Masterthesis

Transformation of water organizations.

From administrative hierarchy beyond marketization

The case of Amman Water, Jordan

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Abbreviations

AGWSA	Amman Governorate Water Service Area
AWSMP	Amman Water and Sanitation Management Project
BOO	Build-Operate-Own
BOOT	Build-Own-Operate-Transfer
BOT	Build-Operate-Transfer
CEO	Central Executive Officer
DBFO	Design-Build-Finance-Operate
DBO	Design-Build-Operate
IS	Interview Statement
IWA	International Water Association
JEC	Jordan Electricity Company
JOD	Jordanian Dinar
JVA	Jordan Valley Authority
KfW	Kreditanstalt für Wiederaufbau
LEMA	Private sector consortium consisting of Lyonnaise des Eaux, Montgomery Watson and Arabtech Jardanesh
MC	Management Contract
MP	Ministry of Planning, Jordan
MGA	Municipality of Greater Amman
MWI	Ministry of Water and Irrigation, Jordan
PIC	Performance Incentive Compensation
PMU	Programme Management Unit
PPP	Public Private Partnership
PSP	Private Sector Participation
USA	United States of America
USAID	United States Agency for International Development
WAJ	Water Authority of Jordan
WB	World Bank

Prologue

Traditionally, the provision of water and sanitation services as well as the management of water resources has been within the responsibility of governments and their administrations. In recent decades however, water service provision in many countries experienced a transformation in terms of institutional arrangements. Water and waste water utilities are increasingly organized according to commercial principles and market-oriented as well as market-based arrangements, transferring the responsibility and associated risks for operation, management and capital investment partially or even completely to private sector companies. This transformation of water service provision arrangements refers to the overall discussion about what shall be considered a public task and what shall rather be provided by the market. However, whether or to which extent the provision of goods or services are anchored within the public sphere is not a clear decision. It depends on various influences, such as political situations, reform fashions and societal and economic pressures which cannot be regarded as stable and fixed over time. As recent developments in the course of the financial crisis in 2008 show, the upcoming of unexpected events can influence the societal perceptions towards state intervention or nationalization in a very short time.

The assignment of public goods and service provision has in theory and practice always been along the demarcation line of public or private task fulfillment. Within the classical model of the social state, the endogen deficit of the private markets had to be compensated by the provision of public services. The approach of the social state aimed at securing the structure, level and universalism of such services within a legal public framework. This included also the functions of initializing programs, organizing their implementation and guaranteeing their financing through the public sphere. However, driven by deficiencies and failures of the public sphere, the neo-liberal program gained popularity, which in the context of the same legal framework emphasized the superiority of the private mode of organization. Based upon the classical-liberal founding works of Adam Smith – who promoted a minimal conception of state action and intervention and defined government as the authority that guarantees the optimal framework for private action – as well as fostered by the phenomenon of political failure especially in the second half of the twentieth century this tradition experienced a significant revitalization.

In practice this leads increasingly to the involvement of the private sector in the provision of public goods and services. However, it was not the pure neo-liberal ideas that asserted, but the urge to overcome the challenges of public failure (re)-initialized a momentum of public-private cooperation. Rather than promoting the extremes of public hierarchy or market, focus increasingly shifted to the development of optimized arrangements, taking into consideration aspects of efficiency, governance as well as state control. This can result in improved public arrangements, private arrangements or arrangements that are based on a cross-sectural complementation.

Organizational transformation processes from traditional public provision arrangements to cross-sectural setups or commercialized public utilities are always very case-specific. Depending on the type of good or service, the circumstances at hand as well as the specific nature of involved organizations and stakeholders, the path of transformation is significantly influenced. Therefore, the resulting intra-organizational changes as well as the extent and nature of impacts vary from case to case.

The exploration of organizational transformation processes in the context of cross-sectural cooperation has caught my interest already for some time. With the scope of this thesis my interest in this topic has found a frame for further investigation.

1. Introduction

Supply of water, management of water distribution as well as the sustainable use of water resources are a great challenge in many transforming and developing countries. Without considerable improvements of water and wastewater services, the already stressed situation is expected to further deteriorate. Fast urbanization, population growth and resource scarcity intensify the need for effective and efficient water and wastewater service provision. Traditionally, the water provision arrangements in many developing and transforming countries have been rooted within the public sphere. However, the public sector has in many cases proven to be incapable and overstrained to efficiently and effectively manage water and wastewater service provision. As a means to overcome these pressing challenges, the involvement of private sector companies has often been enthusiastically promoted as the silver bullet for water sector modernization. Whereas initially a complete privatization of water assets and operations was thought to deliver the intended improvements, in recent years – due to better experience – strategies promoted by many international financial institutions and donor organizations tent to rather focus on commercialized public arrangements. These include public companies and various forms of cross-sectural collaboration, such as outsourcing or management contracts. For public utilities these institutional change processes, from traditional administrative settings to commercialized and market-oriented provision arrangements, can be described as organizational transformation.

Whereas previous research has primarily focused on the economic and institutional level of water provision arrangements involving private sector companies, this study intends to make a contribution to the debate by examining private sector participation in the context of organizational transformation in the public sphere. It is the objective of this study to gain a further understanding of the momentum of change initialized by cross-sectural arrangements. Emphasis is put on the nature of cross-sectural cooperation and its impact on public sector organizations and their members. As a basis for analysis, the transformation of Amman Water from an administrative arrangement to a public company is investigated in detail. For the purpose of this investigation, an document analysis, field observation as well as qualitative expert interviews with several of the case stakeholders have been conducted.

In order to investigate the matters of interest, this study is organized as follows. Chapter 2 will present an introduction to the specific nature of water, sketches the historical development of water service provision and classifies alternative modes of water service provision. Chapter 3 will lay down the analytical framework for the research conducted. First, an overview of the context in which transformation of water service provision takes place will be given. This includes a brief investigation of traditional public service provision as a point of departure as well as an introduction to the drivers that increasingly lead to organizational transformation of public utilities. Second, the nature of arrangements involving the private sector will be explored adapting a systems theory perspective. Third, conceptions of organizations and organizational change will be investigated. In chapter 4, the research methodology will be presented. The research questions will be clearly identified and the methods of data collection and data processing will be discussed. As a basis for the following case-bound investigation the adopted analytical approach will be presented. In Chapter 5, the case study will be investigated in detail. Based on relevant background information the Amman Water case study will be analyzed. In chapter 6 findings from the case study are discussed and reflected on the basis of the conceptional framework. Emphasis is put on the path of transformation of Amman Water and its impact on the organizational level. Chapter 7 will provide a summary of findings and a final conclusion on the research conducted.

2. Water service provision

2.1 The nature of water

The nature of water is manifold. A distinct physical feature of water is its mobility. It flows, it seeps, it evaporates. The mobility of water and the opportunity for sequential use and re-use make water a special good. In addition water supply features a great variability in terms of space, time, form and quality. Regarding space, water is distributed very unevenly across the globe. Regarding time, the precipitation varies heavily between regions both within a year and between years. Regarding form, water can be fresh or salty, it can be frozen or liquid and it can be found on surface or in the ground. Regarding quality, water can be crystal clear or muddy and it can have drinking water quality or be subject to chemical or biological pollution and contamination (Hanemann 2006: 61pp).

Water as a resource is essential for all life – human, animal or plant. It is a good that impacts our standard of living, our state of health and the social and economic prosperity of our society. If available in adequate extent and quality, it tents to be taken as granted. If the availability is inadequate, it becomes one of the most central issues in our everyday life. Because water features an extensive social dimension it is subject to multilevel politics, such as every day politics of water control, the politics of national water policy, interstate hydropolitics and the relative new phenomenon of global water politics (Mollinga 2008: 6pp).[1]

From an economic perspective water is regarded as a commodity – although a commodity with a very special characteristic. Since Paul A. Samuelson (1954) economists have made a distinction between public goods and private goods. Whereas public goods are characterized by non-rivalry in consumption and non-exludability, private goods in contrast are characterized by competition in consumption and therewith exludablity. Seen in this context, water features both natures depending on the form of use. When water is consumed it is a private good. When water is left in situ, it is functioning as a public good (Hanemann 2006: 71). This heterogeneous nature makes water different to many other commodities and has significant impacts on the legal status associated with water such as property rights, water rights and water market regulations (Howe 2005: 175pp).

[1] *Every day politics of water* control refer to the day-to-day use and management of water including the access to local water resources, the structure of water property rights, and the enforcement of water rights. The *politics of national water policy* refer to the process and content of water policies understood as state regulation that are negotiated and re-negotiated within the state apparatus, but also in the interaction of state institutions with stakeholder groups. *Interstate hydropolitics* refers primarily to conflicts and negation processes between sovereign states on water allocation and distribution, particularly in relation to transboundary rivers or aquifers. The *global politics of water* refer to international discourse, policy, and tentative regulations on water. This phenomenon has been fostered by the international conferences on water, environment, and development in Dublin and Rio in 1992 (Mollinga 2008: 7pp). Central international institutions are: the World Water Forum (WWF), the World Water Council (WWC), the Global Water Partnership (GWP), and the International Water Association (IWA)

Another distinctive feature that is related to the economic dimension is that water is very costly to handle. Water is bulky and expensive to transport relative to its value per unit of weight. Physical water infrastructure such as purification and treatment installations and distribution networks are exceptional capital-intensive and represent an extreme type of fixed, non-malleable costs. In addition, water infrastructure is very long-lived and therefore the horizon for capital employed is far longer than in most manufacturing industries or in other public utility sectors (Hanemann 2006: 74). Therefore handling water infrastructure demands comprehensive life-cycle approaches which have to combine operation, maintenance, management as well as investments in order to optimize provision service quality and arising costs.

2.2 Historical development

In Europe and the United States of America (USA) urban water systems started developing in the 17th and 18th century as a limited service to wealthy customers. In the subsequent century urbanization further developed, i.e. water demand grew significantly and water related health issues became more acute. Whereas initially water systems were operated by small private companies, municipalities took over the management and operation of water utilities in the course of the 19th century. The municipilization was a means to overcome existing inefficiencies in supply, in-build personal gain and patterns of corruption. As a result, the access to drinking water for the general public increased and water systems could be controlled more effectively especially in terms of resource sustainability. Due to the capital intensiveness of water infrastructure, financial mechanisms within the public sphere were developed that ensured long term planning, supply continuity as well as a secure level of water quality. These mechanisms enabled municipalities to acquire investment capital at low interest rates – something the private market could not provide. Due to various obstacles associated with the nature of administrative service provision such as service inefficiencies and constraints in public service laws (for details refer to Chapter 3.1.1), many arrangements for water provision in the Western world experienced a institutional change towards commercialized settings in the second half of the 20th century. These primarily included the establishment of public companies and joint water management authorities. Fostered by extensive state reforms in recent decades (for details refer to Chapter 3.1.2), Private Sector Participation (PSP) in water service provision increased significantly. A great variety of provision arrangements evolved that involve private sector companies or even transfer the complete infrastructure assets and service provision into private hands (privatization) (Melosi 2000; Juuti/Katko 2005).

However, in most developing countries the historical picture is different. There, the establishment of water system as well as a commonly organized public water provision is much younger. Water provision in developing countries is characterized by a great disparity between the rural and the urban space. In rural areas sophisticated water systems do not exist and water supply is organized on a community basis (public wells), an individual basis or not at all. Urban areas on the other hand usually have some kind of water system, although, quality and reliability is often on a very a low level. Within the last few decades urbanization in many developing countries expanded quickly, putting an increasing pressure on the water situation. In this context, the public sector often proved incapable of meeting demands, securing a constant supply, overcoming inefficient and ineffective operation and management and introducing effective measures for water resource management. These incapabilities are usually accompanied by a lack of investment capital for the installation of new assets or the rehabilitation of existing installations. Recognizing the urgent water problems which developing countries are facing, the aim of considerably improving the provision of safe drinking water and adequate sanitation especially to the poor was included in the Millennium Development Goals set by the United Nations in 2000.[2] As a remedy to this challenge and in order to achieve sustainable improvements international organizations have promoted over the past two decades the positive role the private sector can take in the provision of water services – first and foremost the World Bank.

In the Western world comprehensive regulations, compulsory standards and sophisticated and accepted water tariff systems evolved incrementally over time, building a sound foundation for the integration of private sector companies. In most developing countries on the other hand there is a clear lack of binding rules and a complicated system of property rights concerning resource ownership as well as water use. Furthermore, acceptance of water tariffs is problematic and little experience with institutional arrangements that integrate the private sector is existent.

2.3 Alternative modes: the public-private continuum

Institutional arrangements for the provision of water services are manifold. They range from traditional administrative hierarchy to market-oriented and market-based arrangements. The variety of solutions between public and private sector task fulfillment can be described as a public-private continuum. Depending on whereupon this continuum an arrangement is located, allocation of responsibilities and risks, arising hidden and transaction costs as well as implications for the overall governance of water vary significantly.

