirely by me and this thesis is my own work. It has not been submitted for examination for any other degree or professional qualification.

Huda Al Mashari

March 2022

# LIST OF ABBREVIATIONS AND ACRONYMS

| | |
|---|---|
| CDD | Civil Defence Directorate |
| CJSO | Committee for Joint Security Operations |
| DECM | Department of Emergency and Crisis Management |
| DGPHE | Directorate General of Private Health Establishments |
| ERC | Emergency Response Centre |
| GDP | Gross domestic product |
| IOAs | Inter-organisational arrangements |
| IORs | Inter-organisational relationships |
| MOH | Ministry of Health |
| MPHRS | Medical and Public Health Response Sector |
| NCCD | National Committee for Civil Defence |
| NCEM | National Committee for Emergency Management |
| NCSI | National Centre for Statistics and Information |
| NGOs | Non-governmental organisations |
| NSC | National Security Council |
| PACDA | Public Authority for Civil Defence and Ambulance |
| PPP | Public-private partnership |
| ROP | Royal Oman Police |
| UK | United Kingdom |
| UNISDR | United Nations international strategy for disaster risk reduction |
| UNIDRR | United Nations Office for Disaster Risk Reduction |

# DEFINITIONS OF KEY CONCEPTS AND TERMS

Although there is no universal agreement on the definitions of many terms in relation to this research, working definitions are required for the key concepts and terms used in the context of this thesis.

The following working definitions have been derived from the existing literature in the way that makes the most sense in the context of this research, without any intention to be dismissive of the variety of definitions provided by other researchers.

**Inter-organisational relations (IOR)**

Cropper et al. (2010, p.9) define it as the study concerned with

> "the properties and overall pattern of relations between and among organizations that are pursuing a mutual interest while also remaining independent and autonomous, thus retaining separate interests".

**Inter-organisational relationships (IORs)**

Employed by Brinkerhoff (2002b) and Huxham (2003) as an umbrella phrase representing the organisational forms of inter-organisational entities such as 'partnerships', 'alliance', 'joint venture' and 'networks'.

**Public-private partnership (PPP)**

Bovaird (2004) and Skelcher (2005) define the term as an inter-organisational arrangement that allows the resources of a public sector organisation to combine with those of any non-governmental organisation (including for-profit and not-for-profit) for the purpose of achieving societal goals. The resources might include skills and knowledge.

**Private sector**

Whilst the term 'private sector' is associated with both for-profit and not-for-profit, or NGOs, this thesis discusses the for-profit healthcare sector.

**Economic aspects of PPPs**

Mainly relates to financial issues such as risk transfer and value for money (VFM), key performance indicators (KPIs), designing different forms of contract, allocating responsibilities, and various evaluation challenges of PPPs (Irfan 2015).

**Relational aspects of PPPs**

Refers to aspects including the nature of inter-organisational relationships (IORs), the developmental process over time of these relationships, motives for joining PPPs, and factors and challenges shaping IORs.

**Collaboration**

Denotes shared power partnerships, equality in decision-making, reciprocal accountability, trust in PPPs, and combined decisions on programme activities (Thomson et al. 2009; Brinkerhoff 2002a; Gray and Wood 1991).

**Synergistic outcomes**

Refers to the added value generated by a PPP that cannot be accomplished by each partner working alone. This involves quantitative or qualitative outcomes that were not feasible without forming the partnership (Irfan 2015).

**Resilience**

> "Resilience is the ability to anticipate risk, limit impact, and bounce back rapidly through survival, adaptability, evolution, and growth in the face of turbulent change" (CARRI 2013).

# CHAPTER 1: INTRODUCTION

## 1.1 RATIONALE FOR DISASTER MANAGEMENT

Human beings have been adversely affected by disasters since the dawn of their existence (Coppola 2011). Disasters are defined as calamitous events which often result in serious disruption of the normal functioning of a community and create widespread human, material, economic or environmental losses and damage that exceed the ability of the affected community to recover using its own resources (United Nations International Strategy for Disaster Reduction [UNISDR] 2009). Hence, disasters produce significant economic, physical, and social risk to communities globally, and overburden their capacity and resources for disaster management.

The world is facing a wide range of hazards such as catastrophic natural disasters, the effects of climate change, significant social conflicts, emerging infectious diseases, massive human migrations, and rapid urbanisation (Coppola 2011; Medina 2016; Perrow 2011). Consequently, disaster management is deeply rooted in the history of humans through their adopting different measures to prepare for a disaster, to respond to the effects of its impact, and to address recovery needs (Coppola 2011).

The EM-DAT, a leading international database for disaster events, has recorded 7,348 disasters related to natural hazards over the last twenty years (2000-2019) (UNDRR 2020). In total, these disasters cost about 1.23 million lives, an average of 60,000 per year, and impacted more than four billion people, leading to worldwide economic losses of approximately US$ 2.97 trillion (UNDRR 2020).

These statistics signify a sharp increase in the number of documented disasters in comparison to the preceding twenty years, between 1980 and 1999, when the EM-DAT statistics recorded around 4,212 disasters worldwide, resulting in around 1.19 million deaths, impacting more than three billion people and causing total economic losses of US$1.63 trillion (see Figure 1-1) (UNDRR 2020).

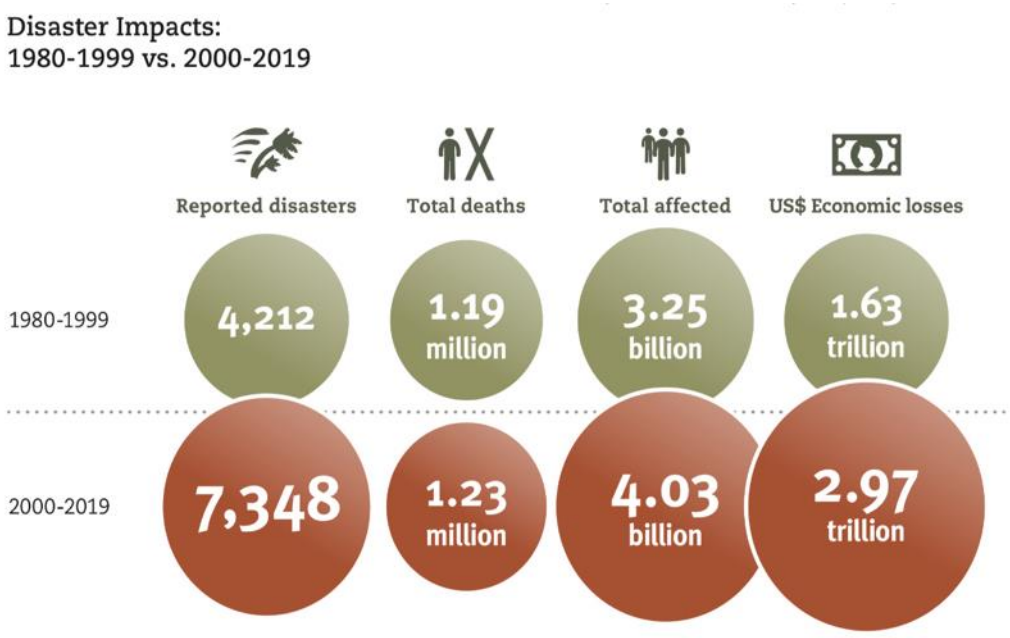


**Figure 1-1. Disaster impacts comparison over the last 40 years**
Source: UNDRR (2020)

It is anticipated that climate change will increase the frequency and intensity of natural hazards such as storms and floods that can result in a number of health consequences (UNISDR 2006; Thornes et al. 2001). On the other hand, human-made disasters, such as conflicts, accidents or terrorism, and emerging natural threats have increased significantly in recent times (UNISDR 2015; Boin et al. 2005). This can result in a continuously rising trend in terms of mortality and economic loss associated with disasters in low- and middle-income countries (UNISDR 2015).

Despite the fact that this research was planned and conducted throughout the period 2017-2021 which saw the Covid-19 pandemic, this thesis does not focus on the pandemic or any specific type of hazard. As there is a noticeable increase in the number and complexity of disasters, this thesis takes a wider 'all- or multi-hazards' approach, since the healthcare sector can be impacted by a diversity of disasters and is a major player in community disaster resilience and management efforts.

Disasters represent a significant challenge to the national healthcare disaster management systems of developing countries. This directs the attention to the need for building effective PPP frameworks in these countries' healthcare systems to ensure effective management of health-related outcomes. The argument about the potential for setting up

PPPs stems from a notable need for more intersectoral collaboration in disaster risk management (DRM) processes (Eyrkaufer et al. 2016).

## 1.2 MULTI-SECTOR APPROACH TO DISASTER MANAGEMENT IN THE HEALTHCARE FIELD

Health crises are mostly unpredictable, and they can cause substantial human suffering and significant economic repercussions (WHO 2012). Health emergencies and disasters often result in significant impacts on populations and societies around the world and include human and animal diseases, disabilities, food insecurity, chemical, radiological and nuclear accidents, deaths, displacement, and environmental damage (WHO 2011; 2019).

However, the ability of countries to achieve optimum health outcomes in healthcare disaster management efforts has been hindered by factors such as: fragmented approaches to various hazards without considering the all-hazard approach; over-emphasis on disaster response rather than DRM; and by gaps in inter-sectoral coordination across the entire health system (WHO 2019). Vulnerabilities in communities often result from the failure of national and local health systems to cope with the consequences of a crisis, usually due to a sudden increase in demand which overwhelms the capacity of the institutions involved (WHO 2012).

It is important to note that the private healthcare sector's role within the health systems of developing countries is recording a significant change and is rapidly growing (WHO 2003). Moreover, realising the challenges facing them in meeting public healthcare needs on their own, governments are advocating private providers, recognising their role and using them to relieve the constraints on government funds (WHO 2003). When a disaster threatens a community, public and private sectors alike have to protect their resources in order to keep functioning (UNISDR 2008). It follows that both sectors have a responsibility in reducing disaster risks. Clear measures can be taken, and roles can be agreed upon to strengthen preparedness and build an effective response, in order to safeguard communities, economies, and business continuity, and to prevent the loss of investments and development gains (UNISDR 2008). Partnerships can also provide a means of economising resources and reducing the duplication of efforts (Kapur and Smith 2011).

Managing disasters effectively requires combined efforts between various levels of government (city, state, and federal), and multiple entities in both the public and private sectors (Auf der Heide and Scanlon 2007). Hence, collaborations with the private health sector can provide a successful alliance in managing disasters that cannot be contained by local resources (Kapur and Smith 2011; Eyrkaufer et al. 2016).

International organisations and bodies have promoted the inter- and multi-sectoral approach to disaster management. For example, the World Health Organization (WHO) promotes the involvement of all relevant sectors in contributing to the capacity building of a country in its efforts to prevent, detect and respond to different public health emergencies (WHO 2020). In its fifty-eighth World Health Assembly (WHA), the WHO passed a resolution stressing the importance of a multi-sectoral, integrated and comprehensive approach to disaster management (WHO 2005), in which the Ministry of Health takes the lead for the health sector, which includes other actors such as health-related governmental and nongovernmental organisations and private health facilities (WHO 2007).

Moreover, inter-sectoral collaboration is a component of the Sendai framework for Disaster Risk Reduction 2015-2030, endorsed by the United Nations General Assembly, signed by 187 UN member countries. It advocates a comprehensive, preventive approach focused on multiple risk-reduction practices, based on multiple sector involvement and collaboration in order to be efficient and effective (UNISDR 2015a; Eyerkaufer et al. 2016; Al Kurdi 2021).The Sendai Framework also calls for private sector establishments to incorporate disaster risk into their management practices (UNISDR 2015a).

In addition, in its report to the Seventieth World Health Assembly in May 2017, the WHO Secretariat stated: “Responding to public health security threats requires a multisectoral, coordinated approach” (WHO 2017). Furthermore, UNDRR’s 2019 Global Assessment Report for Disaster Risk Reduction recommended strengthening disaster risk governance as essential for managing disaster risks with proficiency, clear vision, funding, guidelines, plans, and effective coordination across sectors, while taking into consideration the increasingly systemic nature of disaster risk (UNDRR 2020).

Hence, involving stakeholders from all related sectors and creating a combined, collaborative atmosphere around disaster management based on effective communication and information exchange can result in well-organised coordination within and between sectors at all levels to ensure clearly defined roles and better outcomes, while minimising duplication of efforts.

The WHO promotes the implementation of the 2005 International Health Regulations (IHR) which provide the legal basis for inter-sectoral coordination and collaboration for health security and emergency preparedness (WHO 2016; 2020). A government, as policymaker, can enhance the implementation of PPP in its country through designing a regulatory framework (Chen et al. 2013; Johannessen et al. 2013; Busch and Givens 2013). The regulatory framework outlines the scope of business, identifies priorities and establishes the objectives of the PPP (Johannessen et al. 2013). Establishing a regulatory framework alleviates obstacles facing actors in a PPP arrangement (Busch and Givens 2013).

This has led to a focus on an enhanced and revised form of intersectoral and interagency cooperation – what can be termed Public-Private Partnerships (PPPs) or PPP arrangements. A PPP approach can provide a framework for multi-sectoral collaboration involving public and private health sectors that share aims and responsibilities (WHO 2003). This approach is usually considered a vehicle for combining the skills, knowledge and other resources of both sectors (Bovaird 2004). It can benefit both sectors through improving their decision-making, providing access to more resources, expanding their reach and communication, improving coordination, increasing the effectiveness of their efforts, maintaining stronger relationships and mutual understanding, and creating more resilient communities (FEMA 2021).

## 1.3 MOTIVATION FOR RESEARCHING PPPS IN HEALTHCARE DM IN OMAN AS A CASE STUDY

Since the disaster management field has evolved, a significant body of literature explores different aspects of disaster preparedness, response, recovery, and mitigation. However, little research is evident into measuring levels of preparedness in the private health sector, or into its readiness to initiate partnerships with the public sector in this field, especially in developing countries with social health systems, such as Oman. The existing literature

mainly discusses the response of private health facilities, and initiatives by the private sector to build community resilience (UNISDR 2008). Moreover, the academic literature offers comparatively insufficient investigation of the role of public-private partnerships in the field of disaster management, or in achieving resilience (Busch and Givens 2013). Since the PPP concept originated in the Western world, most of the PPP literature concentrates on the developed countries. The United Kingdom and the United States are covered by 63% of the total PPP-related publications, with some recent studies directed towards countries such as the Netherlands, Germany and Australia (Sharma 2017).

McCarthy et al. (2009) highlight the lack of formal research in the area of healthcare emergency preparedness and emphasise the enduring limitations in performance indicators, funding, and surge capacity. There is a lack of peer-reviewed studies or empirical data on this subject, which indicates the necessity for further study. For example, Cagliuso (2012) emphasises the gap in healthcare preparedness and the need for future research in healthcare disaster preparedness. Moreover, Zhong et al. (2014) examined non-profit, for-profit, and government-managed healthcare systems and found a lack of empirical data and peer-reviewed literature on healthcare disaster resilience, evaluation mechanisms, and disaster capacity. This thesis argues that a comprehensive understanding of the relational, structural and economic aspects of PPPs can provide a key to understanding their dynamics and managing them effectively

Additionally, in spite of its comprehensive consideration of the structural and economic aspects of PPPs, the existing PPP literature was mainly directed towards the set-up and performance of partnerships, with a clear shortage of investigation of the relational aspects of PPPs, particularly in the healthcare field in the context of developing countries (Irfan 2015; Hodge et al. 2010; McCarthy et al. 2009). On this basis, this thesis investigates IOR literature and contributes to the conceptualisation and practice of PPPs in the case of healthcare in Oman. It further argues that a comprehensive understanding of the relational aspects of PPPs, along with the structural and economic aspects, can provide the key to understanding their dynamics and managing them effectively.

It is concerning to discover that, despite Oman being considered one of the pioneers of PPP initiatives in the Gulf region in the power production field, and despite the existing history of collaboration between sectors in the healthcare DM field, its PPP in healthcare DM falls short, with many challenges limiting the MOH's ability to meet its goals.

Hence, this research provides a baseline for stakeholders to consider the importance of building systematic, organised and regulated partnerships with the private sector in the medical and public health disaster management field. Furthermore, the study examines the level of disaster preparedness of private healthcare establishments in Oman. It explores the limitations and challenges they face in their integration into the medical and public health disaster management system in the form of public and private partnership, and the possible conceptual framework for roles and responsibilities within such a partnership.

## 1.4 RESEARCH AIM

The research aims to explore the current situation of PPPs in the field of healthcare disaster management, to critically evaluate the level of preparedness of the private health sector in Oman, and propose a framework for integrating it into the Medical and Public Health Response Sector.

## 1.5 RESEARCH OBJECTIVES

The research undertakes the following objectives:

- To critically evaluate current 'state of the art' literature on effective public-private partnership initiatives in the field of healthcare disaster management, and to critically review the underpinning related theories in order to establish a theoretical lens to explore the current situation of PPPs in healthcare in Oman, both in normal and disaster times (support RQ 1 and 2).
- To explore the current situation of PPPs in Oman healthcare for handling disasters, reviewing existing policies and legislation that regulate PPPs. Furthermore, to identify and examine the variable factors and challenges that might influence levels of preparedness, the building of successful PPPs between sectors, and the shaping of inter-organisational relationships (IORs) within these PPPs.
- To propose a conceptual framework for building effective PPPs in healthcare disaster management in the Omani context, based on recommendations from the existing literature, the current situation, and recommendations produced in this thesis.

- To draw conclusions and make healthcare policy recommendations to enhance the capacity of the private healthcare sector, and to help the building of effective PPPs in healthcare DM in Oman.

## 1.6 RESEARCH QUESTIONS

The main research questions are:

a. How can we better conceptualise the current situation of partnership and level of preparedness between private and public health sectors in the disaster management field? (Supported by the first and second objectives.)

b. What are the factors and challenges that can shape PPPs and their underlying IORs between the public and private sectors, and what are possible recommendations to overcome these challenges? (Supported by the first and second objectives.)

c. How can the private health sector in Oman be better integrated into the national emergency management system? (Supported by the third and fourth objectives.)

## 1.7 OVERVIEW OF OMAN

Oman is one of the Gulf States on the south-eastern edge of the Arabian Peninsula, covering an area of 309,500 square kilometres (see Figure 1-2) (Ministry of Information 2012). The total population, according to the National Centre for Statistics and Information (2021) is around 4,507,323, including 2,571,842 Omanis (61%) and 1,755,481 expatriates (39%). This population is distributed over 11 governorates with individual administrative, geographical and economic characteristics (Ministry of Information 2012). Figure 1-2 shows the total population of each governorate. The most populated is Muscat, the capital of Oman (29% of the total) and the least populated is Musandam (1.1% of the total).

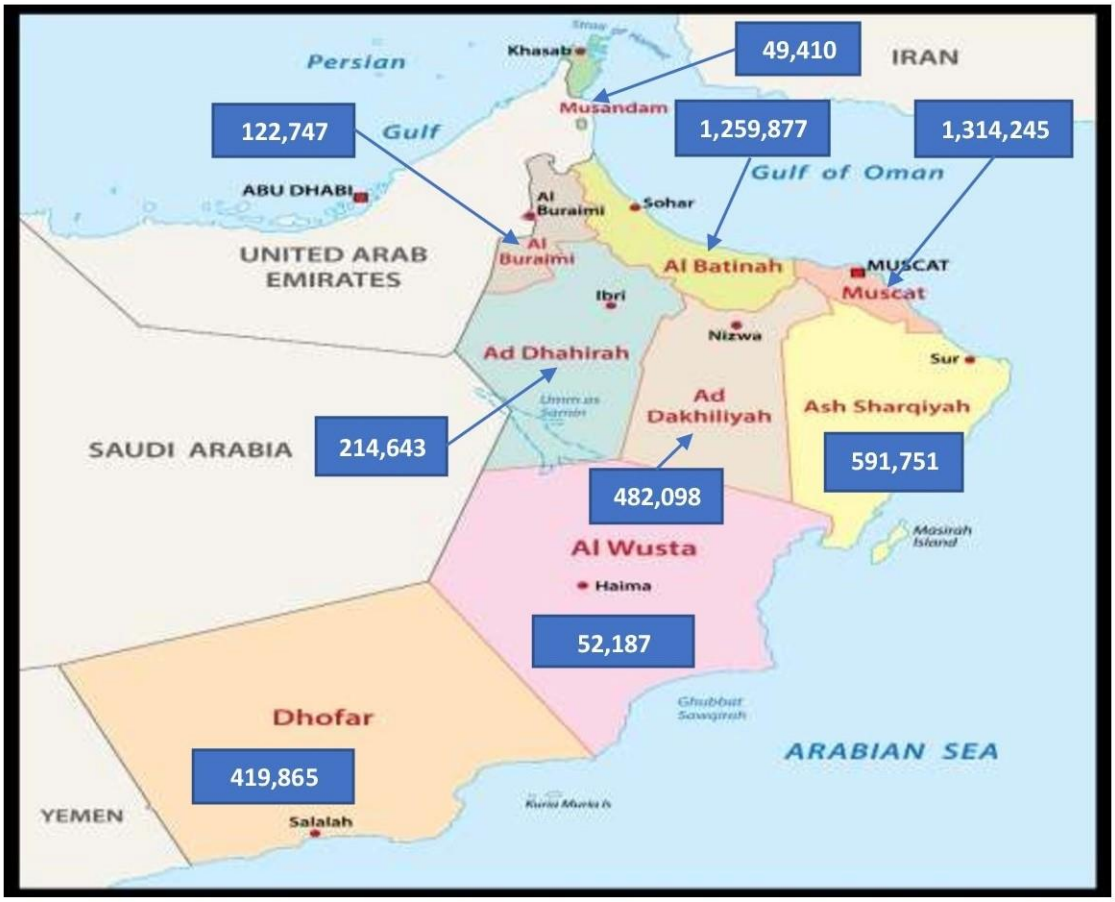


**Figure 1-2. Map showing distribution of population over the different governorates of Oman**
Source: National Centre for Statistics and Information (2021)

The risk register provided by the National Committee for Emergency Management (Al Hajri 2011) lists the following potential hazards facing Oman:

- Cyclones and floods
- Epidemics and communicable diseases
- Earthquakes
- Tsunamis
- Major transportation accidents
- Major fires
- Oil pollution
- Industrial accidents and hazardous materials

In addition, Al-Shaqsi (2011) discusses man-made hazards such as rapid modernisation, road traffic accidents, and fluctuating political unrest in the Middle East region. The rapid urbanisation phenomenon is caused mainly by the movement of Omanis to settle in the coastal cities, which offer more job opportunities than the rural areas. This has caused a higher population concentration in cities like Muscat, the capital, where 30% of people have settled, despite its covering only 1.2% of the country's total area (Ministry of Economy 2008). Another factor is the building of major industrial cities such as the coastal Sohar Industrial City; the resulting rapid industrialisation can increase the exposure of the population to safety and health hazards (Al-Kindi et al. 2009).

Consequently, with the anticipated health effects of disasters, there is a clear need for further strengthening of the healthcare infrastructure through finding a form of PPP to reduce the burden on government, especially during disaster times.

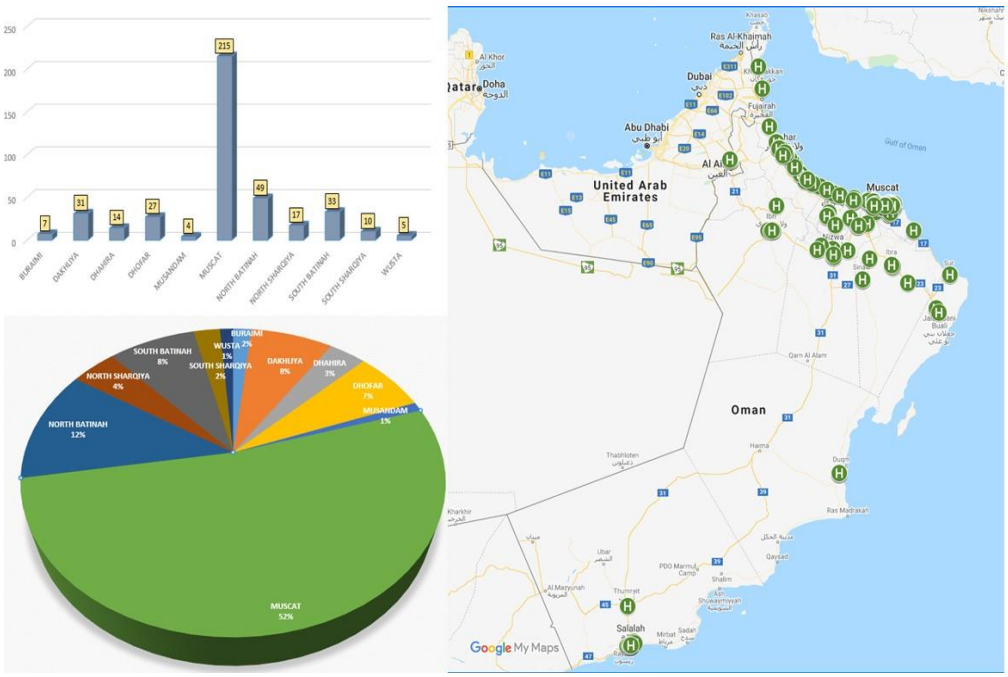


**Figure 1-3. Map showing distribution of private health establishments (hospitals and polyclinics) across the directorates of Oman**
Sources: Al Farsi (2013); DGPHE (2021)

**Table 1-1. Population and number of private healthcare facilities over different regions of Oman**

| Governorate | Total population | Omani | Non-Omani | Private hospitals | Polyclinics |
|---|---|---|---|---|---|
| Muscat | 1,314,245 | 546,490 | 767,755 | 18 | 197 |
| Dhofar | 419,865 | 216,788 | 203,077 | 3 | 24 |
| Musandam | 49,410 | 34,486 | 14,924 | - | 4 |
| Al Buraymi | 122,747 | 73,271 | 49,476 | - | 7 |
| Ad Dakhlyia | 482,098 | 366,542 | 115,556 | 1 | 30 |
| Al Batinah North | 790,718 | 553,222 | 237,496 | 4 | 45 |
| Al Batinah South | 469,159 | 353,852 | 115,307 | 3 | 30 |
| Ash Sharqiyah North | 273,864 | 192,443 | 81,421 | - | 17 |
| Ash Sharqiyah South | 317,887 | 226,352 | 91,535 | - | 10 |
| Adh Dhahirah | 214,643 | 163,253 | 51,390 | 1 | 13 |
| Al Wusta | 52,687 | 25,143 | 27,544 | - | 5 |
| Total Oman | 4,507,323 | 2,751,842 | 1,755,481 | 30 | 382 |

Sources: National Centre for Statistics and Information (2021); DGPHE (2021)

Table 1-1 and Figure 1-3 show that private hospitals are concentrated mainly in Muscat, which is the main governorate and the capital of Oman. It has the highest population of both Omanis and expatriates (non-Omanis). Non-Omanis are the main users of private sector services, but MOH statistics (MOH 2017) show that Omanis also utilise them. However, despite encouragement from the government, there are few or no private hospitals in some regions, where people depend mainly on government sector services or private healthcare centres with limited specialties, or small clinics mainly run by general practitioners. During disasters, this distribution can create a higher burden on public

healthcare facilities, especially in those regions with no private hospitals, and all response activities dependent on public sector resources. Hence, planning PPP projects in these regions – even at the level of the available polyclinics – could be of great support to the public sector.

## 1.8 ORIGINAL CONTRIBUTION TO KNOWLEDGE

This PhD contributes new knowledge in three ways, namely:

- Since both disaster management and PPPs are evolving areas of research, this study represents one of the limited number of case studies exploring public-private partnerships in the healthcare disaster management field, especially for a non-Western country with a social or mixed healthcare system like Oman.
- Investigating the existing PPP system and how to utilise it further in order to establish a successful PPP in the healthcare disaster management field.
- Building recommendations for a PPP framework that could encourage further studies in the field.

The selection of research context and PPPs is significant for four reasons. First, the choice of a developing country for the case study offers an opportunity to examine the applicability of insights from PPP research and literature in the developed Western countries to the context of developing countries. Second, the research offers an empirical analysis of PPPs for healthcare service delivery in DM which is lacking in the existing PPP literature. Finally, the choice of studying IORs in PPPs provides an opportunity to study partnership interrelations between the public and private sectors, and this is relevant due to the relative lack of IOR studies into relationships between government and for-profit partners in the existing literature.

Moreover, a central contention of this thesis is that the existing PPP literature is perhaps not entirely suitable or effective for understanding healthcare DM PPPs in developing countries like Oman. In particular, the thesis argues that arrangements in developing countries like Oman may require more attention to classifications of PPPs and their underlying IORs. More specifically, the thesis argues that greater attention to developing more precise terms of public-private arrangements (PPA) or public-private relationships

(PPR) are required in order to provide greater understanding of alternative types of PPP in countries with similar healthcare systems to that of Oman.

## 1.9 THESIS STRUCTURE

This thesis comprises seven chapters: Introduction, Literature Review, Conceptual Framework, Research Methodology, Key Results and Empirical Findings, Discussion, and ends with a Conclusion and Recommendations. Chapter One discusses the research rationale, motivation, assumptions, aims, questions, objectives, and an overview of the research methodology.

Chapter Two begins by reviewing the impact of disasters on healthcare systems, the importance of healthcare system resilience, and the potential role of PPPs in enhancing that resilience. It then explores the conceptualisation of PPPs in the existing literature, and presents an overview of PPP definitions, characteristics, potential advantages, and shaping factors and challenges. It also outlines the concept of IORs and argues that bridging PPP and IOR literature is beneficial in gaining a better understanding of IORs in PPPs, of the factors and challenges that shape them, and of building effective PPPs. The chapter also highlights differences between PPPs in developed and developing countries that are especially helpful in building the context of this thesis.

Chapter Three carries this discussion forward through utilising theories relating to PPP and IOR to connect many of the key concepts to build a conceptual framework for this thesis. The chapter further examines literature relevant to the conceptual framework and pinpoints the main lines of argument arising from the literature review.

Chapter Four focuses on the methodology utilised in this research. A case study approach employing qualitative methods is the research strategy. The chapter describes the research process, including research philosophy, design, strategy, approach, sampling, data collection methods, data analysis and ethical considerations. It also discusses issues concerning the use of case studies design, methods used for data collection and measures taken to ensure research quality.

Chapter Five provides details of key results and empirical findings of the interviews and the disaster preparedness assessment. The chapter is structured in a way that supports

identifying the narratives and provides relevant citation/quotation examples from the interviews.

Chapter Six provides the basis for comparing the theoretical concepts applied in the conceptual framework to the empirical findings from the research, together with applicable and relevant literature.

Finally, Chapter Seven concludes the thesis by recapitulating the research questions, with a brief summary of findings related to each question. This chapter critically contemplates the research process and suggests areas for future research. It also offers recommendations – based on the implications of research findings for healthcare policy – for enhancing the capacity of the private healthcare sector and building effective PPPs in healthcare DM in Oman.

# CHAPTER 2: LITERATURE REVIEW

Given that the aim of this thesis is to propose an effective PPP framework for the healthcare disaster management system in Oman, the main objective of this chapter is to utilise the existing literature to set a foundation for the conceptual framework (Chapter Three).

This chapter is divided into three main sections which are organised as follows: firstly, based on relevance to the subject, it begins by reviewing some of the literature about disasters, the effects of disasters on healthcare systems, and on the resilience of healthcare systems, bringing attention to the global shift to PPPs in healthcare and disaster management. Secondly, a review of different perspectives on PPPs establishes how inconsistent use of the term, combined with wide differences between healthcare systems in developed versus developing countries, has resulted in different perceptions of PPPs; this needs consideration in order to improve conceptualisation of the term. The section also discusses other aspects of PPPs, including the most appropriate definitions to fit the research context, the characteristics and requirements of successful PPPs, their potential advantages, and the risks they might be expected to face.

Section 2.4 builds further on the conceptual framework by introducing the IOR concept and explaining the relevance of its literature in exploring the relational aspects of PPPs. It emphasises the main contributions offered by the literature in explaining IORs in PPPs.

## 2.1 DISASTER – A KEY CONCEPT FOR THE RESEARCH

The International Federation of Red Cross and Red Crescent Societies (IFRC 2015) defines a disaster as "a sudden event that disrupts the functioning of a society or a community and produces an impact on humans, the economy or the environment, which exceeds the community's or society's capabilities to deal with using its own resources."

The *Sendai framework for disaster risk reduction* 2015-2030 (UNISDR 2015a) asserts that a disaster can be triggered by a combination of factors including hazards, vulnerability and incompetence in identifying and managing potential risks.

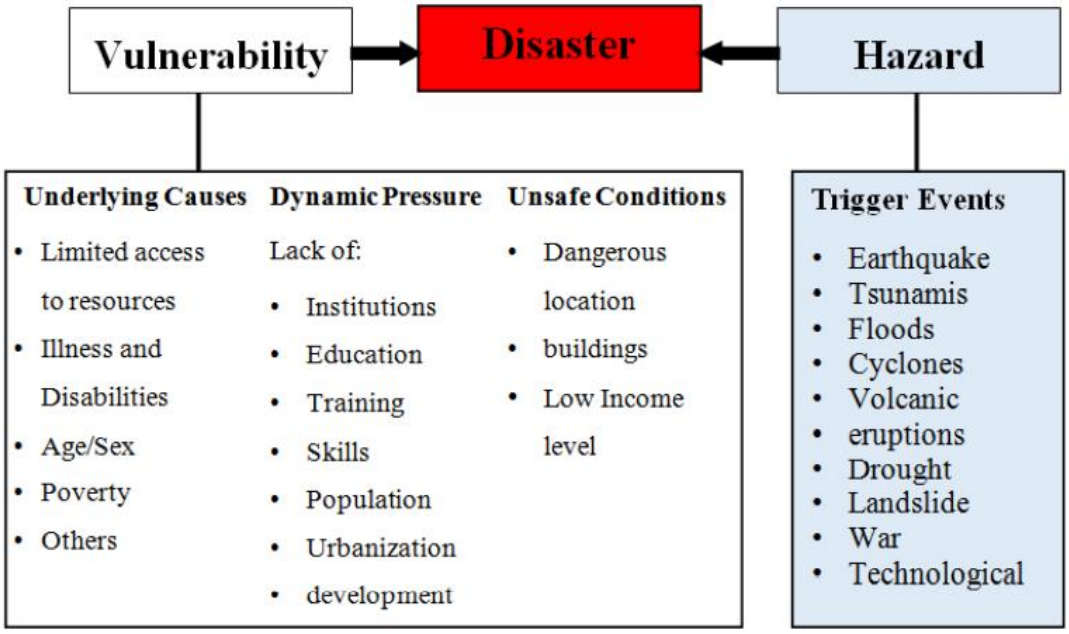


**Figure 2-1. What is disaster?**
Source: Khan et al. (2008)

Worldwide, disaster management is considered a priority for national governments. The Asian Disaster Preparedness Centre (ADPC) defines disaster management as the organisational decisions and operational actions underlying the process of effectively organising and managing resources and responsibilities in order to ensure a systematic approach for dealing strategically with all related aspects of emergencies, including prevention, preparedness, response and recovery (ADPC 2014).

The principal objective of disaster management is to prevent, mitigate and decrease the impact of natural or man-made disasters. Another definition of disaster management is the measures undertaken in order to prevent hazards from progressing into the form of disaster (Nojavan et al. 2018). The research further highlights the importance of engaging all related sectors and the community in the disaster and risk management efforts while considering an 'all hazard' approach.

Different disaster management models have been proposed by different organisations and researchers (Nojavan et al. 2018). According to Coetzee and Niekerk (2012), researchers have utilised the 'phases' concept since the 1930s in examining, demonstrating, and comprehending disasters, and in helping to establish a systematic and effective practice for disaster management.

For example, the United States Federal Emergency Management Agency (FEMA 2014) proposed a model that describes four different phases of disaster management – mitigation, preparedness, response and recovery – as 'the disaster management life cycle' (Figure 2-2). This model is used by numerous countries and organisations in their disaster and risk management plans.


**Figure 2-2. The disaster management life cycle**
Source: FEMA (2014)

Table 2-1 summarises the different phases of the disaster management life cycle.

**Table 2-1. Different phases of the disaster management life cycle**

| Phase | Definition |
|---|---|
| Mitigation | Includes activities aimed at either preventing or minimising the probability of occurrence of an emergency or a disaster, or at reducing the effects of inevitable disasters (FEMA 2018). |
| Preparedness | Includes building plans for emergency and disaster response, and tools to assess response activities (FEMA 2018). |
| Response | According to Alexander (2016), this phase takes place immediately before, during and directly after a disaster.<br><br>It includes providing emergency assistance to avoid life-loss and reduce damage to properties during a disaster (Bronfman et al. 2019), through actions such as early warning, search and rescue, dealing with hazardous materials or fire incidents, as well as handling survivors and casualties (Alexander 2016). |
| Recovery | Takes place after the disaster and comprises the activities required to restore a normal situation to the area after a disaster. It includes two phases:<br><br>- the immediate phase (investigation, damage assessment, dealing with debris, restoring essential services and supplies);<br><br>- long-term recovery (restoration of infrastructure and services; continuing management of survivors; and identifying actions that could improve resilience in future disasters) (FEMA 2018). |

The four phases aim to minimise harm caused by disasters and promote resilience among the affected communities. Hence, **resilience** is regarded as one of the essential factors of

disaster management, which reinforces the importance of building prepared, resilient communities as one of its key principles.

Moreover, interest in and popularity of the concept of disaster resilience has recently increased, especially since being advocated as one of the four priorities of the Sendai framework, which are: 1. understanding disaster risk; 2. strengthening disaster risk governance in order to manage disaster risks; 3. investing in disaster mitigation for resilience; 4. enhancing disaster preparedness for effective responses, and to 'build back better' in recovery, rehabilitation and reconstruction (WCDRR 2016). Since the adoption of the Sendai framework, the main objective of disaster risk reduction and hazard planning has shifted considerably, now focusing more on enhancing community resilience instead of simply reducing vulnerability.

## 2.2 DISASTER AND HEALTHCARE SYSTEMS

Worldwide, disasters from all hazards are often unpredictable, and their frequency, magnitude and levels of damage are escalating (Medina 2016; Hoyois et al. 2007). Disasters without prior warning can create a significant impact on a healthcare system. For example, a chemical spill could trigger an evacuation of an urban or rural setting; a tornado could affect healthcare facilities and necessitate evacuation from some of them; infectious diseases (e.g., pandemic influenza) could require specific measures; and such incidents can negatively impact provision of services (Bone 2006). Moreover, infectious diseases have directed the attention of international organisations such as the EU to its limited role in responding effectively and exhaustively to pandemics (e.g., Covid-19) and promoted improvement of the EU public health policy (Brooks and Geyer 2020).

Therefore, disasters can significantly affect a healthcare system, through disrupting its capacity to respond to health crises, and affecting the overall quality of healthcare services (WHO 2002). Regardless of the incident's type or severity, it can result in significant quantitative and qualitative impacts to healthcare organisations and a need to be prepared, with effective disaster plans, efficient staff, and sufficient resources to manage and recover from the event (Bone 2006).

Moreover, climate extremes can result in direct health effects, such as drowning or injuries, or indirect and delayed effects, such as water-borne infections, acute or chronic effects of exposure to chemical pollutants released into flood waters, vector-borne

diseases, mental health consequences, and food shortages (Wind et al. 2013). Consequently, parts of the world are faced with the emergence of new public health threats which have potential for crossing borders and becoming international concerns (Miles 2016; UNISDR 2006; Thornes et al. 2001). This, according to Miles (2016), can result in an increase in demands placed on, the expectations of, and the services required from, public health systems, and as a consequence synergising becomes 'business as usual'. This directs attention to the concept of synergistic outcomes, which according to Irfan (2015) are at the core of the aims of public-private partnerships.

On the other hand, it was found that measuring the health impacts of disasters using health parameters such as numbers of fatalities and casualties offers a reliable indicator of the magnitude, scale, seriousness and impact of disasters – and is equally significant in justifying the required response and recovery efforts, defining the 'big picture' at the operational level, quantifying the extent of urgent requirements, ensuring their effectiveness and timeliness, evaluating progress, and allowing comparisons to be conducted between different disasters (Miles 2016; WHO 2018; Chan 2017). This argument adds a reciprocal dimension to the relationship between disasters and healthcare systems. Furthermore, examining trends in disaster impacts or losses is crucial in showing distribution of losses across different regions – hence informing decisions on mitigation policies, including allocating funds and resources for building PPPs as part of a country's disaster risk reduction strategies.

### 2.2.1 HEALTHCARE SYSTEM RESILIENCE

Worldwide, healthcare systems have been recognised as essential infrastructure that is required to continue functioning in order to provide communities with a chance of surviving a disaster. Healthcare systems and facilities play an essential role in providing specific responses as well as carrying out general community functions during disasters; in other words, they must be able to sustain their capability of providing emergency care for disaster victims while continuing to meet the standard healthcare requirements of the community (FEMA 2008; WHO 2006). Literature in the disaster management field has proposed measures for building resilient and successful healthcare disaster management systems. McEntire (2007) highlights the importance of integrating disaster medical care and healthcare resilience into overall community disaster management and resilience

plans. Healthcare systems' management must engage with the community in order to ensure communities are prepared to respond to disasters. Thus, healthcare systems cannot prepare disaster management plans without considering a systematic collaboration with other community entities and resources, including the private sector, in order to build an effective overall community response (Rottman 2003; Acevedo 2017; Al-Shaqsi et al. 2013).

Ditch (2009) asserts that management has a prominent impact on the overall performance of a healthcare system. The healthcare emergency preparedness programme managers play a critical role in healthcare emergency management. They hold the responsibility and make procedural decisions on determining what works or does not work within healthcare emergency preparedness (Acevedo 2017). Savas (2000), identifies a common perception among disaster managers that public-private partnerships play an essential role in strengthening resilience through increasing efficiency and effectiveness in disaster management. Furthermore, Al-Shaqsi (2010) argues that emergency planners should always consider private agencies being represented in the disaster response system, and their role in emergencies should be clearly stated in the national framework.

Moreover, instead of the reactive approach and event-specific planning of dealing with disasters in the past, disaster management plans should adopt an 'all-hazard approach' encompassing the four phases of disaster risk management (DRM) and including all sectors of the community – the public and private sectors and the general public (UNDRR 2020; Medina 2016). Kollek (2013), and Acevedo (2017) describe the 'all-hazard approach' as including an extensive planning and preparation process which can result in greater efficiency to respond to and recover from unexpected events.

The success of a healthcare system in managing disasters depends on its investment in preparedness programmes and procedures (Goldschmitt and Bonvino 2009). The timeliness and effectiveness of response programmes depend on the level of training and preparedness of emergency responders, competency of the staff, and ability of leadership to mobilise available resources successfully (Arora and Arora 2013). If healthcare systems are to achieve a wide scope of involvement in 'all-hazard' disasters, they must recruit dedicated, trained, and committed disaster staff capable of effectively managing all four phases of emergency management (Acevedo 2017).

Standardising a general best approach to disaster management throughout a healthcare system (in public and private healthcare facilities) reconciles variations in methods of managing healthcare provision during disasters and brings the system together (Cagliuso 2012; Zhong et al. 2014). This argument was supported by Agwu et al. (2019), who state that standardising a measurable framework across different organisations can potentially mitigate effects of disasters. However, currently no such emergency preparedness standards exist (Zhong et al. 2014). Figure 2-3 shows the joining points (i.e., common denominators or factors) between the recommended measures for building resilient healthcare disaster management systems and successful PPPs.

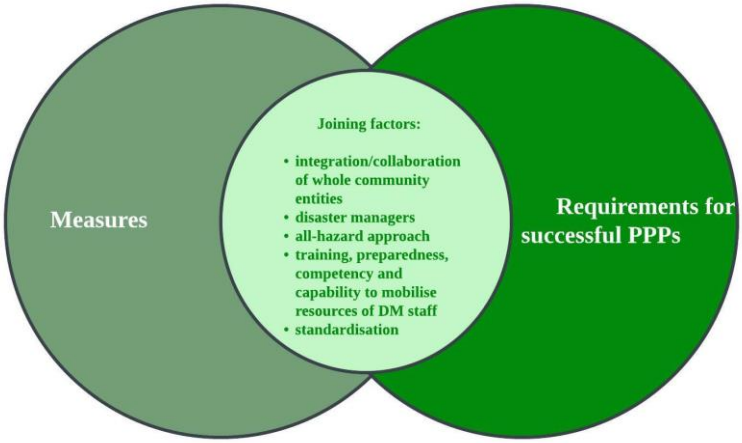


**Figure 2-3. Joining points between the recommended measures for building resilient healthcare DM systems and successful PPPs**
Source: Author

**Table 2-2. Highlights of previous sections**

| Key contribution/argument | Strengths | Challenges | Author and date |
|---|---|---|---|
| Suggested use of health parameters: e.g., numbers of fatalities and casualties; morbidity and mortality as indicators in measuring the scale and impact of disasters; also to justify the required scope of response and recovery efforts and to evaluate their effectiveness. | • Advocates for building a clear disaster health impact assessment tool.<br>• Trends in disaster losses are crucial in showing the distribution of losses across regions and countries at different levels of resource and development of private sector establishments. Can be utilised to inform the decision of transferring funds into building a PPP arrangement in the region as a mitigation plan.<br>• Can be also used to evaluate PPP in DM projects for continuation or discontinuation decisions. | • Trends can vary among vulnerable populations and require special consideration.<br>• Ethically, loss of life should be deemed as equal universally, while the value of monetary losses is not, since a dollar lost in a high-income country causes a less adverse impact on society than a dollar lost in a developing or a low-income country.<br>• Measures such as effects on critical health-related infrastructure and displacement should be included in the impact assessment tool due to their effect on disaster health outcomes.<br>• Requires development of capacities for public health surveillance, laboratory testing, epidemiological analysis, and other related technical areas. | Miles (2016); WHO (2018); Chan (2017) |

| | | | |
|---|---|---|---|
| It is essential to integrate disaster medical care and healthcare resilience into the whole community disaster management and resilience plans. | • Encourages PPPs to be built into community resilience efforts.<br>• Integration of private sector is crucial for building effective healthcare system management plans. | • Requires allocation of considerable budget for development of DM infrastructure and capacity in the community. | McEntire (2007); Rottman (2003); Acevedo (2017); Al-Shaqsi (2010) |
| Healthcare and disaster managers have a prominent impact on the overall performance of a healthcare system.<br>Disaster managers acknowledge the role of PPPs in strengthening resilience through increasing efficiency and effectiveness in disaster management. | • Healthcare disaster programme managers can play a critical role in encouraging implementation of PPP into healthcare emergency programmes. | • Depends on the dedication, competency, leadership skills, level of training and efficiency of emergency managers. | Ditch (2009); Acevedo (2017); Savas (2000) |

| | | | |
|---|---|---|---|
| Disaster management plans should:<br>• Adopt a proactive 'all-hazard approach'.<br>• Incorporate the four phases of disaster risk management (DRM)<br>• Include all sectors of the community – the public and private sectors and the general public. | • Builds communities resilient to all forms of hazard.<br>• Advocates for the role of PPPs in building community resilience and DRR. | • Requires funds for building resources, capacities, infrastructure and effective communication systems.<br>• Requires extensive planning and preparation process to improve efficiency. | UNDRR (2020); Medina (2016); Kollek (2013); Acevedo (2017) |
| The success of a healthcare system in managing disasters depends on its investment in its preparedness programmes and procedures. | • Provides the basis for building resilience through effective DRR. | • Effectiveness of programmes depends on the level of training and preparedness of emergency responders, competency of staff, and efficiency of leadership. This again requires allocated resources and willingness of leaderships. | Goldschmitt and Bonvino (2009); Arora and Arora (2013) |

### 2.2.2 A GLOBAL SHIFT TO PPPS IN HEALTHCARE

Globally, governments are challenged by the increasing demand for healthcare services and the subsequent rise in healthcare costs (Lang 2016). According to Mitchell (2001), the rise of the healthcare expenses is attributable to a number of factors including the significant increase of urban and older populations and a change in disease patterns towards chronic diseases, which can lead to increased demand for expensive tertiary healthcare and medication. In addition, there are expensive advances in diagnosis and treatment methods aimed at curing more patients and improving their quality of life (Deloitte 2015). All of these factors will continue to drive the health spending of governments around the world, thus increasing the burden on the budget of the public sector. As a result, governments are working closely with stakeholders in the private healthcare sector in order to introduce innovative, cost-effective technologies to the market (Lang 2016; Blanken and Dewulf 2010; Auzzir et al. 2014).

PPPs can help alleviate the burden of healthcare spending through combining the complementary abilities of both sectors, while sharing risks and improving both efficiency and quality of healthcare delivery (Reich 2002; Deloitte 2015; Mitchell 2001). However, despite the call for involving the private sector along with the public sector to achieve a comprehensive approach to disaster management, there is a noticeable absence of local private hospitals from the planning and operations component of community disaster plans. Both public and private hospitals play a critical role as the off-scene care providers for disaster victims, such as in mass casualty events in which many victims will end up self-presenting themselves to hospitals, thus overwhelming hospital capacity if no proper management plans are created for such events (Djalali et al. 2014). These studies, and the increase in awareness about disaster management worldwide, have resulted in the emergence of international strategies focusing on improving disaster management and resilience (Paganini et al. 2016). An example of the international strategies is the Sendai Framework for Disaster Risk Reduction 2015-2030, which includes among its priorities for action the need to strengthen disaster risk prevention and reduction measures in critical facilities, such as hospital emergency departments (UNISDR 2015a). Thus, to achieve a comprehensive approach, hospitals must be included in the emergency preparedness stakeholders team. Furthermore, they should be included in the training, equipment

purchases, protocol development and disaster drills. They should also partake in a mutual aid memorandum of understanding to facilitate the sharing of resources and staff between team members (Cleare 2004).

Therefore, it is important to emphasise the significant negative effects of disasters on national healthcare systems, which are considered essential infrastructure that needs to continue functioning in order to give communities the chance to survive disasters. Hence, healthcare systems and facilities must be able to maintain their resilience through recommended measures including building effective PPPs which can help in integrating disaster medical care and healthcare resilience into whole-community disaster management and resilience plans.

## 2.3 PUBLIC-PRIVATE PARTNERSHIP (PPP)

The PPP literature is growing rapidly across a multi-disciplinary and multi-national landscape. Public-private partnership (PPP) is recognised as one of the preferred organisational models across European Union countries, including the United Kingdom, where it has been widely utilised since the 1980s (Vela and Pardo 2012; Weihe 2005). The PPP concept has gained increasing popularity in many countries around the world since the 1990s as a feature of comprehensive development frameworks (Nishtar 2004; Jing and Besharov 2014; Steijn et al. 2011).

Fostering the PPP arrangement is encouraged by the increasing demands on the public sector and its inability to provide services entirely on its own without compromising efficiency, equity, and effectiveness, due to lack of resources and to management issues (Nishtar 2004). PPP is widely adopted by many governments as a strategy for engaging private actors in infrastructure and service delivery, with the aim of expanding the scope of service providers to include the private sector, thereby improving quality, injecting dynamism, increasing coverage, innovation, efficiency and cost recovery, and providing better value for money (VFM) (Johannessen et al. 2013; Auzzir et al. 2014; Osborne 2001; Savas 2000; Bourn 2001; OPDM 2002; Klijn and Teisman 2003; Hodge and Greve 2005; Chen et al. 2013; Jing and Besharov 2014; Ghobadian et al. 2004; Bovaird 2004; Donahue and Zeckhauser 2011). PPPs can be found in a wide spectrum of sectors including healthcare, transportation, telecommunications, and education (Lang 2016).

The existing PPP literature has discussed the structural and economic aspects of PPPs in depth (Ghobadian et al. 2004; Hodge et al. 2010), while their relational aspects continue to be under-explored. This might result in restricting our understanding of the dynamic and diverse nature of PPPs, ultimately failing to anticipate the advantages of – and the potential challenges to – PPPs. Efforts are needed to secure these advantages and overcome potential challenges. Therefore, integrating research from the structural, economic and relational perspectives of PPPs is crucial in fully comprehending PPPs and managing them effectively.

The public sector in this research refers to the governmental authorities responsible for disaster management in Oman, including the National Committee of Defence (NCCD), the medical and public health response sector (MPHRS), and the Ministry of Health (MOH) both at central and local (governorates, operational) governmental levels, while the word 'private' denotes the for-profit private sector, encompassing commercial establishments at hospital and polyclinic levels.