These institutional arrangements are often associated with the terms privatization and Private Sector Participation (PSP) or subsumed under the term Public Private Partnership (PPP) (Alfen, Fischer 2006: 1pp). The term privatization describes a variety of measures for the rearrangement of state action that integrate economic subjects. It can be differed between “formal” and “informal” privatization. Formal privatization stands for the transfer of administrative entities in

[2] United Nations Millennium Development Initiative: http://www.un.org/millenniumgoals/

organizations of private law that are characterized by private sector management structures such as public companies. However, the ownership stays within the public sphere. Informal or material privatization stands for a full and permanent divestiture of services or existing operational units from the public to the private sector (Ehrensperger 2007: 41pp).[3]

Private Sector Participation (PSP) serves as a general term for any kind of private sector involvement in public task fulfillment. The term PSP does not stand for a clearly defined concept. Rather, it is used in literature and policy discourse to describe a variety of approaches that integrate private sector activities in public service and goods provisions such as outsourcing, management contracts or concession models. PSP arrangements are also often referred to as Public Private Partnerships. In general, PSP stands for hybrid arrangement aiming to facilitate market orientation, efficiency gains and an optimized allocation of resources in the public sphere. The main aims for PSP in public service provision are summarized in the following statement.

> *"It is the main aim of PSP to bring about an improvement in the efficiency of utilities through the introduction of private sector management methods. This is expected to result in a substantial improvement of crucial performance parameters […] allowing the economic situation of the utilities to stabilize and in some cases even generating resources for new investments to be made. A partnership with a private partner can thus enable public utilities to have access to private financing, e.g. loans from private banks which were previously denied to them. In addition, PSP can also entail the direct mobilization of resources from the private partner in order to finance the construction, repair or expansion of infrastructure"* (Rothenberger 2008: 10)

A classification of arrangement options for the provision of water services is presented in Table 1.

[3] For a detailed and well structured overview of privatization and private sector participation refer to Budäus (2004, 2006, 2007).

Table 1: Classification of PSP options

Source: own table, adapted from Rothenberger (2008: 11)

Continuum	Arrangement	Characteristics	Achievable effects	Allocation of risks	Government control		Financing
					Infrastructure control	Service quality control	
HIERARCHY	*Public provision*	Service is provided publicly (administrative hierarchy) Contractual term: -	Improvements depending on administrative and political environment and internal human resources	Public: all Private: none	very high	very high	O: public I: public P: - R: -
	Public Company	(Mainly) publicly owned company under private law Contractual term: -	Improvements depending on operational and financial autonomy	Public: low Private: none	high	high	O: public/independent I: public/independent P: - R: -
	Outsourcing/ Service Contract	Private sector provides clearly defined service which only forms part of the overall operation Contractual term: 0.5-2 years	Improvement in a precisely defined areas	Public: low Private: low	high	medium	O: public/private I: - P: fixed payments R: -
	Management Contract	Private sector provides key staff for all operational management areas Contractual term: 2-5 years	Improvement in overall management; knowledge transfer	Public: low Private: low/ medium	high	medium	O: public I: public P: fixed + variable R: -
	Lease Contract	Private sector operational management and maintenance Contractual term: 5-15 years	As management contract; improvement of investment planning and financial management	Public: medium Private: high	high	medium	O: private I: public P: leasing charge (private to public) R: consumer tariffs
	Concession	As lease contract, but in addition private sector is responsible for investment of assets Contractual term: 15-30 years	As lease contract; additional investment capital for expansion and renewal	Public: medium Private: high	medium	medium	O: private I: private P: - R: consumer tariffs
	*BOT models**	Private sector builds and operates new installations Contractual term: 15-30 years	Investment capital; professional operation, but normally no improvement in network operations	Public: medium Private: high	low	low	O: private I: private P: transfer contract R: transfer contract
MARKET	*Privatization (full divestiture)*	Private sectors acquires all assets and is in charge of all operational, financial, and strategic activities Contractual term: -	As BOT model, but also major capital influx to the state budget (once!)	Public: none Private: all	very low	very low	O: private I: private P: - R: consumer tariffs

Abbreviations: O = Operations; I = Investment; P = Payments; R = Refinancing

* The BOT (Build-Operate-Transfer) model is shown here as an example of various arrangements such as BOO, BOOT, DBFO, DBO etc.

3. Conceptional framework

The previous chapters outlined the overall context of water service provision. It now seems interesting to gain a theory based understanding of organizational transformation. Therefore chapter 3.1 introduces to the overall context in which the transformation of public provision arrangements takes place. As a point of departure a brief introduction is given to the characteristics of public service provision. Building on this, the drivers increasingly leading to the adoption of PSP arrangements are investigated. Adopting a systems theory perspective, chapter 3.2 further explores the nature of PSP arrangements by focusing on the roots of existing differences between the public and the private sphere. Chapter 3.3 explores the major prevailing conceptions of organizations and organizational change.

3.1 The context of transformation

3.1.1 Public service provision

Public services are provided by public administration bodies which in the modern state are mostly represented by public bureaucracy. On the nature of public bureaucracy a lot has been published, however, without going into too much detail two main traditions of bureaucratic study will be sketched briefly: one focusing on a characterization of an ideal type and the other one analyzing the intentions and stereotypical behavior of public bureaucrats. Based on this overview, implications for the provision of public services will be analyzed.

A tradition, which has long been dominant among sociologists and organizational theorists, is the tradition following the founding works of Max Weber (1922).[4] According to Weber's model of bureaucracy, the technical competence for the execution of collectively binding decision is centered upon the bureaucrat who is embedded in the bureaucratic system. The bureaucrat holds the monopoly of knowledge on the execution of binding decisions. Bureaucracy as the institutional framework in which bureaucrats act is regarded as highly rational and effective. For Weber *"administrative bureaucracy means fundamentally the exercise of control on the basis of knowledge"* whereas for Galbraith bureaucracy *"embraces all who bring specialized knowledge, talent or experience to group decision-making"* (Weber and Galbraith as cited in Breton, Wintrobe 1986). Weber's model of bureaucracy refers to specific criteria that define bureaucracy such as hierarchical organization, clear structures of competencies, rule-boundness and detailed documentation. Weber describes the nature of the ideal bureaucrat as unfaithful, disciplined, neutral and subordinate to all superior. Based on these institutional criteria and human

[4] The concept of bureaucratization as a process of rationalization was addressed by Max Weber in his postum published work *"Wirtschaft und Gesellschaft"* (1922)

characteristics, a highly rational and systematic as well as efficient execution of political decision is achieved (Weber 1984:4pp; Kieser 2006: 63pp).

Whereas Weber (1922) sketched an abstract, idealistic type of bureaucrat, the theoretical tradition taken as a second reference is based on a rather rational and profit maximizing human nature, taking on a derogative perspective on bureaucracy and its members. An early challenge to the Weberian model came in 1957 from Northcote Parkinson who described the tendency of bureaucracies to expand at a fixed rate, irrespective of the actual condition of demand. This was the first scientific notion of the bureaucracies' 'independent existence' (Niskanen 1996: XI). This was followed in the 1960's by the critiques coming from the school of Public Choice that mainly focused on the self-interested behavior of bureaucratic officials, on the chronic inefficiency of bureaucratic organizations and on the inevitable loss of information inherent in bureaucratic structures. These critiques, based on the public interest model, mainly centered on the internal organization of bureaucratic systems. William Niskanen (1996) in his works highlighted the self-seeking nature of senior bureaucrats that leads towards rent-seeking and budget maximization. Niskanen argues that bureaucratic officials will use their control of information and their ability to disguise the true costs of producing the public services they provide as a means to increase their budgets above a necessary level (Niskanen 1996: 36pp).

Building on this brief introduction to the nature of bureaucracy and its members, in the following the problems arising with public service provision will be analyzed along three main aspects: the problem of delegation and input orientation, the problem of rent-seeking and the problem of policy subsystems.

An intrinsic problem which is characteristic for bureaucracies is that of delegation. The public bureaucracy is the executive's organ to implement decisions. The execution and implementation of political decision is transferred to the public bureaucracy. However, in contrast to the Weberian ideal type that rests upon the assumption of neutrality and submission to the superior, the bureaucrats often tent to pursue their own preferences at the expense of the actual goals. Information asymmetry leads to the well known principle-agent problem that can result in significant performance inefficiencies. Furthermore, bureaucratic steering mechanisms are traditionally input oriented, because the extent of goods and services provided is simply depending on the public budgets ascribed by political decision. As a consequence, traditionally bureaucratic steering mechanisms do not focus on the effectiveness and efficiency of products and services provided, but on the funds available. Mechanisms for output and outcome control usually do not exist. As a consequence resources are often allocated inefficiently (Bickers, Williams 2001: 193pp).

Another issue of public bureaucracies is the phenomenon known as rent-seeking. It occurs when organized groups *"…colonize a government bureau so that the bureau promotes the specific interests of the organized groups at the expense of the public as a whole. This phenomenon is directly related to the inability of the public to effectively monitor the behavior of bureaucratic agents"* (Bickers, Williams 2001: 194).
The third issue that Bickers and Williams (2001) refer to as policy subsystems, focus on networks of relationships between different actors, all of whom have a stake in a policy arena. Policy subsystems can be understood as the product of the bonds that develop between members of bureaucracies, interest groups, legislators and recipients of public goods and services. The advantage of policy subsystems is the development of specific knowledge in a policy field which cannot be found anywhere else. This valuable expertise also serves as advice to political actors. However, policy subsystems also feature various disadvantages. One problem is that the linkages that underpin them allow bureaucracies to stabilize and to outlive the problems they have been established in the first place. Furthermore, policy subsystems benefit from the public's inability to effectively monitor the action of government agents which clears the way for organized interests to exploit the system to their own purposes (Bickers, Williams 2001: 197).

The above mentioned issues of bureaucracies do not equally affect the provision performance of public administration. However, a consideration of these tendencies helps to understand structures as well as behaviors in administrative environments.

3.1.2 A new paradigm in service provision

Cross-sectural arrangements for service provision have been developed in many countries around the world. Specific forms of cross-sectural cooperation have been in place for long and are nothing that can be considered completely new or revolutionary. What has changed in recent decades is the extensively increasing number of cases as well as the momentum of enhancement and innovation public-private arrangements have experienced. This development has to be seen in the context of extensive attempts in the last two decades that aimed to achieve a more efficient government and public task fulfillment. In general, resulting reform measures emphasized on reshaping the boundaries and responsibilities of the state. The reasons for taking reform action can primarily be found in financial, quality-related and ideological pressures. Scarce governmental budgets coupled with poorer than anticipated public performance has inspired a fundamental questioning of the efficiency and effectiveness of public bureaucracies. In addition to this, the citizens' perception and expectations of public services have changed significantly. Citizens increasingly define themselves as active customers rather than inactive recipients of public services. Terms such as empowerment, stakeholders, access and 'value-for-money' reflect this change in orientation. However, ideology-based aspects played a significant role in reform developments as well. Fostered by neo-liberal ideas, a reconsideration of state characteristics took place that centered on improving and reducing the state (Minogue 2000a: 17).

Especially, the period since the 1980's has witnessed an apparent wave of public management reforms and a crucial transformation of state understanding that are often associated with the term New Public Management (NPM). Being some kind of global trend, NPM defies a precise definition. Some attempts are rather normative, others locate NPM in theoretical frameworks based on management science and the school of public choice. What they have in common is a broadening and blurring of the frontier between the public and the private sector (Politt 2002, S. 474) as well as an orientation towards market mechanisms for the provision of public services, the integration of managerialistic ideas in public sector leadership and a shift of priorities away from universalism towards efficiency and individualism.[5] The NPM approach is related to different strategies, ranging from decentralization and devolution, introduction of internal competition and managerialism, commercialization of public agencies, to the consideration of a wider range of institutional arrangements located on the public-private continuum. In many cases these strategies are interlinked with each other. As an example, the case of Amman Water (discussed in detail in Chapter 5) shows how a PSP arrangement had been used to initialize improvements and to introduce a different spirit of service provision in a public authority which was struck by incapabilities and a lack of individual engagement. However, as it turned out, the PSP arrangement was only of temporary nature, paving the road for the establishment of a public company that operates much more efficient and effective than the initial public authority arrangement.

[5] For a detailed discussion on the nature, objectives, and prospects of New Public Management refer to McLaughlin et al. (2002), Minogue (2000b), and Schröter, Wollmann (2001)

3.2 The nature of PSP arrangements

As we have seen in the previous chapters, PSP arrangements increasingly evolved as a means to overcome shortcomings of public service provision in terms of resource availability, efficiency and quality. As a basis for the intended case analysis it seems interesting to further investigate the constituting nature of these arrangements in order to gain a better understanding of the differing characteristics and systems of reference of participating organizations and their members. For the purpose of this investigation, a systems theory perspective is adopted that allows exploring the roots and causes of existing rules, behavioral structures and modes of communication. This sociological perspective has the advantage to focus on abstract phenomena and hence fosters an understanding of underlying social mechanisms.

Our world and in particular our modern societies are highly complex. For the individual this complexity causes an inability to handle the flood of information, resulting in a limited processing capacity. Systems – understood as social mechanism – help to reduce this complexity, to transform and regulate it (Willke 2006: 18). Social systems (e.g. groups, organizations, society) form themselves due to specific operations which create a difference to their environment. The systems' environment is ontologically not defined. Rather, it is created through its mode of operation. It *"[...] is a precondition for the identity of a system because identity only exists through difference"* (Luhmann 2006: 243, translation P.D.). Therefore, system and environment have always to be considered in relation to each other: a system requires and determines an environment and vice versa.[6]

In order to handle the constant turbulences in their environment, systems are operationally closed. This allows them to preserve their inner order and to deal with their own complexity. In order to internally "organize", systems are forced to functionally differentiate. Society as a whole can be regarded as an aggregate of differentiated functional systems, such as the political-administrative system, the market system, the scientific system and the moral system, to name just a few. Each functional system is functionally separated from other systems and can therefore fulfill one specific function only. Furthermore, each functional system can have an undefined number of subsystems that evolve around this specific function. Individuals do not exclusively belong to one specific system. Rather, they can belong to various functional systems at the same time. People are not part of the systems, but they are the addressee of the systems' communication.[7]

[6] System boundaries can then be understood as an interrelation of selective mechanisms, which set the criteria that help to distinguish between interactions which belong and which do not belong to the system (Willke 2006: 44).

[7] Communication within a system operates by selecting only parts of all available information from the system's environment. The criterion according to which information is selected and processed is meaning (Sinn). Only the systems have the ability through the medium of communication to create objects, which build the basis for all

But what insight does the systems theory approach contribute to the overall understanding of the nature of PSP arrangements in the water sector? As described in previous chapters, the provision of water services has traditionally been with the state and its administration/bureaucracy. Speaking in systemic terms, (traditional) water service provision is an operation taking place in the political-administrative system. Public administration – as we know it today – is the result of a long historical evolution. In the course of the nineteenth century, the existence of a comprehensive sector of public administration became a characteristic of modern societies.[8] As with other functionally differentiated systems, the political-administrative system evolved as a means to reduce the complexity of a specific function. Its core function is to generate collectively binding decisions and to guarantee their common acceptance (Luhmann 1966: 20, 56). Having the political system as a frame, the administrative system can be regarded as a subsystem aiming at the execution of binding decisions in a sense of guaranteeing rule compliance and fulfillment of public tasks such as the provision of water services. The institution through which the administrative system acts is the public administration such as public bureaucracies, public agencies or public authorities. Public administration reduces societal complexity through the execution of intra-systemic law-bound processes. The administrative system is a system of communication which must sustain itself against its differentiated environment through formal execution of political decisions. Being a subsystem of the political system, its prevalent mode of communication is power primarily in the form of superior authority.

Although administrative employee and public bureaucrats as individuals are not directly a part of the political-administrative system, they are influenced and shaped by the prevailing mode of communication and institutionalized role patterns, values and beliefs. This has a significant impact on participants' mindsets and behavioral structures (for a characterization of public bureaucrats refer to Chapter 3.1.1).

Whereas public water provision takes place within the political-administrative system, market-oriented or market-based provision arrangements refer to the economic or markets system.[9] The economy is foremost coded through the difference of *Haben* (have) and *Nichthaben* (not to have). Only with the existence of this differentiation property can be exchanged. In the functionally differentiated society the coding of the economic system is based on the difference of *Zahlen* (payment) and *Nichtzahlen* (non-payment), making money the core medium of communication.

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following communicative operations. This means that only within the network of communication systemic operations take place. Due to this connectivity a continuation of systemic operability is ensured.

[8] For a detailed disquisition on the historical development of public administration and its systemic understanding refer to Mayntz (1985)

[9] The economic system shall here be understood not as a pure market economy, but as a socially embedded system that is constituted according to legal provisions and regulation contexts. Therewith the economic system is not an abstract one in the sense of Adam Smith and Ronald Coase.

Through money as the generalized medium for exchange, the acceptance of unlikely communication becomes likely. The economic system's core function is therewith the reduction of transaction costs in social relationships such as the exchange of goods or services (Luhmann 2004: 102pp). As public administration for the administrative system, private firms are the institutions through which the economic system's function is fulfilled. Private firms can be associated with aspects such as the urge for efficiency, generation of profits, flexible structures and future orientation. Whereas public administration in a traditional sense is acting in an environment without competition – however, this is slowly changing in the course of modern state reforms – an important or maybe the most important characteristic of the economic system is competition among private firms. Individuals acting within the economic system are influenced and shaped by these characteristics.

Modes of communication and hence the character of operations differs significantly between the public and the private sphere. Whereas the public sector's language of communication is based upon power, the private sector communicates through money. Whereas the public sector's orientation is public wellbeing, the private sector's motivation is the generation of profits. Whereas the public sector is characterized by continuity and rule-boundness, the private sector has the pressure to adjust to a constantly changing environment and to be flexible. Whereas the public sector is characterized by stable structures, private sector companies are forced to be creative and innovative and therewith constantly driven to recreate themselves.

This brief investigation primarily makes us aware of the differing functional codes and modes of communication inherent in the public and the private sector. In PSP arrangements, public actors, who usually act within the political-administrative system, and private actors, who usually act within the economic system, are forced to converge. However, this cross-sectural convergence can have different natures, ranging from purely contractual relationships, e.g. in concession arrangements, to close institutional and personal cooperation of stakeholders, e.g. in management contracts. Involved organizations (public administrations or private companies) institutionalize patterns of operation, role structures, values and beliefs according to their system of reference. Drawing on these institutionalized mechanisms, organizational members develop and shape their skills, knowledge sets, behavioral patterns, perceptions and self-conceptions. Converged in PSP arrangements there is a great potential for cross-sectural complementation. However, there are also considerable risks that these differing in-build mechanisms and mind sets might lead to misunderstandings and conflicts that affect the course and achievements of PSP arrangements. This can also be described as a 'clash of cultures'.

3.3 The nature of organizations

3.3.1 Exploring organizations

Traditional organizational theory centered around the basic question how to best coordinate human activities in order to allow for a highly rational unit, and at the same time to maintain social integration, the normative commitments of participants and their motivation to participate (Etzioni 1970: 1). Driven by structural challenges of organizations in the course of the industrial revolution, Max Weber developed his concept of "the three types of legitimate rule" – the traditional type and the charismatic type which represent the non-rational elements and the legal-bureaucratic type which represents the rational element (Weber 1970: 6pp). Each of these modes of authority is connected with fundamentally different sociological structures and therefore results in different challenges for organizational practice.

A rather steering oriented perspective on industrial organizations was introduced by Frederick Taylor's pioneering work *"Principles of Scientific Management"* from 1911 and Henry Fayol's *"Administration industrielle générale"* from 1916. Both approaches contributed significantly to a disbandment of the pre- and early-industrial holistic understanding of production by introducing a breakdown of working processes: the division of labor. With the separation of planning and execution they laid the foundation for the development of modern management understanding. Based on a hierarchy of values, organizational development henceforth was coined by a scientification of working procedures as well as an individual-related directive: effective steering was perceived as a combination of clear hierarchical structures and centralized responsibilities. In this context, the individual was thought to act according to technical-rational reasons.

The succeeding human-relations-movement postulated an organizational understanding that rather highlighted cooperative actions and the intrinsic motivation of individuals. In opposition to the Weberian model, authority was not considered an inherent criterion, but a result of free individual decision. Chester I. Barnard, for example, focused his research on psychological and social aspects within organizations, separating partial and common interests of its members and introducing the existence of a separated organizational structure that is independent of organization's members (Barnard 1970, 1982). This first notion of an independent organizational identity marks the beginning of a new paradigm in organizational theory. This finds further advancement in the works of Philip Selznick and Talcott Parson. Whereas Seltznick (1948) examines the formal roles of participants and their personalities as a whole and sheds light on the dynamics of interchange between personality and organization, Parson's works (1956) focus on a structural-functional analysis of organizations (Etzioni 1970: 2) based on a systemic approach to social phenomena. He uses a formal analytical point of reference, a *"primacy of orientation to the attainment of a specific goal"* (Parson 1979: 33) as the defining characteristics of an organization

which distinguishes it from other types of social systems. This perspective has implications for both the external relations and the internal structure of organizations (Parson 1970: 33).[10]
Based on Barnard's approach of organizational action and Parson's systemic understanding of organizations, in his *"Theory of Formal Organization"* Niklas Luhmann (1966) further specifies the relation between the organizational interior and the organizational environment. If a social system is constituted by action/operation[11], than all activities that are related to these operations – such as coordination, expectation, evaluation – belong to the internal strategies of an organization (Luhmann 1966: 34). The acting individual as well as all corresponding activities – such as the building relationships, appreciation and motivation – however, must be attributed to the external strategies of organizations and hence to the organizational environment.
It can be summarized that organizational theory has shifted towards a more sociologic interpretation that instead of being stuck in structural thinking, puts emphasis on the adaptability of organizations to a dynamic environment.[12]
Organizations in general are associated with relative autonomy, rationality, self-organization and a logic and momentum of their own. Seen in a context of auto-referentiality and the ability to organize complexity, these characteristics emphasize the operational independence of organizations. Auto-reference helps to create identity which is a precondition for organizational existence, whereas an ability to organize complexity is a precondition for organizational reproduction. Therefore, *"operative independence is the solution to a problem generated by a complex organization itself…"* (Willke 2005b: 150, translation P.D.). In the context of functionally differentiated systems – such as the political-administrative system or the market system – organizations compress communication to structured program patterns in a sense of readable codings that refer to specific meanings. They extract all communication they are confronted with to highly selected as well as thoroughly ordered patterns that allow to sort and to differ information according to their relevance.

However, so far organizations present themselves as independently and auto-referentially operating systems that exist as a means to coordinate and simplify complex matters in order to

[10] Parson defines the attainment of a goal as a relation between an organizational system and the relevant parts of the external situation in which it acts or operates. As Parson puts it: *"An organization is a system which, as the attainment of its goal, 'produces' an indefinable something which can be utilized in some way by another system; that is, the output of the organization is, for some other system, an input. In the case of an organization with economic primacy, this output may be a class of goods or services which are either consumable or serve as instruments for a further phase of the production process by other organizations. In the case of a government agency the output may be a class of regulatory decision […]"* (Parson 1970: 33).
[11] Whereas Luhmann's early works define social systems as systems of operation, he later speaks about systems of communication.
[12] See for example the detailed empirical works of Jay W. Lorsch and Paul R. Lawrence that demonstrate the connectivity between different environmental dynamics and internal organizational structures. They come to the conclusion that organizations adapt to the specific environment they are surrounded by (Lawrence/Lorsch 1967, 1969).

achieve a certain goal. But which role is ascribed to the participants – the members – of organizations? How do they interact with their institutional environment?

Organizations are systems that formalize behavioral expectations towards their participants. By defining formal rules they define which operations – understood as forms of communication – are meaningful for their existence and which are not. This means that organizations define themselves through their patterns of expectations towards their members.[13] In organizations, common beliefs (work space, competence, authority), different types of communication (instructions, decisions) as well as appointment of responsibilities help guiding through a jungle of complexity and hence realize simplification. Uncoupled from the individual experience of the participants, these systems of rules have the same meaning for all participants (Luhmann 1999: 82pp). Organizational rules manifest themselves as organization-specific patterns of communication that are not the members but used by them (Willke 2005b: 155). Through the existence of organizational rules – that can be understood as a formal structure of an organization – organizations are able to internally differentiate and to respond to specific and changing situations and at last reduce complexity. Such differentiated systems have the advantage to concurrently as well as independently act through various stable units in a sense of specialized subsystems. As Luhmann puts it: *"differentiated systems are more powerful than undifferentiated systems* (Luhmann 1999: 73, translation P.D.). In respect to systems theory's contribution to organizational understanding Willke summarizes, that

> *"…the major insight systems theory contributes to the understanding of organizations is, that it directs the observer's attention to the reality of existing differences – the difference between organization and society on one hand and the difference between organization and group as well as the individual on the other hand"* (Willke 2005: 141, translation P.D.).

3.3.2 Exploring organizational change

Over the past few decades large-scale organizational change has become a major paradigm in the private and the public sector. For private enterprises organizational change is closely related to tools and approaches such as total quality management, cycle-time reduction, process re-engineering, lean management and knowledge management. Fostered by the New Public Management movement, organizational change has also become an important topic for organizations in the public sphere such as authorities, agencies or other public administrations. The focus here is mainly on redesign, redevelopment and structural reforms of organizational arrangements; however, also various private sector tools and approaches have been transferred.

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[13] This also differentiates the organization from other elementary forms of human relations, because expectations related to common human relations are rather vague in terms of their claim for fulfillment, they are situation-depending, and they can be negotiated always anew. Whereas in common human relations formalization of behavioral expectations do not take place, in organizations they serve as a means to build identity and therefore help the organization as a system to exist and differentiate from other organizations and its environment.

Change and resistance to change are common to all organizations, whether public or private, but preconditions and therewith the context differ. Whereas private sector organizations always need to change and develop in order to adapt for success on the markets, public organizations (bureaucratic administrations) as a matter of nature tent to lack the initializing creativity, innovation and internal pressure.

In organizational theory, many different approaches to explain organizational change have been put forward. With some simplification applied, they can be summarized in three major traditions. The *top-down purposive model* explains organizational change as a function initiated and imposed by organizational or political leaders. Being in the position to rule and steer, these leaders after perceiving a need for change implement appropriate measures. However, even this top-down approach can be effective, its limitation is *"rooted in the lack of involvement and participation of [organizational] members or outside stakeholder in the change process"* (Peters 1994 as referred to by Farazmand 2001: 17).