### 2.3.1 THE CHALLENGE OF FINDING A COMMON DEFINITION FOR PPPS

Despite the popularity of the PPP concept and its global spread, an accurate definition of the term PPP remains somewhat imprecise, encompassing 'numerous grammars' (Hodge and Greve 2007; Hodge et al. 2010; Linder 1999) with no single, universally accepted definition. The term PPP is often identified as 'ill-defined', 'shifty', and 'disputed' (Wettenhall 2010; Weihe 2008; Powell and Glendinning 2002). There is widespread agreement on the diversity and dynamism of PPPs, and in considering them a significant component of the public management agenda, yet there is no consensus on what comprises a PPP and how to distinguish between its variable forms.

Drawing on PPP literature, Irfan (2015) argues that each 'P' in 'PPPs' is controversial and debatable, hence making it challenging to agree on a common definition for PPPs. However, the WHO (2003) defines public sector as governmental organisations and their agencies, while all non-governmental entities, whether profit based or not, are considered private sector. These definitions will be employed for this research.

The third P, the term 'partnership', has been considered extensively by a variety of scholars and advocates in various fields, including health, education, management, policy

and administration, government and society, and organisational behaviour studies (Ross 2013). However, there is no specific model or definition to elucidate the topic within and between these fields, and this can complicate understanding of how organisations work together (Pinkus 2003; Balloch and Taylor 2001).

Partnership arrangements became conceptualised as an umbrella for terms used interchangeably to describe relationships between sectors, including coalition, strategic alliance, collaboration, joint venture, inter-organisational collaboration and inter-organisational relationship (IOR) (Ross 2013; Tait and Shah 2007; Singh and Prakash 2010; Huxham and Vangen 2005). To sum up, there is overabundance of working definitions for PPPs in the current literature. Different researchers have directed their attention to understanding PPPs from their different perspectives (Weihe 2008; Hodge et al. 2010; Wettenhall 2010) and presented a range of working definitions influenced by their varied perspectives and understandings of the PPP phenomenon. Table 2-3 represents some of these definitions.

**Table 2-3. Proposed definitions for PPP**

| Author/entity | Proposed definition |
|---|---|
| European Investment Bank 2004 | "A generic term for the relationships formed between the private sector and public bodies often with the aim of introducing private sector resources and/or expertise in order to help provide and deliver public sector assets and services. The term PPP is, thus, used to describe a wide variety of working arrangements from loose, informal and strategic partnerships to design-build-finance-and-operate-type service contracts and formal joint venture companies." |
| Credit rating agency Standard and Poor's 2005 | "Any medium- to long-term relationship between the public and private sector, involving the sharing of risks and rewards of multi-sector skills, expertise, and finance to deliver desired policy outcomes." |
| Broadbent and Laughlin 2003 | "New public management agenda for changes in the way public services were provided." |
| Klijn and Teisman 2003 | "A hybrid organisational arrangement that has attributes of both sectors." |

Therefore, a PPP can be a structured formal arrangement in the form of a medium- to long-term contract between public and private sector entities which includes a written agreement about the specific objectives of the partnership, the reciprocal rights and obligations of the involved parties, and the management and governance structure of the partnership (Mitchell 2001). This arrangement includes a complementary sharing of technical and financial expertise, in order to improve quality, efficiency, effectiveness, and accountability in delivery of a public service (Lang 2016; Keyter 2010; Koppenjan 2005).

The published literature has identified some of the characteristics of PPPs, based on its various definitions. Table 2-4 and Figure 2-4 summarise the highlighted key characteristics.

**Table 2-4. PPP characteristics**

| **Authors** | **Suggested key characteristics of PPP** |
|---|---|
| Savas 2000; Steijn et al. 2011; Rogers and Whetten 1982; Klijn and Teisman 2003 | • Mutual coordination and cooperation. |
| Huxham and Vangen 2005; Mitchell 2001; Auzzir et al. 2014; Klijn and Teisman 2003; Lonsdale 2007; Hodge and Greve 2005; Ismail and Pendlebury 2006 | • Contracted/agreed mutually shared objectives, products/services, risks, and benefits.<br>• Mutual value addition.<br>• The profit sharing can include financial profits or gaining recognisable societal benefits. |
| Hodge and Greve 2005; Savas 2000; Auzzir et al. 2014 | • Organisational structure for the PPP among the partners to ensure effective and mutual cooperation process. |

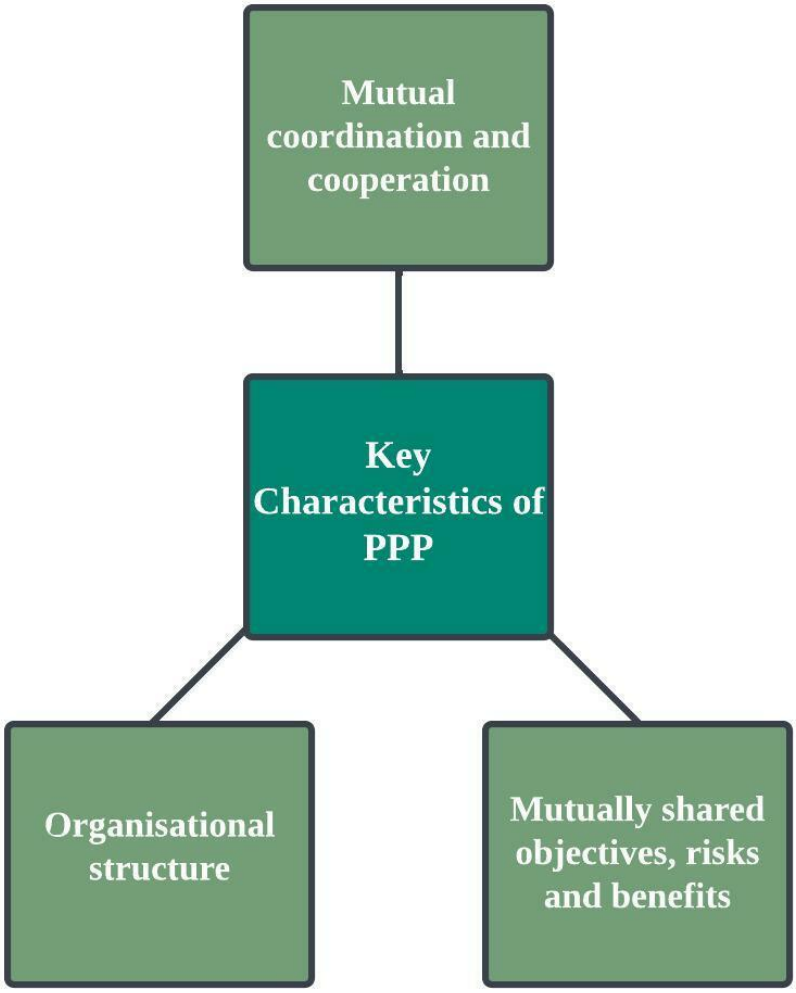


**Figure 2-4. Key characteristics of PPP**
Source: Author

### 2.3.2 REQUIREMENTS FOR A SUCCESSFUL PPP

For any PPP, certain underlying characteristics must be in place in order to accomplish its goals (Mitchell 2001). Table 2-5 presents a list of characteristics required to ensure success of PPPs in the social sector, as defined by Walt and Buse (2000), White (2011), and the Asian Development Bank Institute 1999 (cited in Malik 2010).

**Table 2-5. Characteristics required for successful PPPs**

| | | |
|---|---|---|
| **Legislative and regulatory framework** | 1. Availability of legal and regulatory framework.<br>2. Standards to ensure and maintain quality of services. | Authors:<br>Walt and Buse (2000); White (2011); Asian Development Bank Institute (1999; cited in Malik 2010) |
| **Suitable public policies** | 1. Government provides suitable policies, and guidelines.<br>2. Availability of strong political support to ensure an enabling national environment.<br>3. Continuity of policy to maintain sustainability and prevent duplication of efforts and waste of resources.<br>4. Roadmap.<br>5. Government support for private sector. | |
| **Sharing of resources** | 1. Shared risks, responsibilities and benefits for both sectors.<br>2. Provision of concessions and incentives.<br>3. Effective system for information exchange and communication.<br>4. Both sectors should adhere to agreed PPP contracts in providing financial resources and manpower, and in meeting key performance indicators (KPIs). | |

| | | |
|---|---|---|
| **Transparency and accountability** | 1. Accountability from both sectors.<br>2. Effective monitoring and follow-up of the performance indicators set up for the project throughout its operation period.<br>3. Flexibility of the public sector in accepting innovative solutions provided by private sector partners.<br>4. Fairness and transparency.<br>5. Social accountability and commitment of the private sector to the public good, and to strive to improve productivity and achieve performance indicators.<br>6. Commitment of the private sector decision-makers.<br>7. Fulfilment of contracted obligations by all involved entities. | |
| **Common understanding** | 1. A clear contract detailing the regulation of amendments throughout the contract period and outlining the agreed roles and responsibilities of both parties.<br>2. An efficient and organised PPP structure with clear and attainable objectives and specific, realistic and mutual goals.<br>3. Ownership. | |
| **Community and end-users of the service** | 1. Informed choice among end-users.<br>2. Participation of the community and end-users in planning and monitoring the services provided. | |

| | | |
|---|---|---|
| **Sustainability** | 1. To ensure sustainability, the PPP arrangement must be based on a feasibility study and a needs-assessment analysis.<br>2. A sustainable fund.<br>3. Conducting a thorough risk analysis and preparing mitigation plans.<br>4. Utilising a reliable, value-for-money measuring method with clear standards and models.<br>5. Planning an effective contracting process to ensure effectiveness, commitment, sustainability, competitiveness and transparency.<br>6. Capacity of both sectors. | |

### 2.3.3 ADVANTAGES OF PUBLIC-PRIVATE PARTNERSHIPS

Until recently, the relationship between public and private sectors working in the healthcare field was characterised by tensions, and the two sectors viewed one another with suspicion, antagonism, and confrontation (Lucas 2002). However, currently these tensions are gradually getting replaced by increasing understanding and support for initiating PPPs in health (Reich 2002). Public health authorities are challenged with inadequate resources, rapid transmission of diseases, globalisation, and reduced state capabilities (Nishtar 2004). Meanwhile, the private sector has started acknowledging the significance of public health goals for its organisational short- and long-term objectives, and is considering a wider range of social responsibilities in its corporate mandates (Reich 2002). Consequently, both sectors are being motivated to collaborate with one another, for the sake of achieving their common or overlapping goals (Reich 2002). Lucas (2002) asserts that collaboration between the sectors is unavoidable if they are to accomplish common or overlapping objectives and advantages. Table 2-6 lists the documented potential advantages of PPPs for the sectors and the community.

**Table 2-6. Potential advantages of PPPs**

| Advantage | Explanation |
|---|---|
| **Attracting investment from private sector** | • Budget constraints are managed through utilising resources from national or international private entities through well-structured PPPs (Lang 2016; Nishtar 2004; Reich 2002).<br>• Overall project cost is decreased and dispersed via a planned reimbursement in the form of periodic payments over the project duration time (Hodge and Greve 2007; Asian Development Bank 2008).<br>• Governments can avoid huge initial investments and reduce their budgetary deficit and debts (World Bank Group 2014; Nishtar 2004).<br>• Revenues generated from charges for services can be used to pay for project costs, either directly or through subsidies for the project (World Bank Group 2014; Abednego and Ogunlana 2006; Nishtar 2004).<br>• Private sector gains an adequate rate of return (Asian Development Bank 2008).<br>• Risk allocation: decrease the burden placed on collaborating sectors through increasing the number of players involved (Abednego and Ogunlana 2006; Nishtar 2004) |
| **Private sector resources, expertise, experience and innovation** | • Provide effective mechanisms for tackling difficult challenges to both sectors through leveraging their resources, expertise, ideas, and capacity building (Reich 2002; Labuschagne 1998).<br>• Governments can make use of the innovation capabilities and strategies of the private sector (Reich 2002). |
| **Benefits for citizens** | • Additional advantages for citizens: improved access to healthcare interventions and lower-cost products for underprivileged populations (Buse 2004). |

| | |
|---|---|
| **Cost-effectiveness** | • Private sector is often unconstrained by government bureaucracy, and thus can mobilise larger capital funds and expertise in a more efficient and cost-effective way than can the public sector (Kraak et al. 2011).<br>• The private sector may be able to provide a similar or higher quality service at a lower cost than the government (Grimsey and Lewis 2002). |
| **Private sector scrutiny and analysis** | • The private sector is motivated by its profit-driven nature to perform efficient project analysis and provide better quality assurance levels for its services (World Bank Group 2014).<br>• Utilisation of private sector expertise, especially in cost estimates and revenue forecasts, to minimise risk and to best predict revenues of the PPP project (Lang 2016). |
| **Improvement in efficiency and quality of services**<br><br>**and**<br><br>**Effective usage of resources** | • Private sector aims to maximise revenues from a project through improving both its efficiency and effectiveness so as to enhance costs and benefits (Lang 2016).<br>• The private sector adopts processes that are always faster in implementation (Grimsey and Lewis 2002).<br>• The private sector aims for sustainability of the project through providing services at affordable costs for the end-user, while still fulfilling revenue targets (Mitchell 2001).<br>• To attract service users, the private sector has to ensure that the services provided meet quality and performance requirements set by the government (Lang 2016).<br>• Partnership with the private sector's skilled managerial expertise can result in a significant enhancement of efficiency, effectiveness and the overall quality of services (Grimsey and Lewis 2002). |

| | |
|---|---|
| **Strengthening the public sector** | • The government can focus on its main responsibilities, such as monitoring and regulation, while transferring operational roles to the private sector (Asian Development Bank 2008; Lang 2016).<br>• Reduce the burden on the public sector and allow it to focus on specific services, hence improving the effectiveness of its management (Lang 2016). |
| **Reforming sectors** | • Encourage public sector reform through reallocating the roles, incentives and accountability of its actors (Percy-Smith 2006).<br>• The roles of regulators, policy makers and service suppliers will be re-evaluated and re-assigned in-order to manage incompetence as well as possible conflicts between participants (Percy-Smith 2006). |
| **Non-financial benefits** | • Strategic cross-sector alliances can help private sector in:<br>- acquiring legitimacy and publicity;<br>- utilising research for future product development;<br>- gaining social value;<br>- improving corporate brand or image (Mitchell 2001). |

### 2.3.4 RISKS FACING PUBLIC-PRIVATE PARTNERSHIPS

A risk can be defined as any cause, event or influence that threatens the successful completion of a project in terms of time, cost, or quality. Risk sharing is a fundamental characteristic for any PPP programme, and therefore entails substantial risk being transferred to the private party (Haarhoff 2009).

Hence, risk management is a central component in any PPP programme. It is crucial to consider the risks associated with the programme even at the early stages of planning and structuring (Lang 2016; Haarhoff 2009). Risks should be mapped and reduced into a risk matrix during the contract negotiation phase, and this should provide the basis for a risk management strategy in the contract management plan (DPLG 2007).

**Table 2-7. Overview of the potential risk categories expected when managing a PPP project**

Sources: European Commission (2003); Grimsey and Lewis (2002); Haarhoff (2009); Lang (2016); Thobani (1999); World Bank Group (2014)

| Risk category | Explanation |
|---|---|
| **Technical risk (engineering, design, or construction failures)** | • Related to design problems, construction delays, cost overruns, or to design or construction that does not meet agreed requirements. |
| **Operating risk** | • Related to the success of project operation including disruptions to provision of services or availability of resources; discrepancies in the quality of service; or variations in the estimated cost of operating and maintaining the facility. |
| **Revenue risk** | • Can be the result of changes in economic and political conditions, and governmental policies and regulations. |
| **Environmental risk** | • Infrastructure projects can result in potential environmental impacts that require mitigation plans to be agreed on before the concession contract is signed.<br>• Usually the responsibility of the private sector, which must shoulder detailed environmental assessments and provide mitigation programmes before the agreement is made. |

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| **Site risk** | • Related to the quality and availability of the project site such as:<br>(a) the duration and budget required to procure the site;<br>(b) required permits and assessments;<br>(c) geological conditions;<br>(d) environmental standards and associated costs. |
| **Political and regulatory risk** | • Related to changes or instabilities in political decisions or the regulatory framework.<br>• Might involve changes of regulations and laws such as profit repatriation or corporate taxation laws which in extreme cases can result in failure to renew the PPP project contract or even expropriation of the asset.<br>• Can negatively affect the sustainability and viability of the project. |
| **Project default risk** | • Connected to the technical or financial default of the private entity, or a combination of these risks.<br>• Can lead to its incompetence to finance, implement, operate, or maintain the project. |

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| **Financial risk** | • Related to inappropriate debt management due to changes in interest rates, or foreign exchange rates when concessionaires use foreign sources to obtain a certain amount of their project financing.<br>• Capital construction cost can affect the financing of any project, and this can be affected dramatically by external factors such as economic policies, inflation, deflation, and political instability.<br>• Both can eventually harm the project's viability and sustainability. |
| **Asset ownership risk** | Linked to the change of ownership of the asset, including:<br>• latent defect risk: the probability of damage or loss of the project facility due to latent defects in the building. As a result, concessionaires might bear unexpectedly higher costs for repair of inherited facilities with unknown structural costs;<br>• residual value risk: linked to the future market price of the asset, and applies only to infrastructure PPP projects in which the value of the asset at the time of transferring it back to the government is not in accordance with the originally estimated value. |
| **Obsolescence of technology** | • Connected to possible changes and updates in technology which might result in services being provided with suboptimal technology. |
| **Force majeure** | • Reflects uncontrollable and unexpected natural or man-made events, e.g., natural disasters, war or civil unrest, which might impact the operation and/or construction of the project. |

It is worth mentioning that even in developed countries with advanced mature economies, there are still notable risks associated with PPP projects that can be transferable to developing countries who are seeking to develop their PPP strategies.

The allocation and sharing of risks does not mean transferring the maximum possible risk to the private entity; rather, risks are distributed optimally between both sectors. This can help in lowering the overall cost of the project (World Bank Group 2014) and provide better outcomes. Hence, it is important to allocate risk mitigation roles to a specialised party in order to achieve better outcomes (Lang 2016; Haarhoff 2009). Lang (2016) also argues that the allocated party should be capable of:

- Providing control measures to reduce risk occurrence.
- Planning organised and effective preparation and response in order to reduce the impact of the risk.
- Managing the risk effectively, in an economic and cost-effective way.

### 2.3.5 PPP IN THE HEALTHCARE SECTOR

Governments are facing a challenge in delivering healthcare services to their residents in an effective, efficient, and swift manner due to limitations in their resources (Ricks et al. 2013). Globally, there is a large gap between the demands on healthcare services and the ability of governments to meet these demands (Lang 2016). This gap can be managed through PPPs, which have the potential to boost private sector engagement in planning, designing, building, operating, financing and maintaining healthcare projects under governmental regulation, supervision and control (Boston Consulting Group 2013). Thus, PPPs are intended to integrate the activities of both public and private healthcare sectors with the goal of achieving optimal use of all available resources. Moreover, governments can utilise PPPs as one of their alternative service delivery mechanisms to successfully address deficiencies in infrastructure and service delivery and to meet the expectations of their people (Fourie 2008).

The World Health Organization (2010) has highlighted the importance of implementing PPPs among organisations at various levels in all concerned sectors of the healthcare

field, and has identified public-private partnerships (PPPs) as one of the effective keys to achieving its aim of 'health for all' in the twenty-first century (WHO 2011). Furthermore, Lasker et al. state that public and private funding agencies in the United States are encouraging partnerships in the public health arena, assuming that they can "enable different people and organisations to support each other by leveraging, combining, and capitalising on their complementary strengths and capabilities" (Lasker et al. 2001, p.180).

### 2.3.6 PPP IN DISASTER MANAGEMENT

There is no doubt that disasters, natural or man-made, create a financial burden on governments, due to the substantial economic losses they cause. Consequently, governments are required to protect themselves against the financial encumbrance of such events. Governments across the world assume different and varied roles in managing disasters. However, most of them agree that drafting, advocating and strengthening national policies for disaster risk reduction is a primary function of central government (Sylves 2008; Auzzir et al. 2014). Chandra et al. (2013) argue that the rationale for building national policy is to tailor preparedness around the agenda of community, ensuring a more effective response and recovery. New forms of collaboration between the private and public sectors, such as PPPs, can assist countries in financing disaster risk programmes (Tomasini and Van Wassenhose 2009; Margulescu and Margulescu 2013; Rakesh and Sriparna 2014).

Furthermore, in the aftermath of a disaster, governments have other responsibilities, such as ensuring business continuity through restoring damaged public infrastructure, and securing proper living conditions for vulnerable populations least able to cope with the situation (Linnerooth-Bayer and Mechler 2007). This requires governments to allocate considerable funds for repair of affected infrastructure and to provide suitable programmes to help a community in reducing or transferring the financial burden related to disaster risk. In spite of this, there is limited research regarding the role played by the private sector in financing risk transfer programmes such as insurance and other financial tools (Lassa 2013).

Chen et al. (2013) assert that governments, as policy makers, can bring about collaboration through establishing a regulatory framework to enhance the implementation

of PPP in their country. Establishing a regulatory framework helps in reducing obstacles facing actors in the PPP arrangement (Busch and Givens 2013). A regulatory framework should outline the scope of business, identify standards, establish objectives of the PPP, and specify priorities (Johannessen et al. 2013). Government also has the responsibility of creating community awareness about disaster management projects anticipated in the PPP arrangement (Lassa 2013).

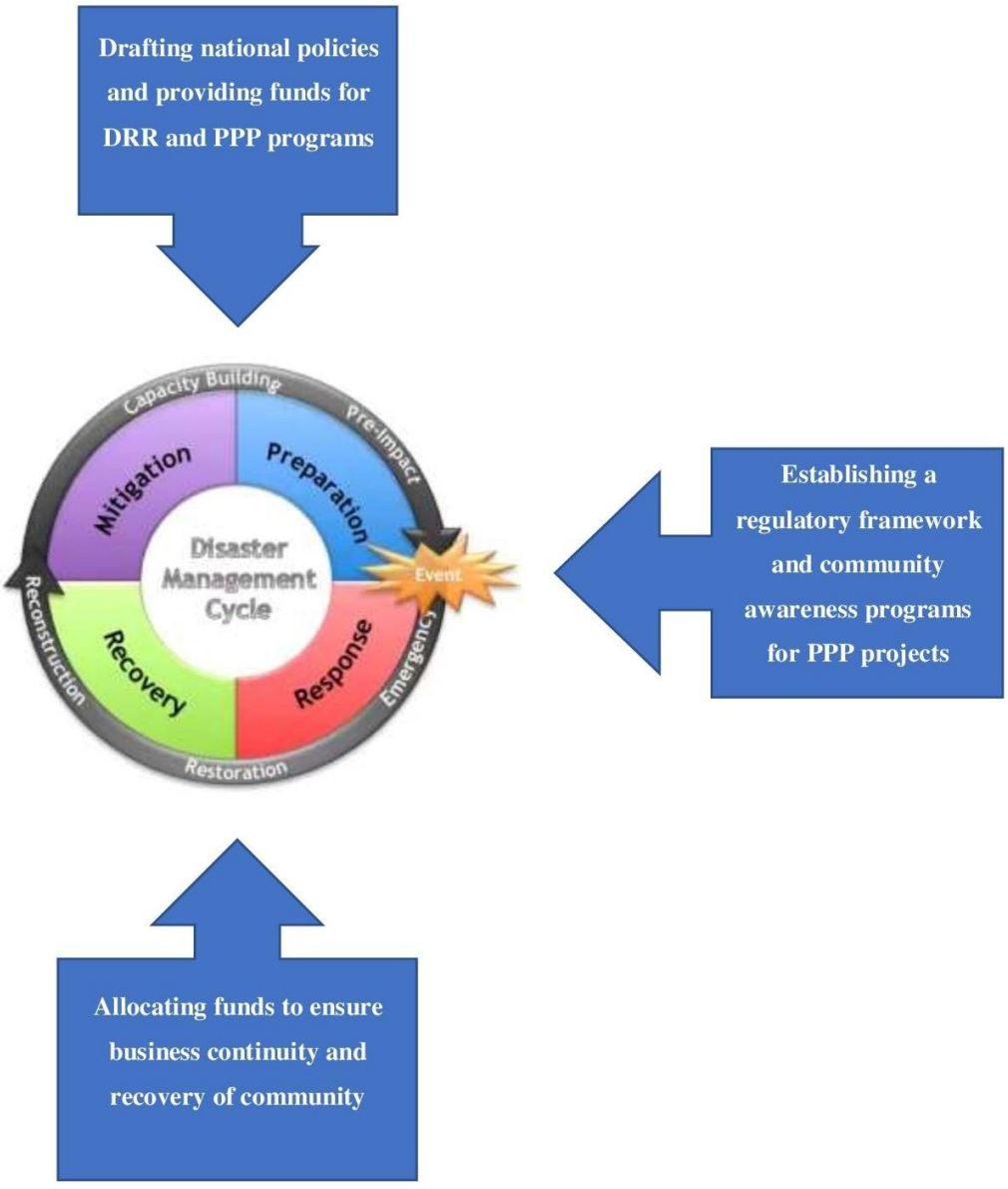


**Figure 2-5. Variable roles assumed by governments**
Sources: Akai and Sakata (2002); Chandra et al. (2013); Chen et al. (2013); Linnerooth-Bayer and Mechler (2007); Skidmore and Toya (2013); Sylves (2008); Xie et al. (1999).

### 2.3.7 PUBLIC-PRIVATE PARTNERSHIPS IN DEVELOPED VERSUS DEVELOPING COUNTRIES

There is no doubt that disasters create a financial burden on governments. Although the PPP phenomenon and its practice originated in British and American public policy (Mitchell-Weaver and Manning 1991), its popularity is also increasing in developing countries (Irfan 2015). The increased interest in, and popularity of, PPPs throughout developed and developing countries are related to almost the same factors, including: the capability of PPPs to decrease the burden on the strained resources of the public sector; the variations in strengths and weaknesses between the public and private sectors; better value for money (VFM) for public projects; and access to private resources for developing or expanding public sector services.

However, in the developed countries, collaboration between the public and private sectors is evolving as a strategic approach to managing public administration, and in complex issues such as disasters (Lassa 2013; Jing and Besharov 2014). Governments in the most developed countries have dealt with this issue by means of creating collaborations with the private sector utilising financial approaches such as insurance, micro-financial tools, contingent capital, insurance-linked securities, finite risk reinsurance, and catastrophe bonds which proved successful in reducing the economic burden of managing disasters, creating new programmes for loss prevention, and improving disaster resilience in communities (Kapucu et al. 2010; Christoplos et al. 2001; Linnerooth-Bayer and Mechler 2007; Sawada and Zen 2014; Atmanand 2003; Bruggeman et al. 2010; Castaldi 2004; Carmichael and Gartell 1994).

On the other hand, governments of developing countries have been struggling to overcome the negative impacts on their economic development of natural disasters due to the underdevelopment of their financial markets (Auzzir et al. 2014; Kreimer and Arnold 2000; Vatsa and Krimgold 2000; Linnerooth-Bayer and Mechler 2007; Bruggeman et al. 2010; Lassa 2013), and to the private sector's lack of participation in their disaster risk transfer programmes (McLoughlin 1985; Yodmani 2001; Ahrens and Rudolph 2006; Khan and Rahman 2007).

Research into PPPs in developing countries is considerably different from that in developed economies, due to its distinctive characteristics (Auzzir et al. 2014). In the

context of developing countries, governments have been neglecting to make use of the private sector, despite its significant role in filling the gap between demand and governmental service provision for the public (Jütting 1999). The available literature about PPPs in developing countries refers to such public-private arrangements using the terms ‘partnerships’ or ‘development partnerships’, while the term PPPs is used rarely (Irfan 2015, p.21).

According to Brinkerhoff (2002b), the existing literature specific to PPPs in developing countries can be delineated into two main streams. One stream, concerned with assessing comparative advantages and criticising partnership arrangements, is typically linked to developmental studies, while the other stream is published by international donors in their project documentation, corporate materials and special reports, and describes partnership arrangements in optimistic terms.

Hence, governments in developing countries are encouraged to collaborate with the private sector in order to develop and promote loss reduction and risk transfer programmes. Effective implementation and management of PPPs can help developing countries to overcome limitations such as insufficient provisions, which contribute negatively to their economic growth (Lang 2016). Moreover, by mobilising the private sector efficiently, governments will be able to tackle challenges such as insufficient public funds and incompetent expertise in the operation and management of their national projects, including the health field (Khan and Rahman 2007; Teamey 2007; Moran 2006).

### 2.3.8 POTENTIAL FACTORS AND CHALLENGES FOR THE IMPLEMENTATION AND SUCCESS OF PPPS

PPP programmes in developing countries encounter a range of obstacles. Both public and private sectors need to recognise these challenges during the preparation phase and deal with them in order to secure the success and sustainability of the programme (Nishtar 2004; Lang 2016). Studies have defined a combination of factors and challenges that can affect the performance of PPP programmes, all of them under the organisational factors category. These are outlined in Table 2-8.

**Table 2-8. Organisational factors and challenges**

| | | |
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| **Legal and administrative factors** | **Lack of administrative and legislative framework** | • Lack of the administrative and regulatory frameworks, expertise and capabilities required to efficiently plan and operate a PPP arrangement (Winpenny and Camdessus 2003; Thomsen 2005; Sader 2000).<br>• Limited availability of legislation regulating public sector roles, with lack of overarching legislation applicable to private sector participation in PPPs (Lang 2016). |
| | **Lack of policies and operational strategies** | • Lack of policies and clearly structured strategies for conducting PPPs in healthcare (PPPH) (Brinkerhoff and Brinkerhoff 2002; Bryson et al. 2006; Whittaker 2014). |
| | **Conceptualising, defining, and characterising PPPs** | • Lack of conceptualised form of a PPP, defining clear roles, responsibilities, and clear communication channels.<br>• Lack of clear framework with established global standards and guidelines, and within a country's legislative actions (Nishtar 2004; Barr 2007). |
| | **Governance mechanisms** | • A well-defined governance system and structure, with clear guidelines, specific roles and responsibilities of all players, and models that outline combined governance structures, is required in order to build a successful PPP (Nishtar 2004). |

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| **Leadership and managerial factors** | **Organisational identities of partners** | • Literature on PPPs and IORs recognises the 'dual identity' of partners as a defining characteristic of any partnership arrangement (Gray and Wood 1991; Huxham and Vangen 2005; Thomson and Perry 2006).<br>• Thomson and Perry (2006) characterises this as the organisational efforts of merging individual and collective interests of the partnership. |
| | **Difference in leadership approach** | • Leaders play a prominent role in shaping the mission of their entities and influencing the nature and outcomes of PPP projects (Murray 1998; Irfan 2015). |
| | **Joint approach to decision-making and leadership** | The decision-making process may be biased due to factors such as:<br>• power relationships and the stronger partner's influence: in the case of political strength, the government as the stronger partner generally tends to rule partnerships with NGOs. Alternatively, in the case of partnerships with the 'for-profit' private entities, concern arises about the financially stronger partner shaping the public sector's decision-making process (Levine 2015; Nishtar 2004; Miles et al. 2014; Kostyak et al. 2017). |

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| | **Limited monitoring capacity of the public sector** | Public sector regulation and monitoring can:<br>• improve accountability of the private sector organisation (Rochester 2001; Brown and Troutt 2004);<br>• reduce the possibility of private sector opportunism and goal divergence through vigilant monitoring employing a variety of formal and informal mechanisms; flexibility and discretion in implementing the programmes; clear incentives such as stability and renewal of contracts; and reputational boost (Van Slyke 2007, p.163). |
| | **Lack of willingness of private sector, or lack of private sector bidders** | • Profit-oriented private sector stakeholders are not usually attracted to risk-investing in PPPs in small markets in developing countries suffering from economic and political instability, as these factors might negatively affect competition and PPP efficiency gains (Walt and Buse 2000; Winpenny and Camdessus 2003; Thomsen 2005; Lang 2016; Sader 2000). |
| | **Accountability and transparency** | • Improving accountability is an important issue to be addressed in PPPs (Broadbent and Laughlin 2003; Hodge and Greve 2007).<br>• "Transparency is necessary for accountability." Sinkovics and Alfoldi (2012, p.827).<br>• Supervision, frameworks, policies, criteria, clear governance mechanisms, and global norms for PPPs are required to improve accountability and transparency (Kostyak et al. 2017; Nishtar 2004). |

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| | **Ethical issues** | Conflicting objectives and goals/conflicts of interest among partners:<br>• although most PPPs are based on 'social obligation fulfilment', market/profit-oriented private sector organisations might engage in PPPs, motivated by their own agendas of gaining financial revenue, improving their organisational image, or getting access to policy makers. This might result in their redirecting national and international health polices and priorities, and in their negative interference in local and national efforts (Nishtar 2004; Bompart et al. 2011; Kostyak et al. 2017);<br>• success of partnerships requires mutuality of interests and goals between partners in terms of risk sharing, expectations and estimated profits from the project (Campos et al. 2011). |
| | **Sustainability/long term commitment of private sector** | Sustainability of PPP programmes can be negatively affected by:<br>• lack of availability of sustainable funding for PPPH programmes (WEF 2005);<br>• lack of functional local health systems and support of policymakers (Alemnji et al. 2014);<br>• lack of transparency, clear communication, validation, and motivation (Hunter 2011). |

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| | **Lack of adequate communication** | • Communication can act as a determining factor for the synergy and outcome of any PPP (Lasker et al. 2001; Vangen and Huxham 2006).<br>• Lack of effective communication can be grounded in problems of understanding originating from differences in organisational cultures, structures, management styles, internal environments, and ideologies or working practices of different participants in the PPP (Vlaar et al. 2006). |
| | **Lack of research and information base** | • One of the strategic problems facing PPPs is the lack of research interest in diseases affecting locations other than the developed countries (Witty 2011). |
| **Resources** | **Limited resources** | • Limited availability of budgets for providing public sector programmes is an important constraint on PPP projects in developing countries (Winpenny and Camdessus 2003; Thomsen 2005; Sader 2000).<br>• PPP programmes in developing countries are often exposed to high financial risks such as drastic changes in interest or exchange rates, and high levels of inflation or deflation (Lang 2016). |
| | **Financial aspects/burden** | • Financial issues are always essential in disaster management, particularly for developing countries (Chen et al. 2013; Lassa 2013).<br>• PPPs might include projects with a significant transfer of financial, operational, design, and construction risks from the public sector to the private sector (Auzzir 2014). |

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| **Contextual factors** | **Interdependence** | • Interdependence is widely considered as an important facilitating factor for the formation of inter-organisational arrangements, including PPPs (Pfeffer and Salancik 2003; Alter and Hage 1993; Levine and White 1961; Kickert et al. 1997; Sullivan and Skelcher 2002).<br>• Resource scarcity is one of the main reasons behind interdependency and motivates facilitators for IORs arrangements (Pfeffer 1992; Bryson et al. 2006; Brinkerhoff and Brinkerhoff 2002). |
| | **Sectoral differences/difference in organisational structure and culture** | • Some organisational structure styles are better suited than others to facilitating collaborative efforts (Mintzberg 1979; Galbraith 1973; Murray 1998).<br>• Organisational culture can impact attitudes and views about other partners and shape approaches towards them, and willingness to adjust while working together (Murray 1998; Schein 1992).<br>• Bureaucracy and one partner's dominance can hinder collaborative work (Murray 1998; Irfan 2015). |
| | **Maintaining organisational identities of partners** | A comparison between for-profit, not-for-profit and government organisations highlights how principal organisational values vary notably among the three sectors. In general:<br>• for-profit organisations often measure delivered principal value in financial terms;<br>• non-profits measure in terms of contributions to the cause;<br>• The public sector measures in terms of mission rather than financial indicators (Moore 2000). |

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| | **Institutional pressure** | • IORs and willingness to join PPPs are influenced by the dependency of an organisation on funding bodies that can influence organisational strategy and encourage its decision to enter partnerships by making it a requirement for funding (Oliver 1990; Alter and Hage 1993). |
| | **Reputation/perception** | • Public sector stakeholders consider the good reputation of a potential private sector partner to be a contract enforcer for PPP and a measure to mitigate the risk of opportunistic partnerships (Milgrom and Roberts 1992; Van Slyke 2007).<br>• A partnership with an entity with a good reputation can exhibit better trust-building and decision-making processes (Chen 2010). |
| | **Political environment/will** | • Political instability is a potential strategic challenge to the implementation and success of PPPs in the health sector (Witty 2011).<br>• The majority of developing countries endure unstable political conditions which make their markets insecure and unattractive for private sector stakeholders (Winpenny and Camdessus 2003; Thomsen 2005; Sader 2000).<br>• Other strategic challenges include governmental bureaucracy, corruption, security concerns, and lack of infrastructure (Mohanan et al. 2016; Kostyak et al. 2017). |

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| **Motivational factors** | **Reciprocity** | • IOR researchers have associated reciprocity and power acquisition motives among parties entering inter-organisational arrangements, within the context of interdependence and resource scarcity (Irfan 2015). |
| | **Power acquisition** | • Indicators suggested by the literature as revealing motives for power acquisition include: 1) efforts to take control of essential resources; 2) dominating the exchange regulation process; 3) resistance to adjusting to the requirements of other partners; 4) being capable of opting for a 'do without' approach; and 5) refusal to accept giving up autonomy and control (Pfeffer and Salancik 2003; Oliver 1990; Gray and Wood 1991).<br>• Oliver (1990, p.245) proposed that power acquisition-motivated IORs are characterised by "coercion, conflict and domination". |
| | **Legitimacy** | • Chen (2010) suggests that organisations join partnership arrangements to enhance their legitimacy, for reasons that include the need to meet the requirements and expectations of the funding agency; to improve the reputation of the organisation; and to develop future relationships. |
| | **Stability** | • Organisations might be induced to join inter-organisational arrangements for the purpose of achieving stability in the flow of their resources (Irfan 2015).<br>• Joining partnerships might help as coping mechanisms to anticipate, project the possibility of, or absorb uncertainty with the aim of achieving a reliable, systematic pattern of resource flows and substitutes (Oliver 1990). |

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| | **Efficiency** | • Increased efficiency is considered as one of the theoretical rationales for IORs and PPPs (Skelcher 2005; Oliver 1990).<br>• Partnerships can be seen by both sectors as a solution to accomplishing efficiency and effectiveness objectives (Brinkerhoff 2002, p.21). |
| | **Necessity** | • Necessity motives are especially relevant when discussing PPPs in which joining partnerships is mandated by higher authorities such as governments or funding bodies as a legal requirement to be met by organisations (Armistead and Pettigrew 2008). |

### 2.3.9 GOVERNANCE IN PPP

Leadership is a debatable topic in PPPs, since the term ‘partnership’ implies a balanced relationship with no upper-hand concept. Moreover, PPP arrangements may also illustrate complex issues, such as joining together a mixture of actors with diverse and sometimes conflicting objectives and interests, working within different governance structures (Reich 2000). Hence, a well-defined governance structure with clear distribution of roles and responsibilities of all the players is required in order to build a successful PPP (Nishtar 2004).

The Sendai framework advocates governments undertaking the roles and responsibilities of leadership, coordination, and regulation of PPPs in addition to communicating with entities tasked with the design and implementation of regulations, plans and policies (UNISDR 2015a; Eyerkaufer et al. 2016). Hence, assistance must be offered to developing countries drawing up specific guidelines within their legislative and policy frameworks, in order to guide such relationship arrangements. According to Nishtar (2004), guidelines can improve systems of governance through developing selection criteria, specific roles for both sectors, and models that outline combined governance structures.

Leadership is an important factor that plays a significant role in shaping the nature of PPPs and relationships within and between the sectors. In analysing the response of the US government to recent natural and man-made disasters, Abou-bakr (2013) asserts that lack of an organised framework to facilitate collaboration between public and private sectors caused the information-sharing process in the immediate aftermath of Hurricane Katrina to be confused, poor, and inconsistent. This was due to lack of organisation and leadership on the public sector side which reflected poorly on the government.

In addition, the combination of limited budgets and potentially high financial risks facing public sector programme provision is another important constraint on financing PPP projects in developing countries (Winpenny and Camdessus 2003; Thomsen 2005; Sader 2000; Lang 2016). According to the World Bank Group (2014), governments can aid in financing PPPs in various ways, including providing upfront subsidies, offering a common loan, or giving a guarantee on a commercial loan. Furthermore, governments

can fund a PPP indirectly through government-sponsored development banks or other institutions.

## 2.4 INTER ORGANISATIONAL RELATIONSHIPS (IORS)

Auzzir et al. (2014) assert that a PPP arrangement can be categorised as a governance network encompassing all related stakeholders tasked with developing and implementing a project or a policy programme. Thus, the core concept of PPP should focus on the interrelation between the public and private entities concerned.

However, not much attention has been paid to understanding inter organisational relationships (IORs). There is insufficient knowledge about the evolvement of the relational process during the course of a PPP, and the factors shaping IORs.

Similarly, there is a problem with the various and inconsistent terminologies used for IORs by scholars. Hibbert et al. (2010) argue that it is challenging to transfer knowledge about IOR from theory to practice due to the discrepancies in using terminologies in the IOR literature and in practice.

For instance, Huxham (2003) and Brinkerhoff (2002b) take a 'structural form' perspective, viewing the basic phrase 'inter-organisational relationships' as an umbrella term that covers organisational structures or forms including partnerships, networks, and alliances. On the other hand, the 'developmental process' perspective considers that IORs comprise a progression of events and interaction between organisational entities that evolve over time to shape and modify an IOR (Irfan 2015, p.30; Thomson and Perry 2006; Ring and Van de Ven 1994).

Moreover, the IOR literature is characterised by the diversity of its research in covering various forms of inter-organisational arrangements, its adopted disciplinary and theoretical perspectives, and its investigated areas. Cropper et al. (2010, p.9) pinpoint two 'core building blocks' in IOR research: a group of elements describing the interacting organisations in the arrangement, and another group of elements describing the nature of their linking relationships. Additional building blocks include the context of the organisations within their IORs, the processes of establishing, maintaining, changing and suspending IORs, and the resulting outcomes of IORs (Cropper et al. 2010, p.10).

This indicates that for the purpose of assessing and understanding IORs within PPPs, it is necessary to study the nature of the interacting organisations, the context of the arrangement, the attributes and dimensions of the arrangement, and the stages of the PPP development (Irfan 2015).

Despite the emphasis of the IOR literature on the importance of studying the context of the inter-organisational arrangement, the research is mostly limited to conceiving contextual factors as antecedents or initial conditions to the establishment of inter-organisational arrangements. It does not examine how these factors evolve and interact with other factors during the process of PPP, and therefore how they contribute to shaping the nature of IORs.

### 2.4.1 BRIDGING THE IOR AND PPP LITERATURE

Despite the fact that relational aspects of PPPs are relatively under-investigated, some PPP scholars have identified research fields and traditions that can assist in developing a better understanding of the nature and dynamics of IORs in PPPs (Irfan 2015). For instance, Weihe (2010) affirms that alliance/IOR literature can fill knowledge gaps in the PPP literature due to the conceptual similarities and differences between them. The IOR literature contains studies covering relationships between organisations from diverse institutional backgrounds, within the same sector and cross-sector arrangements (Sullivan and Skelcher 2002; Gray 1989).

However, scholars note a lack of application of IOR literature within PPP research despite PPP being considered a form of inter-organisational arrangement (Weihe 2010). Moreover, Weihe (2010) states that there is a lack of communication between these two fields of research, despite their being concerned with examining cooperation between organisations.

Therefore, in order to understand IORs within PPPs, these various perspectives need to be considered and can be conceptualised along a continuum with PPPs being argued as an effective solution to difficult challenges at one extreme (Lowndes and Skelcher 1998), to being looked at suspiciously and associated with challenges at the other (Bowman 2000).

Moreover, the IOR literature contains studies of organisations from a diversity of institutional backgrounds, including relationships between organisations from the same sector as well as cross-sector arrangements. Cropper et al. (2010) argue that the IOR literature resembles the PPP literature in that it encompasses various discipline-based studies and is united by its aim to investigate and identify the relationship pattern among organisations aiming to pursue mutual interests while retaining their independent and autonomous entities and interests (Cropper et al. 2010, p.9). Nonetheless, Weihe (2010) points out the limited application of the IOR literature to PPPs research, despite the inherent resemblance of PPPs to inter-organisational arrangements, which is somewhat surprising to note.

Bridging PPP and IOR literatures can be of bidirectional benefit in enriching both fields. The PPP literature is more focused on the study of public-private alliances, while the IOR literature is more about private-private arrangements, yet both literatures concern working alliances beyond organisational boundaries (Irfan 2015). Therefore, it is suggested that the PPP and IOR literatures present valuable mutual learning opportunities and add value to each other.

## 2.5 OMAN AS A CASE STUDY

PPP in healthcare disaster management in Oman is a very important issue to consider. This section provides a general overview of the sultanate of Oman, its disaster management system, its healthcare system, the role of the private sector and the medical and public healthcare disaster management sector. It also highlights the potential role that the private sector could play in Oman's national emergency management system and in the country's healthcare field. To provide a comprehensive overview of Oman as the case study in this research, refer to Appendix A of the thesis.

### 2.5.1 HAZARDS

Oman is vulnerable to both human-made and natural hazards (Al-Shaqsi 2010; Al Hajri 2011). The country's geographic and geological profile makes it prone to cyclones and flash floods (Al-Shaqsi 2010), with its northern territory experiencing moderate to high seismic activity (Mokhtari et al. 2008; Abdulla and Azm 2004).

Moreover, as part of the currently turbulent Middle East region, Oman can be affected by political conflicts, alarming security issues and military escalations, unstable markets, popular uprisings and movements, terrorist threats, war and instability in neighbouring countries (Luethold 2004), making it potentially more susceptible to terrorism and other political hazards (Al-Shaqsi 2010; Aras and Yorulmazlar 2017).

### 2.5.2 DISASTER MANAGEMENT SYSTEM IN OMAN

Under the guidance of its late ruler, Sultan Qaboos Bin Said (1940-2020), Oman was amongst the pioneers within the Gulf countries in directing attention towards building a national disaster management system tasked with efficient management of hazards facing the country, and the potential resulting disasters. Table A-1 (Appendix A) presents a timeline for the cornerstones of building an emergency management system in the Sultanate of Oman.

The national emergency management system in Oman is based in the Cabinet office as the National Security Council, reporting directly to His Majesty the Sultan (the leader of the country). According to the type of emergency, there are two main bodies for crisis management: the NCCD is tasked with managing natural disasters, while the Committee for Joint Security Operations (CJSO), formed from the Royal Oman Police (ROP) and the military, manages security-related incidents, including terrorism. Both committees are directly under the command of the National Security Council (NSC), which is responsible for supervising both authorities in all related phases of disaster management (NCCD 2016). Figure 2-6 shows the national emergency management system (NEMS) in Oman.

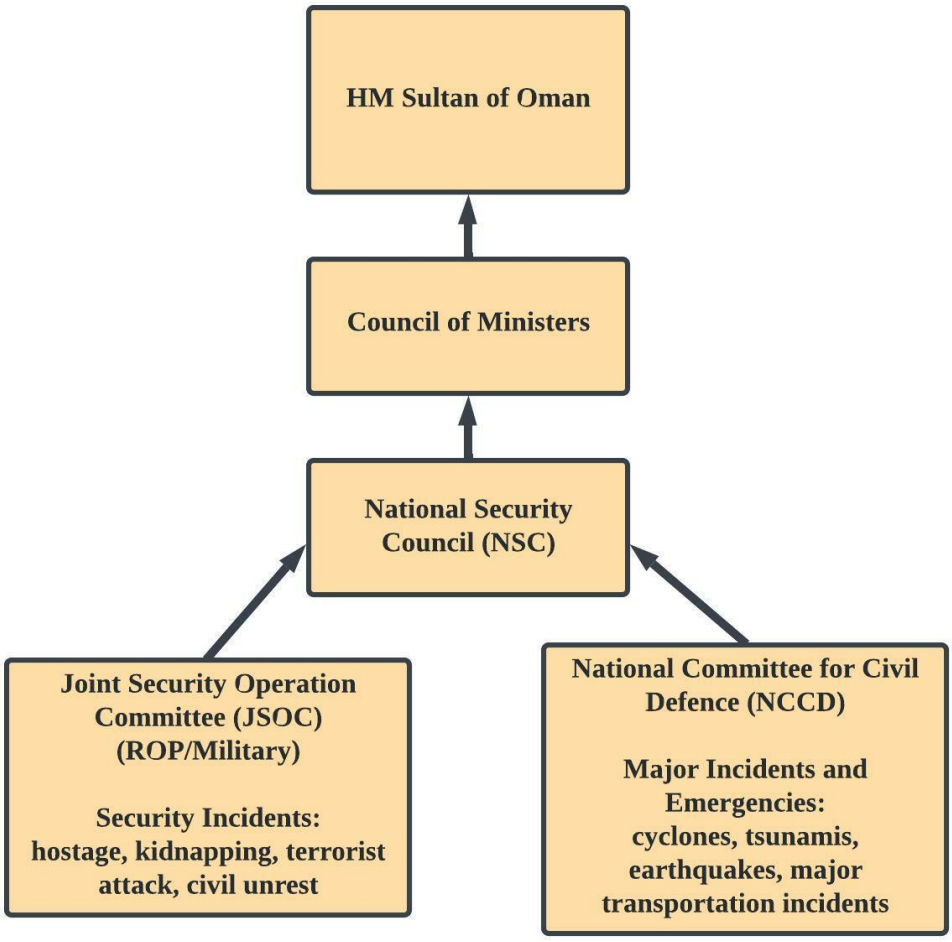


**Figure 2-6. National Emergency Management System (NEMS)**
Sources: NCCD (2016); NCCD (2017)

The national emergency response system in Oman is hierarchical (NCCD 2016; NCCD 2017). Regulatory decrees have divided the system into three levels, from lower to higher: local, regional and national, with the NCCD representing the national level operating directly under the National Security Council, while the eight sectors operate under the NCCD in a top-down standards system with a weak, bottom-up influence (Al Saadi 2020).

The current National Committee for Civil Defence (NCCD)/National Committee for Emergency Management (NCEM) is composed of 16 members from different government departments divided into eight sectors based on specialisation and duties (see Figures A-3 and A-4, Appendix A). This is chaired by the Inspector General of the Royal Oman Police, who directly commands the NCCD Executive Office; this includes the National Emergency Operation Centre (NEOC), to ensure a direct connection between

the NEOC and the sector's EOC. The medical and public health response sector is another of the eight sectors forming the NCCD.

### 2.5.3 MEDICAL AND PUBLIC HEALTH RESPONSE SECTOR (MPHRS)

The Medical and Public Health Response Sector was initiated in 2010 as one of the eight sectors forming the NCCD, with the goals of establishing inter-sector collaboration on emergency management and ensuring consistent support by the related national and international entities (NCCD 2015). MPHRS is chaired by the Ministry of Health (MOH) and represents an inter-agency group working as the main forum for medical and public health emergency management in Oman (Figure A-3, Appendix A). The mission of MPHRS is summarised as activation of a comprehensive, unified and efficient emergency management system between the partners in the sector with the objective of accomplishing immediate, effective and organised disaster response in order to decrease the impact of disasters on people and property.

The MOH (as the regulating public sector) supports the private healthcare sector in expanding its role in health services (MOH 2015; MOH 2016c; MOH 2017). This is evidenced by the increasing number of private healthcare institutions available (MOH 2016a; 2017). According to the Ministry of Health annual health report 2018, there is a total of 2028 private health establishments in Oman of different specialties and care levels (MOH 2018). The national statistics show that the private sector is constantly increasing in number, size, and scope.

Hence, the need to achieve an effective partnership with the private sector in the disaster management field has become increasingly apparent. Consequently, the MPHRS developed a five-year plan as part of the MOH's ninth five-year health development plan (2016-2020). One of the main goals of this plan is to establish a well-organised partnership with private health establishments in the disaster management field.

**Directorate General of Private Health Establishments**

The Directorate General of Private Health Establishments is the authority in the MOH tasked with supervising, monitoring, and coordinating all private sector medical establishments in Oman (hospitals, medical centres, and clinics) (MOH 2016b). It is a member of the MPHRS and performs a vital role in coordinating the organised

involvement of the private health sector within the disaster management system in Oman as part of the MPHRS (MOH 2016).