The second tradition taken as a reference is what Farazmand (2001) refers to as the *bottom-up or environmentally determining model*. Whereas the top-down model focuses on internal hierarchical pressures for change, this model takes the opposite approach. Organizational change is believed to be induced by environmental irritations that force the organization to respond in some way or the other. In a sense of systems thinking this irritation is a disturbance, surprise or disappointment that causes couplings between the organization and its environment. These couplings – particularly including other organizations too – are only possible due to a radical, constitutive system-environment differentiation. Organizations do not react to (institutionalized) expectations in their environment. Rather, based on an environment-system difference, organizations act due to mechanism of observance. The reaction on environmental irritations initiates a processing of information on the internal level of organizations that might result in a change of the organizational identity and hence initializes organizational change.

Individuals are not elements of social systems, but regarded as organisms and mental systems that form a part the systems' environment (Willke 2007: 61). This has a substantial implication for the phenomenon of organizational change, as the focus is not limited to the level of individuals but also incorporates the level of organizational systems of rules such as rules of behavior, organizational structures or existing processes.

With what is referred to as the *institutional model* for organizational change and development, the third tradition referenced to is the school of neo-institutionalism. As a means to combine the top-down and bottom-up approach, the institutional model involves a fundamental review and reconsideration of foundational values as well as structural underpinnings embedded in the institution and the institutional environment.[14] DiMaggio/Powell (2008) put forward a typology resting on three mechanisms through which institutional change occurs (sources of change).[15] Coercive isomorphism stems from political influence and the overall problem of legitimacy. It results from both formal (law, rules, standards) and informal (social, cultural, ideological) pressures exerted on an organization. For coercive isomorphism to unfold, coercion must not exclusively be of a direct or explicit kind (DiMaggio/Powell 2008: 67, 74pp). Mimetic isomorphism results from organizations orienting themselves towards structures and processes of other organizations. This mechanism of imitation is primarily driven by the level of insecurity and uncertainty regarding aims, environment and relations, to name just a few. *"Much homogeneity of organizational structures stem from the fact that despite considerable search for diversity there is relatively little variation to be selected from"* (DiMaggio, Powell 2008: 70). This is intensified by organizational and institutional consulting firms that foster the spread of similar organizational forms. Normative isomorphism stems primarily from professionalization, which is understood as the collective struggle of members to define the conditions and methods of their work, to control the production of producers and to establish a cognitive base and legitimization for their occupational autonomy. Normative isomorphism therewith refers to the establishment of guiding norms, accepted modes, common understandings as well as methods and techniques of work (DiMaggio, Powell 2008: 70).

While analytically identifying the forms of isomorphism as well as the mechanisms constituting them allows locating a broad spectrum of processes and implications for organizational change, it remains unclear as to which extent action of organizational members can be regarded as a factor for structural change or whether organizational agents just form intermediaries in executing systemic processes. While an isomorphistic analysis concentrates on causes and effects, it seems to neglect the functional aspect of an organization's insertion into its environment. By combining the typology of isomorphism with elements of systemic thinking that highlight how organizational elements and structures are formed, what kind of decisional programs are developed in organizations and how organizations communicate to their environment this shortcoming of the institutionalists approach can be balanced (for the analytical approach applied to the case study refer to Chapter 4.3).

[14] Within the neo-institutionalist literature, there seems to be no institutionalized concept of "organization", nor a common usage of the notion „institution" – and thus no agreed upon differentiation between "organization" and "institution" Without attempting to solve this problem, it is nonetheless possible to say that sociological neo-institutionalism is characterized by taking an institutional perspective on organizations, putting an emphasis on aspects such as shared values, norms, cognitive frames, symbols, myths.

[15] While DiMaggio/Powell (2008) put forward three broad forms of isomorphism, other authors suggest more specific approaches. Scott (1987, 2008) for example defines seven casual mechanisms through which the organizational environment can exert a causal influence on organizations and therewith initialize change and structural development. They are: imposition of organizational structures, authorization, inducement, acquisition, imprinting, incorporation, and bypassing.

4. Research methodology

4.1 Research objectives and strategy

The research conducted for the purpose of this thesis is associated with the qualitative paradigm in social science.[16] Organizational scientists increasingly employ qualitative methods to reconstruct organizational events and transformation processes from the perspective of the acting subject (Hopf 1993; Glaser/Strauss 1993; Flick 2005). The qualitative analysis of organizations is based on the assumption that an organization is a system of social networks constituted in principally unpredictable but specific interactions and interpersonal forms of relations (Rosenstiel 2008: 224pp). Rather than presenting a broad comparison of organizational mechanisms of action, it is the aim of qualitative organizational analysis to intrude in the depth of single case studies. Therefore, the researcher does not isolate single causalities, but reconstructs the subjective meaning and the understanding of complex coherences. Collected data is analyzed compressed and according to a certain typology (for details refer to Chapter 4.2.2). Decisive for the choice of information is not their accuracy of measurement, but the investigated matter, its properties, its context as well as the underlying research objective.[17]

The research objective of this study is to gain a further understanding of the momentum of change initialized by cross-sectural arrangements. Emphasis is put on the nature of cross-sectural cooperation and its impact on public sector organizations and their members. Based on the case study of Amman Water, the following research questions are explored further:

What is the nature of cross-sectural arrangements in public service provision?

How do cross-sectural arrangements affect public sector organizations?

Which implications result from cross-sectural arrangements for the transformation of public sector organizations?

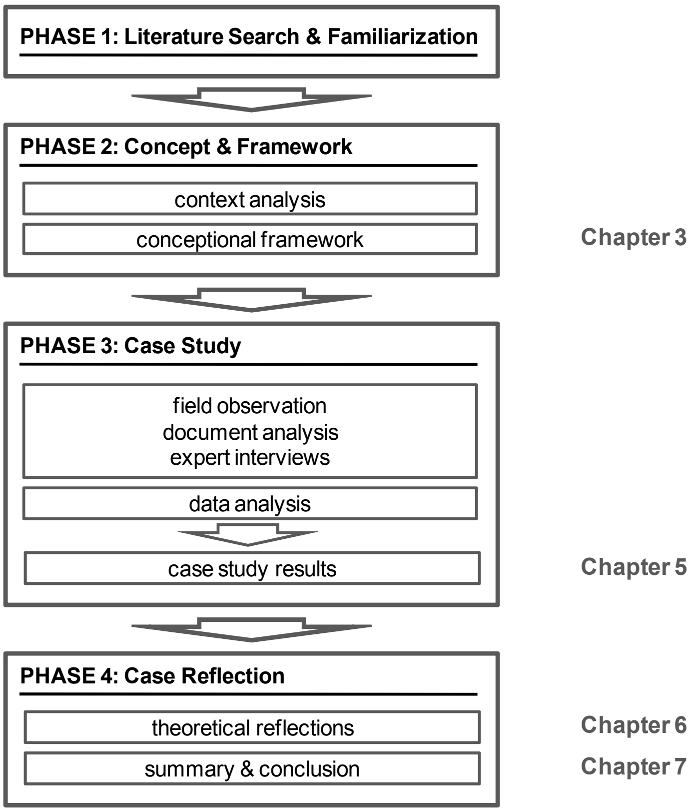
Figure 1 presents an overview of the research strategy employed.

[16] Whereas it is the aim of quantitative methods to create representativeness which is achieved through measurement and counting, it is the aim of qualitative research methods to investigate and interpret exemplary cases. Interpretation in qualitative research is not understood as a common or intuitive understanding, but as a scientific, rule-bound, and intersubjective comprehensible reconstruction process of structures of meanings (Flick 1995). Matters are not deconstructed in variables; rather they are investigated in the complexity and comprehensiveness of their natural context. It is characteristic for qualitative methods to incorporate and analyze different perspectives of observation of the matter of interest. Only a concatenation of perceptions and conduct of the researched, including their social and cultural background as well as the surrounding environment allows generating a realistic general picture which can serve as a starting point for the interpretation of phenomena

[17] For a detailed discussion on qualitative research in organizational analysis refer to Hopf (1993: 28pp), Glaser/Strauss (1993: 92pp) and Flick (2005: 23pp).

Figure 1: Research strategy

Source: own figure



4.2 Research method

4.2.1 Methods of data collection

For the purpose of this thesis, a document analysis, field observation as well as qualitative expert interviews with several of the case stakeholders have been conducted.

Documents and files, understood as written texts that serve as records and evidence for processes and circumstances, take a prominent position in modern society. Their increasing importance is mainly related to the secular trend of jurisdiction and organization of all areas of modern life. Written text extends the reach of communication and makes it independent of time and space. The analysis of documents and files such as evaluation reports, legal documents and organizational statements can be an interesting and illuminating source of information for the intended research. For the purpose of document analysis an document collection has been conducted based on stakeholder sources, scientific databases as well as internet sources.

Field observation enables the researcher to experience and observe the structures, processes, atmospheres and cultures related to the object of interest. Through observing and participating in the field, the researcher has the opportunity to learn about existing routines and behavioral structures of stakeholders and witnesses existing challenges, obstacles and conflicts. For the purpose of this study a two month field observation in the Jordanian water sector has been conducted, bringing the researcher in regular contact with many of the case study's stakeholders.

In addition, seven qualitative expert interviews with the case stakeholders have been carried out. The interviewees included leaders and officials of both public and private organizations and political institutions. A list of interviewees is presented in the Appendix.

Qualitative interviews are a means to capture the social cognition, communicative action and differentiation of structures of perception (system dynamic) of the informants. The interview content is only one component which refers to the explicit cognition (cognitive knowledge). The form of speech and the context in which information is mentioned is another component that tells about the coherences of the communicative action of the informant. Both components can be considered as the expertise of the interviewee (Bogner 2005; Froschauer/Lueger 2003; Hopf 2005; König et al. 2002).

It was avoided to influence the informants in their choice of topic and prioritization of aspects mentioned. In preparation of the expert interviews a rough interview guideline had been prepared that served as a mnemonic throughout the interviews. However, this guideline did not restrict the setting of individual priorities of the interviewees. Rather it served as an anchor point framing the overall topic.

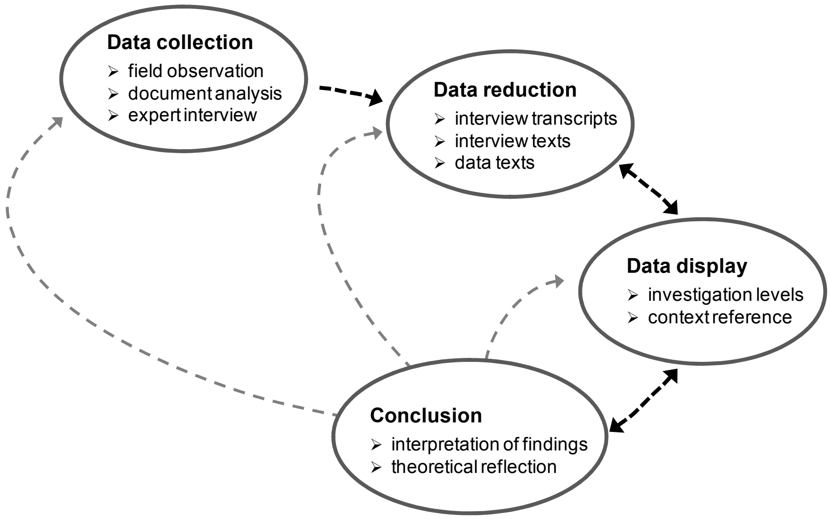
4.2.2 Method of data processing

The analysis of single case studies cannot be limited to a mere reproduction. Rather it should in addition focus on an interpretation of data collected. The analysis applied for the case investigation in this study is rested on a data processing approach associated with Miles/Hubermann (2005). In their approach the authors differ between the processing steps of data reduction, data display and conclusion. These steps, however, do not take place sequentially one after the other, rather they have to be understood as a circular process (Miles/Huberman 2005: 22pp).

Figure 2 presents the approach of data processing employed for the research conducted.

Figure 2: Data processing approach

Source: own figure, adapted from Miles/Huberman (2005)



In a first step, all interviews have been abstracted in written form. However, due to the great amount of interview data collected, the *interview transcripts* were limited to comments and statements closely related to the topic of interest. Supplementary informal notes on the form of interaction with the interviewee and other frame information that have been taken throughout the interviews were embedded in the transcripts. In a second step, the thematic interview content was structured and organized independent of the individual interviews in *interview texts*. This approach has the advantage to pre-structure and therewith focus the data analysis to a certain extent and at the same time ensures the indispensible openness towards the data for the discovery of coherences, common trends and contradictions. Based on the interview texts a thematic analysis of all interviews has been conducted, clustering statements according to specific topics and keywords. In a third step, a qualitative content analysis based on the approach put forward by Mayring (2002) was conducted that in order to ensure a maximum concentration and aggregation of the collected data differentiates between summarization, explication and structuring. The content analysis affiliated the interview texts with information from the document analysis, forming a structured *data text*. In a final step all data collected (document analysis and interviews) were supplemented by field observation information and embedded in the analytical approach introduced in the following chapter. All case study results are presented in Chapter 5.2.

The interview statements cited in this study are made anonymous to the greatest extent possible to avoid backtracking to the respective interviewee. This made it necessary to slightly alter interview statements at some points. However, without changing content and meaning of statements. The same applies for those parts which have been altered to facilitate reading and understanding. All interview statements are abbreviated in the text as “IS”.

4.3 Analytical approach

The analytical approach for the case study analysis is oriented along the theoretical framework presented in Chapter 3. Exploring the context and nature of PSP arrangement has highlighted their potential as well as the inherent prospective conflicts. In respect to the case study analysis, it leads the attention towards the fact that stakeholders – organizations as well as their members – are bound in different systems of reference that result in differing institutionalized mechanisms, modes of communication and behavioral patterns. Exploring the conceptions of organizations and organizational change has highlighted the different perspectives that can be applied for an investigation. However, a mere focus on only one theoretical approach would limit the observer's insight. Rather, different aspects of organizational theory shall be considered in the development of a framework for analysis. Whereas the steering oriented and rationality-based approach leads the attention towards internal structures, processes and the distribution of responsibilities, the human-relation-movement contributes to a further understanding of intrinsic motivations of the individual. The systems theory approach on the other hand points to the existing difference between organization and environment and between organization and individual. In addition, the concept of isomorphism which can be understood as an analytical typology rather than a theory of its own, leads the attention towards a differentiation between different sources of change: the pressures exerted on an organization, mechanisms of imitation and the nature of existing normative factors.

In order to operationalize these aspects, the case analysis will focus on three levels of investigation.[18] An analysis of the *environmental and institutional level* centers on aspects related the existence and change in the legal environment as well as social, cultural and ideological expectation imposed on the organization. An analysis of *the managerial and human resource level* focuses on the organization's members and investigates the existence or evolution of behavioral patterns, sets of knowledge as well as values and beliefs. Further, it is investigated which impact new engagements and replacements of members have. On an *operational level* it is analyzed which structures and processes exist, which impacts they have on the output and outcome and which kinds of communication predominately shape the organization.

[18] The case is investigated in three steps (public authority arrangement, management contract, public company) although these three levels of investigation cannot be equally assessed for all steps, due to differing case circumstances as well as partially limited data availability.

5. Case study: the transformation of Amman Water

5.1 Background information

5.1.1 Jordan's political, economic and social situation

Having been under the Mandate of the British Crown since 1919, the so-called state Transjordan became independent in 1946. Three years later, the Emirate Transjordan was renamed in the Hashemite Kingdom of Jordan, the official country name being in place until today.[19] Jordan is a constitutional monarchy with a representative government. The National Assembly (Majlis al-Umma) is bi-cameral, with the Senate having half the number of members as the House of Representatives. The King is vested with wide-ranging powers, although his veto can be overridden by a two-thirds majority of both the houses of the National Assembly (Robins 2004).

Jordan has been decisively influenced by the Israeli-Palestinian conflict, which in 1967 led to the territorial loss of the West Bank. The ongoing conflict has heavily affected the country's population and hence social structure through the extensive influx of Palestinian refugees. Beginning in 1989 the monarchy started to embark on a gradual liberalization of its economy. In the 1990's Jordan had to accept an International Monetary Fund structural adjustment program, which supported the country's macroeconomic stability by creating a stable currency and reducing inflation through tight monetary control and the reduction of the public sector deficit (Robins 2004: 182pp). The economic liberalization process was accompanied by a political opening, such as restoring parliamentary elections, lifting the ban on parties and broadening participation.

Figure 3: Map of Jordan
Source: CIA Factbook

Since its independence, two structural features characterize Jordanian politics and economy in particular: its shortage of economic resources as well as its neo-patrialistic form of government.

[19] King Hussein bin Talal ruled Jordan from 1952 until his death in 1999 when his eldest son, Prince Abdullah, succeeded him. His Majesty King Abdullah II is Head of State and Commander-in-Chief of the armed forces.

The scarcity of natural resources, a barely developed industrial sector and a shortage of arable land results in a strong dependency of the Kingdom on external financial sources. Therefore, Jordan is also referred to as a semi-rentier economy (Dietrich 1999: 124).[20] The constant need to acquire rents limits the latitude for political action and puts pressure on the state to meet the obligations of international financiers, such as the Gulf States and Western democracies (Steiner 2008: 41).

Table 2: Factsheet Jordan

Source: CIA Factbook

Area	92,300 sq km (land: 91,971 sq km; water: 329 sq km)
Land use	arable land: 3.32%; permanent crops: 1.18%; other: 95.5%
Population	6,198,677*
Population growth rate	2.338%*
GDP per capita	$-US 4,700**
Budget deficit	$-US 1.351 billion**
Public debt	72.4% of GDP**

* 2008 est.; ** 2007 est.

The authoritarian Arabic state of the 20th century evolved in societal terms to the all controlling instance, without changing the existing patriarchal relations and fractioned structures. Under the influence of modernity, which has been fostered by colonial rule, Arabic societies have witnessed a deformation of their social order that merge traditional patrimonial authority with modern elements of society. Emphasizing rather personal than institutional structures of power, this neo-patrialistic type of authority is also characteristic for the government-citizen relationship in Jordan (Dietrich 1999: 101pp).

Since its foundation, the Kingdom has been relying considerably on the loyalty of mainly east-Jordanian tribes as many Jordanians with Palestinian backgrounds have challenged the institution of the monarchy (Steiner 2008: 43). This is reflected in the electoral law, which privileges rural constituencies and cultivates tribalism. As a means to safeguard the monarchial authority, the Jordanian political-administrative system relies on clientelistic mechanisms and elite rotation (Baaklini et al. 1999: 140). The Jordanian elites, who can be located mainly in the state bureaucracy, have divided the resources and their access to them among themselves. They dominate the connections between the political sphere and the society by allocating employment, social status or other privileges of all kinds. However, elite rotation fosters constant competition

[20] The term *rentier state* refers to counties that rely predominantly on external sources of revenue than on domestic taxation. Full rentier states are resource exporting countries that depend almost exclusively on rents generated by the sale of their natural (fossil) resources on the international market. *Semi-rentier* states are those that rely on external rents in a more limited fashion, such as foreign aid and/or workers' remittances.

among the elites and societal groups striving for power which weakens the opposition and deranges the continuity in policy implementation (Steiner 2008: 43; Dietrich 1999: 105).[21]

5.1.2 Jordan's water sector

Jordan lies within the semi-arid climatic zone with characteristically long summers and short winters. Due to the variable topography of the country, the distribution of rainfall varies considerably across locations.[22] Much of the country's water supply comes from the surface water of the River Jordan, which marks Jordan's borderline in the north-west. Another main supply source is the county's groundwater resources, both renewable and non-renewable.[23] Jordan is facing a chronic imbalance in the population-water resource equation. The long-standing political conflict in the region, which has resulted in significant waves of migration as well as the high population growth rate, has exerted further pressure on the already stressed water situation (Suleiman et al. 2008: 53).

Table 3: Factsheet water stress in Jordan

Source: CIA Factbook

Freshwater withdrawal	total: 1.01 cu km/year; per capita: 177 cu m/year (2000)
Water sustainability	About -10% (ratio: withdrawal vs. renewable resources)
Water stress index	31 (indicating absolute water scarcity)
Social water index	43 (indicating absolute water scarcity)

With extensive support of international organizations and donors, Jordan has invested heavily in the development of water infrastructure and the modernization of water sector institutions. However, the rapid population growth in Jordan requires large expansions of all social and economic services, including water infrastructure such as water pipelines, water distribution systems and sewerage drainage and treatment facilities. According to Abu-Shams/Rabadi (2003:161), water supply in Jordan is in a state of emergency. The authors see the major problems in the fact that water demand always exceed water supply, in the intermittent and temporary supply for many areas, tremendous costs of water production and distribution, as well as in the absence of specific knowledge and expertise. It can be added to this that the water deficit in Jordan has been accompanied by user conflicts as well as extensive inefficiencies concerning economic, administrative, financial and management aspects of the country's water sector. Decaying water supply networks, unsustainable resource usage, user dissatisfaction and budgetary

[21] For a detailed analysis of the relationship between state and civil society in Jordan refer to Ben Salha (2003).
[22] It ranges from about 50 mm in the eastern and southern desert regions to 600 mm in the north-west highlands. More than 90 percent of Jordan's area receives an average annual rainfall of less than 200 mm, whereas only about 3 percent of its area receives an annual rainfall greater than 300 mm (Abu-Shams, Rabadi 2003: 159). Approximately 85 percent of the total rainfall evaporates back to the atmosphere, the rest flows in the rivers and recharges groundwater basins (Al-Jayyousi 2003: 197)
[23] For a detailed analysis of Jordan's water resource situation please refer to Haddadin (2006)

pressures emphasize the need for institutional change and reform of the water sector (Suleiman et al. 2008: 53).

What clearly emerges in this context is the lack of adaptive capacity to the situation of water crisis related to the social resources scarcity.[24] The lack of law enforcement against illegal use and the tolerance towards water thefts confirms how water shortage is socially invisible in Jordan as in many Mediterranean countries. Indeed, the water problem in Jordan is a by-product of an institutional and political crisis whose features are the difficult introduction of politically costly demand side management options, combined with a strong resistance of the society to accept the technocratic solutions as being both reasonable and legitimate (UNEP 2002: 26).

The Ministry of Water and Irrigation (MWI) is the official governmental body for the overall monitoring of the water sector, water supply and wastewater systems and related projects.[25] The MWI is responsible for the water sector planning and management, the formulation of national water strategies and policies, the coordination of research and development related to the field as well as for the procurement of financial resources. Its role also includes the provision of centralized water related data and data standardization and consolidation. Since its establishment, the MWI has been supported by several international donor projects that have assisted the development of water policy, water master planning as well as the restructuring of the water sector as a whole (Steiner 2008: 53pp).[26]

The Water Authority of Jordan (WAJ) is in charge for water and sewerage systems in Jordan and operates under the direct authority of MWI, but is an autonomous corporate body with financial and administrative independence.[27] WAJ holds full responsibility for public water supply, wastewater services and related projects and is in charge of the overall resource planning and monitoring as well as the construction and operation of assets (European Commission 2006: 20).

As a monitoring unit within WAJ the Programme Management Unit (PMU) was set up in 1997. However, effective operation started 2000. It establishment is based on a financial agreement between the Government of Jordan and the European Commission. The unit has a board of executives which is headed by the Water Minister and the Secretary Generals of the MWI and the

[24] The institutions in Jordan are not strong enough to enforce the awareness of environmental problems spreading a new knowledge about water resources. The symbolic value of water prevails on the economic one and the Government is responsible for this attitude because: *"…economic principles and market processes themselves are unlikely to deliver sustainable water management, without regulation and direct action by Government and its agents. Water policy can benefit from the discipline of economics, but it is no substitute for capability in political systems"* (UNEP 2002: 26).

[25] The MWI was established in its present form in 1992 by a bylaw (No. 52, passed in 1992) issued by the executive Branch of Government under the Jordanian Constitution Ministry.

[26] The MWI embraces the two most important entities dealing with water in Jordan: the Water Authority of Jordan (WAJ), in charge for water and sewerage systems, and the Jordan Valley Authority (JVA), responsible for the socio-economic development of the Jordan Rift Valley. In the context of this study, only the WAJ will further be discussed.

[27] The WAJ originally was established in 1983 on the basis of a temporary law and later reconfirmed in 1988 by a permanent law (Water Authority Law No. 18, passed in 1988).

WAJ. Its main tasks comprise the monitoring and management of projects related to water sector improvement in Amman (Steiner 2008: 53,54).
An overview of water sector responsibilities in Jordan is presented in Table 4.

Table 4: Distribution of water sector responsibilities
Source: European Commission (2006: 21)

Topic	Responsibilities
Sector policy	Development: MWI Enacting: Council of Ministers
Service provision	WAJ Private operators (where delegated)
Regulation	Prices: WAJ Board of Directors, Council of Ministers Water Resources: WAJ Service standards: no regulations existing
Drinking water policy	Policy: MWI Monitoring: WAJ, Ministry of Health Enforcement: Ministry of Health
Contracting private investment	Contract development: MWI Contract counterpart: WAJ Contract monitoring: PMU

5.1.3 Jordan's water policy

Fostered by the increasing water demands in the 1950's and 1960's, Jordan's early water policy can be characterized by supply side activities. However, the concentration on demand satisfaction policies soon engendered a conflict between water resources development and environmental protection. By the end of the 1970s, the water policy in Jordan encountered an environmental and political limit. Whereas the environmental limit was linked to the scarcity of new sources to be enhanced, the political limit was due to failure of a water cooperation policy with the other co-riparians of the Jordan basin (UNEP 2002: 26). The serious droughts in the region in 1986 and 1991 increased the already existing water crisis. However, it led to a gradual awareness of the environmental problems in the political world as well as in the public opinion. Fostered by these events, supply oriented policy gradually shifted to a demand oriented policy, taking into account aspects of water sustainability and water management. From 1993 onwards, the Government has made substantial efforts to remedy the problems of water resources and to initiate a bold water policy reform.[28] In 2000, the MWI invited the World Bank (WB) to assist the Government in updating the Water Sector Review from 1997 in order to prepare a five-year action plan and

[28] These efforts included the cooperation with donor agencies in field such as water regulations, restructuring institutional frameworks, strengthening institutional capacities, rationalize water strategies, as well as increase of public awareness and participation. Being fostered by this process, the concept of separating national infrastructure from service delivery has started to become an accepted ideology (Suleiman et al. 2008: 54). As a result water policy places more emphasis on increasing the commercial focus of water sector operations and postulating financial feasibility of planning and operation activities.

investment program for the Jordanian water sector (World Bank 2001: 15). The review clearly emphasized participation of private sector organizations.[29] Following the publication of a five-year action plan, the major policies concerning resources, operational, as well as institutional aspects have been developed and approved. With respect to private sector participation, the policy intended to transfer infrastructure and services from the public to the private sector in order to improve the overall performance and efficiency of the water sector. Furthermore, the policy envisioned the use of management contracts and concession models such as BOT and BOO (Al-Jayyousi 2003: 199)

In July 2000 the Council of Ministers officially adopted a privatization law,[30] which defines privatization broadly as enhancing the private sector role in the economy to include those state enterprises that should be managed on a commercial basis. According to the law, the main objectives of privatization are to attract private investments, to direct private savings towards long-term investments to strengthen and consolidate the national economy, to alleviate the dept burden of the Treasury and to manage economic projects according to modern techniques. For the decision on policies, enterprises, methods, consultants and contracts regarding the privatization process a Privatization Council was established which receives support by the Executive Privatization Council (EPC) a permanent governmental agency (European Commission 2006: 22).