### 2.5.4 EMERGENCY MANAGEMENT LEGISLATION IN OMAN

Emergency management in Oman is considered a priority addressed by the basic statute of Oman, which enshrines as a duty that the state aid its citizens during events of emergency, with their potential effects on life and health (Royal 1996). The state will work for the cohesion of society in enduring the burdens ensuing from national disasters (Royal 1996). Emergency management in Oman is regulated by two main pieces of legislation, the Civil Defence Law, outlined by Royal Decree 76 in 1991, and the State of Emergency Law, instituted by Royal Decree 75 in 2008 (Al-Shaqsi 2011).

The government has placed huge emphasis on the performance of healthcare during disasters through several specifically directed legislative and other governmental bodies and initiatives. However, most of these policies focus only on the performance of the public healthcare sector.

### 2.5.5 PPPS IN OMAN

PPPs are encouraged because they can form "long-term contracts between a private party and a government entity for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance." (World Bank 2000).

One of the main social development and economic strategies of the Omani government for achieving its 2040 vision is the enhancement of PPPs in order to augment economic growth (Al-Bulooshi n.d.; Oman Observer 2018). In the Middle East, Oman pioneered implementation of PPP projects in electricity, independent water and power projects (IWPPs) and in independent power production projects (IPPs) (Oxford Business Group 2018).

To combat a situation of reduced hydrocarbons revenues, the government is seeking to extend the use of the PPP model to other sectors in order to decrease capital expenditure funds, and to achieve the investment and diversification goals of its ninth five-year plan (2016-2020) and its Vision 2040 development blueprint (Al-Bulooshi n.d.; Oxford

Business Group 2018). Both strategies reflect the Omani government's commitment to a stronger alliance with the private sector. Until recently, PPPs in Oman were partially regulated by relevant local laws. These include Oman's Privatisation Law, under Royal Decree 77/2004, Royal Decree 78/2004, and Royal Decree 36/2008 (Tenders Law) and 59/2009 (Energy Sector Law) (Anon 2019).

### 2.5.6 PPP IN THE HEALTHCARE SECTOR

The healthcare system in Oman follows a national public model (Al Mawali et al. 2017). The government is responsible for prevention and treatment of diseases and epidemics, and endeavours to provide access to healthcare services for all citizens as one of its primary principles, as stated in the basic system of Oman (Royal 1996).

The government provides a universal healthcare system, delivered free to citizens and non-nationals working in the public sector, with the MOH supervising overall service provision (Oxford Business Group 2019). In the private sector, sponsors are responsible for paying medical care costs for their non-national employees (employer mandate).

However, the Omani MOH declared in its 2017 annual report that total public healthcare expenditure dropped by 0.4% to $2bn in 2017, attributing the drop to the impact of the 2015-16 slump in international crude oil prices, which resulted in tighter state budgets (Oxford Business Group 2019). The report further stated that the total health expenditure (THE) for 2017 was 2.7% of GDP, and was principally funded by the public sector, with the government covering around 81.1% (Oxford Business Group 2019).

The challenge to the public sector is to deliver services to all citizens in a swift, efficient, cost-effective, simplified, and seamless manner during both normal times and disasters. Furthermore, due to the limitations of financial resources, the MOH has to find supportive service delivery mechanisms in order to fulfil its mandate of ensuring that services meet the expectations of the people.

The need for PPPs in healthcare in Oman has been recognised for many years and is documented as one of the priorities in the ninth five-year development plan (2016-2020) (MOH 2016b) and Vision 2050 (MOH 2017). According to the Ministry of Health annual health report 2018, there are 2,028 private health establishments in Oman covering

different specialties and care levels (MOH 2018). The national statistics show that the private sector is constantly increasing in its number, size, and scope.

### 2.5.7 HEALTHCARE DM AND PPP IN OMAN

A search for PPPs in healthcare disaster management in Oman shows a lack of published information on the subject. Al-Madhari and Elberier (1996) highlight the scarcity of data in Oman and other Arabian countries on disasters and mass casualty incidents. Furthermore, Al-Shaqsi (2010) describes the private healthcare sector in Oman as an overlooked source of capacity, and recommends including the sector in DM measures by utilising its space and critical equipment.

However, there was an early integration of the private sector into the communicable disease surveillance and control programme in Oman. This might have been instigated by the framework laid down in the Law of Prevention and Control of Communicable Diseases, promulgated by Royal Decree No. 73/92. The law provides a basis for regulating the surveillance and control of communicable diseases, and stipulates roles of related health entities in applying necessary preventive measures to protect the community from threats of communicable diseases (MOH 2017).

## 2.6 CONCLUSION

This chapter provides a systematic discussion on healthcare DM PPPs and their IORs. It starts by justifying the importance of considering PPPs in healthcare disaster management, and why this is gaining international attention. Due to the scarcity of PPP literature in the healthcare disaster management field, this chapter has reviewed the multi-disciplinary and broad PPP literature and concluded that despite the widespread consensus about the diversity and dynamism of PPPs, there is no agreement on what constitutes a PPP or how to distinguish between its varying forms. Based on the existing literature, the term PPP is often labelled as ‘ill-defined’ and ‘contested’ and is defined in different ways (Powell and Glendinning 2002; Weihe 2008; Wettenhall 2010). There is ongoing debate between scholars about what PPPs are, despite their consensus on the dynamic and diverse nature of PPPs.

Furthermore, little scholarly attention has been directed towards the relational aspects of PPPs. This thesis investigates the dynamic and diverse IORs underpinning PPPs, in order

to help improve understanding of PPPs, and to build an effective PPP framework for healthcare DM that suits the Omani context. Moreover, the chapter presents a brief review of the IOR literature and recognises the importance of depending on both the IOR and PPP literatures when examining the relational aspects of PPPs.

In its review of the IOR literature, this chapter suggests that IORs in PPPs should be studied at various stages of establishing and managing PPPs over time. In addition, to understand the factors shaping and influencing IORs in PPPs, there is a need to study the context in which the involved organisations interact, their organisational structure, and their motivation for entering partnership arrangements. As these aspects are considered building blocks in developing a conceptual framework for this research, there is a need to further examine other factors and challenges relevant to the studied context, and ways to conceptualise and characterise these in for building the framework, which is addressed in the next chapter.

# CHAPTER 3: CONCEPTUAL FRAMEWORK

## 3.1 INTRODUCTION

Public-private partnerships (PPPs) continue to attract substantial attention from governments all over the world. Despite the wide variation in the meanings and forms of PPPs, there is a noticeably common conceptualisation of PPP fundamentals among scholarly discussions by experts and policy makers. Therefore, while adjusting partnership concepts to fit their country-specific contexts, governments need to utilise terminologies and concepts already existing extensively in the international literature, with the aim of building clear PPP policies and frameworks, and of attracting more private investors (Mouraviev and Kakabadse 2016). This, in turn, allows for a wider basis of practice for comparison between nations – hence informing PPP policy – and exchange of experience between economies. This further emphasises how conceptual frameworks for PPPs might vary according to variations in country-specific contexts. This thesis adopts this perspective in embracing a diversity of means by which it is possible to conceptualise PPP forms and meanings from the existing literature, which addresses mostly the developed countries, with few examples from the developing world.

Studies by Abou-bakr (2013), Chen et al. (2013), and Auzzir et al. (2014) contribute PPP frameworks that justify roles, arrangements, and participation in the emergency management context. Abou-bakr (2013), outlines ‘strategic policy orientation’ and ‘responsive’ partnerships by defining the former as long-term arrangements seeking to mitigate disasters, while the latter is related to the response and recovery phases and is driven by a shared perception of urgency and mutual gain. Moreover, Chen et al. (2013) suggest a taxonomy of PPP arrangements that identifies in broad terms the partnership purpose and arrangements, and sector involvement in different phases of the DM cycle.

Drawing on the existing literature, Auzzir et al. (2014) propose a framework for PPP in disaster management for developing countries. In which they describe PPP as a platform for public and private sectors to contribute towards achieving the objectives of disaster management in developing countries. The framework (Figure 3-1) defines roles for actors

from both sectors in order to secure the successful implementation of any PPP arrangement.

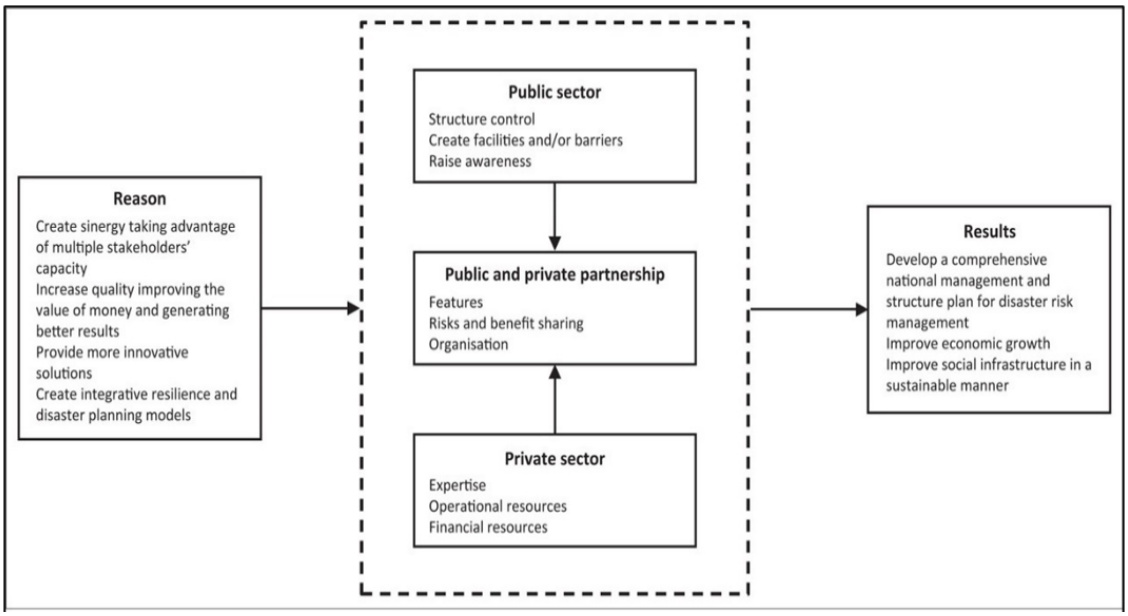


**Figure 3-1. Conceptual framework for PPP in disaster management in developing countries**
Source: Auzzir et al. (2014)

However, the framework does not address the issue of the relational aspects of PPPs, and fails to highlight the effect of IORs, the factors and challenges arising in framing the relationships between the sectors, and how these shape the dynamics of the process and affect the results. This can restrict our appreciation of the diverse and dynamic nature of PPPs and affect the results. Moreover, in order to consider the factors and overcome existing and potential challenges, it is important to grasp the relational, structural, and economic aspects of PPPs collectively as a basis for building comprehensive insight in order to understand and manage PPPs.

Cropper et al. (2010) propose that in order to examine and appreciate IORs in PPPs, it is necessary to study the nature of the 'relating organisations', the dimensions of their linking relationships, the context of their operations, and the developmental process of PPPs through which "IORs are established, maintained, changed and dissolved, and produce outcomes" (Cropper et al. 2010, p.9). Therefore, in recommending an effective and sustainable context-specific PPP framework for healthcare disaster management for a country, it is important to build a comprehensive view of the existing country-specific

mode of governance/governance structure, the corresponding type of PPP with its underlying inter-organisational relationships, the balance of IORs between interacting sectors, and the evolutionary process and procedural flow of PPPs. Hence, this chapter addresses suggested **indicators** for building an effective and sustainable framework for PPPs in healthcare disaster management through assembling them in the form of lenses.

**Introducing the conceptual framework**

The aim of the conceptual framework is to understand the development and likely trajectories of evolving public-private partnerships in developing countries like Oman, with particular reference to health and healthcare systems. The conceptual framework is presented in Figure 3-2. The framework explores the links between the lenses and how they can inform the decision-makers of applicable frameworks for a specific country context.

The four lenses are:

**Lens 1: Mode of governance/governance structure:**

Discusses the hierarchical and accountability flow, and how these affect the roles of both sectors within and across the organisations.

**Lens 2: Type of PPP and its underlying IOR:**

Examines types of PPP and their underlying IORs (collaborative versus contractual), their indicators and characteristics, and their anticipated effects on the balance of IORs within and across public and private sectors.

**Lens 3: Balance of IOR:**

Is the direct effect of Lens 2 in which the types of PPP and their IORs (collaborative versus contractual) can result in symmetrical or asymmetrical relationships (respectively) and gauge the tilt of IORs within and across public and private sector organisations. This can provide a basis for predicting the context-specific PPP framework.

**Lens 4: Procedural process of PPPs:**

Discusses the procedural flow of PPPs (linear continuum of stages versus repetitive cyclical process forms) and how it can affect the duration of the PPP or its sustainability.

The four lenses are linked, and their interaction will be explained in the following sections.

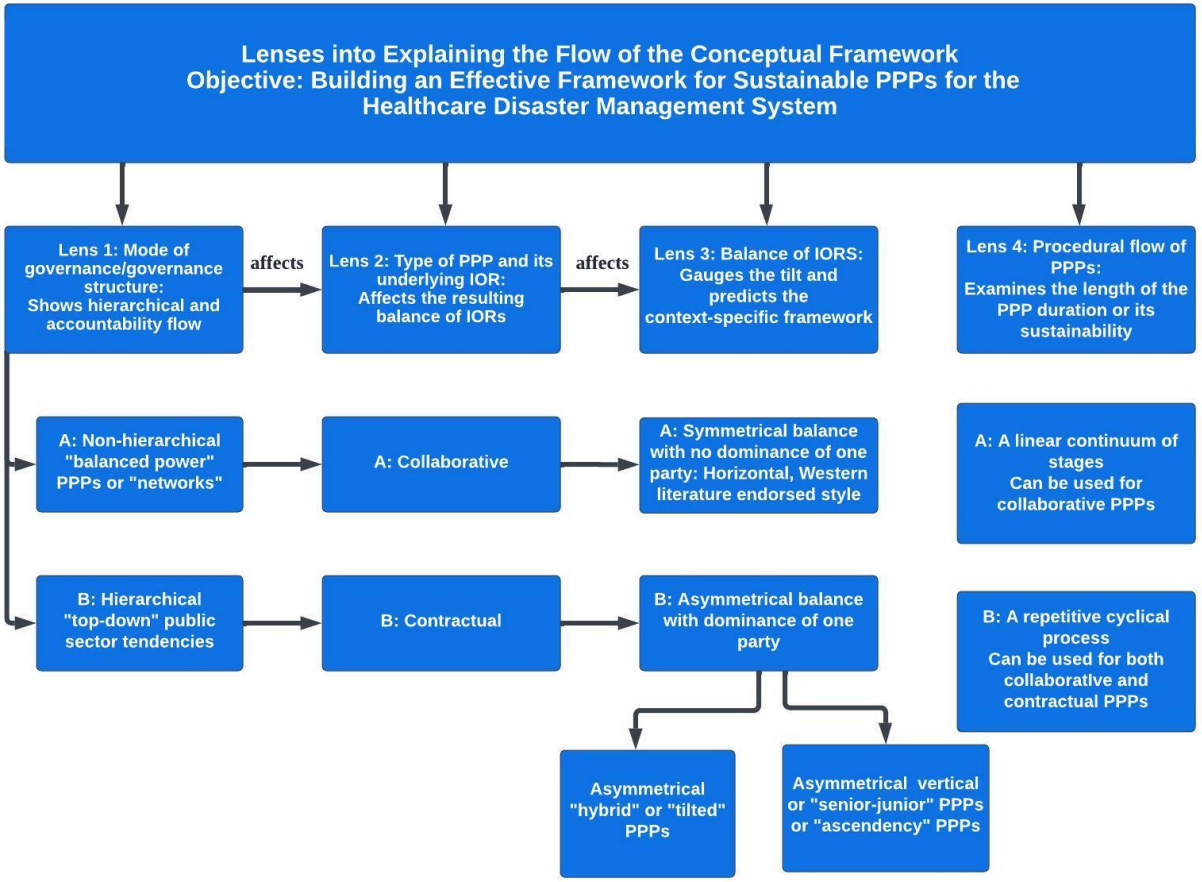


**Figure 3-2. Conceptual framework**
Source: Author

## 3.2 LENS 1: MODE OF GOVERNANCE/GOVERNANCE STRUCTURE

Governance is commonly portrayed as a process of coordination between interdependent actors or within networks, based on institutionalised rule systems (Jordan and Schout 2006; Kooiman 2003). Rhodes (1997) uses the term governance in describing the process of policy-making in which the public sector shares power with the private sector, hence utilising the governance concept in the context of public-private relationships.

The literature defines different dimensions of modes of governance. Kenis and Schneider (1996) define a spectrum of governance modes, including associations, networks, community, and hybrid forms, delineated by two opposing poles, 'hierarchy' and 'market'. At their extremes, these types can be differentiated by policy-making being controlled solely by either the public sector or the private sector.

At one end, a hierarchical governance mode emphasises prominence of public sector power and authorises its position in the decision-making process, while at the 'market' end, only private entities are involved in self-regulation, without state intervention. Hence, relationships between public and private sectors in the decision-making process and accountability flow can be considered as imperative criteria in distinguishing between different modes of governance.

In the context of this research, governance modes can be divided into the following dimensions and schemes:

- Non-hierarchical: 'balanced power' relationship with delegation of public services through 'negotiable' contracts or 'networks' with collaborators. It has two characteristics:

    1- Participative decision-making with joint agreement on decisions.

    2- Reciprocal accountability with some interdependent coordination.

This mode is mostly related in the literature to the Western style of governance. Eising and Kohler-Koch (1999, pp.5-6) argue that the predominant type of governance in the EU is 'network governance', in contrast to 'pluralism' 'corporatism' and 'statism' forms.

- Hierarchical/top-down structure; with two prominent characteristics:

  1- Lack of participative decision-making: usually the governmental sector dominates decision-making in public-private arrangements.

  2- Hierarchical accountability: The private entity is held accountable for the terms agreed in the partnership contract and policy outputs. The public sector monitors the private party to ensure that conditions of the contract observed.

The aim of Lens 1 (Figure 3-3) is to examine and understand the importance of mode of governance as a step in building an effective PPP framework for healthcare disaster management – one that can fit into the different contexts with a clear flow of variables/indicators. The mode of governance variable provides an insight into the other three lenses forming the framework. In particular this lens also uses two analytical prisms in terms of determining the effect of the hierarchical and non-hierarchical characteristics of governance structures on the respective PPP and their IORs as will be explained in the upcoming subsections.

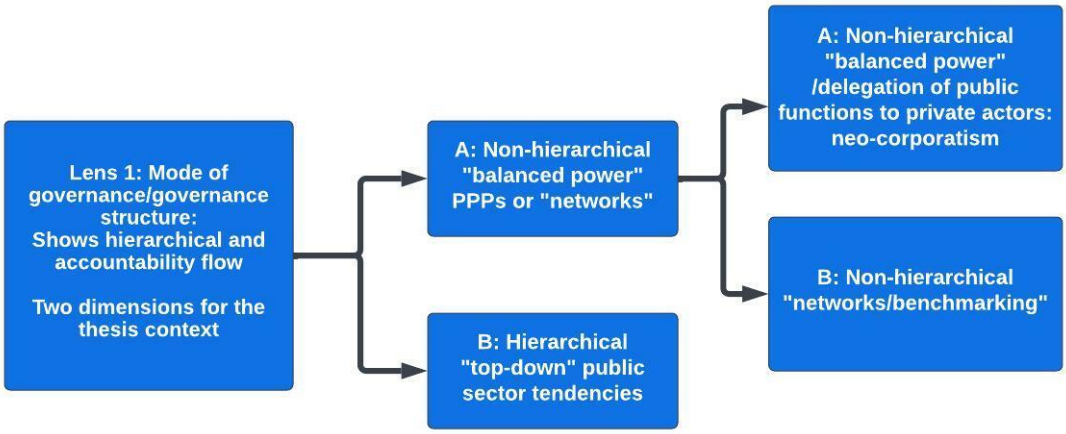


**Figure 3-3. Lens 1: Mode of governance**
Source: Author

## 3.3 LENS 2: TYPE OF PPP AND ITS UNDERLYING IOR

This lens is focused mainly on the types of PPP and the underlying IORs. Despite proposing different types of IOR, a great deal of the PPP literature focuses on two main types: collaborative and contractual PPPs. The mode of governance (discussed under the previous lens) can affect the choice of the type of PPP for a specific context, and this can subsequently affect the balance of the IOR.

### 3.3.1 TYPES OF IORS AND PPPS

Despite the existence of different types of IOR (see Table 3-3 below) a great deal of the PPP literature is focused on the relationships between partners (inter-organisational relationships) in two main types of PPP: contractual PPPs and collaborative PPPs. Scholars classify the collaborative PPPs as a symmetrical relationship with balanced power between the parties, while consider contractual PPPs to be asymmetrical relationships with dominance by one party (Irfan 2015). This thesis analyses these two types of IOR in the Omani context as a basis for building a framework that suits the research context.

#### *3.3.1.1 COLLABORATIVE IORS*

Collaborative IORs are constructed and defined using five indicators: trust, shared power arrangements, joint determination of partnership activities, participative decision-making, and reciprocal accountability (Brinkerhoff 2002b; Klijn and Teisman 2005; Thomson et al. 2009). Table 3-1 describes the collaborative IOR indicators.

**Table 3-1. Indicators of collaborative IORs**

| Indicator | Definition |
|---|---|
| Trust | The belief of a partner in the competency, integrity, commitment, and honesty of other partners in:<br>• delivering the agreed obligations;<br>• refraining from taking advantage of the partnership even when possible;<br>• fulfilling agreed responsibilities; and<br>• participating decently to achieve successful negotiations<br>(Cummings and Bromiley 1996). |

| | |
|---|---|
| Shared power arrangement | Reflected through the extent of:<br>• sharing of information and resources between the PPP partner organisations;<br>• collective work to accomplish partnership goals and solutions for the problems; and<br>• their acknowledgment to each other's role and contribution. |
| Joint determination of partnership activities | Defined by:<br>• clarity of roles and responsibilities;<br>• fairness in role distribution and comparative advantages, with proper coordination of programme activities; and<br>• fair involvement in planning and follow-up meetings for all participating partners. |
| Participative decision-making | Demonstrated through the degree to which partner organisations:<br>• accept listening to each other's opinions and taking them seriously;<br>• work together to find solutions for challenges faced; and<br>• agree jointly on decisions. |
| Reciprocal accountability | Demonstrates the existence of some interdependent coordination through:<br>• access to performance information on the PPP; and<br>• regular follow-up reporting between partners. |

These indicators are shaped and driven by the concept of enriching partnerships with equality in order to achieve the goal of promoting collaborative IORs, hence balancing them in a symmetrical partnership with no dominance of a single party over the others (Irfan 2015).

#### *3.3.1.2 CONTRACTUAL IORS*

NGO-PPP-related research conceptualises contractual IORs as the opposite of collaborative IORs, representing asymmetrical power arrangements, a lack of participative decision-making, *a priori* design of partnership activities by one organisation, lack of trust or hierarchical accountability (Irfan 2015).

**Table 3-2. Indicators of contractual IORs**

| Indicator | Definition |
|---|---|
| Asymmetrical power arrangements | • Denote the dominance of one party over the other(s) (Van Slyke 2007).<br>• Result in subordinate organisations holding less power, compromising their organisational identity, mission and autonomy in favour of the dominating partner, in order to achieve collective partnership goals. |
| Lack of participative decision-making | • Manifested through limited non-existent opportunity to share opinions about or participate in the decision-making process of the PPP (Irfan 2015). |
| *A priori* design of partnership activities | • The specifics and activities of the programme, the characteristics and contributions of the partner organisations, are constructed by one organisation (Klijn and Teisman 2005).<br>• The programme activities are coordinated specifically according to standard operating procedures. |
| Lack of trust | • Demonstrated by perceived risk of being deceived through other partners pursuing their own benefits while neglecting partnership goals (Van Slyke 2007). |
| Hierarchical accountability | • Manifested by the dominant partner enforcing audits, monitoring and performance reporting (KPIs) requirements on the other party, considering it accountable for its actions in the partnership, and using incentives and sanctions to ensure accomplishing partnership goal (Van Slyke 2007, p.166). |

IOR scholars suggest other types of government-NGO relations, such as cooperative and conflictual relations. However, this thesis does not go into deep detail about these other relationships because they are not of relevance in its context. Table 3-3 provides a summary of the main features of the four suggested IORs.

**Table 3-3. Conceptualisations of IORs**
Source: Irfan (2015, p.63)

| **IORs** | **Indicators** |
|---|---|
| Collaborative | • Participative decision-making.<br>• Shared power arrangements.<br>• Reciprocal accountability.<br>• Joint determination of partnership activities.<br>• Trust. |

| | |
|---|---|
| Contractual | • Lack of participative decision-making.<br>• Asymmetrical power arrangements.<br>• Hierarchical accountability.<br>• *A priori* design of partnership activities by one party/organisation.<br>• Lack of trust. |
| Cooperative | • Eager to develop trust.<br>• Willingness to adapt.<br>• Lack of concern about organisation autonomy, even in asymmetrical power relations. |
| Conflictual | • Lack of satisfaction with the decision-making and coordination processes.<br>• Concern over the loss of organisation autonomy.<br>• Resistance to relinquishing autonomy and control. |

Understanding the underlying nature of IORs in PPPs requires exploring various perspectives that fit IORs in different contexts. These perspectives are categorised into two main schools of thought; one regards PPPs as a tool of public governance, while the other considers them to be a 'language game' (Hodge and Greve 2005; Teisman and Klijn 2002). Those who consider PPPs as a tool of governance perceive collaboration to be at the core of PPPs (e.g. Klijn and Teisman 2005; Peters 1998; Schaeffer and Loveridge 2002). Conversely, those perceiving PPP as a 'language game' think of PPPs as a catchphrase for customary practices such as privatisation and contracting-out through a process of competitive tendering (Savas 2000; Linder 1999).

Advocates of collaborative PPPs oppose the widespread use of the phrase PPP for some public-private cooperative arrangements, and argue for a more accurate vocabulary to differentiate PPPs from other inter-organisational arrangements. Similarly, Wettenhall (2010) denotes contractual PPPs as 'so-called PPPs', basing his opinion on the definition by Powell and Glendinning (2002) of 'real partnerships' as those encompassing trust, interdependency, reciprocity or equality.

However, several authors use the term PPP in a broader way to allude to any type of inter-organisational arrangement between government and the private sector (Skelcher 2005; Pollitt 2003; Bovaird 2004). From this point of view, PPP is considered a 'catch-all' term covering a wide variety of organisational arrangements and forms. For example, Bloomfield (2006) points out a broad range of intersectoral initiatives incorporated under

the PPP label. Some depend on philanthropy from the private sector to accomplish a public objective; others support missions of the private sector and non-profit organisations through utilising public funding, while others are business transactions in the form of contracting arrangements (Bloomfield 2006, p.400).

#### *3.3.1.3 DISCUSSING LENS 2 IN RELATION TO LENS 1*

The mode of governance/governance structure is linked to and can affect the type of PPP and its underlying IOR. PPP scholars argue that the non-hierarchical mode of governance is characterised by participative decision-making and reciprocal accountability – both of which are features of collaborative IORs. Partners are accountable to each other for their actions and the resulting impacts on PPPs (Klijn and Teisman 2000; Brinkerhoff 2002b). Moreover, they are flexible in accepting a 'balanced power' relationship, with public services delegated through negotiable contracts or 'networks' with collaborators.

On the other hand, the hierarchical (top-down) mode of governance is associated with a lack of participative decision-making or hierarchical accountability, which are considered as main features of contractual PPPs. The subordinate entity is held accountable for meeting the agreed conditions in the contract and is usually monitored by the dominant partner to ensure terms of the contract are met (Teisman and Klijn 2002; Klijn and Teisman 2005).

Therefore, a governance mode/structure can shape the internal dynamics of organisations and subsequently affect their inter- (across) and intra- (within) organisational relationships. Furthermore, the prominent mode of governance favoured by governments can affect their choice of PPP, and of the underlying IORs.

The **aim** of Lens 2 is to explore the significance of the type of PPP and its underlying IOR (collaborative versus contractual) in predicting the flow of the PPP framework as per the mode of governance in the specific context. The mode of governance (Lens 1) can shape the type of PPP and its underlying IOR (in different contexts). The non-hierarchical mode of governance with 'balanced power' PPP or 'networks' can shift the framework into the collaborative type of PPP/IOR, while the hierarchical mode of governance with 'top-down power tendencies' PPP can shift it more towards the contractual type of PPP/IOR. The type of PPP/IOR can eventually affect the choice of the procedural flow of the PPP process.

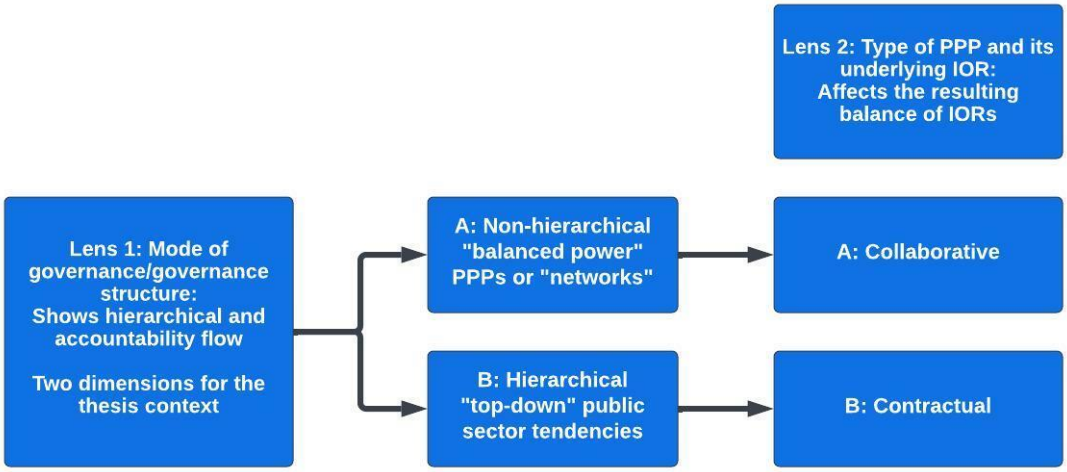


**Figure 3-4. The link between Lens 1 and Lens 2**
Source: Author

## 3.4 LENS 3: BALANCE OF IORS

As discussed earlier, this lens is linked to and is affected by Lenses 1 and 2. The mode of governance affects the type of IORs in the PPP, which subsequently affect the symmetry or the balance of the relationship and the suggested typology. This again leads to the concept of 'inter (relationships between or across sectors)' and 'intra (relationships within sectors)' discussed in the literature review (Chapter Two).

Furthermore, when predicting the resulting balance of IORs by the different theoretical paradigms, the key distinction discussed was between a symmetrical and an asymmetrical balance (Irfan 2015). Symmetrical balance of relationships indicates that the resulting IOR is characterised by equality of all parties involved, while an asymmetrical inter-organisational arrangement signifies a lack of balance in the relationship, with one of the organisations becoming either the dominant partner or accepting the subordinate position.

Therefore, Lens 2 can explain the balance of IORs in two forms:

A: Symmetrical balance with no dominance of one party: horizontal, Western literature-endorsed style.

B: Asymmetrical balance with dominance of one party, which can lead to either:

1- Non-Western 'hybrid' or 'tilted' PPPs, or

2- Non-Western ‘vertical’ or ‘senior-junior PPRs’ (public-private relationships or arrangements) or ‘ascendency PPRs’.

The aim of Lens 3 is to investigate and elucidate the importance of the balance of IORs between the PPP partners as an essential variable in the PPP framework. This is notable since the balance of IOR provides notable insight into predicting the tilt of the context-specific framework. This lens uses two analytical dimensions in terms of determining the symmetrical and asymmetrical balance of the IOR of the respective PPP and predicting the tilt of the framework.

### 3.4.1 LINKING LENS 2 AND LENS 3

The literature associates collaborative PPPs with symmetrical power relationships, while linking contractual PPPs to the asymmetrical relationships, with dominance by one of the parties.

Thus, through building on the work presented in the existing literature (Auzzir et al. 2014) and utilising Lenses 2 and 3 in conceptualising the PPP types (collaborative versus contractual) versus the balance of the underlying IORs (symmetrical versus asymmetrical), this thesis can contribute by adding conceptual framework typologies for PPPs in healthcare disaster management for different contexts. The proposed typologies can help in predicting the tilt of IORs within and across public and private sector organisations. This can provide a basis for predicting the context-specific PPP framework.

#### *3.4.1.1 TYPE 1: SYMMETRICAL BALANCE, NON-HIERARCHICAL, COLLABORATIVE, HORIZONTAL, WESTERN LITERATURE-ENDORSED STYLE PPPS*

This is a non-hierarchical partnership with features of the collaborative PPPs/IORs such as the symmetrical (balanced power) relationship with trust, participative decision-making and reciprocal accountability. There is a symmetrical balance with no dominance of one party over the other.

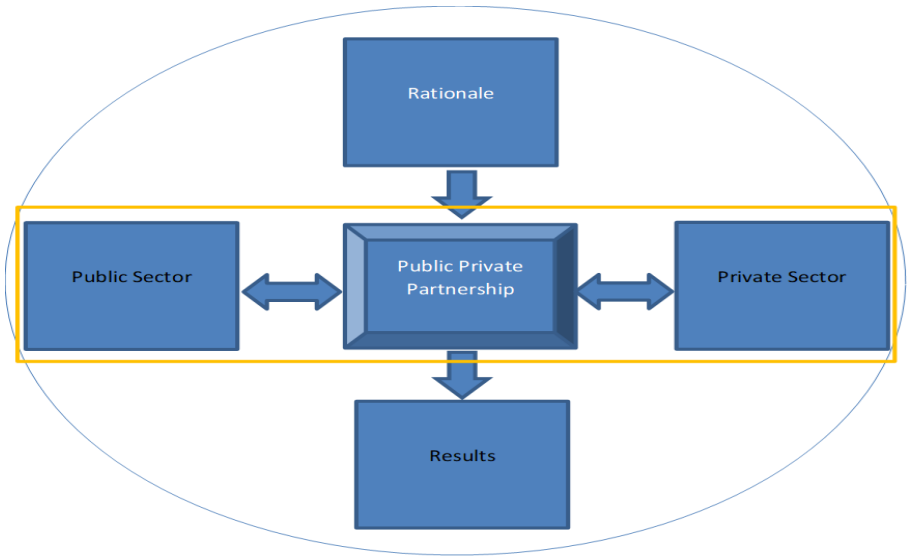


**Figure 3-5. Type 1: Symmetrical balance, non-hierarchical, collaborative horizontal, Western literature-endorsed style PPPs**
Source: Author

This partnership approach is endorsed in the Western literature and adopted in developed countries. Based on the NEWGOV 'description of work' (NEWGOV 2004, p.10), this type allows bargaining interactions between the partners, with delegation of public functions to private actors (a neo-corporatism concept), and 'networks with benchmarking' within PPPs.

#### *3.4.1.2 TYPE 2: ASYMMETRICAL, CONTRACTUAL PPPS*

These are asymmetrical power PPPs with dominance of one partner over the other. They maintain the features of contractual PPPs, including lack of trust, lack of participative decision-making, a priori design of partnership activities, and hierarchical accountability. Within this category, two typologies can be defined:

a.) Hierarchical, asymmetrical 'hybrid' or 'tilted' PPPs

This is a tilted PPP/PPR in which there is an effort to make a balance between the 'top-down' public sector tendencies and the 'bottom-up' private sector rationales or motives. It could be a partnership, but due to the asymmetry it might be confusing to consider it a partnership, hence considering it a PPR or a PPA (public-private relationship or arrangement) as possibly a suitable alternative. This approach needs to be regulated to ensure the 'mutual good'. Even with bargaining interactions allowed between partners,

the typology is still considered contractual because there is no 'balanced power' between partners.

b.) Hierarchical, vertical public-private relationship or 'senior-junior PPRs'/ 'ascendency PPRs'/ 'principal contractor' relationship

This typology could be applied to countries with strict 'command and control' systems. As discussed above, the relationship arrangement is delineated by contracts in which the public sector dominates the private entity in decision- and policy-making processes.

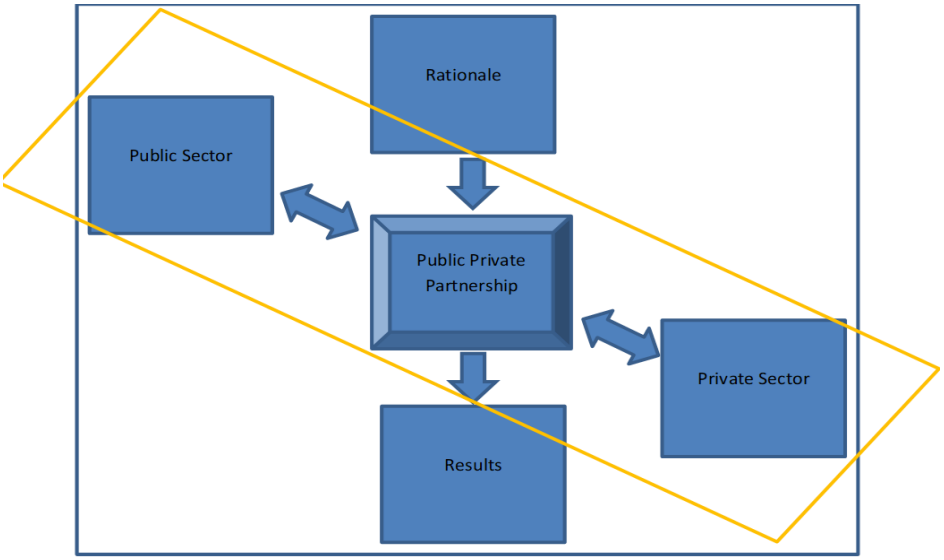


**Figure 3-6. Type 2.a: Asymmetrical contractual PPPs; hierarchical asymmetrical 'hybrid' or 'tilted' PPPs**
Source: Author

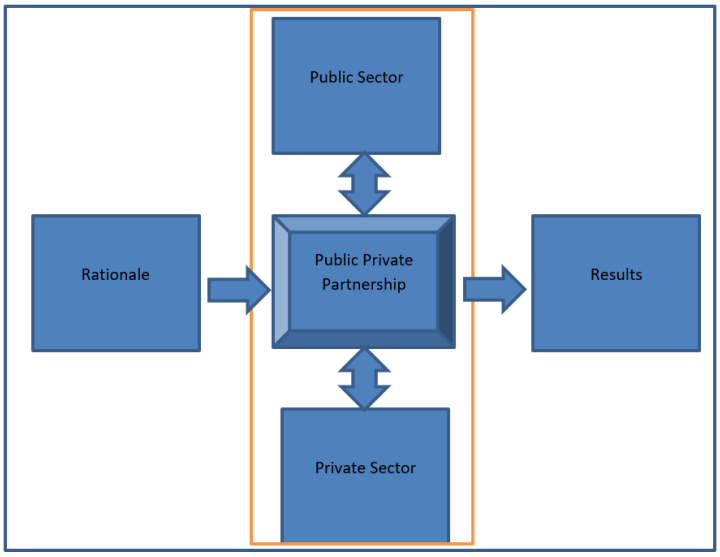


**Figure 3-7. Type 2.b: Asymmetrical contractual PPPs; hierarchical, vertical or 'senior-junior PPRs' or 'ascendency PPRs'**
Source: Author

## 3.5 LENS 4: EVOLUTIONARY/PROCEDURAL FLOW OF PPPS

Partnership as a process is described by Van de Ven (1992, p.169) as a "sequence of events that describes how things change over time". Furthermore, Butterfoss et al. (1993) and Downey et al. (2008) worked on documenting the process of partnerships/coalition development through which partnerships progressed, from formation to the outcome phase of development.

Therefore, it is important to describe the evolutionary process of PPPs in order to understand their formation, procedural flow, and underlying IORs so as to enhance PPP sustainability. This can be achieved by examining the phases they pass through during the process. Scholars employ two common approaches to describe the process are the linear and the cyclical process framework:

a) A linear continuum of stages: can be used for collaborative PPPs
b) A repetitive cyclical process: can be used for both collaborative and contractual PPPs.

These are discussed in the next sections.

### 3.5.1 LINEAR PROCESS FRAMEWORK

One common approach scholars take to describe the process is a linear continuum of stages. PPP and IOR scholars have labelled such stages in different ways and proposed linear staged frameworks. A multi-staged process framework, conceptualised by Murray (1998), comprises a succession of phases for the formation of PPP: pre-contact, preliminary contact, negotiating, implementation and evaluation. Likewise, this four-phase partnership life cycle was hypothesised by Lowndes and Skelcher (1998): pre-partnership collaboration, partnership creation, partnership programme delivery and partnership termination or succession.

Irfan (2015) argues that the proposed stages of these frameworks provide the opportunity for examining, evaluating, and grasping partnership life cycles from different perspectives, such as the prominent modes of governance at different stages, the expected challenges at each stage, and the most effective interventions to overcome these challenges.

However, scholars such as Carnall (2007), Burnes (2009) and Hay et al. (2001) emphasise that linear models might fail due their simplicity, especially when change as a linear process is directed by a management that underestimates the effect of progressively turbulent environments. This could mean that the linear model requires specific leadership and governance skills to be effectively implemented for PPPs in disaster management. Furthermore, this statement supports the argument that leadership is a major factor in shaping IORs in disaster management PPP arrangements. Moreover, McMorris et al. (2005) criticise these frameworks by stating that despite their contribution in offering a description of the partnership development process, the linear stage frameworks lack the ability to provide a clear explanation of the progression of the stages, or methods to analyse the dynamic nature of IORs in the proposed stages.

### 3.5.2 CYCLICAL PROCESS FRAMEWORKS

Ring and Van de Ven (1994) propose a framework that conceptualises cyclical processes instead of the linear arrangements. They consider partnership as something "iterative and cyclical rather than linear" which exhibits a "nonlinear and emergent nature" (Thomson and Perry 2006, p.22; Batonda and Perry 2003).

This framework is remarkably useful and influential. It conceptualises a process consisting of a recurring sequence of three stages – designed to explain the developmental process of PPP arrangements – which are: negotiation, commitment and execution. Such arrangements are reached formally through contracts and/or informally, depending on the calculated degree of risk and on how far partners are willing to take risks and rely on trust, and so are applicable to both collaborative and contractual IORs. However, to sustain these PPP arrangements, it is important to find the right balance between formal and informal mechanisms (Ring and Van de Ven 1994).

The cyclical nature of the framework provides an opportunity to evaluate the partnership and review the terms, and this can result in several new cycles of negotiation, commitment and execution (Ring and Van de Ven 1994). Finally, the parties may decide to terminate the partnership if commitments are not executed in an efficient and equitable manner. This makes the cyclical process suitable for utilisation in both the collaborative and contractual PPP arrangements and it is preferred for enhancing sustainability of a PPP project.

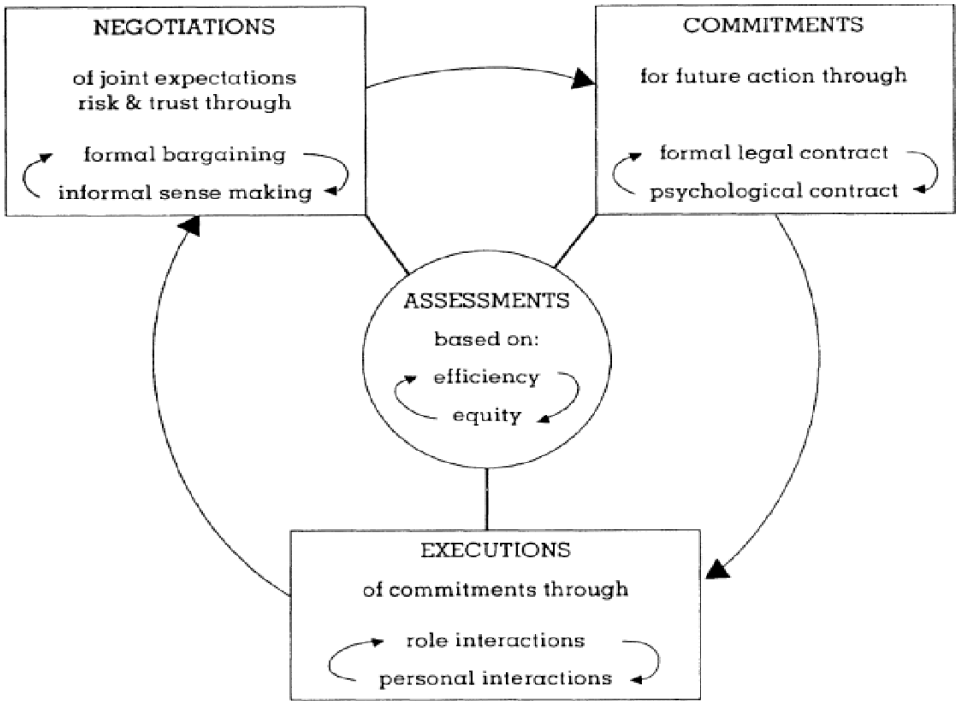


**Figure 3-8. Process framework for the development of inter-organisational arrangements**
Source: Ring and Van de Ven (1994, p.97)

The **aim** of Lens 4 is to examine the significance of the procedural process as an indicator for the PPP framework. The procedural process provides a remarkable insight into affecting the sustainability of the respective PPP. This lens uses two types of process, a linear continuum of stages which can be used for collaborative PPPs**,** and a repetitive cyclical process which can be used for both collaborative and contractual PPPs.

### 3.5.3 LINKING LENS 2 AND LENS 4

The type of PPP can affect the decision on selecting procedural flow of the PPP:

**A: A linear continuum of stages: can be used for collaborative PPPs**

**B: A repetitive cyclical process: can be used for both collaborative and contractual PPPs**

However, the PPP literature prefers the repetitive cyclical process for partnership arrangements with plans of longer duration because it is a better choice to enhance sustainability of the project.

## 3.6 CONCLUSION

In reviewing the PPP and IOR literature, scholars argue that there is a noticeable lack of research into PPPs with specific attention to relationships between the public and for-profit private sector, especially in the context of developing countries. Moreover, despite the existence of limited PPP frameworks proposed for the developing countries, they lack dynamism in explaining the IORs within such contexts, and this requires further research.

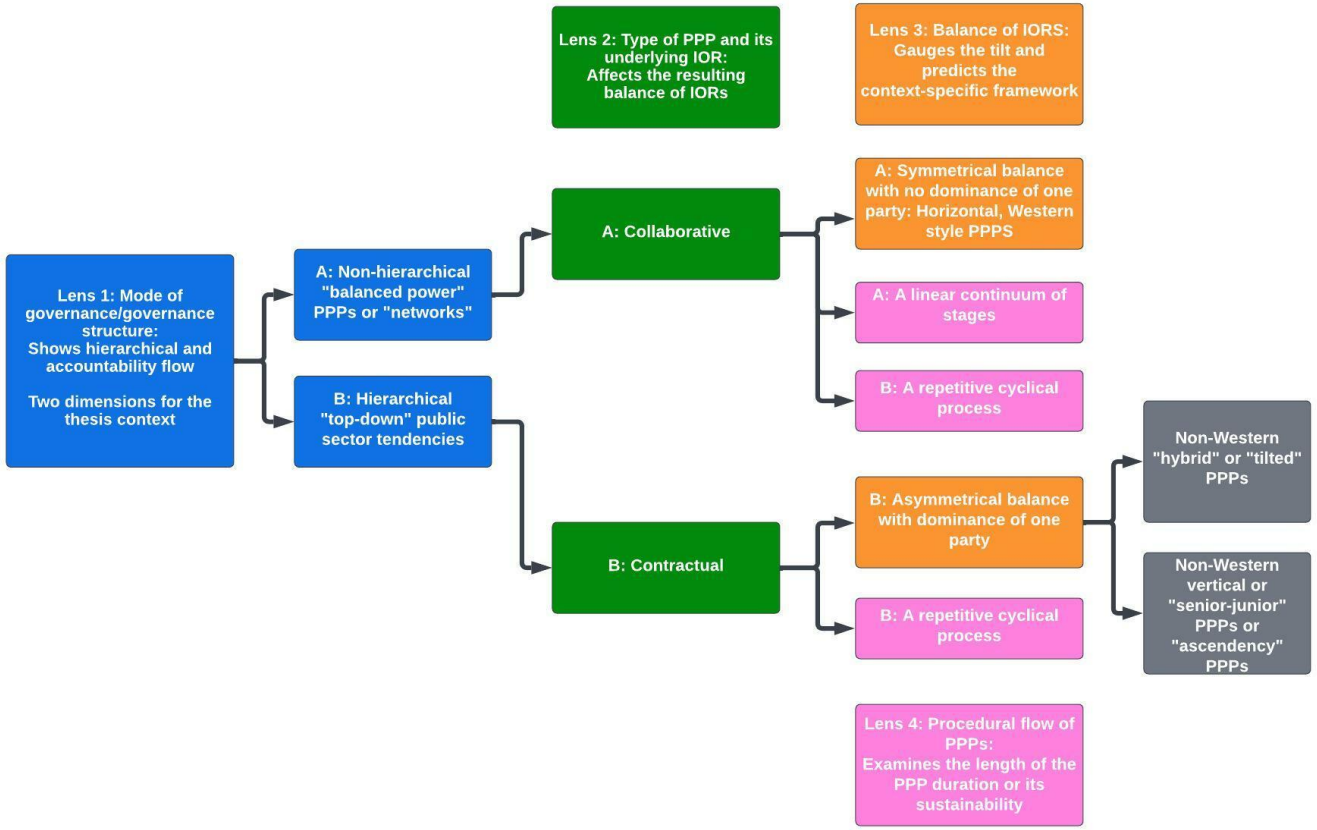


**Figure 3-9. A summary of the links between Lenses 1-4**
Source: Author

# CHAPTER 4: RESEARCH METHODOLOGY

## 4.1 INTRODUCTION

This chapter presents adopting a qualitative methodology design to facilitate an open and responsive approach to understanding the PPP phenomenon in the healthcare DM field, and the IORs within these PPPs. Furthermore, the chapter describes issues such as the research philosophy, design, strategies, and specific research methods. It presents the procedure used in designing the SSI interview guide, as well as collecting data using semi-structured interviews. The chapter also specifies the strategies used for sample selection and data analysis (thematic and content analysis). Additionally, it highlights the ethical considerations, validity and reliability, while stating the limitations of the study.

## 4.2 THE RESEARCH PHILOSOPHY

When a researcher decides to carry out a certain study, identifying the philosophical assumptions is a fundamental step in the research design process (Myers 2009). These assumptions are imperative in outlining and understanding the way a researcher can frame the research process; its structure, strategy, design, and methods (Klenke 2008; Saunders et al. 2009; Yin 2003b; Creswell 2003; Pryke et al. 2003; Holden and Lynch 2004; Bracken 2010; Grix 2002; Bahari 2010). Hence, the philosophical assumptions and orientation, as per Myers (2009, p.23), can provide "the foundations for everything that follows".

According to Saunders et al. (2009; 2016) and Yin (2003b), these assumptions can be named epistemological assumptions when relating to human knowledge or called ontological assumptions when relating to realities encountered by the researcher during the research process or called axiological assumptions when relating to the values affecting the research process.

For this research, in order to establish a research methodology that directs the process of collecting, analysing, and interpreting data, it is necessary to determine the philosophical proposition on which the research stands in order to accomplish the objective of the research, which is to recommend a framework for PPP in healthcare DM in Oman.

### 4.2.1 EPISTEMOLOGICAL ASSUMPTIONS

Epistemology relates to ways of perceiving and interpreting reality in addition to investigating and validating what what can be considered as potential knowledge in a research field (Bryman and Bell 2007; Grix 2002; Maynard 1994; Matthew and Ross 2010). In this regard, Bryman and Bell (2007) and Saunders et al. (2009) classify epistemological assumptions into three different research approaches: positivism, interpretivism, and realism.