[29] As stated from a World Bank Report: *"...operational efficiency has to increase across the country, for the [water] sector as a whole to become viable. The volume of Unaccounted-for-Water has to go down, billings and fee collections have to improve, and accounts receivable have to decrease. The best way for this to happen is through greater and optimal Private Sector Participation (PSP) [...]. ...As MWI moves to expanding PSP, it is necessary to start developing a sound legal and regulatory framework that will specify the roles and functions of various actors in the sector and provide for effective performance"* (World Bank 2001: 15, 19).

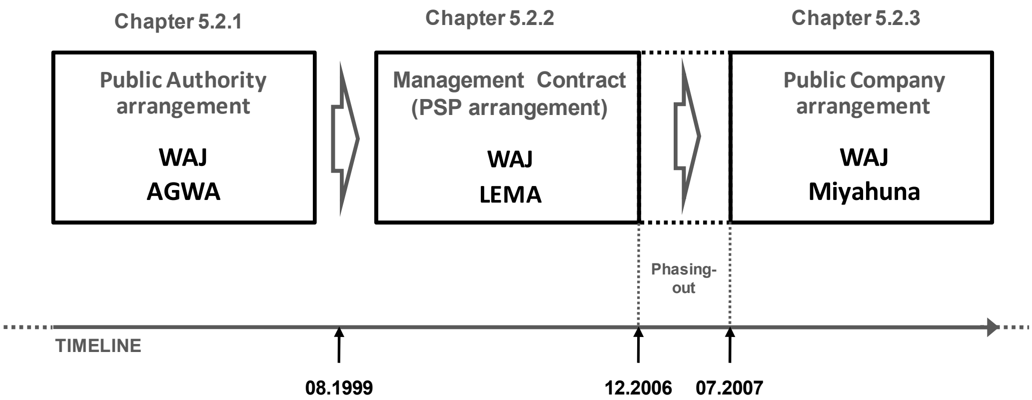
[30] Privatization Law 25, passed in 2000

5.2 Case analysis: the transformation process

Amman, the capital of Jordan, is the country's most densely populated urban area and home to about 40 percent of the total population – about 2.4 million people. The Amman Governorate Water Service Area (AGWSA) is the largest domestic water market in Jordan, hodsting about 45 percent of the country's drinking water consumption. In 1999, the AGWSA had about 260,000 water subscribers. Water scarcity in Amman is acute, since the population mainly relies on water that has to be pumped either across long distance or high elevations. The need for vertical pumping of about 1200 m from near the Dead Sea to the AGWSA is very energy intensive and therefore results in high operational costs (European Commission 2006: 28).

Based on the analytical framework presented in Chapter 4.3, the following chapters investigate the transformation of Amman Water from administrative public service provision to a public company arrangement in detail. Figure 4 presents an overview of the transformation process.

Figure 4: Organizational transformation of Amman Water
Source: own figure



5.2.1 Public service provision: its limitations and shortfalls

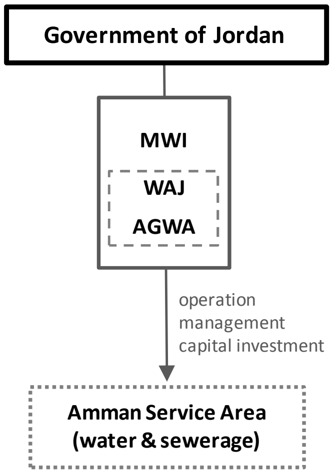
The Amman Governorate Water Administration (AGWA), as a regional subdivision of WAJ, was until 1999 fully responsible for all aspects concerning drinking water provision and sewerage services in Amman[31]. This included the operation and maintenance of networks and other physical assets, billing and collection activities and other customer services. In the 1990's, provision performance had reached a low point. AGWA suffered from tremendous costs for the production and distribution of water, very low cash flow levels as well as a serious lack of financial resources and hence insufficient funding for upgrading and replacement of infrastructure. In addition to

[31] For the purpose of fluent reading *"Amman Governorate Water Service Area (AGWSA)"* will in the following be replaced by *"Amman"*

financial handicaps, technical benchmarks indicated poor water service provision performance. Despite substantial investment programs funded by international development and donor organizations, over several years non revenue water stayed with an average of almost 50% at very high levels.[32] Management information systems, e.g. regarding customer consumption and billing or the operation and maintenance of water networks, were virtually absent (Rothenberger et al. 2007: 7). The following analysis further investigates the causes for the poor performance of water service provision in Amman.

Figure 5: Institutional setup of public authority arrangement

Source: own figure



Due to its nature as a state controlled entity and a regional subdivision of WAJ, AGWA operated in a political-administrative environment. WAJ as the entrusted public authority for public water service provision is an autonomous governmental body with a strictly centralized organization structure which means that the regional branches of WAJ such as AGWA are fully dependent on WAJ headquarters. All aspects of human resources management, budget disbursement, workshop services, financial management and billing and revenue collection are controlled centrally (European Commission 2006: 20). AGWA therefore served only as an implementing administrative body that managed the operation of water assets and organized data collection for the central WAJ headquarter. Even WAJ is setup as an autonomous body linked to the MWI, its operation and action is constrained by political processes and central decision making. *"Although, set up as autonomous governmental bodies public authorities in Jordan are too much constrained by political processes. People are afraid that they might take a wrong decision. They do not have the courage to step out of the traditional line and initialize change"* (IS). Regarding internal administrative structures *"administrative leaders often have to grapple with the interference of other directories resulting in internal conflicts"* (IS) which make it difficult to take action on a concrete matter.

[32] According to IWA the internationally accepted share of non revenue water is about 15%

Due to its capital intensiveness, its constant need for operation and quality monitoring as well as its need for continuity in asset maintenance, effective water service provision requires provident planning processes. However, *"…public institutions, including government, administration and authorities shy away from planning – a comprehensive and effective planning culture does not exist"* (IS). It is the fragmented and politically influenced planning processes on one hand and the restrictions imposed by the dependency on state budgets on the other hand that limit WAJ's organizational and financial autonomy.

Another major factor that constrained the performance of service provision of WAJ and its subdivision AGWA can be found in aspects related to human resources. Three major aspects can be distinguished: the problem with public employees, the predominant bureaucratic culture and the prevailing mechanism of job rotation. The body of employment in the WAJ and AGWA has been huge and many employees were poorly qualified for their jobs which resulted in a lack of operational and managerial capabilities. Due to the high number of employees, it was stated that employment benefits including salaries and wages, social security contributions and saving fund payments accounted for more than 30% of total expenses. In comparison to the service performance achieved and taking into consideration the lack of public budgets these expenses were unbearable.

Regarding the organizational culture, WAJ features many characteristics which are common in public bureaucracies, such as a lack of individual motivation, a lack of willingness to take over responsibility and *"…a lack of identification with the job and actions one is supposed to do – especially on the lower levels of the hierarchy"* (IS). This results in an overall attitude that can be described with personal passiveness and inaction which led to a significant operational and managerial inefficiency. Whereas the cause for human resource related inefficiencies is to be found in the civil service constraints, a major cause for procedural inefficiencies can be found in structural setups and procurement laws WAJ as a governmental authority is restricted by.

> *The main obstacles of WAJ are: first, the civil service Bylaws that restricts WAJ from having competent personnel, from paying proper salaries, and to set up financial incentives system; second, the tendering and purchasing laws prevent WAJ from quick purchasing actions. There are always very long periods between decision and action; and third, in a governmental body monitoring and auditing procedures are very long and therewith limit the extent of action that can be taken. This is especially true for such a dynamic sector as the water sector."* (IS)

The prevailing practice of job rotation among high ranking officials in the Jordanian political-administrative system has also a significant impacts on WAJ human resources especially in terms of stability and continuity. *„Due to the principle of job rotation in the administrative system organizational stability has no chance to develop. This would be different if officials and leaders stayed longer in their positions"* (IS). *"The frequent exchange of high level employees actually paralyzes the whole process"* (IS). The establishment of effective and efficient operational procedures as well as their constant adjustment to a changing environment needs continuous managerial guidance. However, *"…water ministers and political high officials do not stay long enough in their position to really learn"* (IS). Furthermore, *"…personal networking is extremely important – the networking of individuals in the background. The higher you get in the hierarchy the better people are linked – it is therefore very hard to displace incompetent people. They just stay or after some time rotate to the next official job"* (IS).

The above mentioned institutional and human resource constraints of WAJ and its subdivision AGWA can be regarded as the main reasons for the poor performance of water service provision in Amman. Based on this initial situation, the following chapters will focus on the course and impacts a PSP arrangement had on the provision of water services in Amman.

5.2.2 The management contract: integrating external expertise

In 1999, the cost of water supply in Amman was escalating rapidly – the Government was forced to act. Under the assistance of the World Bank (WB) and with further support from several financial development institutions, the Amman Water and Sanitation Management Project (AWSMP) was designed. The aim was to increase water efficiency in Amman by reducing the excessive share of non-revenue water and to improve the overall management, operation and maintenance of the service area's water and sewerage system. [33,34] Fostered by the changed regulative environment for PSP in public service provision (for details refer to Chapter 5.1.3) and funded by the AWSMP, a management contract for water provision in Amman with a private sector consortium was initiated. The Management Contract (MC) Amman was the first large-scale PSP arrangement in the Jordanian water sector. At the time of awarding the service area Amman represented about 37 percent of the total Jordanian population, about 9 percent of the country's total area, about 43 percent of the total number of water subscribers in Jordan and about 45 percent of the country's total water consumption (Al-Jayyousi 2003: 199; European Commission 2006: 28).

The contract preparation was headed by the MWI. It involved the commissioning of an international legal and accounting consultant, Arthur Anderson, to support the establishment of base year figures, assist the preparation of a statement of operation for Amman and to give advice

[33] Whereas the World Bank acted as the leading partner organization for the AWSMP, the European Investment Bank, the Italian bilateral assistance, KfW as well as USAID were co-financiers of the project

[34] In particular, the AWSMP addressed the following three fields: (a) enhancing the conditions for growth led by the private sector; (b) addressing resource conservation, exploitation, and management with a focus on water scarcity; and (c) improving water sector governance through adjustments in regulations (public sector reform). In order to empower the Government of Jordan to embark on implementation of concrete measures, AWSMP partner-organizations granted a development loan with a total volume of US-$ 55 million, ascribed to the realization of a management contract, an Operating Investment Fund (OIF), a Capital Investment Program (CIP), and additional technical assistance in form of consultant services and the realization of other water studies in Jordan. For a detailed overview of loan components refer to World Bank (2007).

on a formula for calculating the private operator's performance-based fee. The resulting financial consultation report was used as the terms of reference for the MC Amman (Suleiman et al. 2008: 55). A total of 26 consortia – international water and consultancy companies, often in joint ventures with local firms – purchased the bidding documents. However, only ten consortia offered their proposal. Out of these five consortia were approved pre-qualified and asked to submit a detailed proposal for the requested services. When the tendering period came to a close, due to the requested service complexity only two consortia submitted a proposal. In April 1999, the tendering committee headed by the MWI chose the consortium consisting of the French water company Lyonnaise des Eaux[35], the British-based engineering consultancy company Montgomery Watson and the Jordanian engineering company Arabtech Jardanesh as successful bidder. The consortium is abbreviated to LEMA, the name referred to hereafter. A four year management contract was awarded to LEMA in August 1999 that was meant to end in July 2003. However, the contract was extended twice (by 17 and 24 month respectively), postponing the final closing date to December 2006.

According to the terms of contract LEMA had to manage, operate and maintain the water and wastewater facilities in Amman against a total management fee for the first contract of US-$ 8.8 million with an additional performance-based fee[36] of 5 percent of the increased annual cash flow from operations. In the terms of contract performance targets were set regarding the improvement of water supply consistency and quality, the improvement of customer services as well as the decrease of non-revenue water and an improvement of the billing and collection system in order to extend revenues. These performance targets were transformed into more than 60 concrete tasks listed in the LEMA Service Appendix.

The following analysis further investigates the environment in which the management contract was established, the nature of cooperation between the contract partners and impacts the PSP arrangement had on the organization as well as on its members.

The main initializing driver that led to the establishment of the management contract with LEMA is the external pressure imposed by international financial institutions, first and foremost the WB. It has been the WB's policy for the past two decades to promote the positive role the private sector can take for the provision of water services especially in developing countries where provision performance is on a very low level. However, in Jordan the WB' s pressure on the Government of Jordan to establish a management contract with a private sector partner was stated to date back to a withdrawal of the WB from granting a loan for the Jordanian water sector in the

[35] *Lyonnaise des Eaux*, a well established French water company, merged with *Compagnie de Suez* a French-based international energy company. After another merger in 2008, the company's name today is *GDF Suez SA*

[36] Performance Incentive Compensation (PIC)

mid 1990's. Based on the findings from a comprehensive water sector review in Jordan in 1997, which attested persistently low performance and extensive resource inefficiency, the WB refused to finance any further supply augmentation. Rather it persisted on political action regarding the overstrained institutional setup and inefficient operation and maintenance processes. Because of the intolerable conditions of public water provision in combination with increasingly stressed state budgets, the situation in 1999 can be regarded as a window of opportunity for the overdue initialization of institutional change of water provision in Amman.

Already the preparation phase of the contract had been fraught with conflict. *"There has been a strong opposition towards the management contract. Many decision makers did not want anybody to interfere in water operations and management, because they believed that there are enough internal capabilities to overcome the existing burdens"* (IS). Even many political and administrative officials were personally not convinced, *"...due to external pressure from the World Bank and support from the highest political level – the head of Government – decision makers were eventually forced to overcome the opposition to the project"* (IS). However, while the WB initially preferred a more comprehensive form of PSP like concession or lease contract, the Jordanian Government opted for a management contract as a first step, also since the information base was weak and the investment climate in the region uncertain and volatile.

It can be summarized that the introduction of a management contract Amman was very much driven by external intentions. The understanding of the need for the contract, the relevant concepts of PSP and the respective role of WAJ was not very deep in the beginning. Consequently, especially within WAJ there was a clear lack of trust that this approach will deliver positive results which had an impact on the contract definition as well as on the general spirit of cooperation (European Commission 2006: 28pp).

The great number of intended targets in combination with the existence of different performance standards resulted in a very complex contractual agreement.

> *„The contract document itself was actually a 'catastrophe' due to the high expectations of the public side regarding performance improvements. The contract can rather be described as a wish list everyone could add to. This resulted in a lack of focus. The expectations put forward by the public side could not be satisfied by the private partner – frankly speaking it was impossible"* (IS).

The high number of contractually fixed performance targets reflected the lack of experience in the field of the public side. However, it is also a sign for considerable mistrust regarding the future performance of LEMA. In addition, with the split-up of responsibilities between operations which was ascribed to and capital investment which stayed with WAJ, the institutional arrangement was suboptimal.

> *"Concerning non revenue water – one of the key topics – the major problem was that the private partner was not involved enough in investment planning and resource allocation. This makes the*

> *whole thing a little paradoxical. You cannot deny the contractor the major instrument to influence one of the central factors of contract performance – and this de facto happened"* (IS).

Regarding the spirit of cooperation between the contractual partners three major aspects can be highlighted: first the overall motivation of the partners to establish/participate in the management contract; second the regulation and monitoring relationship; and third behavioral and communicative structures among the partners. The main motivation of the Government of Jordan to embark on a large scale management contract with a private sector company was the intention to integrate external operational and managerial expertise in order to swiftly enhance the highly inefficient and uneconomic situation of water provision in Amman. For LEMA, the motivation can be regarded as two folded. First and foremost private companies have the intention to earn money. However, the MC Amman played also a key role in one of the mother company's strategy to enter the market in the Middle East. The contract was regarded as a door opener for further involvements (European Commission 2006: 27). These differing intentions between the contractual partners are rooted in the different nature of the private and the public sector and therefore very common in cross-sectural arrangements. However, in contrast to many other forms of PSP, management contracts – due to the close collaboration of the involved parties – are very dependent on a good cooperative spirit between the involved partners.

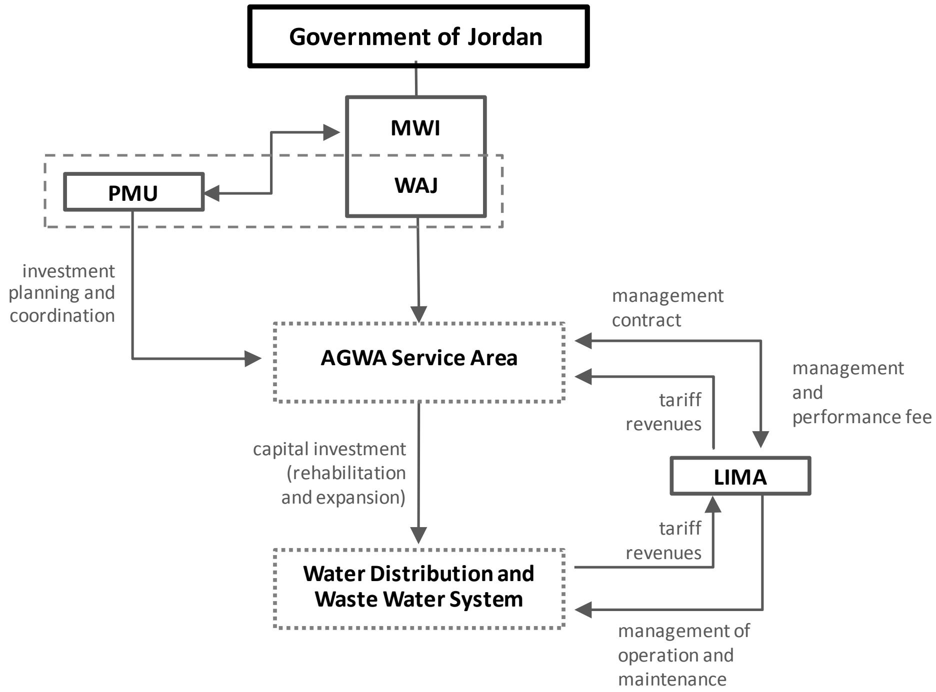
Because of its complexity the management contract with LEMA raised a great need for monitoring – a subject that has been a source of conflict among the contract parties throughout most of the contract period. Until now, Jordan does not have a uniform regulative framework for the water sector, therefore monitoring was based on regulation by contract. Supported by external technical and financial auditors, initially WAJ was directly in charge of the monitoring of LEMA performance. However,

> *"…especially within the first years of the management contract there have been considerable conflicts in the cooperation of the public and the private partner. The spirit of cooperation was contra productive which at least to a certain extent falls back to WAJ. One of the major causes was clearly an institutional problem; people who have been in charge of operations and management in the pre-contract arrangement now were in the position to monitor LEMA performance. Therefore there have been certain interests to inhibit processes and to make life more difficult for the private partner."* (IS)

After approximately two years PMU took over contract administration and monitoring tasks. Nevertheless, general conflicts of interest prevailed because institutionally PMU belongs to WAJ. In addition PMU was also in charge for the management of the capital investment program, which was an important factor affecting LEMA's performance. Figure 6 gives an overview of the institutional setup of the management contract.

Figure 6: Institutional setup of management contract arrangement

Source: adapted from European Commission (2006: 35)



In general, regulation and monitoring by contract proved to be very difficult. Although, the contract base data proved to be inaccurate and partly questionable, contractually fixed performance targets and expected deliverables were regarded as static elements. Both sides were not cooperating to identify the shortcomings of the contract and did not search for compromises of mutual benefit (European Commission 2006: 36), a fact that relates to the dimension of participants behavior and communication in cooperative environments. It was stated that on the one hand the inflexibility and initially inactivated public side resulted in frustration among LEMA staff. On the other hand a discrepancy between the expertise expected and the expertise provided in combination with a lack of cultural adaptation of some of the LEMA operators resulted in a rather fending and intransigent demeanor of WAJ employees. In addition, cooperation was negatively influenced by differing understandings regarding contractual terms, technical expressions and improvement approaches. Upcoming misunderstandings were fostered by intercultural differences and language constraints. As the following statement expresses clearly, *"…one side did not understand what the other side talked about"* (IS). Causes for the weak cooperative spirit can be found in the initial reluctance of WAJ officials towards the management contract as well as in a lack of ability of LEMA personnel to adapt to the nature and constraints public bureaucracies are characterized by.

Initiated by the involvement of new staff on both sides with a more open and neutral attitude towards the contract after about two years, a change of mentality and hence a change towards a more consensus oriented cooperative spirit developed. On the public side PMU increasingly involved people with a private sector background and experience in project management. On the side LEMA operators were partly replaced. This introduced a more consistent way of working with and talking to each other.

> *"What was interesting to experience was that stakeholders slowly unbended and arranged with each other. This only happened due to the change of some key personnel and continuity of the arrangement for several years"* (IS).

The achievements of the management contract in terms of financial improvements, the establishment of management structures, improvements of staff efficiency, as well as the incorporation of new technologies have been in accordance with the contract terms.[37] However, *"…there have been so many performance targets set that you can find either good or bad results. Something will always not be accomplished"* (IS). LEMA achieved a substantial improvement of profits, due to an increase in revenue.[38] One of the key successes of LEMA is the introduction of new management systems, such as IT-based operation and management, a performance incentive system and the incorporation of new technologies – something which would have been very hard to achieve in a purely public arrangement, due to a lack of expertise and civil service constraints. Regarding personnel, the staff efficiency could be increased by 37%, although human resources were a very difficult issue throughout the whole contract period. Caused by contractual obligations two different kinds of staff existed. On the one hand, WAJ seconded staff which kept governmental employment conditions. On the other hand, LEMA hired staff which was employed on a more market-driven basis. Due to different payment and incentive structures this setup to some extent caused interpersonal conflicts and in the case of seconded staff did not lead to the expected increase of motivation and individual engagement. However, *"...in the end it is not crucial to talk about the results in a mere performance sense – some of the aims were achieved some not; but to talk about the creation of leadership for the upcoming tasks"* (IS). Throughout the contract period LEMA considerably improved operational and technical capabilities of the employees, although it was stated that the improvement of management capacities was not granted sufficient attention.

> *"The problem was that too often performance was analyzed one-sided merely in terms of contract achievements. Therefore, the perception of the management contract among public officials was diverse. A one-sided analysis does not consider impacts and achievements a PSP arrangement has on other levels, although especially in a development context these are crucial. A slow change of mentality as well as an initial change of organizational culture took place. In addition, it was also an eye-opener to what is possible to achieve"* (IS).

[37] For a detailed quantitative and qualitative discussion of management contract achievements in Amman refer to European Commission (2006: 32)

[38] The increase in revenues was primarily due to increased bill collection efficiency, an increase in subscribers and also a water price increase – with a proportionally smaller increase in overall expenses. For details refer to European Commission (2006) and Steiner (2008).

> *"The management contract has changed the thinking of stakeholders and participants. Many people from WAJ at least for some time experienced the different atmosphere and environment of LEMA – this had an impact which is hard to measure. Especially on the public managerial level a change of mentality is obvious – people start to face problems even when they are a little risky to handle"* (IS).

Based on the analysis of the MC Amman conducted, it can be summarized that the integration of external expertise in the existing AGWA setup initiated some kind of mentality change in the rigid public structures and therefore paved the way for an institutional restructuring process. However, the management contract arrangement did not foster a development of a new organizational identity, because it was regarded by its stakeholders as an intermediary solution only that at some point sooner or later would be replaced.

5.2.3 The public company: mobilizing internal capabilities

In 2005, about a year before the expiration of the management contract with LEMA, the MWI and WAJ in cooperation with the involved donor organizations conducted an analytical study to identify the best alternatives and available options for water provision in Amman for the post LEMA era. The study recommended entrusting the management of water services to a national private company with financial and administrative independence operating on a commercial basis. The result was the creation of Miyahuna Company in January 2007 as a fully publicly owned independent limited liability company that operates under the private sector laws and regulations.[39] Based on a mandate agreement, Miyahuna was entrusted by WAJ with the management and operation of water service provision in Amman. The company enjoys full independence in terms of managing its budget, expenses and returns. Miyahuna is granted full ownership of revenues and additional resources generated from sewerage tax (Miyahuna 2008).
The following analysis further investigates drivers that lead to the decision for a public company arrangement, the institutional and legal environment in which Miyahuna operates and the changes that took place in terms of organizational identity and human resources.

In the course of the management contract public officials realized that transferring responsibilities to a private sector company reduces the overall control on the path of development. Water being a pressing politicum in Jordan due to social and cultural reasons there were interests prevailing among public officials to keep full control water service provision with the public sphere in the long run.[40] However, improvements achieved within the PSP arrangement with LEMA could on the other hand not be ignored. Therefore, returning to the initial purely administrative setup was

[39] Miyahuna's work is governed by Jordanian laws and regulations followed by the private sector and businesses. In addition, the administrative and personnel affairs procedures are done in accordance with the Jordan Companies Law, Labor Law, and the Social Security Law.
[40] The name chosen for the newly established company – *"miyahuna"* meaning *"our water"* – underlines the intention to have water provision understood as a matter of the general public.

not really an option. The decision for a public company arrangement was fostered by developments in the water sector in the Governorate of Aqaba.