**Table 4-1. Research approaches**

| **Epistemological assumption** | **Emphasis/assumptions** |
|---|---|
| Positivism approach (post-positivism) | • Facilitates quantifiable and generalisable observations which can be evaluated using statistical methods (Remenyi et al. 1998, p.32; Saunders et al. 2009).<br>• Positivist research is more likely to employ a quantitative over a qualitative approach because data is measured numerically and analysed objectively with statistics rather than subjective beliefs and interests (Remenyi et al. 1998; Saunders et al. 2009).<br>• Takes large sample sizes (O'Gorman et al. 2014, p.61). |
| Interpretivism | • Adopted by researchers to understand variations between humans in undertaking their roles as social actors (Saunders et al. 2009).<br>• Referred to as 'social constructionism' by Robson (2011), denoting that reality is socially structured.<br>• Social actions and reality can be understood and interpreted subjectively and differently by different people as per their values and views (Bryman and Bell 2007; Saunders et al. 2009; Bryman 2012; Robson 2011; Burrell and Morgan 1979).<br>• Small sample sizes investigated in depth over time (O'Gorman et al. 2014, p.61).<br>• Utilises multiple methods to establish various views of phenomena (O'Gorman et al. 2014, p.61). |

| | |
|---|---|
| Realism | • Shares two similar features with positivism:<br>o adopts a scientific approach to developing knowledge;<br>o the independence of reality from the researcher's thoughts (Saunders et al. 2009; Bryman and Bell 2007). |

According to Burrel and Morgan (1979), knowledge in the interpretivist paradigm is formed by means of the interaction between the investigator and the social world. This study adopts an interpretivism approach in order to fulfil the research objectives and generate knowledge based on the participants' perspectives on PPP in healthcare DM in Oman through utilising qualitative tools such as semi-structured interviews. The SSIs provided an opportunity to pose open-ended questions that allow more freedom for participants to provide detailed views and analysis of the PPP situation in Oman, and of the factors and challenges that can shape PPPs.

The specific findings about the current situation and the factors and challenges cannot be generalised, but the researcher intends to add new viewpoints and information into the field of study of PPP in healthcare DM as a phenomenon. Moreover, interpretivism was necessary in this study and helped in gathering information from interviewees concerning their perceptions and recommendations for building an effective PPP framework for healthcare DM in Oman.

### 4.2.2 ONTOLOGICAL ASSUMPTIONS

Ontological assumptions are concerned with how we view the social world and the social phenomena or entities that constitutes social reality (Blaikie 2000; Matthews and Ross 2010, p.24). Saunders et al. (2009, p.110) identify two kinds of approaches related to ontological assumptions: objectivism and subjectivism, summarised in Table 4-2 below.

**Table 4-2. Ontological assumptions**

| Ontological assumptions | Emphasis/assumptions |
|---|---|
| Objectivism | • The researcher does not have influence on the social world or social phenomena either through experience or interpretation (Saunders et al. 2016; Matthews and Ross 2010; Crotty 1998; Bryman and Bell 2007 ). |
| Subjectivism | • The social world is 'structured' by actors who construct the 'reality and knowledge' by interacting with the social world and social phenomena (Burrell and Morgan 1979; Crotty 1998; Matthews and Ross 2010).<br>• The researcher is required to conduct a detailed investigation on the case in order to understand the phenomena and how people experience reality (Saunders et al. 2016). |

This research is directed by the subjectivism philosophical assumption where the researcher had direct interaction with the participants through conducting semi-structured interviews and a disaster preparedness assessment. The preparedness assessment was mostly subjective because it was completed by asking disaster managers and private healthcare facility stakeholders about the availability of defined disaster preparedness requirements. The produced data helped to construct knowledge about the current situation of PPP in healthcare DM in Oman, the factors and challenges shaping it and the recommendations to build an effective framework for PPP.

Therefore, it is proposed to combine philosophical assumption of the interpretivism position from the epistemological approach with the subjectivism position from the ontological approach as the ideal choice for supporting the research assumptions of this thesis. The research strives to investigate the perspectives of stakeholders and disaster managers in public and private sectors and explores perceptions and challenges that could shape PPPs.

## 4.3 RESEARCH DESIGN

As stated by Creswell (2003), research design or approach involves the integration of philosophy (knowledge claims), strategies, and specific methods. Since research varies

from one project to another (Marshall and Rossman 2006), selecting the approach to examine a phenomenon will depend on the research questions and the nature of data required to answer those questions (Matthews and Ross 2010; Silverman 2005). Creswell (2003; 2014) notes three potential choices for research design – quantitative, qualitative, and mixed – as strategies of inquiry that offer particular directions for research procedures. Therefore, the researcher can use the methodology as a guide for identifying research methods and approaches, and as a way of justifying its reliability and validity (Remenyi et al. 1998; Saunders et al. 2009).

### 4.3.1 QUALITATIVE DESIGNS

Qualitative designs have a long history and tradition within various organisation and management research domains (Cassell and Symon 2004, p.4; Trauth 2001; Moisander 2006; Mariampolski 2001; Cope 2005). Furthermore, Van Maanen (1998, p.xii) describes qualitative work as "often characterised as exploratory aiming at discovery, description and theory building".

Kahlke (2014) and Bryman (2008). point out advantages of qualitative research, such as enabling the researchers to embrace multiple approaches, forms, and sources of data collection, such as interviews and observations, which can facilitate opportunities to gather a wide range of data and gain an in-depth analysis into the studied phenomena. It provides descriptive results (Berg 2004) and might include words, video clips, images and other materials (Wilson 2010; Saunders et al. 2016). According to Strauss and Corbin (1998), qualitative research usually means things are different to different people.

Because of its exploratory nature, this research project employs a qualitative methodology. Many previous studies have pointed out the importance of utilising qualitative designs when conducting exploratory research conceived to obtain innovative ideas, to facilitate examining factors potentially related to the industry under examination, or to achieve an understanding of issues or views regarding a specific research problem (Jarkas et al. 2014; Heigham and Croker 2009; Egemen and Mohamed 2007; Lowe and Parvar 2004; Berg 2004; Wanous et al. 2003; Wanous et al. 2000; Chua and Li 2000; Wanous et al. 1998).

## 4.4 THE RESEARCH STRATEGY

The research employs an exploratory case study strategy that involves qualitative methodology. Robson (2002) and Yin (2009) define the case study as a strategy for conducting research that comprises an in-depth empirical investigation of a particular contemporary phenomenon, within its real-life context, using various sources of evidence.

### 4.4.1 CASE STUDY METHODOLOGY

Yin (2003a) considers the case study approach to be an essential form of social science research, and Stake (2005) challenges limiting it as a qualitative method or considering it a new approach. The case study methodology is popular and used broadly in business and management research (Bryman and Bell 2011), as well as in public management research (McGuire and Agranoff 2007).

Reviewing the existing literature on PPPs and IORs (in Chapter Two), shows discrepancies among PPP situations worldwide in relation to factors including private market development, the healthcare system in the country, maturity of the legal system in terms of PPP regulations, the level of PPP and its history in the country, and other related factors. PPP is more developed and regulated in the developed countries, while the situation varies in the developing world, and more research is required to explore where Oman stands, and how to improve the situation further with the most appropriate approach for the Omani context.

Hence, a single case design was adopted using qualitative methods. The choice to adopt a case study approach for this research was based on its applicability to studies aiming to examine a multifaceted/multidimensional phenomenon like PPP (and its embedding IORs) within a specific context in order to acquire a comprehensive understanding of the context and performed process (Eisenhardt and Graebner 2007; Yin 1994; Stake 1995). This approach permits investigators to carry out holistic management of real-life incidents, and this is argued by Yin (1994, p.2) to contribute ‘uniquely to our knowledge of individual, organisational, social and political phenomena’. Other research strategies such as surveys or experiments do not possess this characteristic, and can either extract data from their context or have limited capability to examine the context.

Another significant strength of this approach is its validation for the use of a conceptual framework to direct the data collection and analysis process. A conceptual framework is recommended by experts in and advocates of case study research, who consider it an integral and challenging part of the research process (Yin 1994; Stake 1995). It can act as a link between what is established in the existing literature, what is required in future research, and the type of data to be gathered.

Stake (1995) points out that case study findings can be employed in other related circumstances, – those that resemble the case in discipline or subject – in order to emphasise similar concepts or themes. From this perspective, the insight resulting from this thesis might provide a richer understanding of IORs between public and private sectors in partnership arrangements, and the factors and challenges that shape them and affect PPPs. This knowledge will eventually contribute to building conceptual frameworks for successful PPPs in contexts similar to Oman.

#### *4.4.1.1 ISSUES AND CONSIDERATIONS WHEN ADOPTING CASE STUDY DESIGN*

To assess the quality of social sciences research, Eriksson and Kovalainen (2008) and Bryman and Bell (2011) identify three concepts –generalisability, validity, and reliability – as the most valuable. Nonetheless, Bryman (2008) argues that there are variations in interpreting these criteria in social research, particularly concerning mixed method and qualitative research. In general, social sciences use four tests:

- Reliability or auditability

This test is focused on getting similar/consistent results (findings and conclusions) for the same case study if the research process with the same outlined procedures is repeated (Yin 2014). Its main objective is to minimise errors and bias throughout the research process. Nevertheless, qualitative researchers doubt the applicability and the possibility of duplicating social research because 'freezing' the social conditions and settings of the initial study is not possible (Mason 2002; Bryman and Bell 2011). However, they agree that the reliability of the research should be questioned if data analysis in the later research does not provide enough evidence to support the conclusions. The researcher can make data analysis possible for future researchers, even given the difficulties in repeating qualitative data collection. To achieve this, Mason (2002, p.186) recommends that

researchers ‘check-up’ the process through systematic documentation of research procedures throughout the investigation. In this thesis, the reliability of findings is ensured by following certain measures including:

- preparing an interview guide,
- recording the semi-structured interviews, and
- generating detailed translated transcriptions of the interviews.

the anonymised interview transcripts have been exported into NVivo, as discussed in detail later in the chapter.

• Construct validity or objectivity

This is summarised by Mason (2002) as the appropriate implementation of concepts under investigation to ensure keeping research on track in examining its claimed targeted concepts. This, according to Yin (2014) and Flyvbjerg (2006) can be a challenge in case study research, as the conventional wisdom regarding case study researchers argues that they are ‘subjective’ in the research process and biased towards using concepts to validate their preconceived notions. However, the existing literature suggests strategies to overcome these challenges and to strengthen construct validity in case studies, including retaining a chain of evidence and utilising multiple sources of evidence (Irfan 2015). To ensure construct validity, this study applies these strategies, including acquiring knowledge on IORs in PPPs, through reviewing well-established literature on PPPs (e.g., Skelcher 2005; Klijn and Teisman 2005; Hodge et al. 2010), and literature on inter-organisational relations or alliances (e.g., Ring and Van de Ven 1994; Alter and Hage 1993; Oliver 1990).

• External validity or transferability

The test of external validity or transferability is related to the possibility of generalising the research findings outside of the research context situation. Results of case studies can be generalised using analytic generalisation, referred to by Mason (2002) as theoretical generalisation, and regarded as a unique way to generalise qualitative research results.

In this research, external validity is enhanced through utilising the concept of analytic generalisation, with the aim of verifying, modifying, eliminating, or developing the

concepts and the relationships incorporated in the conceptual framework for this research. Moreover, Schofield (2000) states that a significant number of qualitative researchers are either denying the relevance of generalisability to qualitative research, or are paying very little attention to it. An example of such a view comes from Lincoln and Guba (1985), who eliminate generalisation as a goal of qualitative research, and recommend researchers to present detailed descriptions and justifications in order to maximise external validity, as is employed in this research.

- Internal validity or credibility.

According to Yin (2014) and Saunders et al. (2012), internal validity or credibility is an issue for causal or explanatory studies, and not for purely descriptive or exploratory studies. Since this is an exploratory study, this criterion was not a major concern.

## 4.5 DATA COLLECTION AND ANALYSIS

### 4.5.1 SAMPLING

The researcher planned to include participants from public and private sectors. The targeted numbers were 20 interviews from the public sector, and 30-40 interviews from the private sector. The original plan was to cover all the private hospitals and a number of the polyclinics, since hospitals have more resources than other types of healthcare establishments – including staffing, specialities, bed capacity, and services such as blood banks and diagnostic labs – to make them more eligible to collaborate effectively in disaster situations. The private establishments were also included, in view of their resources and availability of services, hence, their ability to be integrated into the national emergency management system of Oman. The sample included 18 semi-structured interviews (SSIs) from the public sector. From the private sector side, SSI subjects came from14 hospitals and 12 polyclinics.

### 4.5.2 PHASES ONE AND TWO OF DATA COLLECTION

Data was collected over two phases. Table 4-3 below illustrates these periods.

**Table 4-3. Data collection timescales**

| | From | To | Target |
|---|---|---|---|
| First phase | 26 May 2019 | 27 June 2019 | Governmental sector |
| Second phase | 4 December 2019 | 20 February 2020 | Private sector |

### 4.5.3 PARTICIPANT RECRUITMENT

Participants were representatives from the DGPHE, MPHRS, and private health sector. As previously discussed, the interviews were conducted in two phases, with the public sector being covered in the first phase and the private sector in the second phase. The participants from the public sector were mainly stakeholders or representatives of the national Medical and Public Health Response Sector (MPHRS) at the Ministry of Health in Oman, with unique knowledge and/or managerial experience in the area of disaster management policymaking and/or who have contributed to knowledge regarding the matter. The criteria for participant selection from the governmental side were: (i) those who have held a managerial position, and (ii) those have been working in the field of disaster management at the Medical and Public Health Response Sector at the Ministry of Health and who were directly involved with healthcare disaster response.

The participants from the private sector were mainly stakeholders or representatives of private health establishments selected by the Directorate General of Private Health Establishments (DGPHE) as the Ministry of Health monitoring body for private healthcare. The criteria for participant selection were: (i) those who have held a managerial position, and (ii) those with any experience working in the field of disaster management at the establishment and/or in joint healthcare disaster management projects with the Ministry of Health.

Correspondence was mainly through The Directorate General of Private Health Establishments (DGPHE), which is the researcher's workplace and a member of the MPHRS. The researcher discussed with the Director General of the DGPHE the nominations of representatives from both sectors, and sending letters to the organizations regarding their participation and the nominations of their representatives.

The participation request letters asked directors to reply with the names and contact details of nominated personnel. Related documents, such as the research summary, participant information sheet (PIF), and participant agreement form, were attached to the request letter. Interview dates were agreed as per the time availability of the participants.

**During phase one**, 18 semi-structured interviews were conducted with governmental staff working at different levels of the MOH; their job roles are related directly or indirectly with disaster management. The sample included a director general, heads of regional disaster management departments, directors of private health establishment departments, and advisors who worked as consultants for MOH in healthcare disaster management. Doctors, nurses and administrators were included if they were considered to fit the sample criteria. The participants were central to healthcare disaster management in their regions or at the central level in the Muscat region. Table 4-4 provides a summary of the different positions of the participants from the public healthcare sector.

**Table 4-4. Job positions of participants from the public sector**

| Position | Role | Number |
|---|---|---|
| Director General of health services directorate at governorate | This is the top official level at the regional health service directorate of the governorate (regional level). | 1 |
| Head of emergency and crisis management section (ECM) | In each governorate (regional) there is a head of emergency at crisis management (DM) who is tasked with coordinating with the central level emergency and crisis management centre and MPHRS in any healthcare DM-related work. | 3 |
| Directors and advisors at the DG of DGPHE | DGPHE is the main body in the MOH with authority of licensing, monitoring, auditing and collaborating with the private sector. It is headed by the director general (DG) and various directors of departments work under his authority. In each department, the director heads different sections with different staff. The directors are a mixture of doctors and administrators (health management). | 3 |

| | | |
|---|---|---|
| Doctors working as directors and heads of public sector hospitals | The participants included doctors heading regional public sector hospitals or heads of different sections of the hospitals, such as the emergency management section. | 4 |
| Advisors for the minister of MOH | Advisors are usually senior staff at the MOH, with long experience of working in related departments of the ministry. After that they are promoted to become advisors of the ministry. The interviews included advisors working in DM-related fields or with a history of working in DM at both central and regional (governorate) level. | 1 |
| Advisors of MOH with experience working as head of central DM centre and DG of private health establishment | MOH advisors who worked recently as DG of the DGPHE and were head of the emergency and crisis management centre/committee at central or headquarters level in the MOH. | 2 |
| Advisor to minister on private investment and public health | Advisor to the MOH working on projects related to encouraging private sector investment in healthcare in Oman. | 1 |
| Head of emergency management department at public sector hospital | Head of the hospital emergency management department. | 1 |
| Head of infection control section, IHR MOH at central and regional level | A member of the MPHRS tasked with emergency and crisis management related to infectious diseases and infection control at the central and regional level. | 2 |

It is important to note that the initial plan was to cover staff from all over Oman, but this was not possible due to several factors:

1.) The governorates are far from the Muscat region (capital city of Oman) and travelling to the cities would have necessitated making appointments with nominated staff. However, it was not possible to have the related staff free of duties on the same days, and some staff had emergency work on the day of the scheduled meeting. This made it inconvenient for the researcher to cover the targeted staff sample. However, the researcher made efforts to cover staff from regions with a history of disaster incidents and experience in managing disasters, and from the regions with a considerable number of private health establishments.
2.) Some governorates, like Al Wusta, North Sharqiyah, South Batina and Musandam had few private sector establishments and most of them were either general practitioner or small polyclinics which did not have the capacity to be involved with the public sector in DM efforts. At such regions, the public sector is the main health service provider.
3.) Some useful contacts were mentioned during interviews which made it possible to snowball further related participants working in the DM management field at advisory levels, or who worked with teams in DM-related projects. This made data collection easier and faster, especially on the government side, with interviewees nominating related personnel and contacting them to get their permission for an interview. Furthermore, it helped to enrich the data by involving staff with wider backgrounds and experiences.

**The second phase** of semi-structured interviews was conducted with participants from the private sector. It included interviews with representatives nominated by the administration of the establishment. The interview questions were the same for both sectors. In addition, this phase included an assessment of the level of preparedness of the private health sector establishments to manage disaster situations.

Gummesson (2000) and Patton (2002) argue that gaining access to an organisation or entity can be a time-consuming and difficult process. The plan was to include all private

hospitals and a sample of the polyclinics, and include a total of 30 to 40 establishments. The researcher was able to conduct only 26 interviews, due to many reasons.

The major incident was the death of the ruler of the country, which had a strong and widespread effect. Many interviews were either postponed or cancelled. However, the remaining number covered almost all hospitals, because many hospitals have multiple branches with the same administration or headquarters, and some governorates, especially the remote ones, had no private hospitals.

Moreover, private health establishment administrations provided a list of staff nominations, because the disaster management task was always given to a team or more than one member of staff. The teams included mainly administrators, nurses, safety officers, and doctors, and the number of interviewees varied from one participant (usually a director or owner) to three members of the team. Hence, the teams were interviewed as one set, because they preferred this format, and some staff were not confident enough to be interviewed or questioned alone.

Table 4-5 shows the categories of participants nominated by their facility administration.

**Table 4-5. Job positions of participants from the private sector**

| Position | Role | Number |
|---|---|---|
| Hospital directors | Either medical director (usually a doctor), or an administrative director (from the administration, or the owner of the facility, or a board member). | 14 |
| Head of section in the private healthcare facility (usually a doctor) | Emergency care, surgery, outpatient clinics sections. | 3 |
| Health and safety officers | Allocated as DM staff in some facilities. | 2 |
| Staff from the emergency care section (doctors or nurses) | Usually doctors or nursing staff in the section. | 2 doctors, 1 nurse |

| | | |
|---|---|---|
| Head of nursing/nursing director | Of the whole facility. | 10 |
| Quality assurance staff | Mainly admin staff allocated for QA and DM. | 5 |
| Nursing staff | Usually one participant in a team. | 2 |
| Admin staff | From the management section or a public relations officer. | 2 |
| Total | 26 establishments | 41 |

The two phases of data collection provided considerable learning points for improving data collection procedures and the research design, including:

- Gathering and analysing documents is valuable for establishing construct validity through collecting information from multiple sources. It also helped in establishing a retrospective view of the research, offering information from both sectors regarding previous collaborations in the healthcare DM field while discussing the current situation.
- Referrals and recommendations from staff at the MOH – especially senior level staff – worked as a snowball technique enhancer and helped the researcher to gain access to other related staff from both sectors, especially private sector staff not able to participate without approval from their administrations and stakeholders.

## 4.6 SEMI-STRUCTURED INTERVIEWS (SSIS)

Interviews are usually categorised into structured, semi-structured or unstructured (Bryman and Bell 2011; Saunders et al. 2012). Structured interviews are mostly linked to positivist and deductive approaches, are perceived as resembling the use of a survey questionnaire, and hence are sometimes referred to as quantitative research interviews. Because they include some degree of social interaction with the interviewees, the researcher seeks to avoid bias by following standardised procedures. On the other hand, semi-structured and unstructured interviews do not follow standardised procedures, and

are sometimes described as qualitative interviews. As their name implies, unstructured interviews are the extreme opposite of structured interviews, and are not guided by any pre-prepared list of questions or themes to be covered. Semi-structured interviews can be considered in the middle between the above-mentioned categories, since the researcher normally produces an interview guide listing questions and themes to be discussed in the interview, while taking a flexible approach where questions might differ between participants as per the flow of the discussion.

Semi-structured interviews were selected for this thesis, since this type of interview is particularly suitable for exploratory research into identified research areas that need further study and are considered relevant by the literature while remaining close to social reality. Silverman refers to this (2010, p.120) as "bridging the social distance". Moreover, semi-structured interviews facilitate active interaction with interviewees and permit the researcher to explore and develop a greater understanding of the phenomenon (Patton 2002; Kvale 1996).

All interviews were conducted face-to-face and mostly took between 60 and 90 minutes. An interview guide was prepared beforehand to assist the investigator to remain focused in examining all aspects related to the study (see Appendix B). While constructing the interview guide, the researcher followed Yin's (2014, p.35) advice to link data to key concepts and propositions. Moreover, due to the exploratory nature of the SSIs, they were conducted in a flexible manner in order for the researcher to pick up on relevant information discussed by interviewees without being part of the interview guide (Bryman and Bell 2011). The questions provided the opportunity for participants to add their opinions about the issues discussed, avoiding missing any emergent issues or indicators that were not discussed around the covered themes. Such inquiries resulted in participants either confirming that all related indicators were already covered, or providing rich empirical data that can be utilised in theory development.

The interview questions were written in a way that reflects the related themes and concepts discussed in the literature review, hence setting the ground for thematic analysis by covering indicators identified in the literature review. As per Greener (2011), employing SSIs also allowed the researcher to ensure that the participants understood the questions. This issue was prominent with some participants who needed the researcher to

clarify some of the difficult English terms, and this helped in fostering the construct validity of the research.

In addition, this research also aims to obtain a variety of viewpoints to explore, investigate and understand IORs in the researched PPPs. Silverman (2010) states that individual interviews are regarded as an elicitation of the subjective experiences of participants. The social constructivists (or relativists) question how far it is correct to assume that people assign 'a single meaning' to their experiences; while this is acknowledged, it is the very variation in the experiences and viewpoints of the participants – rather than a single objective 'truth' – that this research is aiming to uncover. Hence, one of the outcomes pursued by the interviews is what is argued by Kvale (1996) as getting a view generated through interaction between two people (interviewer and interviewee), also denoted as reflexivity.

Overall, through utilising the SSIs, this research methodology has an idiographic focus that offers insights into how related staff from both sectors reflect on their experiences of the PPP as a phenomenon in the Omani context. This approach also recognises the role of the researcher as a part of the research process. It represents the sense-making and reflections of the researcher, relying on her participation in the research process, or employing supplementary data to explain analysis and findings (see Brocki and Wearden 2006; Irfan 2015; Ross 2013, p.127). Smith et al. (2009) affirm that a practitioner in IPA (interpretative phenomenological analysis) must not draw on "a specific pre-existing formal theoretical position"; instead, themes obtained from transcripts help in forming meanings from research findings (Smith et al. 2009, p.105). This, however, is achieved without ignoring the literature; rather, the findings are supported but not directed by previous models, theories and frameworks (Blumer 1954).

In this study, recording of interviews was essential for the researcher to ensure preserving the actual words of the interviewees. Silverman (2010, p.199) asserts that interviews should be recorded and that "…the old days of pen and paper recording are long gone!" Nonetheless, the researcher did not overlook the importance of active listening and note-taking in maintaining active interaction with participants, as per Yin's (2014) recommendation that recording cannot substitute active listening. Moreover, Patton (2002) asserts that taking notes can be useful in documenting detailed observations, specifically of non-verbal cues.

## 4.7 DOCUMENT SOURCES

According to Stake (1995) and Yin (2014), nearly all case study researchers gather some type of documents. This research included collecting source documents as a part of the research plan that continued throughout the literature review write-up period and beyond. The categories of documents collected are shown in Table 4-6.

However, in a review of available resources, MOH documentation about involving the private sector in healthcare field disaster management was very scarce, and deficient in giving a clear description of partnership arrangements between sectors. There were no officially available detailed reports or documents about the existing PPP incident specifics.

The existing MOH-produced documents are mainly local reports generated at the regional level. They include documents from two MOH Directorate Generals in two separate governorates. The Dhofar Region has issued a report summarising its disaster management experience in response to Cyclone Mekunu (MOH 2018).

Another example is a report prepared by another region, the Directorate General of Health Services in the South Sharquiyah governorate, discussing its DM process for Cyclone Phet, which impacted the governorate in the year 2010. Another report from the same region discusses a collaboration between the Directorate General and the local branch of the gas company to provide the public sector with medical equipment as part of the company's corporate social responsibility (CSR) (Al Farsi 2013).

The documents, 11 in total, were collected before and throughout the literature review and data collection phases and reviewed throughout the thesis write-up process. Some of these documents were publicly available online, while others were made available on request. Collection and analysis of documents was beneficial in many aspects. It helped the researcher to better understand the overall context through exploring the level of preparedness of the private sector, and the public sector perception of PPP. It also provided a small amount of valuable information about incidents of collaboration between the sectors during normal and disaster times. Furthermore, the documents were used alongside interviews to contextualise perceptions, and brought attention to themes that might have been ignored if the interviews had been conducted without access to the documents.

Reports were local, lacking information, and were not published in any regional or international resource. Whether they represent Oman's approach to PPPs in healthcare in disaster management is debatable. All the regional healthcare directorates are following the directives of the central MPHRS, one of the eight sectors forming the NCCD, which operates under the hierarchical command system of the country. The operational approach can be generalised to PPPs throughout Oman, especially when dealing with cyclone hazards and their effects on healthcare services throughout the country. The local documents were obtained from regions with higher incidence of dealing with cyclonic hazards in Oman. Nonetheless, other factors might affect the generalisability of the approach, such as the distribution of private sector establishments, and hence resources, and human factors, such as the experience and capacity of the local healthcare authority personnel.

Despite the importance of documentary evidence as a valuable source of data, it is important to acknowledge its limitations. Yin (2014, p.108) recommends that case-study researchers use critical thinking and perform as 'vicarious observers' when utilising documentary sources. Furthermore, Mason (2002, p.110) advises researchers analysing documents to remember that they are "constructed in particular contexts, by particular people, with particular purposes, and with consequences – intended and unintended".

**Table 4-6. Document sources**

| Level | Classification | No. Of Documents |
|---|---|---|
| Level 1 | Official governmental documents showing support for PPP as a concept in all sectors. Examples include the Basic Statute of the country and Oman vision 2040, discussing integrating the private sector into disaster response efforts. (These were collected during the literature review write-up period due to their online availability). | 2 |
| Level 2 | Documents providing information regarding official MOH publications on policy framework and the approach of the country towards the concept of PPPs. (Examples are documents on the five-year plan, and Oman Vision 2050. These were collected during the literature review period due to their online availability). | 2 |

| | | |
|---|---|---|
| Level 3 | Regional documents discussing incidents of collaboration between both sectors during normal and disaster times. An example is a printed report about the Dhofar region's response to a cyclone which mentioned in brief – but not in detail – the governmental healthcare administration communicating with private hospitals in the region and encouraging their collaboration. (These were obtained during phase one of data collection from the peripheral regions' healthcare authorities). | 3 |
| Level 4 | Documents relevant to the private sector facilities' preparedness for disaster management, such as the DM plans for hospitals. (These were obtained during phase two of data collection from the private healthcare sector authorities). | 4 |

## 4.8 DATA TRANSCRIPTION

As SSIs were the main source of data for this thesis, the formal data analysis started with transcribing the research interviews into a format that could be utilised for the analysis. Since some of the interviews were conducted in the Arabic language, there were added challenges in translating them into English while transcribing. According to Marshall and Rossman (2006), transcribing and translating data may well be a complex process. Transferring and translating spoken words into data requires specific processes and procedures and can be time-consuming (Rubin and Rubin 2012; Ritchie and Spencer 2002; Braun and Clarke 2006), but it offers a good opportunity to become familiar with the depth of the content (Braun and Clarke 2006; Ritchie and Spencer 2002). Elliot (2005) states that transcribing data is utilised by researchers as a method for eliminating their subjective feelings and judgments towards the matter, and offers an opportunity to grasp the core of the studied phenomenon. However, transcribing any form of data cannot ensure capturing every single form of verbal and non-verbal communication (Elliot 2005). Transcription of words might therefore be regarded as a compromise in accomplishing the goal of getting the message between what can and cannot be expressed. Another challenge anticipated by Xian (2008), that of sociocultural differences while translating interview data, was not the case in this study, since the researcher is from the same country and speaks the same language as the participants.

## 4.9 DATA ANALYSIS

The research adopted a thematic analysis approach for both the documents and the SSIs. The process of data collection and analysis involved locating meaningful and related expressions from the research topic in words, sentences, paragraphs and even gestures (as non-verbal cues), and compiling shared meanings into themes that would capture the current situation, the factors and challenges, and the recommendations to overcome the challenges (further discussed in Chapter Five). The analysis utilised both manual and computer-assisted thematic analysis. Figure 4-1 provides an example of the initial manual analysis.

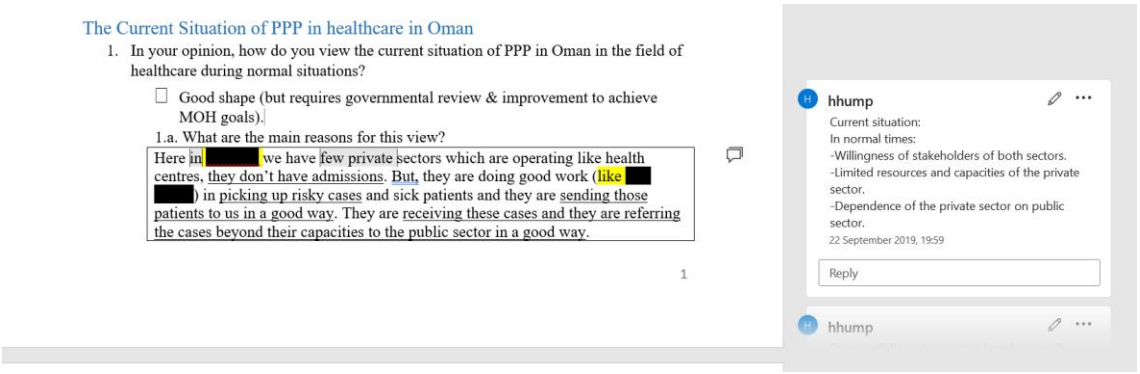


**Figure 4-1. An example of the manual analysis**
Source: Author

In consideration of the large amount of data gathered for this study (44 SSIs and related documents), the researcher chose to employ a computer assisted/aided qualitative data analysis software package (CAQDAS) with the aim of managing and documenting the research process in an efficient and effective manner. NVivo was selected as a suitable CAQDAS for this research, owing to its availability, convenience, and recommendation by colleagues. Scholars who have evaluated the utilisation of CAQDAS (e.g., NVivo, Atlas.ti, NUS*IST, Ethnograph) for analysing qualitative research data argue that it has a number of advantages with respect to transparency and methodological rigour, such as boosting the reliability and consistency of the research by ensuring a transparent process and creating an audit trail (Sinkovics and Alfoldi 2012; Bazeley and Jackson 2013).

However, adopting CAQDAS for qualitative data analysis has attracted criticism and raised concerns regarding issues such as extensive coding, described by Richards (2002,

p.269) as ‘coding fetishism’, in which the extent of coding leads to the neglect of other interpretive and analytic activities, exacerbated by the ease of coding by software. Moreover, there are fears of creating distance between the researcher and data, and of computers taking over the analysis process, thus making qualitative data analysis more like the quantitative approaches (Bazeley 2007). These claims establish that employing NVivo is not without drawbacks, and researchers have to be cautious not to regard using CAQDAS as a guarantee to ascertaining the rigour of research findings (Irfan 2015).

As SSIs were the main source of data for this research, the formal data analysis started with transcribing the research interviews. Since some of the interviews were conducted in the mother tongue of the respondents, Arabic, there were additional challenges to translate them into English while transcribing.

While transcribing, the researcher took notes about key points and recurring themes. After transcription it was noticed that the primary list of codes mostly contained etic (outside) issues produced by the researcher, based on the existing literature review and theoretical constructs from the conceptual framework, and discussed in the interview guide. With more transcription and data analysis, emic (inside) issues emerged from participants who are experts in the field. These additional codes were added to the primary list of codes which kept growing with the progress of the transcription from one interview to the other.

## 4.10 ETHICAL CONSIDERATION

According to McNabb (2008) and Myers (2009) the researcher is responsible for ensuring that the study is conducted ethically. The researcher should be knowledgeable about the topic being examined, the utilised methods, and the implications of the research (Saunders et al. 2009). Myers (2009, p.45) describes ethical practice for the qualitative investigator as “a moral stance that involves respect and the protection for the people actively consenting to be studied”.

Furthermore, Saunders et al. (2012) assert that following ethical considerations is essential throughout the research process for ascertaining the ethical integrity of the research and the researcher. Kvale and Brinkmann (2009), identify three main aspects concerning the ethical considerations of qualitative research, including the informed consent of participants, ensuring confidentiality of interview material, and the consequences of the research.

Participants and their organisations were fully informed about the purpose, methods and intended possible use of the data collected. Along with the assessment tool survey, the representatives were handed a participant information sheet (PIF) and a participant agreement form for their signature. The agreement form provided sufficient information about the research, and they were given sufficient time to understand the contents, and for any inquiries. Participants were informed that they have the right to participate, refuse or withdraw at any time. They were also given a clear explanation of why they had been asked to contribute and were informed of the areas of questioning.

Anonymity of participants and their organisations was also agreed on. The real names of participants do not appear in this thesis. Verbatim quotes from participants are included, but only after removing and coding the names in order to avoid associating sensitive information with the actual name of a participant.

The research was conducted in line with BU Research Ethics Committee (UREC) ethics code of practice. The research adhered to the principles of beneficence and non-maleficence, with the researcher being independent and pursuing no ulterior motives other than the pursuit of knowledge. Participants were informed that the research would be scrutinised by the BU ethics committee and the local ethics committee in Oman.

As discussed above, gaining access to organisations or personnel can be a time-consuming and difficult process. In this study, some of the public sector participants made it possible to snowball further related participants working in the DM management field. Despite its benefit in enriching data by involving staff with wider backgrounds and experience in the field, snowballing can bias results and affect the construct validity of the research, because participants might tend to recommend other participants with the same views and responses.

To overcome this challenge, the researcher has made efforts to strengthen the construct validity and avoid bias through using data triangulation with multiple sources of evidence. The proposed conceptual framework itself can be considered as a measure to foster the construct validity of the research.

Additionally, construct validity is enhanced throughout data collection by means of triangulating multiple sources of data/evidence, as suggested by Yin (1994; 2014). These

sources mainly include documents and semi-structured interviews (discussed in Chapter Four), which help to reinforce confidence in statements made in the research.

### 4.10.1 INFORMED CONSENT

Informed consent was taken from each participant while following the advice of Patton (2002, p.407) to keep it "simple, straightforward and understandable". The consent guidance provided to hospital management and participants throughout the research phase contained information about the study, its purpose, aim and objectives, and the intended possible use of data collected for scholarly and educational purposes only. Participants were each given a consent form to sign, and this provided them with sufficient information about the research.

## 4.11 RESEARCH LIMITATIONS

Pursuing perfect research is probably the unattainable dream of every new researcher, and there are always unavoidable challenges that result in limitations related to the researcher's project choices. This research is not an exception, and it faced a number of challenges and limitations.

The research methodology does include limitations. Conducting qualitative case study research can be challenging, especially in specifying a timeframe for the different tasks (Yin 1994; Miles and Huberman 1994). This research took longer than originally anticipated, resulting in delays in analysis and writing-up.

## 4.12 CONCLUSION

This chapter elucidates the methodology for the thesis and has claimed that a qualitative case study research design has the characteristics to strengthen its suitability for exploring and investigating IORs in PPPs for healthcare DM. This researcher has proposed a framework using qualitative methods that examine the experience of collaboration between public and private sectors in PPPs. Semi-structured interviews were considered appropriate tools to understand the research questions. Furthermore, this chapter strives to provide a transparent account of the research process in accordance with the advice of scholars such as Yin (2014) and Eisenhardt and Graebner (2007)

# CHAPTER 5: FINDINGS

## 5.1 INTRODUCTION

This chapter presents key results from all interviews with relevant participants from both sectors in two phases (eighteen interviews from governmental/ public sector in phase one and twenty-six interviews from private sector in phase two).

The generated key findings are related to the specific objectives of the study (discussed in section 1.5). This chapter will present the generated key findings in two sections as discursive lines of discussion topics. First, it considers the current situation of healthcare PPPs in Oman. Second, it considers the factors and challenges that can shape PPPs in Oman.

## 5.2 THE CURRENT SITUATION OF PPP IN OMAN BOTH IN NORMAL AND DISASTER TIME

To explore and evaluate the current situation of healthcare PPPs in Oman and their underlying IORs, the findings are arranged in parallel with the conceptual framework lenses of the research and their related themes as per Table 5-1. It is important to note that the examined factors are interconnected and can be discussed under the different lenses, but they are arranged as per their relevancy from the researcher's point of view.

**Table 5-1. Aligning indicators with lenses of the conceptual framework**

| **Lens** | **Themes / indicators** |
|---|---|
| Lens 1: Mode of Governance/Governance Structure | • Hierarchical mode of governance.<br>• Lack of strategic planning with regards to PPP.<br>• Willingness of stakeholders of both sectors.<br>• Awareness of stakeholders in both sectors about PPP. |
| Lens 2: Type of PPP and its underlying IOR | • Mostly contractual PPPs in pioneering sectors.<br>• The need for a regulatory framework for healthcare PPPs.<br>• Variable types of PPPs in the healthcare field. |

| | |
|---|---|
| Lens 3: Balance of IORs | • Limited resources and capacities of the private sector.<br>• Dependence of the private sector on public sector.<br>• Financing PPPs in healthcare disaster management. |
| Lens 4: Procedural flow of PPPs | • Repetitive cyclical processes are more prominent. |

### 5.2.1 LENS 1: MODE OF GOVERNANCE/ GOVERNANCE STRUCTURE

Table 5-2 summarises the key points that will be elaborated in the coming subsections.

**Table 5-2. Summary of key findings related to Lens 1**

| Lens | Themes / indicators | Key Findings |
|---|---|---|
| Lens 1: Mode of Governance/ Governance Structure | Hierarchical mode of governance | • The hierarchical mode of governance was prominent in both sectors.<br>• It is endorsed, accepted, and supported by both sectors in the Omani context.<br>• 100% of participants from both sectors agreed that the government should be the policy maker for the PPP in healthcare DM. |
| | Lack of strategic planning with regards to PPP | • 100% of participants from both sectors agreed on the lack of policies and operational strategies as a challenge facing building effective PPPs for healthcare DM in Oman. |
| | Willingness of stakeholders of both sectors | • 100% of participants encouraged PPP in healthcare DM and agreed that PPPs can benefit the DM system and both sectors. |

| | | |
|---|---|---|
| | Awareness of stakeholders in both sectors about PPP | • Lack of stakeholder awareness can affect PPPs and their objectives negatively. |

#### *5.2.1.1 HIERARCHICAL MODE OF GOVERNANCE*

The available documents did not discuss the hierarchical system directly but the disaster management system in Oman follows the incident command system (ICS), which defines the national disaster management structure and delineates roles in a hierarchy to ensure a clear path of action. Hence, there is a clear structure in the public sector that follows the ICS for disaster management which is hierarchical in allocating roles and responsibilities. This corroborates with Murray (1998), who identifies a 'conventional bureaucracies' style, characterised by Mintzberg (1979) as being a typical conceptualisation of bureaucracy, with a high level of formality, hierarchy of authority, and centralised control. Irfan (2015) draws on Murray (1998) and classifies public sector entities under conventional bureaucracies, which typically demonstrate hierarchy of authority.

The hierarchical structure of governance in the private sector was discussed directly by participants from the public sector. Two of the public sector participants (G.DA.6.B; G.DR.8) discussed incidents of healthcare disaster management in which the hierarchical system within the private sector was obvious. One of them (G.DA.6.B) described an incident of DM in a private sector facility:

> "The nurse at the establishment couldn't take action before referring the topic to the head. They can't coordinate with us or other related sectors without the approval of their heads. We need more coordination to contact with the head offices which are in Muscat since in our governorate there are only local branches which can't take responsibility or decisions."

It is also important to note that all (100%) participants from both sectors agreed that the government should be the policy maker for the PPP in healthcare DM. One private sector participant (P.C.A.20) commented, "For me, this needs an official disaster plan given by the government including all entities concerned." This indicates the acceptance of both

sectors towards placing the public sector at the top of the hierarchy, serving as a regulator, strategic planner, and leader in setting the PPP framework.

#### *5.2.1.2 LACK OF STRATEGIC PLANNING WITH REGARDS TO PPP*

The lack of strategic planning was discussed by participants from both sectors and 100% of them agreed that the lack of policies and operational strategies represented a challenge to building effective PPPs for healthcare DM in Oman. One of the public sector participants (G.CQ.11) stated, "I think this is because there is no clear strategy and plan with regards to PPP." He added,

> "So far I have not seen any concrete basis for it. What is there for the private sector? There are bits and pieces already happening here and there of the government buying services from private sector, but I have really not seen any clear plan on the matter showing where exactly this is heading."

A participant from the private sector (P.C.A.10) discussed the importance of plans:

> "It is better to establish a plan from the MOH which is enforcing all to follow this plan as governmental or private sector institutions."

This statement clearly illustrates the consent of the private sector for the hierarchical mode of governance, with accountability from the private sector.

#### *5.2.1.3 WILLINGNESS OF STAKEHOLDERS OF BOTH SECTORS*

All public and private sector participants encouraged the integration of the private sector into national healthcare disaster management in the form of PPP, and agreed that PPPs can benefit and improve the DM system. This might indicate that the willingness of leaders and stakeholders is an enforcing factor for establishing PPPs. A participant from the public sector (G.CQ.16) stated, "I know that the MOH is trying to attract the private sector." Interdependency might be an enforcing factor for the willingness of the stakeholders, and is widely considered as an important facilitating factor in the formation of inter-organisational arrangements including PPPs (Pfeffer and Salancik 2003; Alter and Hage 1993; Levine and White 1961; Kickert et al. 1997; Sullivan and Skelcher 2002).

Meanwhile, a participant from the private sector (P.C.A.2) commented,

> "It is a responsibility of everybody. You can compensate them later, but the private sector should try and be there in some way in disaster time. It is necessary and should be enforced."

#### *5.2.1.4 AWARENESS OF STAKEHOLDERS OF BOTH SECTORS ABOUT PPPS*

Again, the hierarchical mode of governance was verified empirically through the participants from both sectors raising the issue of awareness of stakeholders as a critical factor that can influence establishing PPPs in healthcare disaster management. One of the public sector stakeholder participants (G.CQ.18) stated,

> "I feel that many stakeholders do not understand the meaning of PPP, and how it can help and improve public health programmes."

Furthermore, another participant (G.DR.8) from the public sector, with experience in involving the private sector in DM incidents, stated that lack of awareness can be a challenge for establishing effective PPPs:

> "In my opinion, all stakeholders need to know the rules, regulations, limitations, and roles. Because in the last event, the shift incharge of the private sector facility said she didn't have any idea about the agreement of involvement of her facility."

The findings indicate that lack of awareness can affect PPPs and their objectives negatively and delay any process, which can further complicate any disaster situation requiring immediate response. Particular attention is given here to the importance of stakeholder awareness, due to their influential role in establishing PPPs.

#### *5.2.1.5 CONCLUSION*

When exploring the current situation of PPP in Oman through the mode of governance lens (Lens 1), the themes were indicative of a extant hierarchical mode of governance in the Omani context that is accepted and supported by both sectors. This mode is usually demonstrated through indicators such as the availability of policies and operational strategies for PPP, and promoting the public sector as the guardian over the PPP process with the regulatory and policymaking authorities.

### 5.2.2 LENS 2: TYPE OF PPP AND ITS UNDERLYING IOR

The key points discussed in the coming subsections are outlined in Table 5-3.

**Table 5-3. Summary of key findings related to Lens 2**

| Lens | Themes / indicators | Key findings |
|---|---|---|
| Lens 2: Type of PPP and its underlying IOR | Mostly contractual PPPs in pioneering sectors | • Official documents show Oman pioneered the GCC in implementing PPP projects in the fields of electricity, IWPP and IPP projects.<br>• The available PPP projects are contractual |
| | The need for a regulatory framework for healthcare PPPs | • 100% of participants agreed on the need for clear legislative frameworks for PPPs.<br>• Participants endorse the contractual type of PPPs for the Omani context for healthcare DM. |
| | Variable types of PPPs in the healthcare field | • Limited available documents about existing PPPs.<br>• The empirical results indicated no clear, standardised form of PPP between the sectors.<br>• Existing incidents were more of an 'ad hoc' integration in DM with verbal agreements and no clear framework of PPP.<br>• Participants described the existing examples of integration during normal time as 'limited' with no clear plans, documentation, or framework.<br>• Unregulated, contractual outsourcing arrangements covering limited range of services.<br>• Corporate social responsibility (CSR) was described as a form of collaboration between the sectors during normal times. |

#### *5.2.2.1 MOSTLY CONTRACTUAL PPPS IN PIONEERING SECTORS*

In its strategic developmental plans, the government of Oman supported building PPPs. Furthermore, Oman pioneered the GCC in implementing PPP projects in the fields of electricity, independent water and power projects (IWPPs) and independent power producer projects (IPPs) (Oxford Business Group 2018). The documents describe the available PPP projects as contractual PPPs. However, none of the documented projects include projects in the healthcare sector or any disaster management projects in this field.

#### *5.2.2.2 THE NEED FOR A REGULATORY FRAMEWORK FOR HEALTHCARE PPPS*

All of the governmental and private sector participants agreed on the need for a detailed administrative and legislative framework for PPPs in Oman. This indicates that participants from both sectors are endorsing or encouraging the contractual type of PPPs, perceiving them to be the most suitable for healthcare DM in the Omani context.

A participant from the public sector (G.B.5) described the current situation of PPPs in Oman, stating, "I think it needs organisation and regulation in a clear framework in-order to ensure integration in an effective way between the sectors." Another participant (G.CQ.18) stated, "I think that the private sector wants to contribute but there is no legal framework or processes by which they can."

Furthermore, while evaluating an incident in which the public sector of the governorate involved the private sector in DM, a public sector participant (G.DR.7), considered the lack of policy to have impacted the DM incident negatively: "There were no policies, or rules to regulate the integration." This is supported by the comment of a participant from the private sector (P.C.B.6):

> "No clear written agreements in terms of any of these partnership campaigns. In general, this is a problem for us because we always want to support but there are no written agreements."

#### *5.2.2.3 VARIABLE TYPES OF PPPS IN THE HEALTHCARE FIELD IN OMAN*

As discussed in Chapter four a review of the available resources found that there were no officially available detailed reports or documents about the related specifics, such as the type of PPPs or their administrative and financial details. Furthermore, there were no evaluation and follow-up reports about the challenges faced, or recommendations on how

to improve the situation. There were incident-specific reports but these were not based on clear plans or standard performance indicators.

The existing MOH-produced documents are mainly local reports generated at the regional level. They include documents from two MOH Directorate Generals in two separate governorates. The Dhofar Region report mentions that the public sector assessed the capabilities of the private sector at the governorate level while preparing for the incident, but the report contains no further details about involving private healthcare sector facilities.

The South Sharquiyah governorate report does not discuss any integration of the private sector healthcare facilities. Another report from the same region discusses a collaboration between the Directorate General and the local branch of the gas company to provide the public sector with medical equipment as part of the company's corporate social responsibility (CSR) (Al Farsi 2013).

In the semi-structured interviews, the participants discussed examples of involving the private sector in the healthcare field (both during normal and disaster times), as detailed below.

**PPP type during normal times**

The empirical evidence shows the existence of different forms and examples of integration of the private sector into healthcare programmes during normal times. This includes conducting healthcare programmes, outsourcing, and even examples of the private sector supporting healthcare programmes through corporate social responsibility (CSR).

**A. Conducting healthcare programmes**

100% of participants from the governmental sector and about 40% of the private sector participants recalled the incident of the National MMR (Measles, Mumps, and Rubella) vaccination campaign, in which the MOH involved the private sector to target the vaccination of non-Omani residents. A participant from the public sector (G.BS.10) mentioned it as an example of involving the private sector during normal times:

> "There was an involvement of the private sector in normal times during the National MMR vaccination campaign. There was a verbal agreement."

The participants mentioned that the involvement of the private sector in this campaign was encouraged by the MOH, who recommended involving private healthcare facilities with specific capacities for the campaign. The vaccines and staff training were provided by MOH, while the private sector allocated their trained staff for administering the vaccine to the targeted population (mainly non-Omanis). The campaign was conducted during normal times and not related to any outbreak. However, the type of PPP was not clearly stated by any MOH document. Participants described it as a verbal agreement and requested clear frameworks with contractual agreements to include a wider range of programmes.

**B. Outsourcing**

Six of the public sector participants discussed examples of MOH outsourcing services during normal times. There are contractual arrangements between the sectors targeting non-medical services (e.g., cleaning, catering, maintenance, security, etc.) or, in some governorates, selected medical services only, such as low risk delivery cases, specialised imaging services (MRI), and management of medical waste. According to the public sector participants, the medical service contracts are limited due to the few available specialties and capacities in the private sector. One of the participants (G.BS.10) stated,

> "There are contracts of services between MOH and some private health establishments. The services include Midwifery and delivery services and diagnostic imaging (MRI) services with some private hospitals in the governorate. The government pays them for the services and the patients are referred when there is long waiting queue in appointments. The case should be not critical, or complicated."

The integration of private healthcare sector during normal times was described by the participants as contractual, consisting of 'under-construction' and 'limited' PPP arrangements with no clear plans, documentation, or framework.

**PPP type in healthcare DM**

The research found examples of integrating the private sector during disaster incidents, including the following.

**A. Natural disasters**

The findings revealed evidence of private sector involvement in healthcare DM during natural disaster incidents, particularly related to cyclones and flooding. The involvement of the private sector was described as more of an ad hoc integration, with verbal agreements and no solid official background of PPP (G.CQ.17; P.C.A.1).

One of the participants (G.DR.7) stated,

> "In Mekunu in May 2018, when they announced the cyclone will hit this part of the country, we contacted the private sector establishments who showed willingness to provide help to us."

The participants described the lack of a clear framework as a challenge for the process and indicated that both sectors are encouraging contractual type of PPPs with clear frameworks.

**B. Food poisoning incident**

The findings also revealed the willingness of the public sector to cooperate with the private sector in managing healthcare disasters. A participant from the public sector (G.DA.6.A) described an incident where the public sector helped a private facility in managing emergency cases:

> "The oil companies operating at oil fields in remote rural areas need more preparedness and training on how to manage health related disasters. In one incident, more than 100 cases of food poisoning. They transferred the cases late because they didn't have an available ambulance at the establishment. The nurse at the establishment didn't know how to manage the cases and could not take action before referring the topic to the head. They can't coordinate with us or other related sectors without the approval of their heads."

The management of the cases was provided by MOH free of charges.

This incident demonstrates the existence of many challenges facing PPPs in Oman that can be managed by establishing a clear PPP framework to ensure effective management of healthcare disasters in both sectors. In addition, it indicates that PPPs could be of reciprocal benefit for both sectors through effective planning and set-up.

**C. Outbreaks (communicable diseases)**

One of the main findings of this study is that there was a general consensus between the sectors that the early integration of the private sector into the communicable disease surveillance and control programme in Oman was advantageous. According to a public

sector participant (G.CQ.15), this might be prompted by the availability of a regulatory framework for control of communicable diseases (MOH CD-Manual 2017). He related it to the existence of clear policies and guidelines for the management of infectious diseases cases in both sectors: "Here in the Sultanate, we have policies and guidelines published for communicable diseases by MOH."

Moreover, when discussing the integration of the private sector into the management of communicable diseases, about 95% of the private sector participants agreed that guidelines and policies were clear and standardised for communicable diseases. For example, one participant (P.C.A.26) explained,

> "Yes, actually we have good communication and support from the Department of Infectious Diseases. They are supervising the process of how to provide quality health care for infectious disease cases, and there is a reporting and monitoring system for suspected cases."

However, the empirical findings show that the consensus did not extend to the full integration of the private sector in healthcare disaster management. The participants had variable opinions about the current integration of the private sector into the management of outbreaks. They pointed out the need for a systematic framework with clear strategies and tools. A stakeholder in a private sector facility (P.C.A.15) stated,

> "Yes, there are agreements in relation to communicable diseases. But still, no proper follow-up. There is a checklist, and it mentions that part of communicable disease it to have notification, but no real policy or proper algorithm. For example, if there is an outbreak, there is no algorithm defining what is the role of the private sector. So, we need to establish a clear algorithm so it can be followed by all in the private facilities."

She discussed that the integration was limited to larger facilities with specific resources only, and requested a wider scale involvement of the private sector rather than limiting the integration to only a few facilities.

> "For example, during Corona now, despite the proposals from the private sector to be involved, the MOH is selecting some private facilities, but not all. It is very, very important to involve all of the private sector to be part of the healthcare system PPPs".

The partial success of the integration of the private sector into the communicable disease surveillance and control programme in Oman could indicate the acceptance of both

sectors for the PPP concept and be considered as the basis for developing an effective, mandated, contractual PPP framework with clear policies and guidelines.

#### *5.2.2.4 CONCLUSION*

When investigating the types of PPPs in healthcare in Oman, the available documents did not provide a clear and standardised form or arrangement. This was confirmed in the semi-structured interviews, which demonstrated the existence of mixed types of arrangements between the sectors, ranging from conducting contractual agreements for limited services during normal times with clear requirements, to establishing 'ad hoc' integration with no clear framework.

Moreover, the empirical findings demonstrate the need for, and the willingness of, both sectors to establish partnerships both during normal and disaster times, in a clear and regulated framework with contractual PPPs to allow a wider scale of involvement and to avoid the potential challenges experienced in the previous incidents of integration.

### 5.2.3 LENS 3: BALANCE OF IORS

As discussed in the conceptual framework (Chapter Three), the balance of IORs, whether symmetrical or asymmetrical, is affected by the type of PPP and the underlying IORs (collaborative or contractual). The interviews with participants from both sectors highlighted related themes; these are summarised in Table 5-4.

**Table 5-4. Summary of key findings related to Lens 3**

| Lens | Themes/Indicators | Key findings |
|---|---|---|
| Lens 3: Balance of IORs | Limited resources and capacities of the private sector | • This is an indicator of the 'asymmetrical' power balance between the sectors and asymmetrical balance of IORs. |
| | Dependence of the private sector on public sector | • Private sector is still highly dependent on the public sector.<br>• It denotes the 'asymmetrical' balance of resources, capacities, and power between the sectors and can act as a factor shaping the PPPs more towards the 'asymmetrical' form. |
| | Financing PPPs in healthcare disaster management | • 100% pf participants agreed on the importance of building a clear system for financing PPPs in healthcare DM.<br>• Financing PPPs is an important factor shifting the IORs between the sectors into the 'asymmetrical' balance. |

#### *5.2.3.1 LIMITED RESOURCES AND CAPACITIES OF THE PRIVATE SECTOR*

The research findings depict the capacities and capabilities of the private sector in Oman as 'in the building phase' and still lagging in providing specialised services. A public sector participant at the central level (G.CQ.13) stated,

> "There is good quality of work in the private sector, but they need to improve in specialties (orthopaedic, specialised trauma centres). They are not providing all the required specialties."

Limited resources are a challenge, but can further enhance the interdependency factor between sectors, hence facilitating the building of PPPs. Pfeffer (1992) deems resource scarcity as one of the main reasons for interdependency among organisations. PPPs are driven mainly by situations where sectors have to work with one another in order to successfully address a public policy issue (Bryson et al. 2006; Brinkerhoff and Brinkerhoff 2002).

Moreover, limited resources is an indicator of the 'asymmetrical' balance of IORs between the sectors, due to the private sector lacking resources and capacities and being unable to act as an 'equal' candidate in a PPP with a similar power that could balance the PPP arrangement.

#### *5.2.3.2 DEPENDENCE OF THE PRIVATE SECTOR ON PUBLIC SECTOR*

Another important finding is the dependence of the private sector on the governmental sector. Participants from both sectors revealed a strong emphasis on the view that the private sector is highly dependent on the public sector. This topic was raised in the interviews by the participants when discussing resource as a potential factor shaping PPPs. Participants from both sectors emphasised the 'asymmetry of relationship between the sectors', due to the fact that the private sector is still highly dependent on the public sector, referring emergency and complicated and even cold (stable) cases to public sector facilities. A participant from the public sector (G.B.4) stated that

> "They are receiving these cases and they are referring the cases beyond their capacities to the public sector. They need to build themselves more and have more specialities."

The private sector participants provided examples of such challenges, as when public sector healthcare facilities delay accepting cases and provide long queue appointments for the cold (stable) cases. One of the participants (P.C.A.13) commented,

> "I consider collaboration non-existent (in the healthcare system in Oman), because in the referral system they don't accept referral of cold cases from the private sector. They accept only emergency cases."

This was a common finding and about 75% of the private sector participants discussed the 'referral' issue either directly or indirectly.

Moreover, participants from both sectors described incidents of DM where the public sector had to help the private sector facilities in managing the cases. In one example, a participant from the private sector (P.C.A.11) stated,

> "I was in an oil company clinic before, and we faced an accident in an oil field (in a rural area) and there were about 14 casualties. There was close follow-up and assistance and cooperation from MOH in the governorate, and they supported us to a great extent with ambulances and phone calls, close follow-up, and preparation for receiving of the critical cases in the local public hospital."

This is a significant finding indicating the 'asymmetrical' balance of resources, capacities, and hence, power and relationship between the sectors and can act as a factor shaping the PPPs more towards the 'asymmetrical' form.

#### *5.2.3.3 FINANCING PPPS IN HEALTHCARE DISASTER MANAGEMENT*

In PPPs, it is logical to expect that sources of revenue can affect an organisation's autonomy and decision-making process (Alter and Hage 1993; Moore 2000) because it has to consider the preferences of revenue providers. The findings confirm that the funding organisation is dominant in any partnership arrangement. This suggests the shift of the IORs more towards the asymmetrical balance, with the more powerful partner being the dominant in the partnership arrangement. The issue of financing was regularly discussed as one of the main concerns of the participants from both sectors. They all agreed on the importance of building a clear system for financing PPPs in healthcare DM to ensure the success of the programme.

A participant (G.B.1) from the public sector asserted that:

> "It has to be clear from the planning phase. Both sectors should sit together and agree from the beginning and agreements should specify costs and be clear and detailed on roles and responsibilities and goals to be attained. Otherwise, there will be conflicts. In disasters they have to work on it and have agreement."

Therefore, the issue of financing PPPs is an important factor shifting the IORs between the sectors in the Omani context into the 'asymmetrical' balance of relationships.

### 5.2.4 LENS 4: PROCEDURAL FLOW OF PPPS

Table 5-5 summarises the key findings for Lens 4.

**Table 5-5 Summary of key findings related to Lens 4**

| Lens | Themes/ Indicators | Key findings |
|---|---|---|
| Lens 4: Procedural flow of PPPs | Repetitive cyclical processes are more prominent | • Public sector participants are encouraging contractual PPPs with repetitive cyclical process flow. |

#### *5.2.4.1 REPETITIVE CYCLICAL PROCESSES ARE MORE PROMINENT IN THE OMANI CONTEXT*

The research also confirms that the Omani government is using outsourcing contracts with the private sector to cover shortages of services. As mentioned above, the documents describe the available PPP projects in other fields in Oman as contractual PPPs, reminiscent of a repetitive cyclical process (discussed in Chapter 3). However, the available documents and the empirical findings of the study regarding the interactions between the sectors in the healthcare field in Oman do not provide a specific description for the procedural flow of the contracts between the sectors. During normal times, the government is outsourcing contracts with a repetitive cyclical process to cover shortage of services in a few governorates, as per requirements, but there is no documentation of any clear framework for the arrangements.

The data obtained showed that public sector participants advocate the repetitive cyclical process for the PPP flow. One of them (G.B.4) explained the need for continuous follow-up and evaluation of the PPP agreements and plans due to the special situation of disasters as unexpected events:

> "We cannot work without legislation, agreements, logistics, and planning. We also need to have periodic meetings and discussions with the private sector. We need to involve them in periodic meetings to evaluate, re-update and emphasize agreements and planning."

This statement indicates the need for the repetitive cyclical process to evaluate, up-date, and enhance the private partner capacities as well.

Furthermore, when discussing the current situation of PPPs in Oman, all of the participants from both sectors agreed on the need for review and improvement by the government. One of them (G.CQ.12) stated,

> "But there should be more effort to improve the integration and get the goals required from it. Also, there should be re-evaluation to improve it and look at the limitations to overcome them."

Another public sector stakeholder participant (G.CQ.18) stressed the same point by stating, "We need a lot of review and to look at what exactly is the PPP. We need to understand the situation first and then work on reforming it." These statements indicate

that re-evaluation of any partnership arrangement is required by participants, which is part of the repetitive cyclical process.

## 5.3 THE FACTORS AND CHALLENGES THAT CAN SHAPE PPPS IN OMAN

Endeavour is required to secure the enhancing factors for PPPs and overcome the many existing and potential challenges. In dealing with these factors and challenges, it is essential to comprehend the related aspects of PPPs, including the structural, economic and relational (IORs) perspectives. Integrating all of the related aspects is necessary to build comprehensive insights around understanding and managing PPPs and building effective frameworks for them.

Furthermore, there is a noticeable failure in incorporating the underlying experiences and insights of stakeholders from different fields with experience of being involved in – or influenced by – a partnership (Glasby and Lester 2004).

Therefore, the semi-structured interviews in this study explored PPPs, both in normal and disaster times, in terms of their underlying IORs aspect and the factors and challenges highlighted by disaster managers and stakeholders in the healthcare field in Oman. It considers these as either important factors for the success of the PPPs, or as challenges that should be dealt with in order to ensure effective functioning and better outcomes for the partnerships.

From the analysis process, a final thematic template was developed summarising the main themes and categories that emerged when interview transcripts were individually and collectively examined. The aim of the researcher was to qualitatively describe the factors and the challenges that can shape IORs in PPPs, and the recommendations to manage them in-order to build successful PPP framework.

Three main themes (and three sub-themes under the organisational factors main theme) emerged from the analysis of phases 1and 2 regarding the potential factors and challenges from the perspective of both sectors. ‘Organisational factors’, ‘contextual factors’ and ‘motivational factors’ were the main themes. Under the heading of organisational factors, three sub-themes are identified, including: ‘administrative and legislative factors’,

'leadership and managerial factors' and 'financial factors'. The themes and sub-themes are illustrated in Table 5-6.

**Table 5-6. Thematic analysis themes and subthemes**

| Main Themes | Subthemes | Factors and Challenges |
|---|---|---|
| Organisational Factors | Administrative and Legislative Factors | Lack of administrative and legislative frameworks. |
| | | Lack of policies and operational strategies. |
| | | Conceptualising, defining, and characterising PPPs. |
| | Leadership and Managerial Factors | Organisational identities of partners. |
| | | Leadership approach. |
| | | Lack of Omani leadership. |
| | | Private sector leadership with no medical background. |
| | | Limited monitoring capacity of the public sector. |
| | | Lack of knowledge and awareness about DM in private sector owners and stakeholders. |
| | | Lack of private sector bidders or lack of willingness of private sector. |
| | | Preparedness of private sector. |
| | | Accountability and transparency. |
| | | Ethical challenges. |
| | | Conflicting objectives and goals/Conflict of interest among partners. |
| | | Sustainability. |
| | | Lack of adequate communication. |
| | | Lack of research and information base. |
| Resources | | Limited resources. |
| | | Financial aspects. |
| Contextual Factors | | Sectoral differences. |
| | | Difference in organisational structure and culture. |
| | | Institutional pressure. |
| | | Reputation/perception. |
| | | Political environment/will. |
| Motivational Factors | | Reciprocity. |
| | | Efficiency. |
| | | Necessity especially on the government side and particularly at times of disaster). |

### 5.3.1 ORGANISATIONAL FACTORS

The characteristics of the entities entering PPP arrangements have a significant influence on the relationships between the sectors. The organisational factors investigated in this research include administrative and legislative factors, leadership, and managerial factors, and resources. These factors can shape the dynamics of the organisations entering a PPP project and shape their IORs and, as a result, can act either as a factor or a challenge to the PPP. However, little attention has been directed towards examining organisational factors at the individual organisation level, or the means through which they potentially influence IORs (Irfan 2015). This research has investigated these factors through analysing the responses of the participants, and Table 5-7 summarises the key findings for the organisational factors.

**Table 5-7. Organisational factors: key findings**

| Subtheme | Factors | Key Findings |
|---|---|---|
| Administrative and Legislative | Lack of administrative and legislative frameworks, policies and operational strategies | • 100% of participants from both sectors agreed that lack of administrative and legislative frameworks, policies and operational strategies represents a challenge for the PPPs in the Omani context.<br>• Participants recommended provision of these for an effective PPP framework in Oman. |
| | Conceptualising, defining, and characterising PPPs | • The majority of participants from both sectors were supportive of building contractual PPPs with clear structure and strategies for the PPPs in the Omani context. |
| Leadership and Managerial | Organisational identities of partners | • Organisational identity is an important factor for building PPPs.<br>• 100% of the participants from both sectors agreed that the government should be the main actor in disaster management and should lead the partnership as the principal or client while the private sector is the contractor or the agent. |
| | Leadership approach | • 100% of the participants showed willingness to join PPPs but most raised the issue of funding as an important factor to consider.<br>• Profit seeking behaviour of the private sector should be expected and managed to ensure effective PPPs.<br>• The common preference amongst private sector entities in Oman is to join contractual IORs/ PPPs in order to secure the financial aspect while requesting to be involved in the process of policy making. |

| | | |
|---|---|---|
| | Limited monitoring capacity of the public sector | • This is also a challenge that can be managed by clear and detailed contractual PPPs.<br>• 94% of public sector and 81% of private sector participants agreed on considering this a challenge facing PPPs in Oman. |
| | Lack of knowledge and awareness about DM in private sector owners and stakeholders | • This issue was raised by governmental participants, particularly from two governorates with experience in involving private sector in healthcare DM.<br>• It can be managed by considering capacity building as part of any PPP contract. |
| | Lack of private sector bidders or lack of willingness of private sector | • 50% of the governmental participants agreed that the private sector is willing, while 50% thought that getting their willingness is a challenge.<br>• The issue of lack of private sector bidders and willingness of private sector was discussed from a variety of aspects such as legislation, funding, and even location of services.<br>• Participants recommended measures such as providing incentives and contracting the services with clear legislations and regulations and payment schemes to ensure financial reward. |
| | Accountability and transparency | • 100% of public sector and 85% of private sector participants agreed on accountability and transparency as challenges that can affect PPPs in the Omani context.<br>• Participants from both sectors recommended building clear frameworks with legislation and policies to overcome this challenge. |
| | Ethical challenges | • 100% of public sector and 65% of private sector participants agreed on the importance of ethical challenges in shaping the PPPs/IORs and affecting the PPP outcomes.<br>• Ethical challenges are another promoting factor for building contractual PPPs to ensure meeting the specified and agreed objectives of the project. |

| | | |
|---|---|---|
| | Conflicting objectives and goals/Conflict of interest among partners | • 94% of public sector and 62% of private sector participants agreed on considering conflict of interest as a significant challenge facing PPPs.<br>• Conflicting objectives are another promoting factor for building contractual PPPs to ensure attaining the project outcomes without being affected by agenda of any of the partners. |
| | Sustainability | • 94% of public sector and 85% of private sector participants agreed on considering sustainability as another significant challenge for any PPP.<br>• Contractual PPPs could provide a solution and ensure sustainability of the project. |
| | Lack of adequate communication | • For the Omani context, communication was considered a challenge by 100% of participants from both sectors and can affect IORs and PPPs negatively. |
| | Lack of research and information base | • Research should be encouraged and information databases should be further improved to provide a baseline for improving PPPs and strengthen communication and, as a result, the IORs in the PPPs. |
| Resources | Limited resources | • 100% of public sector and 92% of private sector participants consider limited resource an important challenge facing PPPs. |
| | Financial aspects | • All participants from both sectors considered lack of funds a challenge that can hinder building effective PPPs.<br>• Participants recommended activating insurance for disaster management and CSR to manage the financial aspects. |

#### *5.3.1.1 ADMINISTRATIVE AND LEGISLATIVE FACTORS*

Administrative and legislative factors have emerged from the interviews to be one of the critical challenges that can affect the building of PPPs. The participants indicated that a lack of administrative and legislative frameworks, alongside a lack of policies and operational strategies and limited resources, could negatively affect building successful PPPs until the issues are systemically addressed.

- Lack of administrative and legislative frameworks

Generally, the developing countries suffer from the unavailability of administrative and regulatory frameworks, expertise and capabilities required to efficiently plan and operate a PPP arrangement (Winpenny and Camdessus 2003; Thomsen 2005; Sader 2000). Furthermore, in most of these countries, legislation was set up to regulate public sector roles, with a lack of overarching legislation applicable for the participation of the private sector in PPPs (Lang 2016). This is validated by the empirical findings of this research: 100% of the participants from both sectors highlighted the importance of the legal framework and agreed that the lack of administrative and legislative frameworks in the Oman healthcare DM context represents a challenge that requires attention.

Therefore, administrative and legal frameworks should be set up, identifying the administrative requirements and legal responsibilities of each sector. As one of the interviewees (G.B.4) stated, "We cannot work without legislation, logistics, and planning."

In addition, instituting a regulatory framework can help in reducing barriers to entities in a PPP arrangement (Busch and Givens 2013), and in materialising a PPP strategy (Irfan 2015). This was corroborated by a participant from the central (Ministry HQ) level (G.CQ.13) who asserted the importance of the regulatory framework, saying that: "It will protect rights for private and government sectors because otherwise they will be reluctant." She argued that regulations can protect rights of both actors.

The private sector participants agreed and one participant (P.C.A.11) stated, "Yes. This is the major challenge."

Another participant (P.C.A.1) agreed: "Yes. One thing we should agree upon is to formulate and form legislation and protocols. It should be legalised."

Lack of administrative and legislative frameworks is a challenge for the PPPs in the Omani context, and participants recommended provision of them for an effective PPP framework.

- Lack of policies and operational strategies

Formation of a PPP can be motivated by circumstances where each sector working alone has been unsuccessful in tackling a public policy problem (Brinkerhoff and Brinkerhoff 2002; Bryson et al. 2006). Therefore, policies and strategies are an essential part of the PPP structure, which can be negatively affected by their absence.

100% of the participants from both sectors agreed that the lack of policies and operational strategies is presenting a challenge to building effective PPPs for the Omani context; participants also indicated that they are crucial for building successful PPPs. A public sector participant (G.DA.6. S), when asked about the current situation of PPPs in Oman, stated,

> "It is in a good situation but needs improvement. Needs insertion of new policies and updating policies to fit with the current situation and the health vision and goals of MOH."

Another participant (G.DA.6.A) supported this argument, stating: "The government has its policies, we just need the same, standard system for the private sector."

One of the private sector participants stressed the importance of the policies in the framework (P.C.A.1), stating, "Yes. We should formulate policies and implement them."

Lack of policies and operational strategies was considered a challenge for PPPs, and participants recommended provision of standardised policies and guidelines to ensure effective PPP in Oman.

- Conceptualising, defining, and characterising PPPs

The research findings supported Nishtar (2004) and Barr (2007), who identify this challenge. Nishtar and Barr assert that drawing a clear governance mechanism for the PPP; defining roles and responsibilities; and ensuring clear communication between partners are crucial aspects to establishing successful PPPs and evaluating their effectiveness.

The majority of participants from both sectors required clear structure for the PPPs in the Omani context and considered the lack of it as a challenge that can hinder building effective PPPs. A participant who owns a private healthcare facility (P.C.A.15) stated,

> "For example, if there is an outbreak, there is no algorithm defining what is the role of the private sector. So, we need to establish a clear algorithm so it can be followed by all in the private facilities."

She argued that roles and responsibilities and algorithms should be clear in order to build effective PPPs. Moreover, the overall atmosphere in the interviews was supportive of building contractual PPPs with clear structure and strategies.

#### *5.3.1.2 LEADERSHIP AND MANAGERIAL FACTORS*

- Organisational identities of partners

Irfan (2015, p.57) refers to "an organization's unique identity, values, mission and constituencies". Based on the work of Brinkerhoff (2002a; 2002b), she also describes the term 'organisational identity' as representing a comparative benefit to participating entities in that it provides a basis for suggesting specific roles to various actors in a partnership and the sector they belong to (Irfan 2015; Brinkerhoff 2002a; Brinkerhoff 2002b).

The research findings concur with Pfeffer and Salancik's (1978) argument that partnerships are perceived as exchange relationships in which partners are allocated responsibilities to contribute to the partnership based on their comparative advantage. Accordingly, comparative advantage is lost if the organisation loses its identity and consequently, its unique contribution to the partnership, resulting in a situation where the rationale for establishing a partnership arrangement is lost (Brinkerhoff 2002b; Brinkerhoff 2003).

All the participants from both sectors agreed that the government should be identified as the main actor in disaster management due to the fact that it will be leading the partnership as the principal or client while the private sector is the contractor or the agent. One of the governmental stakeholder participants (G.CQ.18) stated,

> "It only makes sense to use the private sector when your facilities are pressed or maybe you have safer facilities in the private sector. So, it is always wise to use your own resources unless you have problems."

He argues that PPPs are implemented mainly due to the need of the governmental sector to overcome the shortage and overload.

Furthermore, all the participants from both sectors agreed that the government should be the policy maker. A participant from the governmental side (G.DR.8) explained that the government should be the policy maker and take charge simply because that is what the governmental sector does, taking the lead in responsibility for the public interest:

> "Do we have an alternative?! [laughs] In disaster situations, even with other sectors and departments, the government should take charge."

He considers leadership to be the main role of the governmental sector.

Another participant (G.CQ.11) asserted,

> "MOH is custodian of the private sector because it is specialised in licensing and monitoring the private healthcare sector and knows about their resources and limitations. MOH is the focal point for the health sector and should be the legislator in these issues because it knows how to deal with health-related matters."

This finding coincides with a comparison by Moore (2000) between for-profit, not-for-profit and government organisations. Moore asserts that principal organisational value varies notably among the three sectors. In general, for-profit organisations often measure their delivered principal value in financial terms, while not-for-profits measure in terms of contribution to the cause, and public sector organisations are concerned with mission rather than financial indicators. The data analysis verified that governmental participants were aiming to utilise PPPs to attain the goals of healthcare disaster management, while private sector participants were willing to participate, provided that the financial issues were clearly settled beforehand.

This could be further attributed to the fact that the government is the main provider of healthcare services in the country under the social healthcare system. The private sector is growing but still requires further improvements. Furthermore, the government is the sole financer for the PPP, and so gains the right to build the system and provide incentives for the private sector to enter the partnership.

However, the participants asserted that the private sector should be included in policy making stages such as review and approval processes, even while policy making is considered a role of the government. One of them (G.CQ.14) commented:

> "MOH should be the initiator of legislation along with related governmental bodies, but they should take the private sector on board and involve them. Even at this level they should be included and aware."

For the private sector, they raised 'privacy' as an important issue to them, as part of their autonomy. One of the private sector participants (P.C.A.7) discussed the issue while talking about accountability and transparency:

> "For the transparency part in the private sector, I think the private sector entities are not ready to disclose information due to privacy. This needs to be raised in any policy or guideline or even contract between the sectors."

Thus, organisational identity is an important factor that should be considered for building PPPs.

- Leadership approach

The findings highlight that leadership is indeed an important factor that plays a significant role in shaping the nature of PPPs and relationships between the sectors. This concurs with the research of Murray (1998) and Irfan (2015), who assert that leaders play a prominent role in shaping the mission of their entities and influencing the nature and outcomes of the PPP projects. Hence, the leadership in the governmental side could play a major role in initiation, and progression of PPPs.

The data analysis found that 100% of the public and private sector interviewees were encouraging and supportive of the PPP concept. One of the public sector participants (G.B.4) stated, "In places where they have big private hospitals with capacity and resources, we need to involve them in disaster management."

For the private sector side, 100% of the participants, at different leadership levels, showed willingness to join PPPs but the funding issue was raised by most of them. They discussed their need to be covered financially for the services if integrated in the national disaster management system (as discussed in the section on financial aspects). Hence, 'profit seeking' behaviour should be expected and managed to ensure effective PPPs.

The public sector participants showed awareness and understanding of the 'profit seeking' behavior of the private sector, and the requirement of the private sector to insure sustainability. One of the participants (G.BS.10) commented, "Of course, they will agree to partner with the public sector because it is of benefit for them as well."

The interviewees gave the perception that the common preference amongst the private sector in Oman is to join contractual IORs/ PPPs in order to secure the financial aspect. Hence, the difference in leadership approach could be utilised as a factor in building effective PPPs.

- Lack of Omani leadership in the private sector

At present, a sizable amount of literature highlights the role of local leadership in managing disasters (Kusumasari et al. 2010). Perry and Mushkatel (1984) advocate for the implementation of disaster management by local leadership and governments. This indicates the importance of the local staff element in disaster management governance. Local leaders can play a significantly active role in disaster management operations, due to their familiarity with local conditions, communities and culture (Stewart et al. 2009; Herman 1982; Kusumasari et al. 2010).

The empirical findings corroborate these arguments. In the semi-structured interviews, the lack of Omani leaders in the private sector was raised by participants from both sectors as a challenge to building effective PPPs in Oman. Five of the public sector participants discussed the issue directly and one of them (G.B.2) stated,

> "There is a high percentage of foreign staff in the private sector, and this is creating a significant problem of lack of ownership. Furthermore, this is creating a big challenge in communication and collaboration with the establishment."

Another participant (G.DR.8) explained further:

> "There should be Omani staff in positions such as CEO or managers because it will improve even their ability to take responsibility for decision making."

From the private sector side, four participants discussed the issue directly. A non-Omani participant from a private sector establishment (P.S.A.16) gave an explanation:

> "For example, if there is a war threat, most of the foreign establishments will evacuate and leave. The only one who will not leave is the Omani. So, if you are thinking about sustainability, you should be considering Omanization at a bigger scale."

The private sector participants who raised the issue discussed the lack of ownership as a challenge that can affect PPPs because foreign companies with foreign leaders can leave the country in disaster situations. In addition, the participants discussed lack of

communication as another challenge and a barrier that might result from having non-Omanis running the facilities or taking stakeholder positions in the private sector.

Therefore, lack of Omani leadership in the private sector can be a significant challenge that can negatively affect IORs due to lack of ownership for PPPs. Contractual IORs could be a solution for this challenge, since contracts could support recruiting Omani staff in the different levels of the private organisation, hence improving communication and community involvement in local projects.

- Private sector leadership with no medical background

The research findings showed that private sector leadership with no medical background could form a challenge for building effective PPPs in the Omani context. Seven of the governmental participants discussed the importance of having a private sector administration with proper level of medical knowledge and awareness. One of the participants (G.DR.8) expressed the view that

> "You need a medically educated person to be the point of contact with the establishment so you can better communicate with him/her in relation to matters such as medical standards. If the point of contact is not medically educated, usually he/she is not aware of standards and requirements of health care establishments."

Moreover, a stakeholder participant, who is an owner of a private healthcare facility (P.C.A.17) stated that conflicting objectives and conflict of interests is not a challenge unless owners are not doctors: "No, only if owners are not doctors." His point of view is that doctors will not have a conflicting agenda with the governmental sector because they both care mainly about patient safety as their goal.

Therefore, capability of the private sector leadership is another challenge to building effective PPPs. Clear contracts with clear requirements could be the solution to overcome the challenge.

- Limited monitoring capacity of the public sector

According to Rochester (2001), when organisations encounter national and regional regulation and monitoring demands, their management and committee members might become more accountable in delivering their contracted services. Monitoring is a process followed by the public sector to ensure that the private sector follows standards of patient

care and safety. Audits might be announced or ad hoc, and require enough resources such as technology and staff for visits to be carried out at central or regional level.

The empirical data of the research found that monitoring capacity could represent a challenge facing the MOH and can eventually affect any potential PPPs. 94% of the governmental participants agreed on considering limited governmental monitoring capacity as a challenge facing PPP projects in Oman. The challenge arises mainly from the increased number and widespread locations of private sector facilities, which can affect the limited staffing and resources of the public sector. One of the participants (G.B.4) noted that it could be even a bigger challenge during disaster events:

> "It will be more challenging for us to monitor them during disasters. Especially in the initial stage when we are preparing them."

From the private sector point of view, 81% agreed that monitoring is a challenge and must be based on clearly detailed, standardised guidelines, checklists and standards. A participant from a private hospital facility (P.C.A.6) commented: "Yes, we need clear policies and checklists especially for disasters."

Here there is a noticeable link between the different factors, showing how policies and guidelines are important in improving the monitoring system. Participants from both sectors agreed that this challenge is even more applicable for the rural areas and peripheries, especially in the desert areas where private sector facilities are providing healthcare for industrial areas and projects. One of the private participants (P.C.A.1) stated: "In periphery monitoring it is still a challenge because of the limited resources."

Limited monitoring capacity is another challenge that can be managed by clear and detailed contractual PPPs. This requires the governmental sector to build standardised checklists for both sectors.

- Lack of knowledge and awareness about DM in private sector owners and stakeholders

The UNISDR highlights the important role of leaders and stakeholders in coordinating its international efforts in disaster risk reduction and in implementing the disaster risk reduction framework. This is evident in the *Sendai framework for disaster risk reduction action plan 2015-2030* (UNISDR 2015a). UNISDR chairs international meetings, like the

World Conference on Disaster Risk Reduction (WCDRR), and manages the Global and regional Platforms on Disaster Risk Reduction, which are attended by leaders and stakeholders in the disaster management field. Through these events, UNISDR lays stress on improving the awareness and knowledge of leaders and stakeholders, as a basis for enhancing their roles in national disaster risk reduction efforts.

The empirical findings show that lack of knowledge and awareness about DM among private sector owners and stakeholders is another significant challenge to building effective PPPs in Oman. Governmental participants considered disaster managers at the policy making level raised this issue as a challenge to building effective PPPs. One of them (G.B.2) said: "Level of knowledge and awareness of the owner is an important challenge."

Another participant (G.DR.8) asserted that

> "Knowledge is [the] most important and first consideration in recruiting staff. We faced this problem in many private hospitals."

Moreover, a stakeholder from the private sector (P.C.A.15) stated,

> "It depends, sometimes when leaders are aware and educated people, they will definitely participate and collaborate."

The participants recommended managing this challenge by considering capacity building as part of any PPP contract in order that both sectors can exchange knowledge, experience, and training.

- Lack of private sector bidders or lack of willingness of the private sector

Private sector stakeholders are not usually attracted to the risks in investing in PPPs in small markets of countries suffering from economic and political instability. The for-profit organisations focus their projects on countries with estimations of better profit outcomes (Walt and Buse 2000). This is a major problem in the developing countries, resulting in weak competition and, consequently, negative effects on the efficiency gains of a PPP (Winpenny and Camdessus 2003; Thomsen 2005; Lang 2016; Sader 2000). Moreover, an organisation's dependency on funding entities can influence its strategy and willingness to join partnerships, especially when funding bodies are demanding partnerships as a prerequisite to obtaining funding (Alter and Hage 1993; Oliver 1990).

This is a debatable issue since the empirical findings of this research show that 50% of the governmental participants agreed that the private sector is willing, while the other 50% thought that getting their willingness is a challenge. One of the participants (G.CQ.15) asserted that

> "Lack of willingness of the private sector is a significant challenge because the private sector requires incentives to work with government."

Another participant (G.B.3) argued that it might be a challenge to get the willingness of the private sector to be integrated in disaster management unless the partnership was very clearly planned and agreed on, including the roles and responsibilities, and unless the financial issues were settled prior to any partnership. He explained,

> "This again will be a challenge because maybe you will find the private sector is not willing in the case of disaster management. If we involve them from the beginning, by distributing the roles and responsibilities I think they will be willing to participate. Also, by sorting out all the financial issues from initial steps, they will be willing. Contracts should be detailed and clear."

This challenge was discussed from a different perspective by some of the governmental participants, who argued that the private sector is mostly available in the capital area or big cities. In terms of resource, they will put their specialised personnel and equipment in the big cities and avoid providing specialised services in rural areas or governorates with smaller population numbers.

A public sector participant (G.DR.8) explained this, saying,

> "If you want to provide services, you need to be at a certain level. In the peripheral regions we have a low number of population and that's why the private sector doesn't want to risk bringing specialised staff who cost a lot."

Another governmental participant (G.CQ.18) did not agree that this could be a challenge and explained,

> "I think this is not the main issue. I think the private sector is willing to participate. If you have the proper policy, they will be more willing to participate. So, there is no lack of willingness."

The private sector disagreed that willingness was a particular challenge and showed their willingness during the interviews. Only twelve of the interviewees agreed that a lack of willingness was a challenge; they discussed it in general and not as an issue in Oman.

A few of these participants indirectly suggested that integration should be enforced or mandated by the government. For example, a private sector participant (P.N.A.14) stated, "I think they are willing. I think if it comes enforced through government, they will accept." He used the word "enforced", indicating acceptance of the idea of requiring PPP by some of the private sector leaders.

Another participant (P.C.A.23) supported this argument, stating,

> "Yes. If the ministry put it mandatory to follow, then we will follow. If things are clear the willingness will be there."

Meanwhile another (P.C.A.1) stated,

> "No, I won't agree to lack of willingness as a challenge. See, supposing I am a private sector and I have invested this money. If I am doing this free at disaster time, how I will manage? I might end up closing. Rather, if it is clear that: ok, if this happens, please stay back, here is the proportion for you. Then everybody will get involved. This sort of legislation if it is formed and if the chocolate is promised, we can mobilise the resources. Legalising the policies and protocols should come in place."

Others made it clear that government should assume the financial burden to generate willingness in the private sector. A private hospital manager (P.C.B.26) commented,

> "Yes, the private sector is a project to be honest. They can help, contribute, but of course, not on their cost. I think there should be some arrangements. Yes, agreements about how to make a balance between the financial and the provided health services."

Hence, the lack of private sector bidders and the willingness of the private sector were discussed with attention to a variety of aspects such as legislation, funding, and even location of services. Participants recommended measures providing incentives and contracting the services with clear legislation, regulations and payment schemes to ensure financial reward. An interesting recommendation made by private sector participants was to mandate the participation of the private sector in disaster management efforts. It was interesting also to notice that participants from both sides inferred that they prefer contractual PPPs with clear legislation and policies.

- Preparedness of the private sector

The success of a healthcare system in managing disasters depends on its investment in its preparedness programmes and procedures (Goldschmitt and Bonvino 2009). The

timeliness and effectiveness of its response programmes depend on the level of training and preparedness of emergency responders, competency of staff, and the ability of its leadership to mobilise available resources successfully (Arora and Arora 2013; Richard et al. 2009).

The empirical evidence of the research proves that lack of preparedness within the private sector is a critical challenge to building effective PPPs in healthcare DM in Oman. On assessing the disaster preparedness of the private sector facilities, the researcher discovered that only the few private hospitals which are accredited by an international accreditation system (only four hospitals) had preparedness plans, which indicates the significant lack of preparedness in private sector facilities. This requires attention.

Moreover, analysing the research data showed that there were no clear preparedness assessments completed for the private sector facilities. The public sector had its own checklists, but due to the private sector being in the building phase for disaster management, not much attention was given to fully assessing its preparedness. There was a checklist provided by the public sector to assess preparedness for infectious diseases, but as of the time the interviews were conducted, no private sector facility preparedness had yet been assessed by the public sector.

The governmental participants showed concerns about the issue since no preparedness assessments as such were conducted, even at the regional level. One of the participants (G.BS.10) stated that

> "We need to review the current situation of the private sector and see how prepared they are and if their resources are capable of covering any required integration in DM or not."

Moreover, some participants expressed doubts in the ability of the private sector, and they encouraged building the level of preparedness of the private sector in order to improve their capacities. A disaster manager doctor amongst the participants (G.DR.8) expressed that, in his experience in involving the private sector at the regional level,

> "The ambulances of the private facilities had to be equipped further by the public sector in order to be fully functional for the transfer of cases."

He further noted that "There are no approved disaster management plans for the private sector."

Meanwhile, another participant (G.DA.6.S) added, "They need more preparedness and training on how to manage disasters."

From the private sector point of view, participants discussed that the private sector is still maturing and is not prepared. One of the private sector stakeholders (P.C.A.1) stated that he worked as a director of different private hospitals; he described a DM incident that occurred when he was working in one of the peripheral areas:

> "The local private hospital was also invited to attend the preparedness meeting by the regional DG. We didn't have our DM plan."

Another participant from the private sector (P.C.A.10) felt that preparing the private sector is the responsibility of the government, stating,

> "Training the staff of the private sector is the responsibility of the MOH. The MOH is better to improve the private sector by training and giving programmes to improve their skills."

As can be seen, preparedness of the private sector is a real challenge to building PPPs. It can be considered an argument for building contractual PPPs in which public sector supports building private sector preparedness.

- Accountability and transparency

Improving accountability was put forward by Broadbent and Laughlin (2003) and Hodge and Greve (2007) as an important issue to be addressed in PPPs, while Sinkovics and Alfoldi (2012, p.827) assert that 'Transparency is necessary for accountability'.

This is supported empirically in this research since 100% of the public sector and 85% of the private sector participants agreed on accountability and transparency as challenges that can affect PPPs in the Omani context. One of the public sector participants (G.B.4) expressed her perspective: "The accountability and transparency challenge should be mentioned first in the list of challenges!"

From the private sector point of view, one participant (P.C.B.4) argued this was a manageable challenge (P.C.B.4), stating, "It is a challenge that can be solved with clear policies."

Hence, there is still a need for supervision, frameworks, policies, criteria, clear governance mechanisms, and global norms for PPPs (Kostyak et al. 2017; Nishtar 2004).

Participants from both sectors considered accountability and transparency to be challenges facing PPPs, especially during disaster situations, and recommended having policies and measures, such as effective monitoring, in order to secure better outcomes for the PPPs.

- Ethical challenges

Klijn and Teisman (2003) based their views on Jacobs' (1992) narrative of the public and private fields as two ethical systems with different 'moral syndromes' where the public and private domains are described as the 'guardian' and the 'commercial' syndrome respectively. In this respect, the public sector is portrayed as the sector possessing values including its appreciation for tradition and hierarchy, governed process and approach, commitment to a self-defined public cause, and emphasis on risk avoidance. On the other hand, the private domain is considered to have values consistent with the commercial syndrome, including influence by shareholders based on results, emphasis on market opportunities, and willingness to take on market risks (Klijn and Teisman 2003, p.143).

The ethical issues were proved empirically to be a potential challenge facing PPPs in Oman: 100% of the governmental and 65 % of the private sector participants agreed on their negative effects on building effective PPPs. One of the public sector participants (G.DA.6.N) stated,

> "Yes! The private sector care about saving money and don't consider improving quality. But they are improving with our audits and requirements to improve their standards. Clear standardised policies can solve the ethical issue."

This argument corresponds with that of Van Slyke (2007), who discusses the possible risk of partners prioritising their self-interest over the goals of the partnership. Van Slyke (2007) proposes that a contractor (public sector in this case) can reduce the possibility of experiencing opportunism and goal divergence by an agent (the private sector) by pursuing vigilant monitoring through a variety of formal and informal mechanisms, flexibility and discretion in implementing programmes, clear incentives, such as stability and renewal of contracts, and reputational boost (Van Slyke 2007, p.163).

From the private sector side, one of the participants (P.C.A.21) argued that

> "Policies and implementation and audits can help in solving the ethical issue. Being ethical is very individual behaviour."

Therefore, ethical challenges are another promoting factor for building contractual PPPs to ensure meeting the specified and agreed objectives of the project.

- Conflicting objectives and goals/ conflict of interest among partners

Nishtar (2004) argues that despite most PPPs being based on the 'social obligation fulfilment' objective, the for-profit sector is motivated mainly by financial revenue in the long term. This might raise the concerns of the private sector engaging in PPPs to achieve their own agendas of improving their organisational image, or getting access to policy makers (Nishtar 2004). Furthermore, Bompart et al. (2011) and Kostyak et al. (2017) assert that partnerships involving the for-profit sector might result in disagreements due to the conflict of interest between the public sector and the market-oriented behaviour of the private sector, leading to disputes and delays over critical decisions.

The empirical evidence of the research validated that conflict of interest among the partners is an important challenge. It is usually anticipated when one partner belongs to the 'for-profit sector' with its market-oriented agendas. Seventeen (94%) of the governmental side participants agreed that conflict of interest was a potential challenge to PPPs.

Moreover, participants showed understanding and acceptance that there will be always different agendas for both sectors. One of them (G.DR.8) commented,

> "Even though they have their own agenda, its ok, let them involve with us. What agenda? They ask for money. It's their right to ask for money. Let's be realistic. No private sector will do it for free. I don't think this is a big problem. As long as it is doing its work. As long as the private institute is attaining my objectives, it's ok, no problem."

On the private sector side, sixteen of the participants (62%) agreed that conflict of interest is a challenge. One of them (P.C.A.21) stated that it can be managed and MOH can overcome this challenge with clear policies, saying: "At the moment, yes, it is a challenge but can be controlled with policies."

Conflicting objectives can challenge the building of effective PPPs and are another promoting factor for building contractual PPPs to ensure attaining the project outcomes without being affected by agenda of any of the partners.

- Sustainability: long-term commitment of the private sector

The World Economic Forum defines the lack of availability of sustainable financial support for health sector PPPs as a major obstacle to building PPPH programmes (WEF 2005). Sustainability and the long-term commitment of the private sector are usually profit-related. The project will continue if there is enough revenue. This was validated empirically in this research, since 94% of the governmental participants agreed on sustainability as a challenge for building effective PPPs in Oman. One of them (G.CQ.13) stated, "Yes, turn-over of staff can stop services. Sometimes we lose the whole private service due to that."

On the other hand, twenty-two (85%) participants from the private sector considered sustainability a challenge to building successful PPPs. One of them (P.C.A.2) explained, "Yes, especially if a disaster situation continues. Resources will be diminished."

It was noticed from the responses that from the private sector point of view, sustainability was mainly linked to their financial stability and the availability of resources and support from the government. Such statements include (P.C.A.21):

> "Yes, to run any institute, economy and funds are very big challenges. So, government should motivate the private sector and support them."

While another participant (P.C.A.20) commented, "Yes. They need to be sustainable and government has to take the financial burden."

Clearly, ensuring sustainability is another significant challenge for any PPP and contractual PPPs could provide a solution and ensure sustainability of the project.

- Lack of adequate communication

Lasker et al. (2001) and Vangen and Huxham (2006) highlighted a number of determinants and their specific attributes that can affect a PPP's level of synergy and its subsequent effectiveness including issues concerning communication, aims, trust, power, culture, and complexity which have a propensity for impeding the organization from attaining any progress. This can be grounded on problems of understanding, originating from the difference in organizational cultures, structures, management styles, internal environments, and ideologies or working practices of the different participants in the PPP (Vlaar et al. 2006). Thus, communication can act as a determining factor for the synergy and outcome of any PPP.

The empirical findings of the research confirmed lack of communication as a significant challenge to building effective PPPs in Oman. 100% of the governmental and private sector interviewees agreed that lack of communication is a challenge that could affect PPPs negatively. One of them (G.B.3) put it this way:

> "From my experience in communicable diseases, our early meeting with them, communication, workshop, training, made them interested in collaboration with the public sector."

The participant argued here that the private sector was more interested in partnership when the public sector communicated with them.

The same participant also explained that communication could be a real challenge because some of the private sector might avoid communicating with the public sector and use it as an excuse not to follow the standards defined by the MOH even in case management issues:

> "For example, some private facilities, they are not coming to the meetings and not involved in the workshop. When we go, they will tell us that they don't know, and they don't have our telephone number and they don't know the method of communication."

For the private sector, 100% of the participants stressed the importance of communication and one of them (P.C.A.4) stated, "Communication between both sectors is a very important challenge to consider."

- Lack of research and information base

According to Witty (2011), one of the strategic problems facing PPPs is a lack of research interest in diseases affecting countries other than developed countries. Private sector stakeholders focus their activities, at least primarily, on developed countries with potential chances for profit and positive outcomes, while avoiding small markets in developing countries with political and economic instability (Walt and Buse 2000). Given the lack of research on many aspects of PPPs, especially in the healthcare sector, further research is needed to enhance our understanding of the dynamics throughout different stages of PPPs.

The data analysis found that 100% of participants from both sectors agreed that the lack of research and a common information base is a very important challenge that needs to be managed. A public sector participant (G.B.4) raised the concern that patient

information should be settled and agreed on prior to any PPP. She argued, "Since we started a disaster plan very recently, sure there will be lack of research."

Another participant (G.DR.8) described the lack of a common information base as a significant challenge, one he encountered during a DM incident in his directorate. He stated,

> "One problem noticed in the last event was sharing daily census. We informed about what we needed and if this was clear from the beginning (with templates for daily census during normal and disaster times), this could have helped us more."

From the private sector, one participant (P.C.A.7) stated that it was difficult for him to find any research about PPP: "Yes, it was hard for me to find any PPP related research."

Therefore, research should be encouraged, and information databases should be further improved and built into the PPP framework in order to provide a baseline for improving PPPs and strengthen communication and, as a result, the IORs in the PPPs.

#### *5.3.1.3 RESOURCES*

- Limited resources

Limited availability of budget for public sector programme provision is another important constraint for PPP projects in developing countries (Winpenny and Camdessus 2003; Thomsen 2005; Sader 2000). This was corroborated empirically in this research since 100% of the governmental participants and 92% of the private sector participants agreed that lack of resources is a challenge facing both sectors. One of the governmental participants (G.B.5) explained, "This is the major challenge for us and for them!"

Another public sector participant (G.B.4), discussed that the private sector is lacking confidence due to limited capacity and resources:

> "I feel they are not that confident in managing cases. Even when they have the department (for example surgery), sometimes they will take the case and, in the middle, they feel unconfident, and they transfer the patient to the governmental hospital. They should be more confident, and they should bring the resources and don't depend on us. But they build bits and pieces of departments that are not fully prepared and equipped and that's why they cannot manage the cases fully."

Furthermore, the private sector distributes its resources depending on the location of their healthcare facility. Private investors seem to avoid investing outside of the capital city

and usually their regional facilities will be smaller in capacity and resources. Based on his experience with involving the private sector during disaster management, a public sector participant (G.DR.8) expressed that the private sector was willing to participate but that they faced the challenge of their limited resources:

> "The ambulances had to be equipped further by the public sector in order to be fully functional for the transfer of cases."

He went on to explain that even the decision to shift delivery cases to the private sector was limited due to the "limited resources of the private sector (critical equipment like incubators and SCBU)."

From the private sector side, an owner of a private establishment (P.C.A.15) agreed, stating, "Yes, sure. Limited resources in all phases."

However, most of the participants agreed that proper planning and sharing of resources could overcome the challenge. A participant (P.C.A.1) argued,

> "I won't say there is limited resources. Only thing is it should be organised, and uniformly mobilised so it can be evenly distributed and used whenever it is in need."

It was generally felt that proper resource management by both sectors could be a solution to overcome this challenge. Proper project management is part of the contractual PPPs, and it can help determine the proper use of resources.

- Financial aspects

The empirical evidence of the research confirms scholarly claims that financial issues are always central to disaster management, particularly for developing countries (Chen et al. 2013; Lassa 2013). Furthermore, Moore (2000) carried out a comparison between for-profit, not-for-profit and government organisations, and reports a significant variation in the concept of principal value between the three sectors. In general, measuring the principal value delivered by for-profits organisations commonly employs financial indicators, while it is defined in terms of contribution to the cause by the not-for-profit organisations, and of mission by public sector organisations.

In this study, the discussion is mainly about PPPs between the public sector and the for-profit private sector – in both of which this issue was agreed to be an essential factor,

either directly or indirectly. All participants from both sectors considered lack of funds a challenge that can hinder the building of effective PPPs.

Participants discussed the importance of the finances to provide resources and that limited financial capability could be a significant challenge to building effective PPPs. One of them (G.CQ.15) stressed that "Resources, finances are required to provide equipment to manage outbreaks".

Another participant (G.B.5) argued that managing the financial issue would result in

> "…improved capacities of the private sector and it will also make it easier for new players of the private sector to be willing to enter the market."

The participants recommended measures for managing the financial issues, including reforming the health insurance system and activating corporate social responsibility to bring the private sector into a national fund for disaster management that could even support healthcare disaster management activities and PPP projects. Currently, the healthcare insurance system does not cover disaster management incidents. Reforms were recommended by a significant number of participants from both sectors.

One of the public sector participants (G.B.2) discussed insurance reform as the solution for the challenges facing effective PPPs in healthcare disaster management, such as lack of resources and lack of willingness of the private sector. He stated,

> "At this stage, insurance is an important solution for the problem of limited resources and other challenges facing PPPs in Oman. In other countries, insurance helps the private sector to improve and join PPPs. This will also decrease pressure on the public sector as well."

Another stakeholder among the public sector participants discussed CSR as an effective solution for enhancing PPPs in healthcare disaster management and the overall healthcare services. She (G.CQ.18) stated that one of her roles is working with the private sector in CSR programmes.

> "Now I am working with private sector CSR. It's responsible for helping society in terms of channeling some of the funds to this department so they can help society."

All private sector participants agreed on finance being an important factor, but offered different opinions. One of them (P.S.A.16) stated,

> "You know we are making good money. If we give a drop of the money we are earning yearly or monthly to utilise it back in the community which will produce new money and improve health for everyone. That's my belief."

Here the participant is again referring to and enforcing the corporate social responsibility (CSR) concept as a measure for financing PPP projects partially as a community programme.

Another private participant (P.C.A.13) agreed, saying, "It depends. Some private facilities might be worried to collaborate and lose money."

Therefore, scholars argue that organisations need to collaborate while finding common ground (Gray 1989) to ensure that participating entities can justify their contribution to the partnership's objectives.

### 5.3.2 CONTEXTUAL FACTORS

These factors work at a macro level and are not limited to a particular case, and yet they might act differently in each case. The contextual factors discussed here are sectoral differences, institutional pressures, reputation, and political environment. Table 5-8 outlines the key findings of the contextual factors.

**Table 5-8. Contextual factors: key findings**

| Subtheme | Factors | Key Findings |
|---|---|---|
| Contextual Factors | Sectoral differences; difference in organisational structure and culture | • Contractual IORs could be suggested as a solution to overcome this challenge, especially when considering PPPs with the for-profit private healthcare sector. |
| | Institutional pressure | • Institutional pressure can be a challenge and contractual IORs can help protect the rights of both sectors and prevent the abuse of power. |
| | Reputation/ perception | • Reputation can be utilised as a factor for building successful PPPs. |
| | Political environment/ will | • All participants agreed on the importance of political will as an important factor in general, but none of them related this to the situation to Oman. |

- Sectoral Differences

Sectoral differences are an important contextual factor affecting PPP arrangements and their underlying IORs. This is mainly due to the fact that PPPs integrate entities with diverse structure, culture, identities and backgrounds (Klijn and Teisman 2003). Usually, bureaucracy is more prominent at the governmental sector, due to the required processes, while the for-profit private sector is more profit-oriented.

The sectoral differences between the PPP partners in the Oman context emerged through data analysis as a factor that might influence PPPs. The rigid bureaucratic structure in the public sector could be explained by some delayed decisions due to staff at the regional level waiting for approval from the central level; hence, bureaucracy was an issue in both sector sides. One of the participants from the public sector (G.DR.8) stated,

> "Especially when it comes to a payment system. Every time we face the question about financing PPPs, we have to raise the question at the central level. And if you have limited time (such as in disasters), we can't wait for them to decide."

The profit-making culture of the private sector was also discussed by participants from both sectors, either directly or indirectly. A participant from the private sector (P.C.A.20) was clear that they need financial support to be part of the PPP: "Yes. We need to be sustainable, and government has to take the financial burden."

Sectoral difference is an important contextual factor shaping PPPs. However, a clear framework with contractual PPPs was suggested by the participants as a solution to overcome this challenge, especially when considering PPPs with the for-profit private healthcare sector.

- Institutional Pressure

Institutional pressures relate to a group of factors associated with the context in which partnerships originate, and can influence the founding and long-term sustainability of PPP arrangements (Sharfman et al. 1991; Oliver 1990; Bryson et al. 2006).

The empirical evidence verified institutional pressure as a factor through participants discussing the effect of decision makers in both sectors joining the PPP arrangement based on the goals of their administrations.

An example is the statement of one of the public sector participants (G.DR.8):

> "And if you have limited time (such as disasters), you can't wait for the higher authorities to decide. Even hospital directors were not decision makers and they had to contact their higher authorities in the main branches which can be in a different country."

Meanwhile, another participant (G.DA.6.S) explained,

> "Yes. Mainly, the company owner may not be willing to be involved in healthcare DM because they are profit-oriented. So, agreements are required to overcome this challenge to prevent them objecting on requirements."

This again refers to the effect of institutional pressure since the private sector cannot take part in disaster management unless the decision is approved by their institutions and stakeholders.

From the private sector side, one of the participants discussed the institutional pressure and linked it to the organisational culture which can be affected by the changes in organisational administration. He (P.C.A.1) stated,

> "If I leave this place and the new administration comes up with new ways of administration, then it is better to marginalise black and white regulations. So, in that way I feel it will be much better to have policies and legislation. We need guidelines because medicolegal issues might arise if there are no clear-cut guidelines."

He noted that the same issue could arise at the governmental side:

> "My wish is that this relationship between the sectors should continue the same. My question is that if the current DG (of DGPHE) moves out from his position, and the administration changes, what will happen? That's why we need policies and guidelines."

This participant believed regulations and guidelines are required to deal with the effects of any change in the organisational leadership in both sectors.

Another participant from the private sector (P.C.A.19) discussed the issue of staff ethics being affected by the institution:

> "It is complicated, because sometimes the institution or administration force you to act unethically. Policies also can solve this problem."

Hence, institutional pressure can be a challenge and a clear framework with contractual IORs can help protect the rights of both sectors and prevent the abuse of power.

- Reputation

A study conducted by Van Slyke (2007) to examine contracting PPPs discovered a causal relationship between reputation and trust, and considered reputation as a factor that can be utilised by public sector stakeholders to select and evaluate entities with good reputations to mitigate the risk of opportunistic partnerships (Van Slyke 2007).

The research findings confirm that reputation could act as a factor affecting PPPs and their underlying IORs. All the governmental and private sector participants agreed that gaining a good reputation can be a benefit to the private sector if they accept involvement with the public sector in the healthcare disaster management efforts. Hence, this can be an enhancing factor that supports building PPPs.

One of the governmental sector participants (G.B.2) stated,

> "Their collaboration with the public sector can benefit as a marketing strategy and good reputation for the private sector."

From a private sector point of view, one participant (P.C.A.2) raised the point that private sector awareness about the benefits of integration into the national DM system could encourage them to join PPPs in healthcare DM. He said, "From my point of view, there is the reputation part. If they realise the importance of that, they are on your side." This finding confirms the argument of Oliver (1990) and Chen (2010) that the willingness of an organisation to join a PPP can be explained by its motive to enhance its reputation, image, and legitimacy. In this way, reputation can be a factor for building successful PPPs by encouraging the private sector to build a good reputation.

- Political environment/will

Witty (2011) discussed political instability as a potential strategic challenge for implementation and success of PPPs in health sector and concluded that the majority of developing countries endure unstable political conditions which make their markets insecure and unattractive for the private sector stakeholders. In such situations, new authorities might refuse existing PPP contracts or contract terms. This can result in seizure of the project and public dissatisfaction (Winpenny and Camdessus 2003; Thomsen 2004; Sader 2000). Mohanan et al. (2016) and Kostyak et al. (2017) agreed and added other strategic challenges including governmental bureaucracy, corruption, security concerns, and lack of infrastructure.

All participants agreed on the importance of political will as an important factor in general but none of them related the situation to Oman; the governmental sector at all levels showed interest in and support for engaging in PPPs with the private sector. On the other hand, private sector participants did not discuss political environment as a challenge hindering PPPs.

One of the private sector stakeholders (P.C.A.1) discussed the acceptance of integration by both sectors. He stated that DGPHE, as the assigned licensing and monitoring entity of the private health sector in Oman, is very supportive of the private sector and that reflects the support of the MOH. He noted,

> "The interaction is very good and there is a mature understanding and a cordial relationship between the private sector and DGPHE."

Furthermore, the country has considered integration of the private sector in DM even in the basic statute of the country. Hence, the political environment in Oman is supportive for building PPPs.

### 5.3.3 MOTIVATIONAL FACTORS

Motivational factors are usually overlooked in the PPP literature, despite their effects on the nature of relationships between partners, and their connection to contextual factors (Irfan 2015). Furthermore, the motives that drive private partners into entering PPPs are somewhat complex to explain due to the diversity of the projects. For example, they enter into a partnership with the motive of gaining funds, enhancing their efficiency or boosting their reputation and legitimacy (Irfan 2015). This variation in the motives to enter a PPP is a prominent factor that can shape a PPP and influence the IORs within it.

Analysis of the research data shows that the governmental sector is mainly concerned with achieving successful PPPs and with the MOH goals in DM. However, all the participants from both sectors agreed that PPPs can be of benefit to both sectors. Table 5-9 summarises the key findings for the motivational factors.

**Table 5-9. Motivational factors: key findings**

| Subtheme | Factors | Key Findings |
|---|---|---|
| Motivational Factors | Reciprocity | • Reciprocity can be considered a promoting factor that can enhance the building of successful PPPs, requiring clear contracts to ensure achieving the agreed objectives. |
| | Efficiency | • Efficiency can be considered a challenge or a factor, even within the same context, depending on the capacity and availability of resources and finances for the governmental sector. |
| | Necessity | • Necessity can be considered a factor in the Omani context and requires contractual IORs to prevent abuse of power or resources by the government, or opportunistic behaviour by the private sector. |

- Reciprocity

Reciprocity is widely considered an important facilitating factor for the formation of inter-organisational arrangements including PPPs (Pfeffer and Salancik 2003; Alter and Hage 1993; Levine and White 1961; Sullivan and Skelcher 2002). In the IORs literature, Oliver (1990) argues that the drive of an organisation to join mutually beneficial arrangements (which can be referred to as reciprocal motives) can be enhanced by its anticipation of greater gains through the partnership.

Generally, the public sector exercises control over the private partner, holds it accountable for the terms and conditions agreed in the PPP contract, and is resistant to giving up control. Hence, there might be power acquisition motives from the public sector side (Irfan 2015). On the other hand, it is usually expected that the private sector is profit oriented and will always be thinking of gains to be won from any transaction. IOR researchers state that PPPs based on achieving reciprocal motives are described as supporting an atmosphere of "balance, harmony, equity, and mutual support" (Oliver 1990, p.245).

This argument was supported empirically in the research, and reciprocity emerged as a factor that can promote the establishment of PPPs. Participants from both sectors agreed

that PPPs can benefit both sectors. In the semi-structured interview, there was a question about the benefits and advantages of PPP, and all of the governmental sector participants agreed that it can result in combining the skills, expertise and resources of public and private partners in innovative ways, with risks being shared and allocated to the party best able to manage them. They also all agreed that government should be the policy-maker, with the involvement and approval of the private sector at the policy review stages. This underlines the governmental sector's wish to be the regulator and the monitoring party with the approval of the private sector – and all participants agreed on the same points discussed above. At this stage, the private sector's motives are assisting the governmental sector, provided they maintain their reciprocal gains.

One of the governmental sector interviewees (G.B.4) brought it up indirectly when she said, "They are receiving these cases and they are referring the cases beyond their capacity to the public sector in a good way." She observed that the private sector depends on the public sector when sending the cases that are beyond their capacity to manage.

Similarly, a participant from the private sector (P.C.A.15) stated, "There will be a time where the public sector will be overloaded and so, involving the private sector is very important." Yet another participant (P.C.B.8) commented, "Yes, once in a while we are not getting beds and the governmental sector has to help us." Reciprocity can be considered a promoting factor that can enhance the building of successful PPPs. It requires clear contracts that can ensure achieving the agreed objectives.

- Efficiency

Enhancing efficiency is considered as one of the theoretical rationales for PPPs (Skelcher 2005). Furthermore, partnerships can be seen by both sectors as a solution to accomplishing efficiency and effectiveness objectives (Brinkerhoff 2002b, p.21). The empirical evidence supported these arguments and considered efficiency a factor that can affect and shape PPPs in the Omani context. Efficiency was considered indirectly through participants discussing the preparedness and capabilities of the private sector.

Participants from the public sector discussed that establishing PPPs requires building the capacity and capabilities of the private sector so it can provide support with the required standards. On the other hand, the private sector showed willingness to join PPPs, but discussed their need for financial and technical support from the governmental sector.

They wished to be involved in the training to improve their capabilities in order to be effective in their roles.

Training the private sector issue was raised as a recommendation by all of the participants. A participant from the public sector discussed it as a challenge, saying,

> "Training the private sector could be one of the challenges, especially during disaster events, because the private sector will always need regular training and whether the government has the capability to train the governmental and also the private sector, this could be a challenge."

A participant from the private sector (P.C.A.10) stated, "Yes. The private sector needs support from government in training, research, and planning."

Efficiency can be considered a challenge or a factor even within the same context depending on the capacity and availability of resources and finances for the governmental sector. Moreover, the findings of this research agree with the assumption that efficiency can encourage contractual IORs in the PPP arrangements between public and private sectors.

- Necessity

According to Armistead and Pettigrew (2008), necessity is an especially relevant motive for non-governmental organisations when discussing PPPs in which joining partnerships is mandated by higher authorities such as governments or funding bodies as a legal requirement that has to be met by the organisations.

The empirical evidence verified that necessity is a factor that can affect establishing and shaping PPPs. In Oman, like other countries, disaster management is considered a necessity that requires the involvement of the private sector in response efforts, especially when local or national resources are overwhelmed. This is built into the basic statute of the country which specifies 'mandatory' integration at levels where there is a threat to the national security of the country.

However, Omani law, despite mandating PPPs for national security reasons, defines the situation and mandates that the private sector is provided with compensation for any required services.

Necessity was discussed by participants from both sectors, especially considering disaster management as a necessity that requires cooperative efforts from both sides because disasters impact the whole society and affect both sectors negatively. This means the public sector might be required to join in partnership with the private sector.

Hence, necessity can be considered a PPP promoting factor in the Omani context. It requires contractual IORs to prevent abuse of power or resources by the government or opportunistic behavior by members of the private sector.

### 5.3.4 CONCLUSION

Samuelson's (1954) assumption that partners aim to secure their gains through partnership arrangements is validated by the research findings: both sectors demonstrate consensus and support for building regulated, contractual, asymmetrical PPPs employing a repetitive cyclical process for both to minimise their input and maximise their output.

It can be concluded from the empirical findings that to overcome the proposed challenges and build effective PPPs in the Omani context, participants favour asymmetrical contractual PPP arrangements in which government, as the powerful sector, sets a hierarchical accountability with conditional contracts and holds the private sector accountable for fulfilling the agreed terms and conditions, while the public sector retains the right to monitor the project processes and outcomes.

# CHAPTER 6: DISCUSSION

## 6.1 INTRODUCTION

The research proposes a framework for integrating the private healthcare sector into the national healthcare disaster management system (MPHRS) utilising public-private partnerships (PPPs). The conceptual framework proposed in Chapter Three defined four lenses as the basis for suggesting successful and sustainable PPPs for a healthcare disaster management system within the Omani context.

The research aims to conceptualise a systematic and effective public-private partnership in healthcare disaster management in Oman. Three key lines of query form the basis for discussion.

**Table 6-1. Relevance of lines of inquiry to the research objectives**

| | Line of query | Relevance to research objectives |
|---|---|---|
| 1 | How can we better conceptualise the current situation of partnership and level of preparedness between private and public health sectors in the disaster management field? | Supported by the first and second research objectives. |
| 2 | What are the factors and challenges that can shape PPP and their underlying IORs between public and private sectors, and what are the possible recommendations to overcome these challenges? | Supported by the first and second objectives. |
| 3 | How can the private health sector in Oman be better integrated into the national emergency management system? | Supported by the third and fourth objectives. |

The first and second points relate directly to both the first and second research objectives. There is an evident lack of literature about PPPs in healthcare DM, especially in the context of developing countries such as Oman. Accordingly, the first and second key points are important for understanding the situation of PPPs in healthcare in Oman and comparing it with the related available international literature, which originates mostly from a Western context. Recommendations can inform stakeholders and policymakers facilitating successful, effective, and sustainable PPPs in the field of healthcare DM in Oman. The third point has been addressed through proposing a conceptual framework for PPPs in healthcare DM, as described in Chapter Three.

These lines of query are discussed and evaluated in view of the existing literature (Chapter Two) and the empirical data obtained through semi-structured interviews of disaster managers and stakeholders in the field of healthcare DM, from the public and private sectors (Chapter Five), in order to answer the research questions and achieve the aim of the research.

**Table 6-2. Key discussion points**

| Key inquiries | Discussed points |
|---|---|
| How can we better conceptualise the current situation of partnership and level of preparedness between private and public health sectors in the disaster management field? | • The current situation of PPP in Oman.<br>• Effect of hierarchical mode of governance in shaping the PPPs for the Omani context.<br>• Predominant contractual PPP type in the Omani context.<br>• Asymmetrical balance of IORs.<br>• Cyclical procedural flow of the PPP process.<br>• Main arguments/contentions of the research. |
| What are the factors and challenges that can shape PPP and their underlying IORs between public and private sectors, and what are the possible recommendations to overcome these challenges? | • Factors and challenges.<br>• Organisational factors.<br>• Administrative and legislative factors.<br>• Leadership and managerial factors.<br>• Resources.<br>• Contextual factors.<br>• Sectoral differences.<br>• Institutional pressure.<br>• Reputation.<br>• Political environment/will.<br>• Motivational factors.<br>• Reciprocity.<br>• Efficiency.<br>• Necessity. |

| | |
|---|---|
| How can the private health sector in Oman be better integrated into the national emergency management system? | • The suitable PPP framework for healthcare DM for the Omani context.<br>• The most suitable typology for Omani context.<br>• Roles of both sectors.<br>• Government/public sector.<br>• Central government.<br>• Drafting a national policy for disaster risk reduction.<br>• Developing a regulatory framework.<br>• Establishing a central body/authority for disaster management.<br>• Financing disaster management.<br>• Training.<br>• Local government.<br>• Private sector.<br>• Insurance as risk transfer programmes.<br>• Health insurance in Oman.<br>• Corporate social responsibility. |

## 6.2 THE CURRENT SITUATION OF PPP

The continuous increase in frequency of disasters, their overwhelming impact on public healthcare systems worldwide, and the resulting increasing popularity of PPPs in developing countries, validates the growing need to investigate the current situation of PPP in healthcare.

Discussion is aligned with the proposed four lenses of the conceptual framework in order to develop the issues and link them to the clear basis of the conceptual framework (Chapter Three) and findings (Chapter Five).

### 6.2.1 EFFECT OF HIERARCHICAL MODE OF GOVERNANCE IN SHAPING THE PPPS FOR THE OMANI CONTEXT

As discussed previously, leadership plays a key role in defining the nature of PPPs and relationships within and between the sectors. Auzzir et al. (2014) perceive PPP as a type of governance network responsible for binding the relevant stakeholders in the network

involved to developing and implementing a specific PPP programme or project. Moreover, Nishtar (2004) asserts that a well-defined governance structure with clear allocation of roles and responsibilities of all the involved actors is a requirement for building successful PPPs. The difference between governments in their prominent mode of governance can affect the type and balance of PPPs and their underlying IORs, and their procedural flow and lifecycles.

The empirical findings of the research found a relationship between the mode of governance and the current situation of PPPs and their underlying IORs. The hierarchical dimension of the governance mode is prominent in the Omani MOH disaster management command system. Overall, the disaster management system in Oman follows an incident command system (ICS) which defines the national disaster management structure and delineates roles in a hierarchy to ensure a clear path of action. It is important to note that all participants from both sectors agree that the government should be the policy maker for PPP in healthcare DM. This indicates the acceptance of both sectors to have the public sector at the top of the hierarchy as a regulator, strategic planner, and the leader in setting the PPP framework. This finding supports the argument by Streeck and Schmitter (1985, p.7) who stated that markets need to depend on a hierarchical authority in order to ensure adherence to contracts.

This also corroborates the work of Auzzir et al. (2014), who outlined two main roles for the public sector in managing disasters, based on existing PPP literature. The primary role deals with drafting and supporting the implementation of national policies for disaster risk reduction to ensure more effective response and recovery for the community (Sylves 2008; Chandra et al. 2013). The government is also responsible for establishing funds for disaster preparedness and mitigation programmes (Skidmore and Toya 2013; Akai and Sakata 2002; Xie et al. 1999). Hence, the first main discursive conclusion for this research is that PPPs in Oman work in a hierarchical mode of governance and thus could be described as hierarchical PPPs.

### 6.2.2 PREDOMINANT CONTRACTUAL PPP TYPE IN THE OMANI CONTEXT

Despite proposing different types of IORs (Brinkerhoff 2002b; Coston 1998; Najam 2000), a great deal of the PPP literature focuses on two main types: collaborative and

contractual PPPs. This thesis has focused on these two main types due to their relevance to the Omani context and the nature of the relationship between the public and private sector in Oman. This is done as a basis for building a framework that is suitable for the research context.

The empirical findings of the research verify that the existing PPP arrangements in Oman in the fields of electricity, independent water and power projects (IWPPs) and independent power producer projects (IPPs) can be best described as contractual. Contractual IORs are characterised by hierarchical accountability; asymmetrical power arrangements; a lack of participative decision-making; *a priori* design of partnership activities by one partner; and lack of trust (Van Slyke 2007; Klijn and Teisman 2005). In such PPPs, the public sector contracts the private sector to achieve goals of its public policies. The public sector, as the commissioner, states its KPIs and output terms to enter the contractual PPP with the private sector as the contractor (Skelcher 2005).

However, examination of the types of PPPs in the healthcare field did not show a clear form or arrangement between the sectors. Data analysis of the semi-structured interviews verifies the existence of arrangements ranging from conducting contractual agreements for limited services during normal times, to establishing unregulated and limited 'ad hoc' integration with no clear framework during disaster incidents. According to the participants, the informal PPP agreements established during disaster incidents have resulted in challenges and limitations for both sectors.

Another interesting finding was that the interviewees from both sectors agreed that there was an early integration of the private sector into the communicable disease surveillance and control programme in Oman. The participants from the programme related this to the availability of a mandated regulatory framework for control of communicable diseases through the Law of Prevention and Control of Communicable Diseases. The law details the basis for regulating the programme and defines the role of the related health entities in applying necessary measures to protect the community from threats of communicable diseases (MOH CD-Manual 2017). The success of the integration of the private sector into the communicable disease surveillance and control programme in Oman can be attributed to the clear, legislated, and mandated form of integration with clear policies and guidelines.

The empirical findings revealed an overall inclination and consensus from both sectors to establish regulated, contractual healthcare partnerships during both normal and disaster times, as the most suitable PPP type for the Omani context. However, when comparing the effectiveness of the two types of PPPs, Edelenbos and Klijn (2009) consider the debate inconclusive because each type has its own strengths and weaknesses. Clear and detailed contracts can enhance efficiency because they emphasise performance and outcome (Martin 2005; Savas 2000). The supporters of contractual PPPs consider specifying clear goals, roles, and responsibilities of both sectors as essential for avoiding challenges such as moral hazards and information asymmetry (Hart 2003). The empirical evidence of this research resonates with Edelenbos and Klijn (2009) and supports the approach of adopting single or mixed IOR types based on what is most suitable for the country context.

### 6.2.3 ASYMMETRICAL BALANCE OF IORS

A great deal of the PPP literature is focused on examining the balance of IORs in the collaborative and contractual PPPs. With respect to examining the ensuing balance of IORs predicted by the research, the main distinction is between a symmetrical or asymmetrical balance. Researchers note the existence of symmetrical power IORs between interacting entities in collaborative PPPs, versus the asymmetrical IORs in contractual PPPs. Symmetrical IORs indicate a partnership arrangement with equality of all entities involved ,while IORs with an asymmetrical balance signify the dominance of one of the parties and the willingness of the other one to become subordinate, resulting in lack of balance in the relationship. A common assumption is that the goal of PPPs should be to achieve collaborative IORs with a symmetrical balance of relationships (Koppenjan 2005).

However, the research findings illustrate the existence of contractual PPPs with lack of participative decision-making; *a priori* design of the activity with the MOH as the dominating partner who maintains an ex-ante measure, including conducting audits, monitoring and performance requirements (KPIs, SOPs) on the private sector, which denotes a contractual PPP arrangement with asymmetrical balance of power. Prospective private sector partners are introduced to the contract in meetings during which their questions and concerns are discussed, after which the decision is theirs whether to sign or

decline the contract. Private sector participants showed willingness to contract with the public sector as a sign of agreement from both sectors on the asymmetrical balance IORs. The empirical evidence of the research showed both sectors endorsing contractual PPP arrangements, which proves the private sector's consent to, and approval of, the asymmetrical balance of power relationship. These indicators include:

- 100% of the participants from both sectors raised the need to build a clear, systematic, detailed, regulated and standardised framework for PPP agreements between the sectors.
- The private sector participants considered the MOH as the policymaker responsible for preparing a framework for the PPPs.

The research refutes the common assumption that collaborative IORs with a symmetrical balance of the PPP are optimal for securing effective PPPs with better outcomes. Rather, it supports the arguments of Smith and Wohlstetter (2006) on challenging the hierarchical perception regarding PPPs and stressing the need for a new method for differentiating PPPs through neutrally assessing the different forms of arrangements and allowing partners to select the types of partnerships as per the specific needs of the programme, and not based on the existing perceptions of superiority of some forms over the others (Smith and Wohlstetter 2006, p.252). It promotes adopting the best option selected by the sectors in a specific country context in order to ensure the best synergistic outcomes for the context and the partners.

### 6.2.4 CYCLICAL PROCEDURAL FLOW OF THE PPP PROCESS

Examining the evolutionary process of the PPPs is important for understanding their formation and enhancing their sustainability. Cropper et al. suggest that examining and appreciating IORs in PPPs requires studying the nature of the 'relating organizations'; the dimensions of their linking relationships; the context of their operations; and the developmental process of PPPs through which 'IORs are established, maintained, changed and dissolved, and produce outcomes' (Cropper et al. 2010, p.9). Therefore, to explore PPP it is essential to examine the PPP context, the IOR types and balance, and the evolutionary process or life cycle.

The scholars proposed two common approaches in describing the process: the linear continuum of stages (Murray 1998; Lowndes and Skelcher 1998) and cyclical processes (Ring and Van de Ven 1994). The cyclical process framework allows evaluation of the partnership and review of the terms; this is considered a strength since it might result in repeating the cycle or terminating the partnership after proper review and consideration (Ring and Van de Ven 1994). On the other hand, McMorris et al. (2005) criticised linear continuum frameworks, stating that they lack the ability to provide a clear explanation about the progression of the stages, or the methods to analyse the dynamic nature of IORs in the proposed stages.

The empirical evidence describes the existing forms of PPP arrangements in Oman as largely reflective of contractual PPPs with repetitive cyclical process. The available documents describe such PPP contracts as successful in achieving the target outcomes and implementing public policy programmes. Moreover, the data obtained from the interviews shows that public sector participants recommend the repetitive cyclical process for PPP flow. The findings substantiate the PPP literature that suggests cyclical PPP arrangements as the best option for achieving PPP programme delivery and goals (Ring and Van de Ven 1994; Thomson and Perry 2006; Batonda and Perry 2003). These consider partnership as something "iterative and cyclical rather than linear", exhibiting a "nonlinear and emergent nature" (Thomson and Perry 2006, p.22; Batonda and Perry 2003).

## 6.3 FACTORS AND CHALLENGES

A PPP initiative promises to be an effective partnership arrangement option for building successful integration of the private sector into a healthcare DM management system while securing synergistic results for Oman. In Chapter Three, the conceptual framework proposed for this research suggested the key indicator lenses, the links between these lenses, and how they can inform the decision makers by recommending an applicable, effective, and sustainable context-specific PPP framework for healthcare disaster management system for a country.

Three main themes and subthemes (discussed in Chapter Five) are presented in Table 5-2 and discussed below. The findings listed twenty-seven factors into the main themes.

These factors are categorised and discussed in the following sections as per their highlighted importance in the empirical findings.

### 6.3.1 ORGANISATIONAL FACTORS

The analysis of organisational factors at the inter- and intra-organisational level has enabled insight into their effects on shaping the IOR dynamics between sectors in the previous integration or PPP arrangements, and how to manage them for improving the sustainability and outcome of potential PPP projects.

The empirical evidence of the research (Chapter Five) highlights 19 themes and subthemes related to the organisational factors; the most prominent factors affecting the Omani context. For the Omani context, the organisational factors emerged as the most influential, followed by the contextual and motivational factors. All the proposed organisational factors proved to be important in building effective PPPs in Oman.

The research findings further show administrative and legislative factors to be the most significant factors amongst the organisational factors. All participants from both sectors agreed that building an administrative and legislative framework with clear roles, policies and guidelines is the role of the public sector and is essential for building effective PPPs. This validates Chen et al. (2013), who state that governments, as policy-makers, have the role of augmenting the implementation of PPP through developing a regulatory framework.

These factors highlight the predominance of the hierarchical mode of governance in both sectors; hence, the consensus and inclination of both sectors towards having contractual PPPs with an asymmetrical balance of IORs, where the public sector sits at the top of the hierarchy as a regulator, strategic planner, and the leader in setting the PPP framework.

The second most effective organisational factors are resources, followed by leadership and managerial factors. Despite the difference in level of importance, all the discussed factors are proved by the findings to be important elements in building effective healthcare disaster management PPPs and shaping their underlying IORs. Moreover, factors interact with each other to shape IORs along contractual lines. As the public sector is the main source for funding PPPs, interaction between factors – such as dependency on

the MOH as a source of funding – can influence the motives of the private sector and, eventually, can facilitate their willingness to join partnership arrangements.

#### *6.3.1.1 ADMINISTRATIVE AND LEGISLATIVE FACTORS*

Administrative and legislative factors include the lack of administrative and legislative frameworks; lack of policies and operational strategies; and conceptualising, defining, and characterising PPPs. These have emerged from the data analysis as essential factors in building effective healthcare disaster management PPPs. These factors shape the PPPs and their underlying IORs into the contractual type with an asymmetrical balance of relationships.

| Organisational Factors | Themes |
|---|---|
| Administrative and legislative factors | Lack of administrative and legislative frameworks. |
| | Lack of policies and operational strategies. |
| | Conceptualising, defining, and characterising PPPs. |

PPPs are described by Savas (2000) and Pollitt (2003) as concession models, in which governments contract private sector entities to accomplish public policy goals. The empirical evidence of the research validates this argument, with participants advocating for contractual healthcare PPPs employing repetitive cyclical processes with clear regulatory frameworks. Therefore, a clear administrative and regulatory framework with detailed policies and strategies is an essential part of the PPP structure. This is further supported by Whittaker (2014), who asserts that achieving effective and successful PPPs in Healthcare (PPPH) requires setting clearly structured strategies for them.

However, there is a noticeable lack, in some developing countries, of administrative and regulatory frameworks, expertise and capabilities required to efficiently plan and operate a PPP arrangement (Winpenny and Camdessus 2003; Thomsen 2005; Sader 2000). As a developing country, Oman still lacks a clear framework for managing PPPs effectively, especially in the healthcare field. Accordingly, the available PPP projects in the healthcare field vary between limited outsourcing contracts to cover limited services during normal times, to what is described by Nishtar (2004) as ‘ad hoc’ verbal agreements for managing disaster incidents with no standard polices or operational strategies.

Furthermore, as discussed earlier in Chapter Three, in the contractual type of IORs there is a strong emphasis on contracts and tendering rules that tend to be initiated and monitored by the principal or dominant partner (the public sector) in order to inject clarity and certainty into the partnership.

Setting up a well-defined governance mechanism for a PPP with clear distribution of roles and responsibilities and evaluation mechanisms is essential for the success of a PPP project (Nishtar 2004; Barr 2007). Nishtar (2004) further asserts that guidelines can improve systems of governance through developing selection criteria, specific roles for both sectors, and models that outline combined governance structures. This issue was discussed indirectly in many of the previous and upcoming responses of participants from both sectors. These arguments are corroborated by the empirical evidence of this research and participants from both sectors have recommended that PPPs be structured with clear plans, contracts, guidelines, roles, and responsibilities; and that these are strengthened by a legal basis to safeguard the rights of both sectors.

#### *6.3.1.2 RESOURCES*

The empirical findings show the resource factor to be the second most effective organisational factor. It is an essential element of the framework that should be settled prior to planning any PPP. This factor tilts the PPP more into the contractual type with asymmetrical PPP balance, suggesting that is the best option for building a PPP framework for healthcare disaster management in Oman.

| Organisational Factors | Themes |
|---|---|
| Resources | Limited Resources. |
| | Financial Aspects. |

Developing countries are more prone to limited availability of funds for public sector programme provision, which can create constraints for PPP projects (Thomsen 2005; Winpenny and Camdessus 2003; Sader 2000). This argument is supported by the empirical evidence of the research, which confirmed that lack of resources is a significant challenge facing building effective PPPs in Oman.

In addition, according to Bovaird (2004), public-private partnerships (PPPs) are usually considered a tool for combining the resources of public and private sectors, including skills and knowledge. Therefore, the rationale for joining PPPs is their potential to generate added value or what can be also referred to as 'collaborative advantage' (Huxham 2003), or 'synergies' which are often regarded as the ultimate goal of PPPs (Brinkerhoff and Brinkerhoff 2002; Skelcher and Sullivan 2008).

The research findings verify this argument and point to factors such as limited resources within both sectors; lack of private sector facilities and resources in rural areas; and the dependance of the private sector on the governmental sector. PPPs could be utilised as a tool for combining resources to benefit both sectors through collaborative advantage or synergies, provided there is a clear framework with roles and responsibilities to secure the best outcomes from the PPP project. Moreover, PPP contracts could include the public sector providing payable services and support to the private sector to ensure more synergy.

Activating the health insurance system and corporate social responsibility as PPP tools can improve the financial resources and provide the basis for financing activities related to disaster management.

The findings prove that proper management of available resources can help. This shifts the PPPs closer to the contractual type. Moreover, it is logical to expect that sources of revenue can affect organisational autonomy and the decision-making process (Alter and Hage 1993; Moore 2000), because they have to consider the preferences of revenue providers. This can further explain the private sector's consent to the hierarchical mode of governance in the Omani context.

#### *6.3.1.3 LEADERSHIP AND MANAGERIAL FACTORS*

Leadership and managerial factors have been shown to be of great importance in building and shaping PPPs in the Omani context. The research findings show they come after the administrative and legislative and resources factors; however, the findings link them to other factors and highlight the importance of managing them effectively in order to secure the potential PPP gains. Table 6-3 summarises and organises the factors and challenges into three main themes (leaderships, management, and ethical challenges) and 13

subthemes. The following discussion highlights the most prominent factors and challenges identified from the findings.

**Table 6-3. Factors and challenges: themes and subthemes**

| Organisational Factors | Themes | Subthemes |
|---|---|---|
| Leadership and managerial factors | Leadership | Leadership approach. |
| | | Lack of Omani leadership. |
| | | Private sector leadership with no medical background. |
| | | Lack of knowledge and awareness about DM in private sector owners and stakeholders. |
| | Management | Organisational identities of partners. |
| | | Limited monitoring capacity of the public sector. |
| | | Lack of private sector bidders or lack of willingness of private sector. |
| | | Preparedness of private sector. |
| | | Sustainability. |
| | | Lack of adequate communication. |
| | | Lack of research and information base. |
| | Ethical challenges | Conflicting objectives and goals/conflict of interest among partners. |
| | | Accountability and transparency. |

- Leadership related factors

Leadership related factors include leadership approach; a lack of Omani leadership; private sector leadership with no medical background; and a lack of knowledge and awareness about DM in private sector owners and stakeholders.

Leaders can play an important role in shaping the vision of their organisations (Murray 1998; Irfan 2015) and hence, the decision making about PPPs. According to Murray (1998) leaders can influence their organisations and shape the IORs. The attitude of leaders towards the importance of PPPs plays a considerable role, alongside their knowledge and their perception about trusting the other entities in the partnership (Murray 1998). Analysis of the study data verifies these arguments by showing that leadership could play a major role in initiation, progression, and shaping of the IORs of the PPPs.

These findings demonstrate an inclination of the private sector leadership towards securing financial aspects of the PPPs, an essential element to be considered in the PPP framework. The public sector leadership showed awareness of the 'profit seeking' behavior of the private sector and recommended that it should be settled in the details of PPP contracts as an incentive to encourage the private sector and ensure benefit to both sectors. Furthermore, leaders from both sectors wanted to retain their organisational identities when joining any PPP, even with varied concern levels between the private sector participants.

The findings discussed other related challenges, including the lack of Omani leadership in the private sector; private sector leadership with no medical knowledge and awareness; and a lack of knowledge and awareness about DM among private sector leaders and stakeholders. The participants recommended building contractual PPPs with clear requirements as a solution to overcome these challenges.

Overall, the leadership approach in this study was found to have an effect, shifting the IORs more towards the contractual approach. Participants from both sectors agreed on the hierarchical governance structure and advocated for clear PPP contracts as the best approach to prevent conflict and challenges. These findings further support the asymmetrical balance in relationships between the sectors. Contractual PPPs can help in solving issues related to improving disaster management preparedness, knowledge, and awareness in the private sector leadership and consequently, their establishments. Building detailed contracts with clear standards, requirements, and incentives can encourage the private sector to improve their standards and services and encourage them to join PPP arrangements in healthcare disaster management. Including the private sector in the PPP review process and training can further build their leadership capacities,

competitiveness, and effectivity in managing issues related to healthcare disaster management.

- Management related factors

Management related factors include the organisational identity of partners; the limited monitoring capacity of the public sector; lack of private sector bidders or lack of willingness of the private sector; preparedness of the private sector; sustainability; lack of adequate communication; and lack of a research and information base.

The organisational identity of partners, manifested by their strategies, values, mission and vision, is an important factor that can shape PPPs and their IORs. Irfan (2015) argues that the PPP literature describes the different identities of public and private sectors as a source of complexity for PPPs and a challenge to their success.

The IOR literature asserts that it is difficult to maintain organisational identity due to the increasing interdependencies over time between organisations (Ring and Van de Ven 1994). The empirical evidence of this research demonstrates that both sectors are attempting to maintain their organisational identities, with the private sector participants focusing mainly on their sustainability and on how to serve the community in PPP projects while achieving financial and non-financial gains from the public sector. The Omani context shows interdependency between the sectors which leads to the support of the public sector for establishing PPPs, and the consent of the private sector to joining regulated contractual PPPs with hierarchical and asymmetrical power balance between the partners.

In addition, all the participants from both sectors agreed that the government should be identified as the main actor, legislator and policy maker in disaster management due to the fact that it will be leading the partnership as the principal or client while the private sector is the contractor or the agent. This corroborates with Chen et al. (2013) who state that governments, as the policy makers, have the role of augmenting the implementation of PPP through the development of a regulatory framework.

A lack of private sector bidders or lack of willingness of the private sector is a significant challenge in developing countries, resulting in weak competition and, subsequently, negative effects on the efficiency of the PPP (Sader 2000; Winpenny and Camdessus 2003; Thomsen 2005; Lang 2016).

The research findings validate this argument for the Omani context. Participants from both sectors said that private sector willingness is conditional and requires incentives such as the existence of a clear framework for PPPs with clear plans, roles and responsibilities and financial aspects. Interestingly, some of the private sector participants have encouraged mandated integration by the government. This reflects the private sectors acceptance of the hierarchical mode of governance and the asymmetrical balance of IORs between the sectors.

Another essential factor is the preparedness of private sector. Goldschmitt and Bonvino (2009) assert that the success of a healthcare system in disaster management depends on its investment in preparedness programmes and procedures. The research data analysis endorses this argument and illustrates that under-preparedness of the private sector is a real challenge to building effective PPPs in the Omani context. At the same time, the private sector participants expressed the belief that preparedness of the private sector is the responsibility of the public sector. The issue of long-term sustainability is often neglected in PPP programmes. The lack of availability of sustainable funding for PPPH programmes is identified as a major obstacle by the World Economic Forum (WEF 2005). The research findings substantiate this argument as an obstacle facing building effective PPPs in healthcare disaster management in Oman. The findings link sustainability with the financial stability of the private sector, and promote regulated contractual PPPs to ensure the financial gains from the PPPs.

The findings also validate Hunter's (2011) contention that transparency, clear communication, and legalisation are required for motivating companies and securing sustainability. Therefore, ensuring sustainability is linked to other factors including transparency, adequate communication, and clear frameworks.

Other management related factors included a lack of adequate communication and lack of a research and information base; these are validated by the findings as significant challenges that require attention to secure effective PPPs. Overall, the effect of managerial factors on the Omani context indicate support for the hierarchical governance structure, and the need for a clear framework for PPPs in healthcare disaster management. This would see the government taking the role of embedding detailed communication, research and common information databases into the PPP contracts for the attainment of their synergistic outcomes.

- Ethical challenges

Ethical issues – such as conflicts of interests; accountability; and transparency – are upheld by the empirical findings as significant challenges to the establishment of effective PPPs. Klijn and Teisman (2003), in their study of Dutch PPPs, referred to the different background of public and private actors as the cause for their conflicts and an obstacle to accomplishing the objectives of the PPP. In the Omani context, participants from both sectors recommended solutions to overcome the challenge, including regulated contractual PPPs, effective monitoring, and training of the private sector. This corroborates with arguments by Kostyak et al. (2017) and Nishtar (2004) on the need for supervision, frameworks, policies, criteria, clear governance mechanisms, and global norms for PPPs. Hence, a hierarchical mode of governance with contractual and asymmetrical PPPs is the recommended solution for overcoming anticipated ethical challenges in PPPs.

### 6.3.2 CONTEXTUAL FACTORS

The contextual factors include sectoral differences, institutional pressure, reputation, and political environment. They emerge from the empirical findings as important factors and challenges to consider in planning healthcare disaster management PPPs. Despite considering them (and the motivational factors) as less important than the organisational factors, the findings link these to the main factors, and consider them of significance in building effective PPPs and in affecting their underlying IORs.

| | |
|---|---|
| Contextual Factors | Sectoral differences (organisational structure and culture). |
| | Institutional pressure. |
| | Reputation. |
| | Political environment/will. |

The sectoral differences – or the wide diversity between public and private sector in structure, culture, identity and background – can influence their PPP projects and the underlying IORs (Klijn and Teisman 2003). Through citing some of the prominent studies on organisational structure (e.g., Mintzberg 1979; Galbraith 1973), Murray (1998) proposes that some organisational structure styles have more aptitude to facilitate

collaborative PPPs than others. He further discuses organisational structures, identifying 'bureaucracy' as the most likely to hinder collaborative PPPs. An example of such structures is the 'conventional bureaucracies' style which is characterised by Mintzberg (1979) as having a typical conceptualisation of bureaucracy with a high level of formality, hierarchy of authority, and centralised control.

The empirical evidence of this research partly supports Murray (1998)'s argument that organisational structure can affect the shape of Omani healthcare disaster management PPPs and their IORs. The hierarchical governance structure, or what Murray classifies as a characteristic of the 'conventional bureaucracies', proves to be more supportive of the contractual PPPs.

However, there are other factors with influence over the organisational structure in the Oman context. The private sector itself promotes the hierarchical governance mode as it is prominent within (or at an intra-organisational level) the private sector itself. The rigid bureaucratic structure could be explained by some delayed decisions due to the centralised control of the decision making noticed between staff in the regional and central level in both sectors; hence, bureaucracy is an issue for both sector sides. Moreover, the contractual PPPs are encouraged by other factors such as the limited resources of the private sector, its high dependency on the public sector, and its motives to gain from the PPPs at the financial and non-financial levels.

Another factor is the organisational culture, which is defined by Murray (1998, p.1194) as the 'beliefs, values, attitudes, and perceptions widely shared throughout an organisation regarding what it stands for and how it should operate'. Organisational culture can shape the approaches towards other partners. It can impact attitudes and views about a partner's reliability, their contribution, and the willingness to adjust while working within the partnership (Murray 1998; Schein 1992). The research findings show that public sector staff feel less confident in the ability of the private sector facilities due to their limited preparedness capacities, resources, and capabilities. The private sector participants showed their high dependency on the public sector, refrained from taking responsibilities, and accepted the MOH leadership for their own motives and gains.

Moreover, a profit-seeking culture in the private sector was also verified by participants from both sectors with direct links towards promoting contractual PPPs in order to secure

the financial rights of the private sector, and as a means to incentivise them to achieve the target PPP outcomes.

Sharfman et al. (1991), Oliver (1990) and Dimaggio and Powell (1983) describe institutional pressures as forces that can stimulate or obstruct the development of partnerships, and can exert pressure on partners to adapt to the predominating rules and norms for the sake of securing legitimacy. IORs and the willingness to join PPPs are influenced by the dependency of an organisation on funding bodies (Oliver 1990; Alter and Hage 1993). This is validated by the empirical data of the research, which showed a tendency of private sector stakeholders and leaders in Oman to enter into PPPs both as a source of funding and in order to improve the image and reputation of their organisations through building alliances with government. Overall, it was observed that contextual factors have implications for the Omani context, shifting healthcare disaster management PPPs into the contractual, asymmetrical IORs with clearly demarcated frameworks to ensure synergistic outcomes are met for both sectors.

Historically, there is a general belief that the political environment and regulatory processes represent external forces that can interact with other factors, such as leadership, affecting PPPs in a specific context (Vangen and Huxham 2003; Orazi et al. 2013; Van Wart 2003). The empirical findings validate this argument by illustrating the support of the government for building PPPs. Documents prove the existence of previous contractual PPPs with asymmetrical IORs characteristics. This indicates the effect of the political environment in supporting building regulated contractual PPPs with repetitive cyclical process as the best option for ensuring synergistic outcomes for PPPs in healthcare disaster management.

Overall, the contextual factors were supportive of building a regulatory framework that delineates contractual PPPs with asymmetrical IORs and repetitive cyclical process for healthcare disaster management, while considering the public sector as the regulator and the top of the hierarchy, as the best measure to ensure synergistic outcomes for these PPPs.

### 6.3.3 MOTIVATIONAL FACTORS

Motivational factors include reciprocity, efficiency, and necessity. These are validated by the empirical evidence as important factors for initiating PPPs and shifting the PPPs in

the direction of the contractual type with hierarchical governance structure and asymmetrical balance of IORs.

| | |
|---|---|
| Motivational Factors | Reciprocity. |
| | Efficiency. |
| | Necessity. |

Lucas (2002) asserts that collaboration between the sectors is necessary in order to accomplish common or overlapping objectives. Both sectors acknowledge their individual limitations in addressing the public health issues that continue to emerge on the national and international policy agendas, with the public healthcare sector struggling to overcome its limited financial resources, the rapid spread of infectious diseases across borders, the decreased capabilities of the state, and complex social and behavioural problems (Reich 2000; Nishtar 2004; Blanken and Dewulf 2010). Simultaneously, private for-profit organisations have begun to realise the importance of adopting public health goals in their short and long-term objectives and acknowledging a broader view of social responsibility in their corporate mandates (Reich 2002).

However, even when the partnership achieves major public health benefits, there is always suspicion about the motives of the private sector, due to the fact that for-profit firms are often expected to be seeking financial or non-financial future gains (Reich 2002; Nishtar 2004). Undoubtedly, the private sector's primary motive is expected to be profit; however, the public sector needs to understand and accept that and concentrate on efficiency and ethicality in the process of PPP management (Muraskin 2002). The public and private motives should be balanced in order to build bridges between the sectors. Overall, the empirical evidence of the research resonates with these arguments. The public sector participants showed anticipation and understanding of the motives of the private sector, and expressed willingness to involve them in healthcare disaster management efforts and to work with them to improve their capacities and achieve the goals behind the partnerships.

Reciprocity is considered a principal promoting factor for the establishment of inter-organisational arrangements such as PPPs (Sullivan and Skelcher 2002; Pfeffer and Salancik 2003; Alter and Hage 1993; Levine and White 1961). The research findings highlight reciprocity as an important factor associated with promoting the establishment

of contractual PPPs between the sectors in order to ensure synergistic outcomes and mutual gains for both sectors.

The public sector can benefit through proper management of available resources and through encouraging strategic planning of measures such as insurance and corporate social responsibility (CSR), organising these to ensure PPP outcomes such as better utilisation of resources in healthcare DM. On the other hand, the private sector can gain reciprocal benefits such as sustainability, reputation and legitimacy.

Furthermore, according to Brinkerhoff (2002, p.21), both sectors consider PPP a strategy for attaining efficiency and effectiveness objectives. Increasing efficiency is seen as one of the theoretical rationales for PPPs (Skelcher 2005). The empirical evidence of this research supports these arguments. The subject of efficiency emerged through discussion of issues such as preparedness and the capacities of the private sector. Public sector participants highlighted the importance of building the capacity of the private sector so it can provide support with the required standards. The private sector stated their willingness to join PPPs but expressed their need for technical support from the public sector, such as involvement in training in order to improve their efficiency and thereby secure the PPP outcomes.

Irfan (2015) argues that the different perspectives offered by the IOR and PPP literature with respect to efficiency motives "make it difficult to come to a clear conclusion about how efficiency motives will affect the nature of IORs in PPPs" (Irfan 2015, p.73). She discusses the assumption that efficiency motives can lead to collaborative IORs between private sector entities while encouraging contractual IORs in the PPPs arrangements between public and private sectors. This is validated by the research since the empirical evidence proves that the for-profit sector is encouraging contractual PPP agreements with the public sector in order to ensure the support of the public sector in improving their efficiency and capacity.

Interaction between the public and private sector has become a necessity due to the continuously growing challenges, especially arising in the disaster management field, and their individual limitations in addressing these challenges alone. Disasters impact the whole community including the private sector; hence, it has to combine its efforts with the public sector to protect its resources and maintain its sustainability (UNISDR 2008). There is a necessity to survive in equilibrium and achieve stability, even through difficult

situations such as disasters. According to Oliver (1990), joining partnerships might help as a coping mechanism to anticipate, project the possibility of, or deal with uncertainty with the aim of achieving a reliable, systematic pattern of resource flows and substitutes.

This indicates the importance of building PPPs at the level of disaster risk reduction, and not only disaster response. The empirical evidence of the research supports these arguments and stresses the importance of building a PPP framework that ensures involving the private sector even at the DM preparedness and planning phases.

## 6.4 THE SUITABLE PPP FRAMEWORK FOR HEALTHCARE DM FOR THE OMANI CONTEXT

**The most suitable typology for the Omani context**

Drawing on the work presented by previous scholars (Abou-bakr 2012; Chen et al. 2013; Auzzir et al. 2014), this thesis proposes a conceptual framework for PPPs in healthcare disaster management through integration of the IOR concept (see Figure 3.2). Through the integration, this research can contribute by building a framework that relates to the Omani context and can be used to illustrate the effect of the IORs on PPP arrangements. As the focus of this research is on Oman as a developing country, this discussion is primarily focusing on the Omani context. The typology shown in Figure 3-6 could be considered the most suitable for the Omani context.

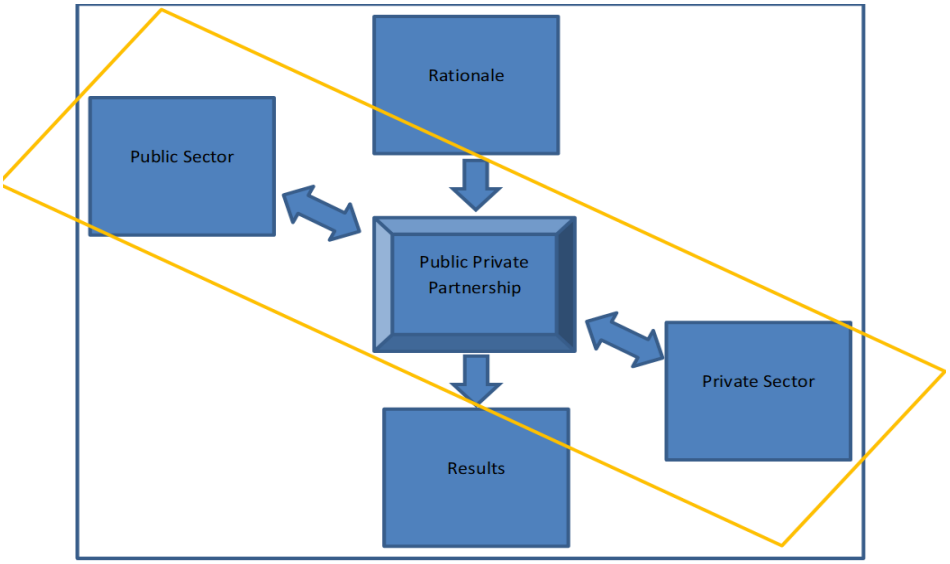


**Figure 3-6. Type 2.a: Asymmetrical contractual PPPs; hierarchical asymmetrical 'hybrid' or 'tilted' PPPs**
Source: Author

According to the research findings, this framework typology and style is best suited to the Omani context for the following reasons.

- Despite the 'top-down' governmental system, the private sector is still encouraged to play a role, which is clear in the strategic plans of the country at many levels and fields, including the healthcare field.
- It is clear from the data analysis and the preparedness assessment that the private health establishments had deficiencies in terms of disaster management preparedness, resources, expertise and even operational management. They are highly dependent on the public healthcare sector.
- There is political will and support for the PPP in healthcare disaster management from the related authorities, but stakeholders from both sectors agreed that the private sector requires improvement at the very basic level of disaster management.
- The deficient capabilities and expertise of the private sector creates doubt among the public sector officials about the ability to trust the private sector. Officials may not sense they can fully depend on the private sector in the absence of contracts with clear process, roles and monitoring, especially around critical issues such as healthcare DM. The public health sector interviewees showed a low level of trust in the ability of the private sector at the current status, and recommended a gradual partnership with the private sector that goes hand in hand with improving its capabilities.
- There is also hesitation within the private sector to take the role of managing public health and healthcare disasters, especially given their limitations. Private sector entities showed interest in cooperating, but admitted their shortcomings and requested help from the public sector at many levels, including financial, human resource, and capacity building.
- The Omani context to date does not have a strong private sector insurance system for normal times, not to mention its unavailability to cover disaster related health and healthcare issues.
- The Omani context to date does not clearly define the role of the private sector in financing healthcare services during disasters. A significant number of public health stakeholder interviewees discussed the need for activating the corporate

social responsibility (CSR) element and regulating it even at the initial process of licensing the private sector. They provided examples of CSR, such as the private sector supporting healthcare services with machines, and recommended clear plans and strategies for using CSR to fund disaster management in the country.

**Roles of both sectors**

As discussed earlier, governance mode and structure can help to illustrate the hierarchy and accountability flow in a PPP and predict, accordingly, the role of both sectors. Figure 6-1 suggests a model for PPPs in healthcare DM in Oman.

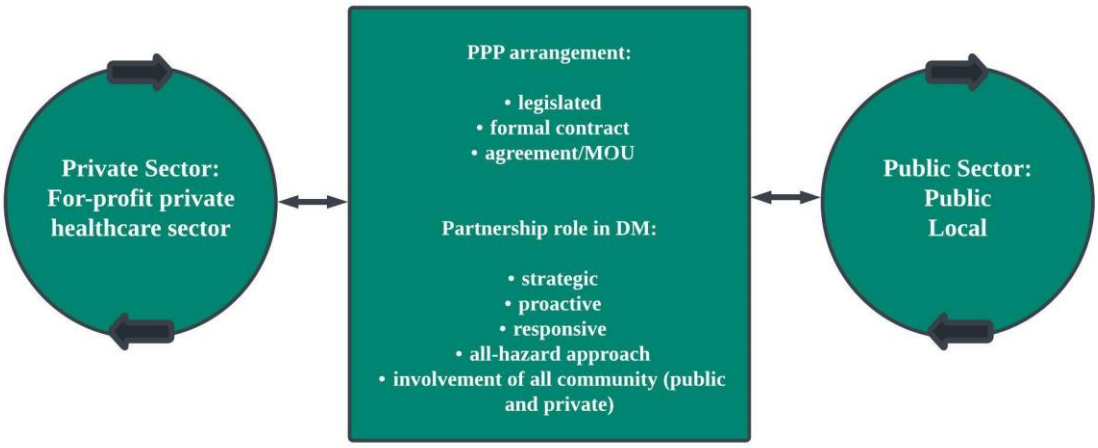


**Figure 6-1. Proposed model for PPP in healthcare DM in Oman**
Source: Chen et al. (2013)

The framework indicates that partnerships are not only inter-sectoral but occur also within each sector by depicting the arrows encircling each sector in Figure 6-1. For instance, the public sector can have levels of internal and hierarchical (both at central and local level) arrangements, in the same way as the private sector.

### 6.4.1 GOVERNMENT/ PUBLIC SECTOR

This sector comprises the two levels of government (central and local) and identifies government-based DM services within the two levels.

**Central Government**

The role of central government in disaster management varies substantially across countries (Auzzir 2014). Nonetheless, the literature defines some of the tasks widely linked to the central government.

- Drafting a national policy for disaster risk reduction

Sylves (2008) argues that the central government's primary task is to draft a national policy for disaster risk reduction and support its implementation in order to tailor the disaster management to the community agenda (Chandra et al. 2013), hence ensuring community resilience and more effective risk management. The empirical evidence of this research supports this argument and participants from both sectors agreed on the need to effectively integrate the private healthcare sector into the national healthcare disaster management system (MPHRS). Existing documents recommend the integration of the private sector, but this has not been implemented effectively in real practice. There are incidents of involving the private sector in response to events of natural disasters and outbreaks; however, those were a few incidents in limited governorates of the country and were not based on a clear framework with clear policies and guidelines. Hence, those were not generalized, and participants discussed a number of resulting challenges due to the lack of clear basis or framework. They could be considered 'ad hoc' integrations with no follow-up studies to determine the pitfalls and build on them for improvements. The integration experiences were repetitive in process and the participants, especially from the governmental side, recommended evaluation of the previous incidents to build a framework with a standardised process.

- Developing a regulatory framework

As the policy maker, and to augment the implementation of PPP and materialise its strategy, governments could build or update their regulatory frameworks (Chen et al. 2013). The framework should define the scope of business; identify targets and priorities; and specify standards, KPIs and incentives to the PPP (Johannessen et al. 2013). According to Busch and Givens (2013), establishing the regulatory framework will help alleviate barriers for the actors in the PPP arrangement. Lassa (2013) further highlights the importance of community awareness to any anticipated disaster management PPP project; this as a responsibility of government. This can further help in establishing

mechanisms to ensure the aims and reaching the targeted population of the PPP arrangement (Chen et al. 2013).

The same issue was discussed by participants who recommended a clear and detailed regulatory framework to observe the rights of both sectors.

- Establishing a central body or authority for disaster management

This is already established at the national level and the NCCD is the national body allocated responsibility for disaster management (as discussed in Chapter Two and Appendix A). The Medical and Public Health Response Sector (MPHRS) represents the Ministry of Health in the NCCD and the Directorate General of Private Health Establishments, which is the public sector department responsible for licensing and monitoring the private healthcare sector, is a member of the MPHRS. However, as described earlier, there is need for a clear framework with clear regulations, roles, and responsibilities and clear basis for PPP in healthcare during both normal and disaster times. This framework is lacking, and the study participants discussed the subsequent challenges that need direct attention.

- Financing disaster management

When managing disasters in developing countries, financial aspects are always a critical matter (Chen et al. 2013; Lassa 2013). The government can do this either at the central or local level. Central government is in charge of overseeing the allocation of funds for disaster management programmes (Xie et al. 1999; Akai and Sakata 2002; Skidmore and Toya 2013). The study participants recommended adopting measures that could be implemented internationally, such as building a proper health insurance system that covers disasters; involving the private sector in funding the disaster management programmes through measures such as corporate social responsibility; and establishing a Disaster Reserve Fund that can allocate budgets for disaster risk management programmes instead of only concentrating on response efforts.

Another interesting, related issue discussed by participants involved the incidents of the MOH supporting the private sector in emergency management. The participants described incidents of the private sector facing disaster incidents and the public sector helping it to manage the casualties. This could be considered a PPP. The public sector can consider building contracts with the private sector, including the private sector paying

for services provided by the public sector. PPPs could be utilised reciprocally and both sectors could support their finances by building service contracts as per the shortages, the areas and the requirements.

- Training

Training is an essential part of disaster management. It includes skills training, medical education, and many related issues. Again, training could be established systematically, and the payment system arranged in a feasible way for both sectors. The payments could be agreed on in contracts and the funds directed to the disaster reserve fund to help provide support for any future events.

**Local Government**

Kusumasari et al. (2010) argue that local governments are being given more attention in disaster management at the recent times. Local governments are believed to be the entity implementing disaster management (Perry and Mushkatel 1984) and playing the main role in emergency operations, due to local government's understanding of local communities, culture, and conditions (Herman 1982; Stewart et al. 2009; Kusumasari et al. 2010).

Scholars have opposing opinions about the role of the local government in disaster management. Solway (2004) argues that local government should not be involved at the national level and should be responsible only for facilitating local conditions, while Cheong (2011) recommends that joint efforts between both governmental levels can facilitate building a comprehensive framework for national disaster management and strengthen resilience. Moreover, building partnerships between actors at all levels of government can secure integrated disaster management planning and mitigation, and decrease the national vulnerability to disasters (Helsloot and Ruitenberg 2004; Alesi 2008; Norris et al. 2008).

Regarding financial disaster management, Rodriguez-Pose and Kroijer (2009) argue that local governments have the capability to manage their own financial resources effectively, attending to their local demands with economic efficiency. Nonetheless, the issue of securing money for the reserve fund might be raised especially at the local level. Skidmore and Toya (2013) suggest several measures including intergovernmental fund

transfer and taxation. Building a disaster reserve fund has to be mandated by the central level as an incentive to strengthen local government (Wildasin 2008).

This was supported by the study participants who argued that the hierarchical governance structure in the research context affects decision making at the local governorate level. They considered it a challenge and recommended giving more authority to the local public and private sector administration, and building effective and comprehensive database and communication systems to enhance the disaster management networking. They also recommended collective decision making, especially during disaster events where communication is affected and a shortage of funds is anticipated.

#### *6.4.1.1 PRIVATE SECTOR*

Participation of the private sector in disaster management projects can provide support by preventing the loss of services in the community at times of disaster. Busch and Givens (2013) state that the private sector can help overcome any limitations on the governmental side.

Insufficient funding is a major issue facing governments in disaster management programmes; this can be addressed by encouraging the involvement of the private sector in PPP arrangements (Auzzir 2014). Furthermore, participation of the private sector could also support the government by formulating and operating disaster social insurance programmes (Khan et al. 2013; Busch and Givens 2013; Lassa 2013).

However, there is a scarcity of research underlining the potential role of the private sector as a financier for disaster management (Auzzir et al. 2014). Lassa (2013) discusses examples of risk transfer programmes that can be adopted by private companies and corporations, including disaster insurance and other financial tools.

The private sector in this research represents for-profit healthcare facilities at the level of hospitals and polyclinics. The participants from both sectors agreed on the challenge posed by lack of availability of the private sector, especially the high-capacity establishments. The research found that most of the private sector hospital-sized facilities are concentrated in the capital or main cities and even those establishments lack specialised staff and resources, especially the specialties required for disaster management (e.g., orthopaedic centres). The challenges also included a lack of resources and capacities in the private sector and their high dependency on the public sector, even

in regular case management. This issue should be tackled in the national framework and measures should be considered for incentivising the private sector in building their capacity and resources. Feasibility studies and plans should be built according to the requirements for specialties and resources in the different regions of the country, as per their needs and disaster risk register, due to the diversity in the geography of the different parts of Oman.

- Insurance as a risk transfer programme

Insurance is considered by some PPP scholars as one of the most popular approaches to disaster risk transfer programmes in developed countries (Carmichael and Gartell 1994; Atmanand 2003; Sawada and Zen 2014). Besides insurance, there is a limited number of available alternative risk transfer measures that can be utilised for managing disasters including contingent capital, catastrophe bonds, weather derivatives, and insurance-linked securities (Castaldi 2004; Bruggeman et al. 2010).

In France, for example, all business and individual properties are covered by insurance because the government requires insurance companies to provide an all-hazard catastrophe insurance in their property insurance policy (Linnerooth-Bayer and Mechler 2007). Another example is the US National Floods Insurance Program in the United States, which was introduced in 1968 in order to encourage the insurance industry to take on a risk-bearing role in flood insurance policies (Auzzir 2014).

However, the underdeveloped financial market of the developing countries is a significant factor limiting the possibility of implementing alternative risk transfer mechanisms (Sawada and Zen 2014; Lassa 2013; Bruggeman et al. 2010; Linnerooth-Bayer and Mechler 2007; Vatsa and Krimgold 2000; Kreimer and Arnold 2000). Hence, governments of developing countries are required to work with the private sector to build effective, suitable loss reduction mechanisms. The research findings corroborate these arguments. Participants from both sectors agreed on the limitations of the existing healthcare insurance system and recommended reforms to accommodate the demands of the private sector in PPPs.

In 2019, the Capital Markets Authority (CMA), the financial regulator in Oman, issued Resolution No 34/2019 – For the release of Unified Healthcare Insurance Policy Form, introducing a new mandated medical insurance law, unified health insurance policy and health insurance rules. The resolution was enforced in 2020 (Oxford Business Group

2019). However, the Resolution does not discuss insurance for disaster casualties. The health insurance system in Oman shows potential, yet should be re-evaluated and built into a system with effective monitoring and evaluation in order to secure the best outcomes. Insurance reforms and government support are required to improve the role of the private sector in healthcare DM, and can help guard against the risks of participating in PPPs.

#### *6.4.1.2 CORPORATE SOCIAL RESPONSIBILITY*

The participants, even at stakeholder level, discussed corporate social responsibility (CSR) as a potential solution for supporting a main national fund locator such as the PPP and Infrastructure Investment Fund (or the Disaster Reserve Fund). Eyerkaufer et al. (2016) and Tomasini and Van Wassenhose (2009) indicate that the increased frequency of natural disasters has compelled the private sector to reconsider their roles, strategies and social responsibilities in disaster risk management. The private sector companies believe that, in spite of the potential risks involved, they can benefit both society and their business by becoming effective corporate citizens (Tomasini and Van Wassenhose 2009).

The Commission of the European Communities (2001) describes CSR as "a concept whereby companies integrate social and environmental concerns in the business operations and in their interactions with their stakeholders on a voluntary basis." Garrido et al. (2014), Du et al. (2011), and Hoeffler and Keller (2002) note that governments are required to encourage social actions by companies and build CSR-promoting public policies. Considering CSR as an effective measure of sustainable development requires the application of different actions and practices. Therefore, a specific indicator of the CSR framework should be founded and identified for healthcare DM (Wang et al. 2020).

## 6.5 CONCLUSION

Most of the existing research in PPPs is related to the developed world, while IOR research primarily explores the government/NGO relationships. There is a noticeable lack of research related to government and for-profit private sector, and especially in the context of developing countries. This is one of the contributions of this research since it aims to recommend a framework for the PPP in healthcare disaster management based on the embedded IORs in the Omani context. Moreover, by employing some of these classifications in understanding the IORs, this thesis provides the opportunity to explore

their applicability for government and for-profit private entities in the Omani context, based on empirical evidence. This chapter has suggested a conceptual framework for Oman as a developing country with different types of IORs described, using a number of typologies in different forms across one or more dimensions.

The analysis of the current situation of healthcare PPPs in Oman suggests that PPPs are still evolving, with no clear structure or IOR approach. When exploring the influence of factors within the Omani context, it was found that various organisational, contextual, and motivational factors are mostly shifting the IORs towards the contractual approach.

In stereotyping contractual arrangements as the example for asymmetrical relationships and collaborative partnerships as the model for symmetrical relationships, we are excluding asymmetrical relationships arrangements from being categorised as PPP. As a result, we might end up unable to categorise them as either a partnership or a contractual arrangement, since they mix elements from both categories. The research demonstrates the link between collaborative IORs, the level of symmetry in relationships, and the increase in synergistic outcomes in a linear relationship, and recommends re-evaluation of the relationship.

# CHAPTER 7: CONCLUSION

## 7.1 INTRODUCTION

Critical discussion notwithstanding, PPPs in disaster management have become a reality. PPPs are becoming unavoidable for strategic national healthcare disaster management policies structured to accomplish common or overlapping objectives of both sectors. The overarching research aim is evaluating a systematic and effective public-private partnership in healthcare disaster management with an emphasis on the underlying inter-organisational relationships (IORs). The detailed research questions aimed to obtain an understanding of the current situation of PPPs in the healthcare disaster management field; the different factors and challenges that can shape PPPs and their underlying IORs; the recommendations to overcome these challenges; and the implications of these points on proposing a framework for effective integration of the private sector into the national healthcare disaster management system in Oman. These queries have been addressed with the aid of the proposed conceptual framework that integrated pertinent constructs and findings from the PPP and IOR literature.

The chapter provides concluding remarks about the conceptualisation of PPPs and their underlying IORs in light of the findings from Oman as a case study. It binds together the key conclusions and propositions of the research reported in this thesis. The initial sections provide a critical reflection on the conceptual framework and its implication for policy and practice of PPPs in healthcare DM in Oman. This is followed by a summary of the research contribution to knowledge and suggestions for future research agenda.

## 7.2 THE CONCEPTUAL FRAMEWORK

In conceptualising a framework that contributes to establishing global standards and guidelines, while within legislative actions of the country, it is necessary to acknowledge that the dynamics of PPP arrangements are generic amongst social sectors. Consequently, letting this commonality prevail in initiating country-specific and international actions may be beneficial to conceptualising PPPs (Nishtar 2004; Barr 2007).

The conceptual framework for this thesis aimed for the holistic analysis of a variety of factors and challenges, and their implications on the resulting PPPs and their underlying

IORs. The conceptual framework promotes the concept of equifinality in which there is no one specific option to succeed; rather, different types of PPPs can be equally effective in different contexts (Meyer et al. 1993). This concept is reflected in the empirical findings which demonstrate that no specific type of IOR should be considered as consistently better than the others unless it is embedded in a context with a suitable pattern of contextual, organisational and motivational factors.

## 7.3 THE KEY FINDINGS FOR RESEARCH QUESTIONS

Based on the overarching objectives of the research, Chapter One outlined three detailed research questions. The empirical findings and discussion of the research offer valuable insights in answering these questions, specifically in the context of PPPs in healthcare disaster management in Oman. Analysing the underpinning research questions resulted in some specific considerations which are discussed below.

*How can we better conceptualise the current situation of partnership and level of preparedness between private and public health sectors in the disaster management field?*

When examining the current situation of PPPs in Oman, this study widened the area of research around PPPs in healthcare during both normal and disaster times due to limited incidents of integration of the private sector into the public healthcare sector DM efforts, the lack of available information resources about the integration incidents, and the existence of PPP projects in other fields of public services (during normal times). Here are the main contentions about the current situation of PPPs in Oman when aligning the research findings with the conceptual framework lenses:

1. *The hierarchical mode of governance in Oman is dominant and consented to by both sectors.*
2. *PPP in Oman is currently contractual with no clear regulatory framework.*
3. *PPPs in Oman are asymmetrical by consent.*
4. *PPPs in Oman are more reflective of the repetitive cyclical process.*

When aligning the research findings with the conceptual framework lenses, it was found that, in the Omani context, the hierarchical mode of governance is dominant in both sectors and accepted as a norm by both parties. This context enhances the tendency towards the contractual type with an asymmetrical balance of PPPs and their underlying

IORs. The empirical results showed preference to the cyclical process PPPs which provide opportunities to evaluate the projects. This could act as an incentive for the private sector for more effective and sustainable PPPs between the sectors.

5. *The concept of adopting the "best advocated' versus the "most suitable" PPP type*

There is a tendency in the PPP literature to distinguish between collaborative and contractual PPP and IOR arrangements. The existing literature suggests that some types of partnership arrangements are better than others. Overall, most of the Western-advocated frameworks encourage PPPs with a higher level of collaboration (collaborative IORs) and emphasise that collaborative relationships are a prerequisite for PPPs to deliver synergistic outcomes.

This thesis disputes the concept of classifying IORs in a hierarchy or emphasising a specific type of IOR as the best potential type. Rather, it supports viewing them as a collection of variable possible approaches, examining and selecting the most suitable form for the context with the best anticipated synergistic outcomes. It supports the argument of Smith and Wohlstetter (2006) on challenging the hierarchical perception regarding PPPs. They state that there is a need for a new method for differentiating PPPs by assessing the different forms of arrangements neutrally and allowing partners to select the types of partnerships as per the specific needs and context, not based on the perception that some partnership types are superior to others (Smith and Wohlstetter 2006, p.252).

Clear and detailed contracts can enhance efficiency because they emphasise performance and outcome (Martin 2005; Savas 2000). The supporters of contractual PPPs consider specifying clear goals, roles, and responsibilities of both sectors as essential for avoiding challenges such as moral hazards and information asymmetry (Hart 2003). The empirical evidence of this research resonates with Edelenbos and Klijn (2009) and supports adopting the most suitable approach for the country context.

Overall, the conceptual framework and the empirical findings of this thesis advocate for the concept of "most suitable and effective PPPs for a specific context" and not considering one specific type as the best existing option. It argues that the type of IOR in a healthcare PPP is affected by the governance mode, and assumes that in contexts with a dominant hierarchical mode, there is an inclination for adopting the contractual IORs.

*6. A need for re-categorising and classification of PPPs*

Another key contention of this research is that the existing PPP literature does not provide a comprehensive conceptualisation of PPP, especially for healthcare PPPs with the for-profit private sector in developing countries. Despite widespread conformity on the dynamism and diversity of PPPs, there is no consensus on what forms a PPP or how to distinguish between its varying types (Hodge and Greve 2007; Hodge et al. 2010; Linder 1999). PPPs are advocated by international agencies with calls for standardisation, but this research proves that a 'one size fits all' approach is not appropriate; rather, the establishment of PPP requires customisation according to the context.

The thesis calls for re-categorising and classifying PPP arrangements, adding more precise terms that fit the underlying IORs, such as Public-Private Arrangements (PPA) or Public-Private Relationships (PPR), in order to better understand alternative types of PPPs according to context. In stereotyping contractual arrangements as the example for asymmetrical relationships and collaborative partnerships as the model for symmetrical relationships, we are excluding asymmetrical relationships arrangements from being categorised as PPP.

*What are the factors and challenges that can shape PPP and their underlying IORs between public and private sectors, and what are the possible recommendations to overcome these challenges?*

Regarding the factors and challenges shaping the IORs, the available IOR literature concentrates mainly on the contextual factors and considers them antecedents to the formation of the partnership arrangements (Murray 1998; Bryson et al. 2006; Alter and Hage 1993). Moreover, the literature suggests that contextual factors interact with motivational factors in initiating PPPs and shaping their IORs (Oliver 1990). On the other hand, the PPP literature pays attention to organisational and contextual factors, while neglecting their influence on the underlying IORs.

The empirical findings of this research support the statement about the importance of the contextual and motivational factors and the existence of interactions and links between the examined factors in building and shaping PPPs and their underlying IORs. However, this analysis finds that the literature underestimates the impact of the organisational factors, and considers these the main factors affecting PPPs and shaping the IORs in the healthcare disaster management in the Omani context.

Almost 100% of participants from both sectors agreed on the importance of organisational factors, while the findings varied about the contextual and motivational factors as background players. This further supports the concept of the "most suitable and effective PPPs for a specific context". Furthermore, the analysis identifies how the interplay between all of the factors shapes PPPs and their IORs.

This research concludes that we cannot consider the IORs in PPPs as static: they develop, evolve, and change over time as a result of the dynamic interaction between the factors. Moreover, the interaction between the factors requires a comprehensive view to understand their collective influence on the PPPs and their IORs.

## 7.4 CONTRIBUTION TO KNOWLEDGE

The research reported in the thesis makes a number of contributions to knowledge. It elucidates on the relational aspects of PPPs, especially in arrangements between the public and the for-profit private sector in the field of healthcare disaster management in the context of a non-Western, developing country with a social or mixed healthcare system.

Due to the PPP concept being relatively new to the developing country context, the data from developing countries are an important contribution to both the IOR and PPP debate. They present empirical evidence on the operation of PPPs in a developing country context, hence contributing to the existing literature that is dominated by developed countries.

Moreover, while the IOR literature directs substantial attention to motivational factors and emphasises the link between motivational and contextual factors, there is still under-investigation of the effect of the organisational factors and the interaction between those factors and their effect on the outcomes. In addition, this research has enriched our understanding of the PPP phenomena by expanding the examined range of factors. It reflects on the importance of the effects of all factors, but considers organisational factors to be the backbone and foundation stones for establishing PPPs. The interaction between the various factors was also explored within the study.

The research suggests an integrated conceptual framework that employs insights from IOR and PPP literature to draw conclusions in the Omani context. It is a country specific

framework can be achieved by selecting the most relevant typology for the context, while considering the overall atmosphere that is affected by the factors and challenges in that specific context.

Moreover, most of the typological classifications of government-NGO are 'theoretical think pieces that did not refer to specific empirical research' Teamey (2007, p.54). This highlights one of the contributions of this research: its proposed typology for the Omani context is based on the empirical findings of the research.

PPPs are increasingly considered an important part of the modern public management agenda around the world (Osborne 2001; Hodge et al. 2010; Brinkerhoff and Brinkerhoff 2002). PPP receives considerable policy attention as a measure to expand access to healthcare in developing countries. Consequently, the study of PPPs is of particular importance for theoretical, policy and practical purposes.

## 7.5 FUTURE RESEARCH AGENDA

The PPP field is evolving and many of its aspects need further exploration and investigation. This thesis indicates some suggestions for directing future research into more comprehension for PPPs. Firstly, the research can be considered a pathfinder study that opens up possibilities for analysis of PPPs in other sectors in Oman (cross-sectoral comparisons) and also with other countries (cross-country comparisons), either with similar or different contexts. This could further enrich the knowledge base about PPPs and IORs, and support the building of effective frameworks for different contexts.

Secondly, the research directs the attention towards more investigation into the role of PPP in the field of healthcare disaster management. This research took a step in this direction, but it would be beneficial to follow-up with studies exploring the outcome of such PPP arrangements.

Thirdly, further research is required to investigate the types of IORs in the field of healthcare disaster management, and their dynamics in shaping the PPPs and influencing the synergistic outcomes.

Moreover, to ensure sustainability of PPPs, it is important to take further steps into exploring the motives (motivational aspects) of both sectors for entering PPP

arrangements for healthcare DM; the dynamics shaping the relational ties between the sectors; and how to channel these motives towards improved outcomes.

The proposed framework, with its suggested typologies for different contexts requires further exploration and development due to the dynamic nature of the PPPs and their IORs and the continuously changing effects of disasters on the different settings. As discussed earlier, there are different types of IORs – with more types expected to evolve – and their dynamics change as per the specific context. Limiting these IORs to collaborative and contractual might not work in different settings, contexts or even fields of public services. The best categorisation is still unclear and there is a scope for further articulation of IORs.

In addition, more research is required to explore the effectiveness of collaborative versus contractual or other types of PPPs in achieving goals and objectives of PPP projects between public and for-profit private sector, based on empirical results.

More attention is required to the comprehensive integration of the different PPP aspects in order to understand their operation and dynamics, including their structural, economic, and relational facets. This integration allows for better understanding of the PPP phenomenon and enriches future research by widening the examined scope and perspectives.

## 7.6 CONSIDERATIONS FOR POLICY PRACTICE

In order to fulfil its fourth objective, the thesis attempts to draw recommendations from the research findings for the building of effective PPPs in healthcare DM in Oman. Broadly, the considerations for policy practice can be divided into two areas: general recommendations for overcoming challenges, and specific considerations relating to the integration of the private sector into national healthcare disaster management in Oman.

There are two main thematic areas of recommendations in relation to the general challenges. In each case, specific action points can be clearly identified for policy practice in Oman.

### 7.6.1 ADMINISTRATIVE AND LEGISLATIVE ASPECTS

Recommendation: Establishing and revising Oman's administrative and legislative frameworks (incorporating administrative and legislative factors)

Action Points:

- **Establishing clear and detailed national legislative and administrative frameworks** for the involvement of the private sector in the national healthcare disaster management system is very important for building a basis for sustainable and effective PPPs. The framework should be in accord with the national health plans and strategies, and updated accordingly to fit the country context.
- **Building a clear, detailed, standardised and "all- hazard" national policy and guidelines** for PPP that cover all phases of disaster with clear roles and responsibilities of both sectors (at all levels) is another essential requirement.
- **Raising awareness of all related entities** regarding reforms of the available national framework, policies, and guidelines is very important for ensuring their implementation.
- **Reinforcing the role of the MOH** so that it becomes and remains the lead policy maker (as the responsible public sector entity), while involving the private sector in the review process.
- **Establishing a dedicated national authority for all PPP related issues**, with clear funding plans, to further support PPP management, financing, and sustainability.
- Financial aspects should be settled to ensure securing the proper resources and rights of both sectors and the community. This includes **building a national reserve fund for disaster management** that includes all sectors and establishing clear strategies for insurance and corporate social responsibility (CSR) and any related measures to secure a continuous and safe availability of resources.

Recommendation: Enhancing the leadership of PPPs (recognising leadership and managerial aspects)

Action Points:

- Improving leadership is essential in shaping PPPs and influencing their outcomes. The Ministry of Health, as the policy maker, should **ensure supportive and competitive leadership in both sectors through measures such as standardising requirements for private hospital administration personnel** to ensure they have administrative, communication, decision making and leadership skills, and improving their knowledge and awareness through training.
- **Provide incentives and support for the private sector** for joining PPPs without compromising the standards of services and goals of the MOH. Incentives should be detailed in law and policies.
- Encourage better recruitment. The MOH should **encourage recruiting Omani staff (Omanization) to private facilities' leadership positions** (CEO or

managers). In addition, **improving communication process and procedures** is essential for building successful partnerships, and should be detailed in the framework, policies, and guidelines. Measures for improving preparedness, standards, and communication include setting up a clear accreditation process; creating database and monitoring systems; and strengthening research, training and capacity building systems for both sectors.

- Enhancing the role of the MOH in disaster preparedness, capacities, and capabilities. The MOH should **support private sector in establishing their disaster preparedness capacities and capabilities**. Ethical challenges should be considered through all stages of the PPP projects.

### 7.6.2 CONTEXTUAL AND MOTIVATIONAL ASPECTS

Recommendation: Recognising the importance of contextual and motivational aspects

Action Points:

- **Establish a supportive and motivational context and atmosphere for PPPs.** This is another important measure to ensure effective PPPs and is primarily the role of the MOH.
- **All related sectors (including the governmental entities from the other sectors) should collaborate in establishing the national framework for PPPs**, with clear roles and responsibilities detailed for all sectors, including the private sector at all levels of policy implementation. The framework should detail aspects such as systems of monitoring; proper communication; resources; financial issues; and the responsible entities for each aspect. This can build a supportive and collaborative atmosphere between all related national entities from both sectors, and beyond the healthcare field.
- **Create a motivational atmosphere to encourage the involvement of the private sector** in the national healthcare DM system in the form of PPPs.
- **Mandating the involvement of the private sector should be enhanced with clear incentives**, such as protective mandates to ensure rights of the private sector; processes that ensure capacity building and enhance trust between the sectors; and proper communication. Even clear monitoring and corrective procedures can act as an incentive for the private sector and ensure their adherence to the national and international standards.

## 7.7 CLOSING REMARKS

This study has explored IORs in PPPs by using a case study research design and employing qualitative data collection methods. A case study approach was employed for this study due to its suitability for investigating a multifaceted phenomenon (PPP) within its context (Oman) in order to obtain a better understanding of the current situation in the studied context and the available performed process (Eisenhardt and Graebner 2007; Yin 1994). It permits a holistic overview and management of everyday incidents; thereby contributing distinctively to the common knowledge about 'individual, organisational, social and political phenomena' (Yin 1994, p.2). This is unique to the case study in contrast to other approaches which are limited in investigating the context.

The research has focused on studying the PPPs between public and for-profit private sector in the field of healthcare disaster management, while considering the relational aspect of the PPPs and the influence of the different factors and challenges on a specific context. It has further considered how these factors shape and affect the targeted outcomes, contributing to the available research in the PPP field. A conceptual framework has been developed, suggesting different typologies for different contexts with different underlying factors and challenges that can shape the PPPs and their underlying IORs. Two types of IORs were examined as most relevant to the studied context and the factors and challenges influenced the shape of the IOR and the dynamics of the PPPs in the studied context.

The empirical findings of this research predict that effective PPPs can be attained in an Omani context, within the setting of its hierarchical governance structure, with contractual IORs, their asymmetrical balance, and a repetitive, cyclical flow of process. Nonetheless, the IORs in PPPs are dynamic, not static, and can change over time according to the dynamic interplay between organisational, contextual, and motivational factors. This might eventually change the setting and hence the preferred PPP framework as per the perceived outcomes of the partnership.

This thesis advocates for the implementation of context specific IORs in order to ensure effective PPPs with best desired synergistic outcomes. It suggests this should be the measure for ranking and distinguishing one PPP from another.

Despite collaborative IORs being emphasised by most PPP scholars as the most promising for achieving synergistic outcomes, this thesis suggests that these outcomes can be achieved by utilising the most appropriate IOR for the specific context. It refutes the division between the IORs, and calls for a wider articulation of PPPs to include the circumstances of developing countries. It also argues for recognising the diversity between contexts and avoiding the generalisation of PPP practice based on the available pre-conceived categorisation of the developed world.

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PPP in healthcare disaster management in Oman is a very important issue to consider. This chapter provides a general overview of the Sultanate of Oman, with information about the country, its disaster management system, its healthcare system, the role of the private sector, and that of the medical and public healthcare disaster management sector. Finally, it highlights Oman's emergency management system.

**Overview of Oman**

The Sultanate of Oman was founded in 1650 and is considered one of the oldest independent states in the Gulf region (FCO 2006). Its strategic location in the south-eastern corner of the Arabian Peninsula, covering a total area of 309,500 square kilometres, was a factor in accelerating its political and economic progress (Ministry of Information 2009; 2012). Its coastline extends 3,165 kilometres from the Arabian Gulf (Persian Gulf) and the Gulf of Oman – where it overlooks the strategic Strait of Hormuz – in the north to the borders of Yemen in the south, where it overlooks the Arabian Sea and the entrance to the Indian Ocean (Ministry of Information 2009; Ministry of Economy 2008). Oman shares borders with the United Arab Emirates in the north, Saudi Arabia in the west and Yemen in the south-west (Ministry of Information 2011). In the Sea of Oman, the Strait of Hormuz and the Arabian Sea, there are many scattered small islands, including Masirah and the Hallaniyat, the Salamah Islands and others (Ministry of Information 2012).

The estimated total population of Oman, according to the National Centre for Statistics and Information (January 2021) is 4,487,121 people, including 2,740,105 Omanis (61.10%) and 1,747,016 expatriates (38.90%). The sultanate is composed of 11 governorates with various topographic, administrative, geographical and economic characteristics, and consists collectively of 61 *wilayats* (districts) (Ministry of Information 2012).

**Hazards**

Oman is vulnerable to both human-made and natural hazards (Al-Shaqsi 2010; Al Hajri 2011). This can be attributed to factors such as its geographical location as a coastal

country in the south-eastern corner of the Arabian Peninsula, its rapid economic growth, and its geopolitical situation as a part of the Middle East region. Al Barwani (2016) discusses additional factors, including climate change in conjunction with ongoing population growth, and growing urban centres, with increasing numbers of people migrating to the cities from rural areas. He further states that 80% of the population lives within 50 kilometres of the coastline.

The geographical and geological nature of the country makes it prone to cyclones and flash floods (Al-Shaqsi 2010). The country's coastline extends for 3,165 kilometres and overlooks three main bodies of water, including the Arabian Sea and the entrance to the Indian Ocean in the far southwest, the Gulf of Oman on the eastern side, and the Persian Gulf to the north (Ministry of Economy 2008; Ministry of Information 2009). This basin undergoes tropical depressions which, in the north Indian Ocean, can generate torrential rainfall and flash flooding, or further intensify into cyclones or severe cyclones, and exert a strong impact on the coastal regions adjacent to the Arabian Sea (Webster et al. 2005; Fritz et al. 2010; Raghavan and Rajesh 2003). A cyclone by itself is regarded as a low-risk event. but it might lead to torrential rain that usually results in flash floods. According to the Ministry of Regional Municipalities and Water Resources (2009), the population of Oman is concentrated near water banks, thus increasing the chances of the population being exposed to the impact of flash floods.

Furthermore, Oman is situated tectonically on the south-eastern part of the Arabian plate, one of the youngest plates that form the earth's surface (Al-Shaqsi 2010). Its northern area has moderate to high amounts of seismic activity, due to its close proximity to the Mekran Trench or the Mekran Subduction Zone (MSZ), a seismically active area (Mokhtari et al. 2008). This activity can cause tsunamigenic earthquakes, with substantial near- and far-field effects, and the potential to generate tsunamis (still under study) (Pararas-Carayannis 2006). The southern portion of Oman records very little seismic activity, but activity in the north requires particular attention due to its potential impact on a wider range of population (Abdulla and Azm 2004).

Moreover, as part of the Middle East region, Oman can be affected by the current turbulent situation of political conflicts, alarming security issues and military escalations, unstable markets, and even popular uprisings and movements (Salem et al. 2020). Terrorist threats, and war and instability in neighbouring countries (Luethold 2004) make

Oman more susceptible to terrorism and other political hazards (Al-Shaqsi 2010; Aras and Yorulmazlar 2017).

The NCCD (now named National Committee for Emergency Management – NCEM) risk register for Oman includes hazards such as cyclones and floods, epidemics and communicable diseases, earthquakes, tsunamis, major transportation accidents, major fires, oil pollution, industrial accidents and hazardous materials (Al Hajri 2011). Furthermore, Al Hajri (2011) notes that economic growth has resulted in rapidly growing industrial cities and economic projects which attract increasing numbers of people from rural areas seeking job opportunities. Most of these projects are located in the coastal areas, exacerbating the vulnerability of the local population to all kinds of hazards, including flash floods, industrial incidents, major road accidents, and epidemics (Al-Shaqsi 2010; Al Hajri 2011; Barwani 2016).

**Effects of cyclones**

There is a dearth of data on the effects of disasters and mass casualty incidents in Oman and other Arabian countries (Al-Madhari and Elberier 1996). Tropical cyclones can result in a wide range of effects. For example, Cyclone Gonu struck the eastern coastline of Oman on 6 June 2007, and was the strongest tropical cyclone ever to hit the Arabian Peninsula (Al-Shaqsi 2010). Its effect on public infrastructure was described by Al-Shaqsi (2011): strong winds affected power lines and communication poles across most of Oman's coastline cities; powerlines and communication networks were overwhelmed and inaccessible to many individuals; Muscat, the capital, experienced loss of power and communications for two days. Furthermore, heavy, torrential rain left many areas flooded – rainfall reached 24 inches in the coastline areas, in comparison to the normal average of 3.9 inches per annum in the country. Consequently, roads and bridges were destroyed, resulting in several days of isolation and inaccessibility for several sites around the capital. More than 2,000 people were evacuated from affected areas. The greatest effects were concentrated in Muscat and Sur city, where infrastructure was damaged severely during the early hours of the incident. Water shortages were another problem in the affected parts of the country, and fishing boats were employed to deliver fresh water to isolated cities close to the coastline. The estimated direct cost of the damage caused by this storm was around US $4 billion (Fritz et al. 2010; Al-Shaqsi 2011; Banan et al. 2020).

**Effects of Cyclone Gonu on healthcare in Oman**

Evaluating the impact of disasters on any healthcare system is important for providing stakeholders and policymakers with valid statistical data for the purpose of conducting appropriate preventive and corrective measures. In this way, they can ensure successful future disaster management efforts by avoiding limitations and pitfalls. In Oman, disaster management-related studies address the impact of cyclones on the local infrastructure, including electricity, telephone networks, roads and bridges; however, there is a shortage of studies on the actual impact on the healthcare system. Al-Shaqsi (2010) states that, similarly to its effect on other services provided by the country, Gonu severely stretched healthcare services. Hospitals, like other infrastructure, were flooded, and isolated due to damaged roads. Moreover, 49 deaths were recorded in the early hours of Cyclone Gonu, mainly of expatriate workers living in low-lying areas of the cities that were subject to flash floods. However, this number does not reflect deaths from exacerbation of chronic diseases due to the inaccessibility of healthcare facilities (Al-Shaqsi 2011).

Furthermore, Alhinai (2011) conducted a descriptive comparative analysis of all patient visits to primary-level healthcare establishments in a city in the Muscat area that was impacted by Cyclone Gonu. He discovered that the cyclone incident caused a statistically significant rise in the percentage of trauma-related and infection cases, even though there was no difference in the overall total number of visits in comparison with normal times. Moreover, it was difficult to obtain MOH publications regarding healthcare disaster management. This might be because such publications are usually produced locally, or at regional level, without being published through official, well-known sources. MOH issued a newsletter summarising its disaster management steps in response to the national early warning of the cyclone (Jaafar 2007, cited by Alhinai 2011). The ministry's efforts were directed towards preparing hospitals in the cyclone's forecasted path to manage mass causalities and major trauma cases. It estimated and planned its human resources requirements and provided the hospitals and health centres with supplies, including blood, food, generators, fuel, and pharmaceutical necessities.

In addition, Al-Shaqsi (2010; 2011) enumerates fatalities and injuries from different tropical cyclones hitting Oman in its recent history, including Cyclone Phet which occurred in June 2010, resulting in 24 deaths and 10,000 injuries.

## The disaster management system in Oman

The milestones in building a disaster management system in Oman have been discussed in detail by previous authors (Al-Shaqsi 2011, pp.8-15; Al Salti 2019, pp.128-133; Al Saadi 2020, pp.73-78). This appendix provides related tables and summarising graphs only. Under the guidance of the late ruler, Sultan Qaboos Bin Said (1940-2020), Oman was amongst the pioneers of the Gulf countries in directing attention towards building a national disaster management system tasked with efficient management of the hazards facing the country, and the potential resulting disasters. Table A-1 presents a timeline for the cornerstones of building an emergency management system in the Sultanate of Oman.

**Table A-1. Timeline of key events in the establishment of an emergency management system in Oman**

| Year | Event |
|---|---|
| 1988 | • Formation of the first National Committee for Emergencies and the National Committee for Natural Disasters.<br>• The National Committee for Emergencies is structured from four main government departments: the Ministry of the Interior, the Royal Oman Police, the Ministry of Health and the Ministry of Social Affairs. |
| 1999 | • Formation of the National Committee for Civil Defence (NCCD) through merging the National Committee for Emergencies and the National Committee for Natural Disasters.<br>• Initially this is more of a reactive body, with no active engagement in preparedness or mitigation.<br>• Led by the Royal Oman Police. |
| 2002 | • The NCCD is recognised as a semi-autonomous section within the structure of the Royal Oman Police, with an executive office tasked to lead its operations. |
| 2003 | • Eight subcommittees are formed and tasked with managing emergency preparedness activities at the regional level under the main NCCD framework (NCCD 2016).<br>• Seven specialised national emergency response teams are established by the Royal Oman Police: emergency medical services, search and rescue, shelter and relief, media and public |

| | |
|---|---|
| | awareness, victims and missing persons, chemical response, and basic services (Al-Shaqsi 2011). |
| 2007 | • Oman is affected by Cyclone Gonu, a CAT 5 cyclone; considered the first national-level disaster, mainly because of massive flash floods in several regions within the capital city and other governorates in the country (Al-Shaqsi 2011; Al Barwani 2016; Al-Naamani 2016).<br>• Consequently, Sultan Qaboos orders major reform of the structure of the NCCD, and gives it the authority to become more proactive in emergency preparedness measures, in contrast to its previous more reactive role (Al-Shaqsi 2010; NCCD 2016). |
| 2008 | • Another fundamental reform in the NCCD: its direct command is shifted from the ROP and brought under the direct command of the Inspector General of Police and Customs (ROP Chief Commissioner).<br>• Since the Inspector General of Police and Customs is considered a member of the National Security Council, the NCCD is given the authority and terms of reference to lead specific disaster response operations addressing natural – and some man-made – disasters. |
| 2010 | • The country is hit by Cyclone Phet and, as a result, Sultan Qaboos commands the NCCD to form a crisis management experts' panel at a national level tasked with developing comprehensive future plans for emergency management in Oman (Al-Shaqsi 2011).<br>• The Sultan directs the NCCD to decentralise its operations to all regions of Oman and stresses the need to increase the NCCD's capacities in health and search-and-rescue areas, as it was previously more concentrated only on providing logistical support for emergency response. |
| 2020 | • Issuance of Royal Decree No. 5/2020 on 1 March 2020 with amendments to the Civil Defence Law, including changing the name of the National Committee for Civil Defence (NCCD) to the National Committee for Emergency Management (NCEM), with no changes to the previous administration, roles or responsibilities of the committee. |

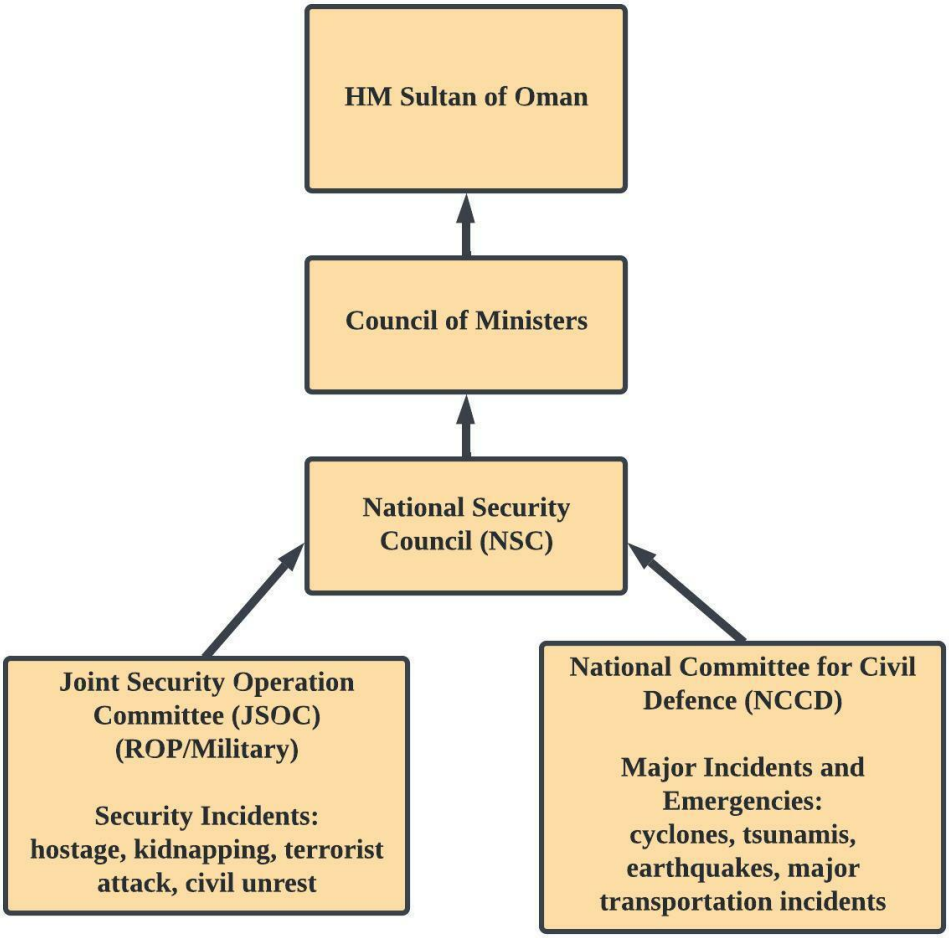


**Figure A-1. National Emergency Management System (NEMS)**
Source: NCCD (2016); NCCD (2017)

The national emergency management system in Oman was created in line with the Royal Civil Defence Law Decree No. 76/1991 (amended by Royal Decree No. 5/2020), as well as State of Emergency Law No. 75/2008, which regulates and outlines disaster management operations in Oman (MLA 1991; MLA 2008; Al-Shaqsi 2011). It is based in the Cabinet Office as the National Security Council, and reports directly to the Sultan (the leader of the country). There are two main bodies for crisis management, depending on the type of emergency; the NCCD is tasked with managing natural disasters, while the Committee for Joint Security Operations (CJSO), formed from the ROP and the military, manages security-related matters, such as terrorist incidents. Both committees are directly

under the command of the National Security Council (NSC), which is responsible for supervising both authorities in all related phases of disaster management (NCCD 2016).

The national emergency response system in Oman is a hierarchical system (NCCD 2016; NCCD 2017). The regulative decrees divide the national response system into three levels – from lower to higher: a local, regional and a national level, with the NCCD representing the national level and operating directly under the National Security Council. Eight sectors operate under the NCCD in a strong, top-down, standards system, with weak bottom-up influence (Al Saadi 2020). Al Saadi states that the standards and plans flow follows the top-down authorities hierarchy, which in turn influences the building of standard operating procedures (SOPs), usually a duty at local and governorate levels, which creates collaboration and balance between the levels.

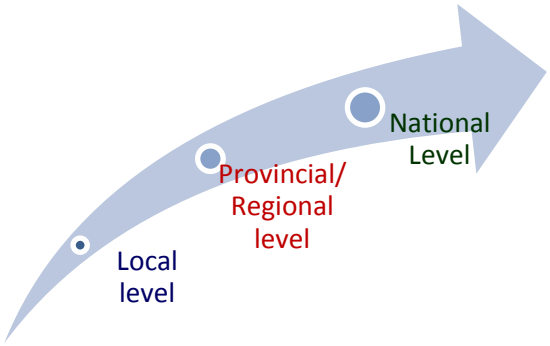


**Figure A-2. The levels for Activation of The National Committee for Civil Defence**
Source: Al Hajri (2011)

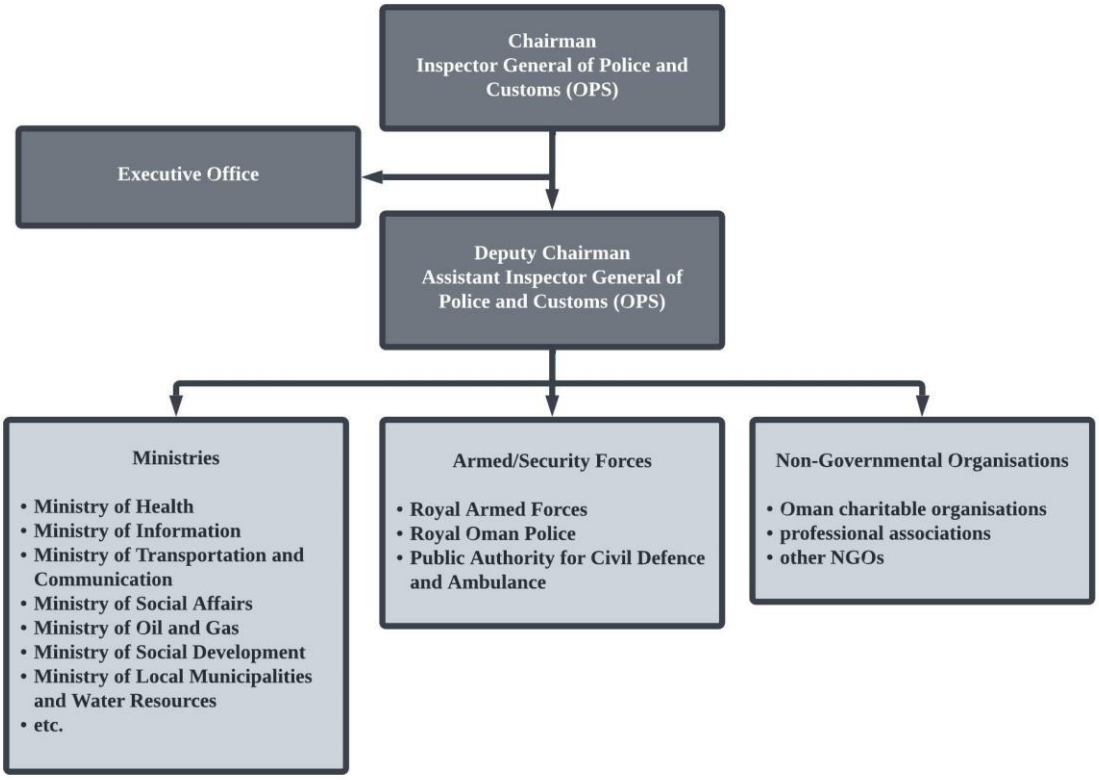


**Figure A-3. NCCD/National Committee for Emergency Management (NCEM)**
Source: NCCD (2016)

The current National Committee for Civil Defence (NCCD)/National Committee for Emergency Management (NCEM) is composed of 16 members from different government departments divided into eight sectors based on specialisation and duties (see Figures A-3 and A-4). This is chaired by the Inspector General of the Royal Oman Police, who directly commands the NCCD Executive Office; this includes the National Emergency Operation Centre (NEOC), to ensure a direct connection between the NEOC and the sector's EOC. The medical and public health response sector is another of the eight sectors forming the NCCD.

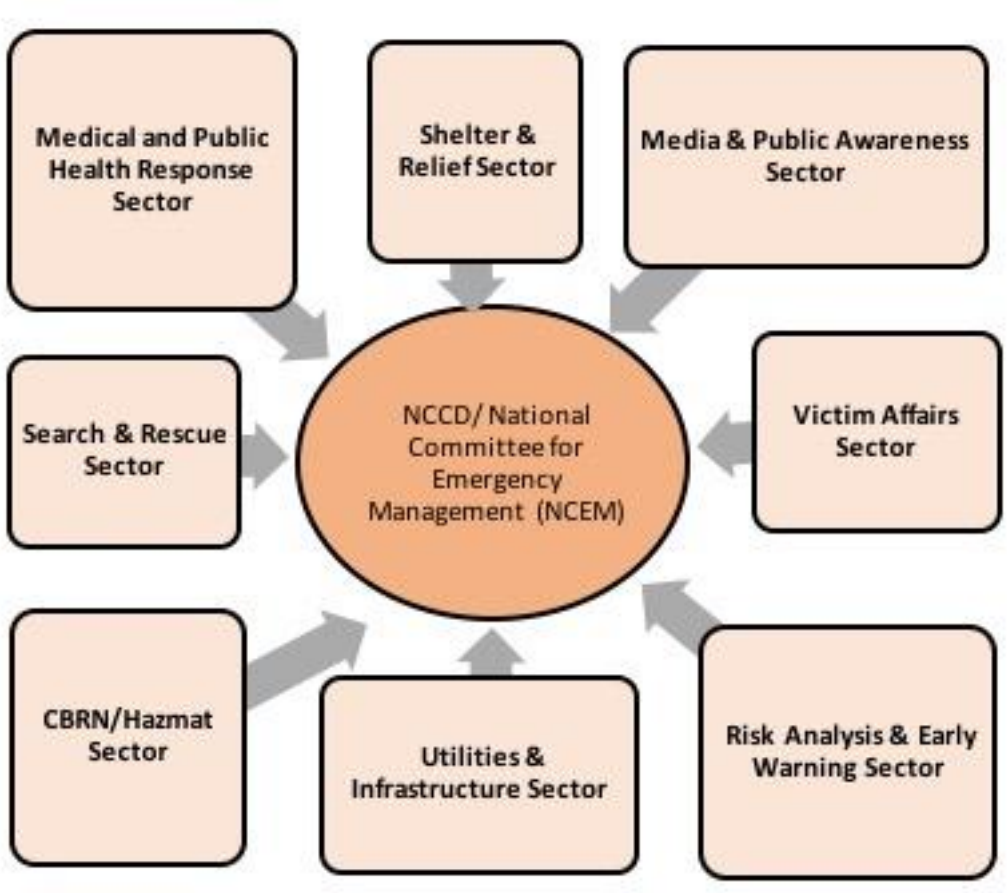


**Figure A-4. Sectors of National Committee for Civil Defence/National Committee for Emergency Management (NCEM)**
Source: Al Hajri (2011)

### Medical and Public Health Response Sector (MPHRS)

The Medical and Public Health Response Sector was initiated in 2010 as one of the eight sectors forming the NCCD, with the goal of establishing inter-sector collaboration on emergency management and ensuring consistent support by the various related national and international entities (NCCD 2015). MPHRS is chaired by the Ministry of Health (MOH) and represents an inter-agency group working as the main forum for medical and public health emergency management meetings in Oman. The mission of MPHRS is summarised as activation of a comprehensive, unified and efficient emergency management system between the partners in the sector. Its objective is to accomplish immediate, effective and organised disaster response, in order to decrease the impact of disasters on people and property. Therefore, the MOH acknowledged the importance of the sector, and directed its attention and support towards structuring the sector and

building its plans (Al Saadi 2020). A timeline of related events is shown in Figure A-5 below.

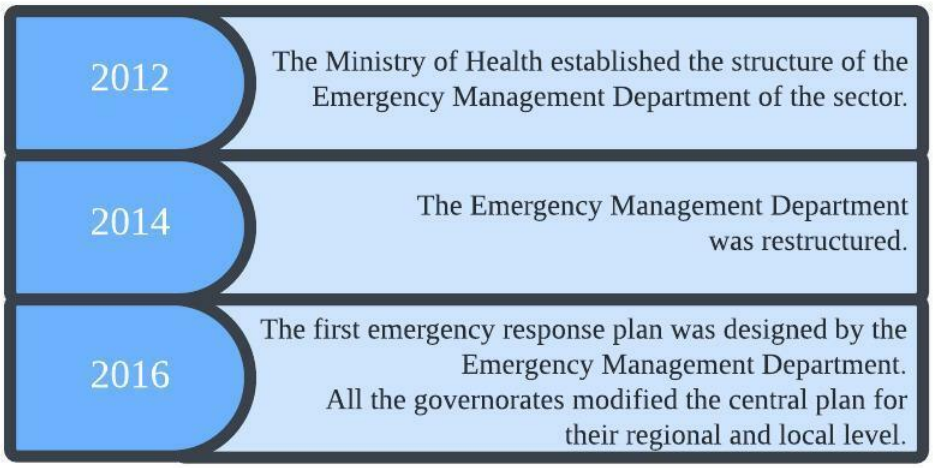


**Figure A-5. Timeline for establishment of the Emergency Management Department**
Source: Author

According to Al Saadi (2020), the medical and public health emergency response plans were built in a compatible format with the NCCD framework, using the same local, regional, and national structural hierarchy. Moreover, based on the NCCD framework, the MOH adapted and standardised the incident command-and-control system at all response levels. However, it is important to note that the system is still in its early stages and the health response plans at national and governorate levels are still evolving and developing. Furthermore, making these unified response plans applicable at local levels is still in process.

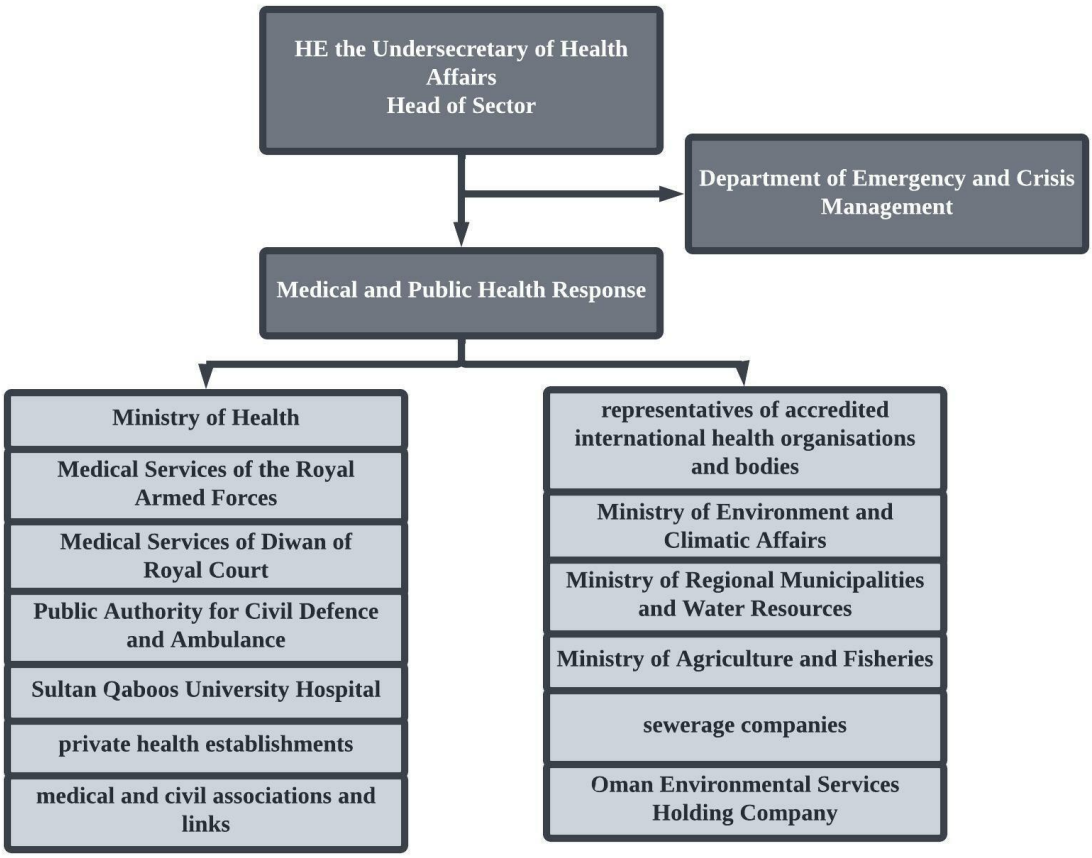


**Figure A-6. Organisational Structure of the Medical and Public Health Response Sector**
Source: Author

The MOH (as the regulating public sector) supports the private healthcare sector in expanding its role in health services (MOH 2015; 2016c; 2017). This is evidenced by the increasing number of private healthcare institutions available (MOH 2016a; 2017). Hence, the need to achieve an effective partnership with the private sector in the disaster management field has become increasingly apparent. Consequently, the MPHRS developed a five-year plan as part of the MOH's ninth five-year health development plan (2016-2020). One of the main goals of this plan is to establish a well-organised partnership with private health establishments in the disaster management field.

### Directorate General of Private Health Establishments

The Directorate General of Private Health Establishments is the authority in the MOH tasked with supervising, monitoring, and coordinating all private sector medical establishments in Oman (hospitals, medical centres, and clinics) (MOH 2016b). It is a member of the MPHRS and performs a vital role in coordinating the organised

involvement of the private health sector within the disaster management system in Oman as part of the MPHRS (MOH 2016).

**The private health sector in Oman**

According to the Ministry of Health Annual Health Report 2018, there are 2,028 private health establishments in Oman, with different specialties and care levels (MOH 2018). National statistics show that the private sector is increasing constantly in its number of establishments, size, and scope. Tables A-2 through A-5 show statistics for the private sector, with numbers of private hospitals, clinics, pharmacies, and manpower in 2018. These are distributed over the eleven geographic governorates (provinces) in Oman (MOH 2018). All private health establishments are registered, monitored and regulated by the Omani Ministry of Health through the Directorate General of Private Health Establishments (MOH 2016b; Al Asfoor et al. 2018). Tables A-5 and A-6 show statistics for private health visits by nationality (Omani, non-Omani), gender, age group (child/adult), clinical specialty and type of health institution (hospital/general clinic/etc.). Visits by Omanis account for 50.6% of the total. These statistics show improvements in the private sector through the increased number of specialties and patient visits. The tables show that 50% of the clinic visits are by Omanis; this suggests an increased need for private sector facilities, although further research is required in order to understand the reasons.

**Table A-2. Developments in private sector health services and institutions over time**

Source: MOH (2018a)

| Category | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 | 2005 | 2000 | 1995 | 1990 | الفئات |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Hospitals** | | | | | | | | | | | | | | **المستشفيات** |
| • Number of Hospitals | 25 | 21 | 19 | 15 | 13 | 12 | 11 | 10 | 7 | 4 | 3 | 1 | - | • أعداد المستشفيات |
| • Number of Hospital beds | 908 | 725 | 667 | 582 | 517 | 480 | 448 | 360 | 279 | 126 | 51 | 6 | - | • أعداد أسرة المستشفيات |
| **Clinics & Diagnostic Clinics** | **1,258** | **1,215** | **1,105** | **1045** | **1,093** | **1,026** | **975** | **911** | **814** | **713** | **560** | **471** | **334** | **العيادات والمراكز التشخيصية** |
| • General Clinics | **265** | **300** | 304 | 302 | 334 | 322 | 307 | 327 | 285 | 317 | 338 | 354* | 278 | • عيادات عامة |
| • General Clinics in Private Companies | **176** | **168** | 158 | 146 | 157 | 132 | 125 | 103 | 102 | 67 | 26 | 44 | - | • عيادات عامة تابعة لشركات خاصة |
| • Special Clinics | **122** | **101** | 74 | 65 | 67 | 58 | 55 | 52 | 54 | | | | | • عيادات متخصصة |
| • Medical Centers & Polyclinics | **298** | **270** | 236 | 223 | 221 | 220 | 210 | 172 | 175 | 159 | 102 | 28 | 24 | • مراكز طبية ومجمعات |
| • Chinese & Indian Clinics | **54** | **51** | 48 | 49 | 64 | 63 | 62 | 59 | 59 | 53 | 20 | 7 | - | • عيادات صينية وهندية |
| • Dental Clinics | **306** | **289** | 251 | 233 | 225 | 208 | 206 | 187 | 134 | 112 | 74 | 38 | 32 | • عيادات أسنان |
| • Medical Laboratory | **31** | **28** | 27 | 21 | 18 | 16 | 3 | 3 | 3 | 3 | 0 | 0 | - | • مختبر طبي |
| • Magnetic Resonance Imaging & Diagnostic Center | **6** | **8** | 7 | 6 | 7 | 7 | 7 | 8 | 2 | 2 | 0 | 0 | - | • مركز تشخيص بالرنين لمغناطيسي& بالرنين المغناطيسي |
| **Number of Pharmacies** | **745** | **718** | **672** | **604** | **550** | **537** | **476** | **442** | **400** | **331** | **321** | **254** | **158** | **أعداد الصيدليات** |

**Table A-3. Manpower in the private sector over time**

Source: MOH (2018a)

| Category | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 | 2005 | 2000 | 1995 | الفئات |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Health Administrators | 27 | 6 | 8 | 5 | 8 | 12 | 12 | 6 | 5 | 1 | 2 | 0 | الاداريون الصحيون |
| **Doctors** | **2520** | **2,340** | **2,134** | **1,959** | **1,787** | **1,685** | **1,588** | **1,412** | **1,272** | **919** | **775** | **517** | **الاطباء** |
| • Consultants | 168 | 171 | 105 | 108 | 10 | 11 | 9 | 9 | 7 | 3 | 3 | 0 | • الاستشاريون |
| • Specialists | 1138 | 1,008 | 834 | 737 | 681 | 632 | 605 | 505 | 442 | 178 | 169 | 54 | • الاختصاصيون |
| • Medical Officers (GP) | 1214 | 1,161 | 1,195 | 1,114 | 1,096* | 1,042* | 974* | 898* | 823* | 738* | 603* | 463 | • أطباء العموم |
| Dentists | 1084 | 982 | 868 | 755 | 650 | 571 | 511 | 424 | 375 | 267 | 145 | 61 | أطباء الاسنان |
| Pharmacists | 1999 | 1,795 | 1,798 | 1,507 | 1,337 | 1,258 | 1,201 | 1,019 | 930 | 572 | 396 | 280 | الصيادلة |
| Nurses | 4072 | 3,799 | 3,515 | 3110 | 2,650 | 2,432 | 2,229 | 1,859 | 1,562 | 695 | 580 | 310 | ممرضون/ممرضات |
| Physiotherapists | 204 | 163 | 124 | 115 | 92 | 104 | 93 | 74 | 66 | 16 | 16 | 0 | فني علاج طبيعي |
| Radiographers | 244 | 233 | 217 | 196 | 178 | 170 | 157 | 124 | 114 | 37 | 22 | 10 | فني الاشعة |
| Laboratory Technicians | 590 | 549 | 530 | 474 | 431 | 411 | 403 | 326 | 307 | 199 | 124 | 81 | فني المختبرات الطبية |
| Asst. Pharmacists | 521 | 489 | 686 | 478 | 443 | 421 | 549 | 493 | 449 | 194 | 187 | n.a | مساعد صيدلي |
| Other Paramedical Staff | 903 | 766 | 863 | 628 | 560 | 505 | 448 | 356 | 404 | 181 | 99 | 4 | وظائف أخرى للمهن الطبية المساعدة |
| Other Staff | 1382 | 1,244 | 891 | 727 | 640 | 639 | 590 | 452 | 292 | 147 | 146 | 8 | موظفون اخرون |
| **Total Private Sector staff** | **13,546** | **12,366** | **11,634** | **9,886** | **8,776** | **8,208** | **7,781** | **6,545** | **5,776** | **3,228** | **2,492** | **1,271** | **إجمالي العاملين بالقطاع الخاص** |

**Table A-4. Medical manpower in the private sector over time**
Source: MOH (2018a)

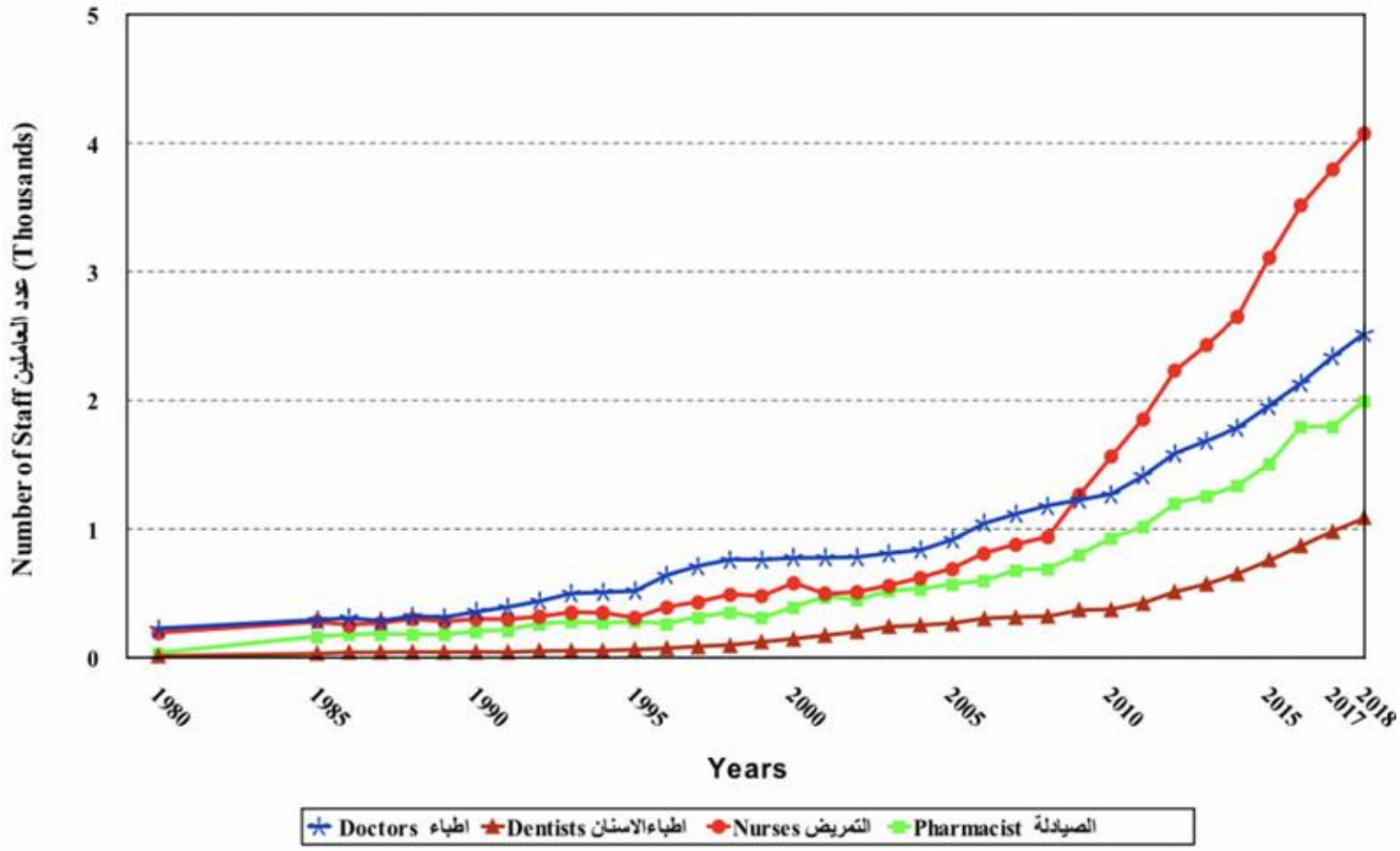

**Table A-5. Outpatient visits to private sector institutions by type, nationality, sex and age (2018)**

Source: MOH (2018a)

| Type of Institutions<br>Nationality Status<br>Sex / Age Group | عيادات طب صيني/هندي<br>Chinese / Indian Clinics | عيادات عامة<br>General Clinic | عيادات اسنان<br>Dental Clinic | مجمعات وعيادات تخصصية<br>Polyclinic & Special Clinics | مستشفيات<br>Hospitals | الإجمالي<br>Total | متوسط أعداد الزيارات يوميا<br>Average No. of Visits/day | متوسط أعداد الزيارات للفرد في السنة<br>Mean No. of visits / person / year | نوع المؤسسة الصحية<br>الجنسية<br>النوع / فئة السن |
|---|---|---|---|---|---|---|---|---|---|
| **Omani** | | | | | | | | | **عماني** |
| Children < 5Yrs | 1,328 | 47,760 | 2,758 | 95,978 | 87,126 | **234,950** | 644 | 0.6 | أطفال اقل من خمس سنوات |
| From 5 to < 14 Yrs | 1,760 | 48,210 | 11,223 | 109,398 | 74,593 | **245,184** | 672 | 0.4 | من خمس سنوات لاقل من ١٤ سنة |
| Adult Male | 8,113 | 196,281 | 30,492 | 268,961 | 246,124 | **749,971** | 2,055 | 0.9 | بالغين (ذكور) |
| Adult Female | 5,658 | 163,742 | 30,427 | 306,185 | 263,942 | **769,954** | 2,109 | 1.0 | بالغين (إناث) |
| Omani Total | **16,859** | **455,993** | **74,900** | **780,522** | **671,785** | **2,000,059** | **5,480** | **0.8** | مجموع العمانيين |
| % of Omani to total | 61.3 | 46.2 | 68.2 | 48.3 | 55.9 | **50.7** | | | % العمانيين من الإجمالي |
| **Non-Omani** | | | | | | | | | **غير عماني** |
| Children < 5Yrs | 472 | 15,172 | 1,607 | 90,771 | 41,659 | **149,681** | 410 | 11.0 | أطفال اقل من خمس سنوات |
| From 5 to < 14 Yrs | 1629 | 29,039 | 4,331 | 98,629 | 47,021 | **180,649** | 495 | 6.2 | من خمس سنوات لاقل من ١٤ سنة |
| Adult Male | 5814 | 407,149 | 16,967 | 421,976 | 303,448 | **1,155,354** | 3,165 | 0.7 | بالغين (ذكور) |
| Adult Female | 2708 | 80,320 | 11,980 | 223,705 | 138,830 | **457,543** | 1,254 | 1.4 | بالغين (إناث) |
| Non-Omani Total | **10,623** | **531,680** | **34,885** | **835,081** | **530,958** | **1,943,227** | **5,324** | **1.0** | مجموع الغير عمانيين |
| % of Non-Omani to | 38.7 | 53.8 | 31.8 | 51.7 | 44.1 | **49.3** | | | % الغير عمانيين من الإجمالي |
| **Total** | | | | | | | | | **الإجمالي** |
| Children < 5Yrs | **1,800** | **62,932** | **4,365** | **186,749** | **128,785** | **384,631** | **1,054** | **1.0** | أطفال اقل من خمس سنوات |
| From 5 to < 14 Yrs | **3,389** | **77,249** | **15,554** | **208,027** | **121,614** | **425,833** | **1,167** | **0.7** | من خمس سنوات لاقل من ١٤ سنة |
| Adult Male | **13,927** | **603,430** | **47,459** | **690,937** | **549,572** | **1,905,325** | **5,220** | **0.8** | بالغين (ذكور) |
| Adult Female | **8,366** | **244,062** | **42,407** | **529,890** | **402,772** | **1,227,497** | **3,363** | **1.1** | بالغين (إناث) |
| **All persons Total** | **27,482** | **987,673** | **109,785** | **1,615,603** | **1,202,743** | **3,943,286** | **10,804** | **0.9** | **الإجمالي** |
| **Average visits per** | | | | | | | | | **متوسط الزيارات يوميا** |
| Children < 5Yrs | **5** | **172** | **12** | **512** | **353** | **1,054** | | | أطفال اقل من خمس سنوات |
| From 5 to < 14 Yrs | **9** | **212** | **43** | **570** | **333** | **1,167** | | | من خمس سنوات لاقل من ١٤ سنة |
| Adult Male | **38** | **1,653** | **130** | **1,893** | **1,506** | **5,220** | | | بالغين (ذكور) |
| Adult Female | **23** | **669** | **116** | **1,452** | **1,103** | **3,363** | | | بالغين (إناث) |
| **All Persons** | **75** | **2,706** | **301** | **4,426** | **3,295** | **10,804** | | | **الإجمالي** |

* From total private sector data, approximately 30.0% of expected data

**Table A-6. Indicators for utilisation of MOH health services over time**

Source: MOH (2018a)

| Indicators | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 | 2005 | المؤشرات |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Number of Outpatient Visits** | | | | | | | | | | | **الزيارات للعيادات الخارجية** |
| At Hospitals | 4,377,444 | 4,253,888 | 4,167,403 | 4,125,366 | 4,104,005 | 3,836,720 | 3,600,456 | 3,299,271 | 3,425,773 | 4,348,261 | أعداد الزيارات بالمستشفيات |
| At Health Centres /Extended HC | 11,135,694 | 11,538,658 | 11,449,106 | 11,251,137 | 10,935,296 | 10,349,781 | 9,743,701 | 9,651,120 | 8,967,519 | 6,268,649 | أعداد الزيارات بالمراكز والمجمعات الصحية |
| Total Visits | 15,513,138 | 15,792,546 | 15,616,509 | 15,376,503 | 15,039,301 | 14,186,501 | 13,344,157 | 12,950,391 | 12,393,292 | 10,616,910 | إجمالي أعداد الزيارات |
| % Non Omani Visits | 4.9 | 5.1 | 5.2 | 5.1 | 4.8 | 4.5 | 4.3 | 3.8 | 3.8 | 3.6 | % الوافدين من اجمالي الزيارات |
| Total Average Daily Visits | 42,502 | 43,267 | 42,668 | 42,127 | 41,204 | 38,867 | 36,459 | 35,481 | 33,954 | 29,087 | متوسط أعداد الزيارات يوميا |
| Mean No. of Visits Per Person | 3.4 | 3.5 | 3.5 | 3.7 | 3.8 | 3.7 | 3.7 | 3.7 | 3.8 | 4.2 | متوسط أعداد الزيارات للفرد |
| Mean No. of OmaniVisits Per Person | 5.7 | 6.0 | 6.1 | 6.2 | 6.3 | 6.2 | 6.1 | 5.8 | 6.2 | 5.6 | متوسط أعداد الزيارات عماني للفرد |
| Mean No. of Non-OmaniVisits Per Person | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | متوسط أعداد الزيارات الغيرعماني للفرد |
| **Inpatient Services** | | | | | | | | | | | **خدمات تنويمية** |
| Total Discharges from Hospitals | 336,347 | 338,670 | 343,199 | 326,467 | 319,954 | 308,400 | 293,251 | 282,577 | 267,996 | 219,849 | اجمالي أعداد مرضى الخروج |
| % of Non-Omani of total Discharges | 6.2% | 6.5% | 6.7 | 6.4 | 6.1 | 5.8 | 5.8 | 5.5 | 5.9 | 6.1 | % الوافدين من اجمالي الخروج |
| Bed Occupancy Rate(%) | 60.6% | 61.8% | 63.3 | 61.4 | 61.8 | 60.5 | 59.0 | 56.3 | 54.5 | 52.9 | معدل أشغال الأسرة (%) |
| Mean Length of Stay in Hospitals (in days) | 3.3 | 3.4 | 3.3 | 3.3 | 3.2 | 3.3 | 3.3 | 3.2 | 3.4 | 3.8 | متوسط طول فترة الإقامة بالمستشفى (يوم) |
| **Deliveries** | | | | | | | | | | | **الولادات** |
| Total Deliveries | 69,310 | 70,962 | 71,222 | 69,488 | 68,026 | 66,557 | 61,380 | 57,243 | 55,631 | 42,050 | إجمالي الولادات |
| Caesarian Sections (% of Total Deliveries) | 19.4 | 19.0 | 19.5 | 19.8 | 19.3 | 17.8 | 17.5 | 17 | 16.4 | 12.6 | ولادات قيصرية (% من إجمالي الولادات) |
| Emergency / Elective CS Ratio | 1.6 | 2.0 | 2.0 | 2.3 | 2.6 | 2.7 | 3.2 | 2.8 | 3.3 | 3.8 | نسبة الولادات القيصرية الطارئة إلى الاختيارية |
| **Laboratory Services*** | | | | | | | | | | | **خدمات معملية *** |
| Total No. of Procedures | 28,134,851 | 27,122,020 | 26,449,046 | 24,726,068 | 22,592,380 | 20,949,688 | 19,499,997 | 18,228,423 | 15,673,499 | 11,565,355 | إجمالي أعداد التحاليل المجراه |
| Mean No. of Procedures per person | 6.1 | 5.9 | 6.0 | 5.9 | 5.7 | 5.4 | 5.4 | 5.2 | 4.8 | 4.6 | متوسط عدد التحاليل المجراه لكل فرد |
| Haematology (% of Total) | 33.0 | 34.0 | 35.3 | 35.7 | 36.7 | 37.5 | 37.8 | 37.0 | 34.1 | 40.0 | اختبارات الدم (% من إجمالي) |
| Biochemistry (% of Total) | 54.6 | 53.2 | 51.1 | 50.2 | 48.7 | 47.4 | 47.1 | 47.4 | 49.5 | 41.9 | الاختبارات الكيميائية (% من إجمالي) |
| Bacteriology (% of Total) | 10.1 | 10.1 | 10.7 | 11.3 | 11.9 | 12.3 | 12.3 | 12.5 | 13.2 | 15.1 | اختبارات البكتريولوجى (% من إجمالي) |
| Histology & Cytology (% of Total) | 1.4 | 1.7 | 2.0 | 1.9 | 1.9 | 2.1 | 2.1 | 2.2 | 2.5 | 3.0 | فحوصات الأنسجة والخلايا (% من إجمالي) |
| Virology | 0.9 | 1.0 | 0.9 | 0.9 | 0.8 | 0.7 | 0.7 | 0.7 | 0.7 | | اختبارات الفيروسات |

As shown in Tables A-5 and A-6, the total number of outpatient visits to private facilities in 2018 was 3,943,286, while the number of visits to government sector facilities was 15,513,138. This shows a significant number covered by the private sector in the country, and highlights its role, particularly in contributing considerably to the public primary healthcare sector. It is also important to highlight that some of the NGOs offer free rehabilitation services for the handicapped (Al Asfoor et al. 2018).

**The basic statute of the State of Oman**

The basic statute was promulgated by Royal Decree No. 101/96, and Royal Decree No. 99/2011 amended some provisions. In article two of its second chapter, the statute asserts the duty of the state to ensure aid for the citizen and his family in the event of emergency, sickness, disability, and old age, in accordance with the social security system. Furthermore, the state will work for the cohesion of society in enduring the burdens ensuing from national disasters (Royal 1996; 2011).

The right-to-health provision is also addressed by the statute, declaring the state's responsibility for public health, and for measures to prevent and treat diseases and epidemics. The state undertakes to provide healthcare for citizens, and encourages the establishment, development and expansion of private hospitals, polyclinics and medical institutions under its supervision, and according to regulations specified in its law. In addition, the state acts in conserving and protecting the environment, and in preventing pollution (Royal 1996; 2011).

**Legal framework for PPPs**

Any arrangement whereby the private sector performs a provincial or national institutional function, or uses national or provincial state property in return for a benefit, is termed a PPP, and thus should be governed by a clear mandatory act and the required regulations (White 2011).

Until recently, PPPs in Oman were partially regulated under relevant local laws. These include Oman's privatisation law, under Royal Decree No. 77/2004, which permits privatising public utilities or restricting them under the law. Furthermore, current IPPs and IWPs are tendered by the provisions of Royal Decree No. 78/2004, amended by Royal

Decree No. 36/2008 (tenders law) and No. 59/2009 (energy sector law) (*Oman Observer* 2018).

In a strong indication of plans to expand the use of the model, Oman started planning on issuing a new PPP law and establishing an authority to supervise the implementation of this law. In December 2015, the government hired a consortium of international consultants to advise on establishing a PPP law and an oversight entity, and an expansion in obtaining PPP projects (*Oman Observer* 2018).

Recently, three Royal Decrees promulgated new legislation in order to extend successful PPP arrangements into other sectors of the Oman economy, namely:

1. Royal Decree No. 52/2019 promulgated the Law of Partnership between Public and Private Sectors (the PPP law);

2. Royal Decree No. 54/2019 declared the formation of the Public Authority for Privatisation and Partnership (PAPP), and issued its regulations; and

3. PAPP Decision No. 3/2020 (the PPP regulations) endorsed the implementation of the PPP law regulations (Allan et al. 2020).

On 1 July 2019, Royal Decree No. 52/2019 was issued promulgating the anticipated partnership law/legislation between the public and private sectors (PPP legislation). The legislation defines the Public Authority for Privatisation and Partnership as the regulating body, with tasks including issuance of the executive regulation of the law, and the decisions necessary for implementing its provisions. The Authority was established on 1 July 2019 by Royal Decree No. 54/2019. The PPP legislation pertains to the procurement and development of the PPP arrangements.

The legislation contains six chapters, the first of which defines PPP arrangements as projects for implementing public works or delivering public services of an economic and social significance, or developing or improving existing public services, while providing an economic and social benefit to the country, consistent with its development plans and strategy (the PPP law). The second chapter regulates floating and awarding a partnership project, the third chapter discusses provisions of the partnership contract, and the fourth details obligations of the project company. The fifth chapter describes monitoring, supervision and oversight, while the sixth details grievance procedures available to the

private sector regarding any decision or procedure connected to the processes for floating, signing, or execution of the partnership contract.

To sum up, the PPP legislation appears to form a clear framework for PPP project procurement, development and operation, one that is built on the success of existing electricity and potable water sector PPP projects, while providing opportunities for new economic sectors in Oman in order to attract finance and expertise from the private sector for the mutual benefit of public and private sectors in Oman. The legislation did not specifically discuss PPP in disaster management, and there are no clear statements about this application.

However, on 18 August 2020, Royal Decree No. 110/2020 was issued, by which the Public Authority for Privatisation and Partnership was abolished, and all its competences, allocations, assets, rights, obligations, holdings, and employees were transferred to the Ministry of Finance in a move to merge some of the governmental entities, as per their terms of reference. In general, the law did not specify types of project, and did not discuss projects required in disaster situations.

**Oman 2040 Vision**

Sultan Haitham bin Tarik, ruler of Oman, has set out the objectives of "Oman 2040", the vision for the nation's future:

> "The vision is relevant to the socio-economic context and objectively foresees the future, to be recognised by the Sultanate as a guide and key reference for planning activities in the next two decades" (Oman Vision 2040, p.8).

This vision has been conceived in keeping with the directives of the late ruler of Oman, Sultan Qaboos bin Said (Oman Vision 2040). It was created based on collective community participation reflecting the aspirations of different segments of the population. A community dialogue was conducted between diverse vision committees – including representatives from the Council of Oman, the public and private sector, experts from citizens and civil society organisations (CSOs), specialists and scholars – thus seeking a consensus amongst the political leadership and all of the community sections (Oman Vision 2040).

Moreover, the vision is based on accomplishments fulfilled in various fields over the previous decades, and it outlines a set of integrated socio-economic strategic directions, key policies and goals designed to be implemented as guidelines. It is planned this way in order to transform aspirations into action plans, underlined by well-defined timelines and milestones. The vision should develop alongside locally and internationally approved performance indicators designed to evaluate the implementation by transparent means, thereby achieving the anticipated outcomes for Oman by the year 2040 (Oman Vision 2040).

The vision defines twelve national priorities and sets objectives and performance indicators for each. The priority concerning the private sector, investment, and international cooperation addresses the private sector directly, but other priorities include it indirectly, as well as in the context of creating partnerships between the public and private sectors in different fields, such as health or education. One objective under the health priority, for example, is to achieve diversified and sustainable funding sources for the healthcare system. In addition, one of the objectives of supporting the private sector as a priority is to build

> "an effective PPP to improve production efficiency and a governance framework to monitor the privatisation of projects and public service" (Oman Vision 2040, p.34).

This demonstrates the government's attention to, and support for, the private sector. The objectives include setting a governance framework for PPP, including the availability of a solid legislative framework to govern privatisation and the required infrastructure for PPPs, in order to improve productivity and efficiency (Oman Vision 2040). However, there is no direct discussion of DM or PPPs in DM in the vision document.

**Health Vision 2050**

The Omani MOH developed this major long-term health policy by formulating a national steering committee with the consultative help of national and international entities and organisations, including private sector representatives (Oxford Business Group 2019; Al Asfoor et al. 2018). The committee designated the "WHO Framework for Action on Health Systems" as the basis for analysing Oman's health system

> "to describe the six main building blocks of the health system namely service delivery; leadership or governance; financing; information; human resources for health; and medical products, vaccines and technology" (MOH 2014, p.5).

Moreover, the committee appointed multi-disciplinary groups, including experts from the MOH and other related entities from the public and private sectors, to conduct strategic studies covering different aspects of health and the health system. The studies were reviewed by independent committees to guarantee their compatibility and consistency with the guiding WHO framework. These strategic studies adopted the SWOT method to evaluate the health area under examination, and identify its strengths, weaknesses, opportunities, and threats. Meanwhile, Health Vision 2050 was aimed at stepping further into examining all the potential factors that might affect the health system, including the political, economic, social, technological, environmental and legal (PESTEL analysis) (MOH 2014).

The document draft was completed in 2012 and its guiding principles include the need to aim for measurable outcomes, continue being patient-focused, deliver quality services, strengthen disease prevention efforts, and keep pace with continuously emerging technologies (Oxford Business Group 2019).

One of its main components is enhancing the private healthcare sector to achieve the goal of having a 50-50 partnership with the private sector by 2050, with the private sector owning and running 50% of health services, including inpatient services (MOH 2014). The vision confirms government support for the private sector and for building PPPs in the healthcare field to ensure a sustainable health system.

The vision report discusses natural disaster management in a chapter about intersectoral partnership/collaboration in the Sultanate of Oman. The discussion mainly concerns collaboration between the different governmental entities regarding interrelated issues, including environmental hazards and how to manage natural disasters. The chapter asserts that the actions of the health sector alone are not the only determinant of the health of the population. Hence, controlling factors affecting the population's health might be beyond the mandate of the health sector, which needs to engage with other governmental sectors in such efforts.

The report defines the term “intersectoral actions (ISA)” as actions taken by sectors other than the health sector, with or without collaboration from the health sector, that can influence health outcomes; and the term “intersectoral collaboration (ISC)” means joint action between the health sector and one or more other sectors for the purpose of improving the population’s health. Intersectoral actions might be directed towards improving one or more determinants of health, but not necessarily overall health. However, intersectoral collaboration can be hindered by the complexity of the government structure. For example, regulations designed to affect health determinants might have a negative effect on another ministry; a simple example of this is the contradiction between the ban on smoking in public areas and its possible conflicting negative impact on the tourism industry. Similarly, true collaboration between sectors is expected to be successful if there is commitment and support at national, governmental and community levels, and with integration of strategies and actions through legislation and policy (MOH 2014).

The report examines DM in the form of preparedness for natural phenomena, and disasters as an area related to health, but primarily the concern of the environmental sector, which is one of the important sectors in relation to the health sector. The report further highlights visions and actions directly related to strengthening intersectoral partnership or collaboration. There is no direct discussion about PPPs in DM, but vision number three in this chapter considers health to be the responsibility of everyone. It suggests actions including formalising and enforcing policies and strategies

> “to ensure that the public sector and the private sector in areas of industry, agriculture and mining provide a safe and healthy working environment and take into account their responsibilities for protecting the environment and ensure that they contribute to the overall wellbeing of the community” (MOH 2014, p.170).

This could be considered as encouraging disaster risk reduction as a responsibility of both sectors. The report does not provide performance indicators for these actions, and so this part cannot be analysed or judged fully.

While neither the Oman Vision 2040 nor the Health Vision 2050 was specifically created to establish a DM-oriented PPP, each of them encourages private sector involvement as part of the disaster risk management strategy, and calls for the institution of a process to

formalise collaboration. The specific PPP organisational framework, command and control, and roles and responsibilities of each sector are left to the related entities to develop.

**Health insurance in Oman**

Insurance is considered a strategy for risk transfer adopted by some of the developed countries. Margulescu and Margulescu (2013) advocate the strategy of using index-based insurance cover as a risk management strategy for transferring the risk of natural catastrophe to the private sector.

In 2019, the Capital Markets Authority (CMA), the financial regulator in Oman, issued Decision No. 78/2019 through Resolution No 34/2019 for the release of a unified healthcare insurance policy form, introducing a new mandated medical insurance law, unified health insurance policy and the health insurance rules. The resolution was issued on 24 March 2019 and enforced in 2020. In adhering to the stipulated provisions of the resolution, residents of Oman will be required to obtain a minimum level of medical insurance coverage with minimum benefits.

Prior to the institution of mandatory health insurance, certain categories of employee, such as blue-collar workers, were unable to fund their necessary medical treatment (Oxford Business Group 2019). The transition to mandatory coverage can support the local insurance sector, and this would benefit both the employee and employer, as long as the insurance system is not abused. Furthermore, mandatory insurance reforms and government support has the potential to improve the role of the private sector in the healthcare services field. However, Resolution No. 34/2019 does not discuss insurance for disaster casualties.

**Corporate social responsibility**

In spite of its long history, CSR is still considered a vague and complex concept, with various interpretations for different contexts, and no consensus reached so far (Wang et al. 2020). The Commission of the European Communities (2001) describes CSR as

> "a concept whereby companies integrate social and environmental concerns in the business operations and in their interactions with their stakeholders on a voluntary basis."

Another definition is proposed by Lichtenstein et al. (2013) as a summary of previous descriptions:

> "CSR is characterized by a deliberate corporate effort to improve society and maintain sustainable business development."

Schwartz and Carroll (2007) perceive CSR as the position, attitude, and actions of private organisations that contribute voluntarily and continuously to enhance social welfare and improve their relationship with stakeholders and residents of the community. According to Bevan and Yung (2015), these definitions underline CSR's positive effects in promoting the safety and improvement of local communities by tackling extensive environmental and social issues.

Considering CSR as an effective measure of sustainable development requires the application of different actions and practices (Wang et al. 2020). For example, Barthorpe (2010) gives a general review of CSR and explains how to carry out and integrate the concept in the UK construction industry. Furthermore, the review reveals that CSR is currently infiltrating business practice as a reliable business philosophy utilised by companies to improve their chances of acquiring strategic competitive advantage (cited by Wang et al. 2020). However, the proposed measures are associated with certain contexts and for certain industries; therefore, a specific indicator of the CSR framework should be established and identified for healthcare DM.

Eyerkaufer et al. (2016) and Tomasini and Van Wassenhose (2009) indicate that the increased frequency of natural disasters has compelled the private sector to reconsider its roles, strategies and social responsibilities in disaster risk management. Private sector companies believe that, in spite of the potential risks involved, they can benefit both society and their business through turning into effective corporate citizens by adopting best practice, decreasing response times as much as possible in order to make decision-making a prompt yet effective process, improving communication, and translating needs into action, according to Tomasini and Van Wassenhose (2009). They further assert that successful PPPs possess the potential to optimise the disaster risk management process through allowing the exchange between the parties of core competencies, better practice and knowledge.

Garrido et al. (2014), Du et al. (2011), and Hoeffler and Keller (2002) assert that governments are required to encourage social action by companies, in order to build CSR-promoting public policies.

# APPENDIX B: SEMI-STRUCTURED INTERVIEW

## Thesis title:

Enhancing Private Health Sector Resilience in Oman: An Evaluation of Effective Public-Private Partnerships in Healthcare Disaster Management

## Interview Duration: 60-80 minutes

## Primary goal:

This semi-structured interview guide will consist of two sections. You will be given a series of questions and will be asked to talk about your preferred options to questions. After each question you will be asked for your reasons and rationale behind your answers with the aim of creating an open discussion based upon the questions structured. If you have any other views not reflected in this guide, you are free to discuss those thoughts too.

| | |
|---|---|
| Name | |
| Work | |
| Ministry/Private Establishment | |
| Region | |
| Email | |
| Contact no. | |

## The Current situation of PPP in healthcare in Oman

This section of questions will focus on exploring how the participant's knowledge and views on the current situation of PPP in healthcare field both during the normal and the disaster situations in Oman.

1. In your opinion, how do you view the current situation of PPP in Oman in the field of healthcare during normal situations?

   - ☐ Excellent shape (e.g., effective in achieving MOH goals)
   - ☐ Good shape (but requires governmental review and improvement to achieve MOH goals)
   - ☐ Bad shape (not effective and needs to be reviewed and reformed)
   - ☐ Non-existent
   - ☐ Don't know

   1.a. What are the main reasons for this view?

   | |
   |---|
   | |

   1.1 How do you view the current situation of PPP in Oman in the field of healthcare during disaster event situations?

   - ☐ Excellent shape (e.g., effective in achieving MOH goals)
   - ☐ Good shape (but requires governmental review and improvement to achieve MOH goals)
   - ☐ Bad shape (not effective and needs to be reviewed and reformed)
   - ☐ Non-existent
   - ☐ Don't know

   1.1.a. What are the main reasons for this view?

   | |
   |---|
   | |

   1.2 Are you aware of any current agreement in your region that encourage collaboration between the public and the private sectors in healthcare disaster management?

   - ☐ Yes
   - ☐ No

   1.3 If yes to 1.2, did the agreement contain:

   - ☐ Clear policies and guidelines on the procedures
   - ☐ Specific requirements and performance indicators
   - ☐ Statements of risks and a plan for appropriate risk mitigation and risk sharing
   - ☐ Details of the financial management of the agreement
   - ☐ A proper monitoring system that includes both sectors as well as the community feedback
   - ☐ Detailed roles and responsibilities of each sector

- ☐ Clear, legally binding statements for both sectors involved, with roles and responsibilities and penalties for breaches and non-compliance
- ☐ Details concerning issues such as communication, database, resources
- ☐ Others: please specify

1.3.a. Would you like to comment on why you have this view on the particular aspect?

2. From your knowledge and experience do you know any examples of cooperation between public and private healthcare sector during disaster incidents?
   - ☐ Yes
   - ☐ No

   2.1 If Yes, what kind of incident?

   2.2 At which level was the cooperation conducted?
   - ☐ Central
   - ☐ Regional (at region level)
   - ☐ Local (incident locality level)

   2.3 What type of cooperation was requested?
   - ☐ Admission of evacuated cases
   - ☐ Triage and treatment of disaster affected cases
   - ☐ Resources (ambulance/ staff/ other)

   Others, please specify

   2.4 How organised was the cooperation?
   - ☐ The disaster management cooperation plan was ready before the incident
   - ☐ It included performance objectives, and indicators of what was required and achieved from the cooperation were clearly stated and agreed upon
   - ☐ Its early warning system included private sector
   - ☐ A pre-assessment of preparedness of the private establishment was conducted

- ☐ Policies and guidelines were implemented (can you elaborate on which policies used and how standardised were they with the governmental policies and guidelines?)
- ☐ A database link connection with the private establishment was available (for surge capacity, etc.)
- ☐ Communication method was successful
- ☐ A team was allocated in the private establishment as disaster management team
- ☐ Roles and responsibilities were well defined between public and private sector
- ☐ Reporting and recording system of the private sector involvement was well-managed
- ☐ A post event report evaluating the cooperation's response was conducted (if Yes, what type of report?)
  The post event report was followed-up to discuss limitations and how to improve further (What kind of impact did the reporting have? Did it lead to changes? If Yes, can you name any?)

2.4.a. Would you like to comment further on the incident and your views on the collaboration and your recommendations on improving future collaborations in responses?

2.5 How were the financial issues managed for treatment of citizen casualties?

- ☐ Insurance
- ☐ Governmental payments or subsidies
- ☐ Patients self-funded their treatment
- ☐ Private sector provided free-of-charge treatment
- ☐ Other means, please specify

2.6 How were the financial issues managed for treatment of expatriate casualties?

- ☐ Insurance
- ☐ Governmental payments or subsidies
- ☐ Patients self-funded their treatment
- ☐ Private sector provided free-of-charge treatment
- ☐ Other means, please specify

3. Are you aware of any legislation that regulates the private health sector's involvement and integration into the national disaster management system of Oman?

   ☐ Yes

   ☐ No

   3.1.1 If Yes, can you identify them?

   ☐ Yes? Please elaborate

   ☐ No

   3.1.2 Are they covering all phases of disaster management (mitigation, preparedness, response, recovery)?

   ☐ Yes

   ☐ No? Please elaborate

   3.1.3 Is the legislation comprehensive about all details related to involving private sector in disaster management (governmental level of response, inclusion, training, monitoring, follow-up, communication, database, etc)?

   ☐ Yes

   ☐ No? Please elaborate

4. Are you aware of any policies that regulate the private health sector's involvement and integration into the national disaster management system of Oman?

   ☐ Yes

   ☐ No

   4.1.1 If Yes, can you identify them?

   ☐ Yes? Please elaborate

   ☐ No

4.1.2 Are there policies setting PPPs related issues (e.g., inclusion criteria and monitoring of the private health sector's involvement into the national health disaster management system)?

☐ Yes

☐ No? Please elaborate

4.1.3 Would you like to give reasons for your particular answer?

4.1.4 Would you like to recommend inclusion criteria for private health establishments to be integrated into the national emergency management system (Medical and Public Health Response Sector)?

## Personal opinion:

This section is set to identify the participant's opinion on relevant issues.

5. Do you think private health sector's role has increased in Oman over the last five years?

   ☐ Yes

   ☐ No

   5.1 If Yes, how?

   ☐ Patients' coverage

   ☐ Manpower

   ☐ Other; please specify

6. Do you think the national healthcare disaster management system in Oman will benefit from Public-Private Partnerships?

   ☐ Yes

   ☐ No

   6.1 If Yes, in which aspects? Can you provide examples?

7. Do you encourage the integration of the private sector into the national healthcare disaster management in the form of PPP in Oman?

- ☐ Yes
- ☐ No

7.1 If Yes, in which phase of disaster management do you believe private sector should be integrated (mitigation, preparedness, response, recovery)?

| |
|---|
| |

7.2 If Yes, what are the benefits/ advantages of integrating private sector activities and resources with those of the public sector during disaster management efforts?

- ☐ Access to private sector resources, expertise, experience and innovation
- ☐ Combined skills, expertise and resources of public and private partners in innovative ways
- ☐ Improvement in efficiency and quality of services with more effective usage of available resources
- ☐ Provide access to industry best practices
- ☐ Improve access and reach to healthcare services during disasters
- ☐ Risks are shared and allocated to the party best able to manage them
- ☐ Public sector concentrates on the objectives to be attained
- ☐ Non-financial benefits for the private sector (reputation, etc.)
- ☐ Others; please specify and give reasons for your opinion

| |
|---|
| |

7.3 Can you identify the factors/ challenges that might influence the level of preparedness of the private sector?

- ☐ Lack of administrative and legislative frameworks
- ☐ Lack of polices and operational strategies
- ☐ Limited resources
- ☐ Lack of willingness of private sector
- ☐ Conflicting objectives and goals/ conflict of interests
- ☐ Lack of research and information base
- ☐ Limited monitoring capacity of the public sector
- ☐ Long term commitment of the private sector (sustainability)
- ☐ Ethical challenges (e.g., agenda of private sector)
- ☐ Accountability and transparency
- ☐ Others, please specify

7.3.1 Would you like to comment on reasons for your answers?

| |
|---|
| |

7.3.2 What are your recommendations to overcome the challenges?

| Challenge | Your recommendation |
|---|---|
| Lack of administrative and legislative frameworks | |
| Lack of policies and operational strategies | |
| Limited resources | |
| Lack of willingness of private sector | |
| Conflicting objectives and goals/ conflict of interests | |
| Lack of research and information base | |
| Limited monitoring capacity | |
| Long-term commitment of the private sector (sustainability) | |
| Ethical challenges | |
| Accountability and transparency | |
| Others | |

7.4 What are the essential requirements to integrate the private health sector into the national emergency management system in Oman?

- ☐ Political support
- ☐ New legislation and regulations
- ☐ Suitable and sustainable public policies
- ☐ Standardisation of policies and guidelines between the private and the public sector
- ☐ Private sector commitment and willingness
- ☐ Appropriate risk sharing

- ☐ Effective public sector capacity (monitoring, etc.)
- ☐ Better sharing of resources (human resources, beds, etc.)
- ☐ Support of end users (consumers and community)
- ☐ Transparency and accountability
- ☐ Others; please specify

7.5 Would you like to comment on your reasoning?

8. How important do you think the following are for PPP?

Legal framework

- ☐ Very important
- ☐ Important
- ☐ Neutral
- ☐ Unimportant
- ☐ Irrelevant

Why do you think this?

The government should be the policy maker

- ☐ Very important
- ☐ Important
- ☐ Neutral
- ☐ Unimportant
- ☐ Irrelevant

Why do you think this?

Policies on PPPs in Oman should include:

- ☐ Criteria for inclusion of private sector
- ☐ Financial management issues
- ☐ Database and information management
- ☐ Communication channels
- ☐ Assessment and monitoring of private sector
- ☐ Training

- ☐ Community awareness responsibilities
- ☐ Others, please specify

8.1 In what areas should the private sector be most integrated in consideration to disaster management?

- ☐ Emergency services
- ☐ Infectious diseases
- ☐ Health programme coordination
- ☐ Others; please specify

8.1.1 Can you provide reasons for your choices in the previous question?

8.2 What is the role of government in financing PPPs from your point of view?

For Omanis

- ☐ Limited: insurance is to be paid for by Omani citizens covering medical care in private hospitals during disasters
- ☐ Substantial: the government is to provide and/or subsidise medical care in private hospital during disasters
- ☐ Others; please specify

7.2.1 Would you like to give reasons on your opinion?

For non-Omanis

- ☐ Limited: insurance is to be paid for by Omani citizens covering medical care in private hospitals during disasters
- ☐ Substantial: the government is to provide and/or subsidise medical care in private hospital during disasters
- ☐ Others; please specify

7.2.2. Would you like to give reasons for your opinion?

9. How do you view the future usage of PPPs in providing effective healthcare disaster management? Do you expect to see:
   - ☐ More PPPs being developed

- ☐ Much the same as now
- ☐ Less being developed
- ☐ No longer being developed

9.1 Why do you think this?