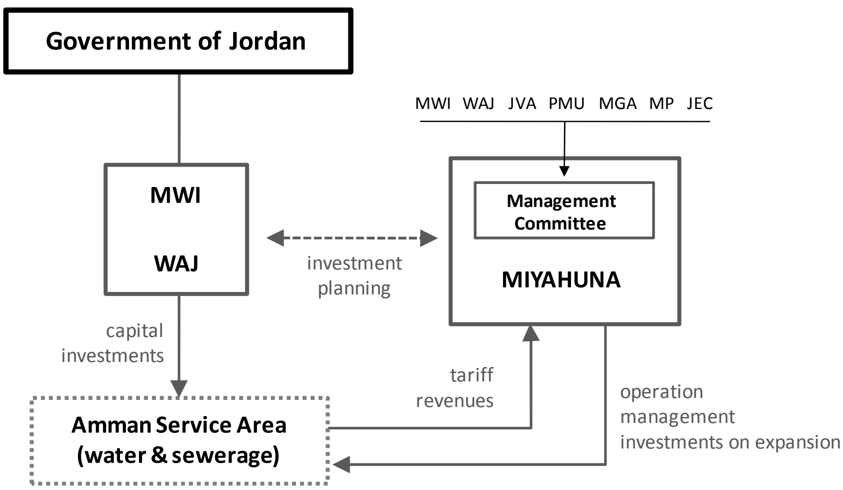
> *"A major driver for the post LEMA developments in Amman was the successful establishment of a public water company in Aqaba in 2004. There they succeeded to overcome financial, technical and planning challenges very fast – a break-even point could early be reached. Although, the context in Aqaba was very different to Amman in terms of client structures and operational costs, this successful pilot project motivated people to embark on the same track"* (IS).

> *"With Aqaba a model was chosen which has unique cost and customer structure, therefore it is hard to transfer it to other places. It was an easy catch to show that the public company arrangement is sustainable. As a pilot project it has been very successful. Although, one has to bear in mind that a one-to-one transfer to Amman can be delusive"* (IS).

With the establishment of Miyahuna Company, the Government of Jordan decided for an arrangement that is meant to combine commercialization and state control. State control on Miyahuna is exerted through a General Assembly responsible for the appointment of the Management Committee's chairman and members, who in turn take the responsibility of appointing the CEO and the executive staff. The Management Committee – which is comparable to a board in a private sector company – heads Miyahuna and consists of seven members representing the MWI, the WAJ, the Jordan Valley Authority, the PMU, the Municipality of Greater Amman (MGA), the Ministry of Planning (MP) and Jordan Electricity Company (JEC). *"Because of the institutionalized state control on Miyahuna, the company will always be depending on and restricted by political decisions and developments."* (IS).

Figure 7: Institutional setup of public company arrangement

Source: own figure



Regarding the institutional setup, responsibilities are split between Miyahuna and WAJ. While Miyahuna is responsible for operation as well as planning and financing the investments necessary to extend the water and sewerage services, WAJ is responsible for providing the financing necessary for major investments in water supply, the rehabilitation of the initial distribution system and the very capital intensive sewage main projects.[41] Hence, the public company arrangement features a separation between operation and capital investment responsibilities. It was stated that this separation happened *„…due to the initial financial situation in 2006. Based on the legal restrictions a public company is not allowed to have operational deficits. However, this was a formal justification only, because the Government could have given a guarantee for coverage. Actually people did not want to loose control"* (IS). Although in contrast to the LEMA arrangement, Miyahuna is to some extent involved in financial planning.

> *"The public company arrangement as it was implemented can be regarded as a second best solution. An ideal solution would have been to have responsibilities for capital expenditures and operational expenditures with the same people. This really allows optimizing operations and management. But under the precondition that cooperation between Miyahuna and WAJ works out well, the established arrangement is not very far from a first best solution"* (IS).

In order to achieve a smooth phasing-out of the management contract the parties involved agreed on a six month transition period in which LEMA operators were still in charge of management. As discussed in the previous chapter the MC Amman succeeded in building technical and operational capabilities among the employees through extensive training courses and training on the job. However, regarding the development of managerial capacities there was a lack which, after LEMA operators left the scene, was clearly noticeable in form of a managerial gap.

> *"Over the contract period the internal management capacities were not developed in a stable way. And here it is crucial to remember that private companies when it comes to the basics are interested in gaining quick returns and benefit. This in many cases opposes the goal of establishing a sustainable setting. Especially when management contracts expire, private managers are interested in maximizing profits. Therefore short-term decisions are more likely to happen than long term decisions that would help to build a stable basis for further action"* (IS).

By appointing the former general manager of Aqaba public water company as CEO for Miyahuna, managerial experience was directly transferred from the successful pilot project to the newly established company in Amman. This decision can be regarded as a means to overcome shortages in managerial know-how among existing higher level employees. Strong and experienced leadership was introduced that fostered the establishment of a different organizational identity from the beginning.

Regarding human resources Miyahuna had to face some challenges especially in the initial phase. Due to a Government obligation all AGWA employees were transferred to the newly established company, which challenged the development of a distinct organizational identity in the beginning. Formerly administrative employees were still bound in traditional routines of behavior and

[41] Investment responsibilities are clearly defined in the Assignment Agreement allocating responsibilities between Miyahuna which is responsible of investments in network extensions and normal capital maintenance projects and the WAJ which handles the investments of extensive projects of network rehabilitation and major infrastructure construction needed to keep pace with the accelerated expansions in Amman

mechanisms of work. In order to overcome this challenge, salaries were raised, incentive structures introduced and new staff hired directly from the private sector. Especially the latter has been described as a very important factor for the change of people's mentality. *"The newcomers have affected the formerly governmental employees to change their way of doing things. This was and still is very important for the process of change"* (IS). Further it was stated that a change of employees' mentality is closely related to the perception of job attractiveness.

> *"Concerning the attractiveness of jobs two aspects must be differed. Of course on the one side it is the level of salaries you offer in combination with the opportunity of bonus payments and performance oriented financial incentives. On the other side job attractiveness and employee satisfaction is closely linked to appreciation and acknowledgement of individual performance. People want to be taken serious"* (IS).

> *"You have to give a certain freedom to your employees. If people get the chance and responsibility to form and improve processes it happens – just the way it is in private sector companies. It is a matter of organizational culture and trust"* (IS).

On one side, featuring a company-like organizational environment Miyahuna started to attract well trained human resources that would not have decided to join a public authority. However, on the other side, being on the private market for human resources also implies increased competition on well trained employees, resulting in the fluctuation of human resources.

> *"It is important to keep the people that get trained – also with the help of international donors – in order to improve. However, here lies a crucial problem. Often it happens that as soon as somebody is skilled on a certain topic he receives better offers from outside – may this be the local private market or companies especially from the Gulf countries where there is a great need for these people"* (IS).

> *"Because of the fast economic development in the Gulf States public administrations experience an increasing pressure on human resources. A brain drain takes place; as soon as people are well trained they get better offers from outside. The Government realized that it needs to take action on this matter"* (IS).

For a detailed performance evaluation of Miyahuna it is still a little too early. However, already the first year of operation has shown that some important achievements lead to the right direction. There have been significant improvements concerning technical, customer service related as well as financial issues. With the introduction of a comprehensive planning approach based on a five year business plan that is adjusted to actual developments on a yearly base, a strategic and long-term oriented dimension has been introduced – something which had been mostly absent in the former public arrangement. This strategic dimension has been stated as a very important outline which guides the whole company and helps to develop a distinct and stable organizational identity. Despite the achievements realized many challenges still remain. Relicts from the former arrangements such as the big share of non-revenue water and the parlous state of networks have to be faced. In addition, Miyahuna is still depending on hidden subsidies and billing and collection efficiency still leaves aplenty room for optimization.

6. Reflection of findings

6.1 On the path of transformation

6.1.1 On the inability to facilitate improvements

The initial public authority arrangement with WAJ and AGWA as the responsible bodies for operation, management and investment of water provision in Amman, was subject to many characteristics which are traditionally negatively associated with state bureaucracy. The shortfalls of this arrangement can institutionally be explained with the high extent of centralized decision-making and its dependence on political processes and state budgets which resulted in a lack of operational autonomy for AGWA and a lack of managerial and financial autonomy for WAJ. Input steering mechanisms as well as investment planning did not focus on effectiveness and efficiency of water services provided, but rather on the budgets made available by the Government. As a consequence, the great amount of resources, which have to a good portion been granted by international financial and donor organizations for the improvement of the poor state of water operations and water infrastructure, have been allocated highly inefficient – the situation has been described as a ‘bottomless pit’. Mechanisms of input steering have in addition the great disadvantage to hinder long-term planning. However, due to intransparent cost structures regarding all operational and maintenance units, the existing practice of cash accounting, a weak basis and reliability of most operational and financial data as well as a lack of IT-based management systems, output and outcome orientation was precluded. Also the prevailing practice of job rotation among administrative and political leaders – in particular water ministers – as well as a lack of managerial and project management capabilities have resulted in poor managerial and strategic guidance.

Although it cannot be denied that members of the public authority to a certain extent influenced the bureaucratic culture through personal engagement such as the introduction of new approaches and ideas, the prevailing bureaucratic systems of rules and rule patterns overbalanced all major attempts for the initialization of large-scale improvement. The public authority’s bureaucratic system can be regarded as highly stabilized which resulted in an inability to adjust to a changing environment.

The existing bureaucratic mode of communication through authority, the rigid organizational structures as well as the institutionalized mechanisms of passiveness prevented individuals, especially on the lower end of the hierarchy, to take over responsibility and initialize action. The overwhelming shortfalls in terms of resource efficiency and provision quality were not approached, rather existing problems tended to be outlived. Members of the public authority, whether operational or administrative staff and officials, were bound in mechanisms of work and role patterns that can be characterized by inaction on pressing problems. Their mindsets and behavioral patterns were adjusted to the organization's expectations which do not foster intrinsic motivation of the employees.

Whereas it has often been stated that the public sector in general possesses the specific knowhow and the human capacities and capabilities needed to approach the existing challenges, the institutional environment as well as the prevailing bureaucratic culture negatively constrained the modernization of public water provision in Amman. Hence comprehensive and sustainable improvements as well as change and innovation could not be initialized or created sufficiently from within this public authority arrangement.

6.1.2 On the initialization of change

The initialization of the management contract with a private sector consortium can be regarded as the initial spark for the transformation of Amman Water. The international financial institutions and donor organizations, which have been funding various programs aiming at an improvement of water provision in Amman for many years, sensed the situation in 1999 as a window of opportunity to initialize sustainable improvements and modernization – something they have been trying to prompt for a long time. There have been different external factors that contributed to this opportunity: first, water provision in Amman had reached an low point regarding efficiency and quality; second, due to the extensive challenges to water provision in Amman, the Government of Jordan/WAJ was depending on international financial support; third, with the enacting of the privatization law the required legal environment was created. The initialization of change in the existing water provision arrangement has primarily been driven by external pressures, a fact that relates to the concept of coercive isomorphism introduced earlier.

However, the fact that the contract initialization was primarily driven by external intentions as well as the fact that there was a lack of understanding of the public side regarding relevant concepts of PSP and the need for the contract in general, a clear deficiency of trust especially within WAJ resulted. This had impacts on the contract definition and the overall spirit of cooperation throughout most of the contract period. Overall achievements of the management contract can be evaluated as rather positive. Suboptimal preconditions certainly have influenced the extent of improvements in a sense of technical, operational and financial performance as well as the span of time in which these improvements have been achieved. Nevertheless, the management contract succeeded in introducing a new momentum. This momentum can be understood as a better understanding of how to approach things and of realizing what is possible to achieve. It has been described as a slow and incremental mentality change of involved public employees. This momentum in combination with institutionalized incentive structures – mainly of financial nature – fostered intrinsic motivation among the participants. However, due to contract restrictions this was not so much the case for WAJ seconded staff.

The management contract arrangement did not directly influence the systems of rules and institutionalized role patterns prevalent in WAJ – its bureaucratic identity. This primarily stems from the institutional setup being in place. LEMA operated besides the existing authority arrangement and was meant from the beginning to be a temporary solution. Rather than influencing WAJ as an organization, the MC Amman affected the environment of WAJ and there primarily WAJ members that have been working under private sector management. These influences result on the one hand from the change of mentality described above that foster job identification, motivation to approach issues and willingness to take over responsibility. On the other hand, technical and operational capacities and capabilities have been built, and starting from a grass-root level has made sustainable improvements possible. On the managerial level, however, it was stated that building capacities among public employees was not given sufficient attention.

Despite much criticism on the MC Amman especially regarding the achievement of set performance targets, the initialization of the described momentum of change can be seen as an important success. It laid the basis for further organizational transformation and therewith for the modernization and improvement of water provision in Amman.

6.1.3 On the institutional transformation

Whereas the management contract with a private sector consortium marked the initial spark for transformation of water provision in Amman, the transition to a different institutional setup – the public company – can be regarded as a main step in the transformation process that fundamentally changes the thitherto existing provision arrangement. The cause for this shift can be on the one hand found in the general perception among the central political and administrative officials that the overall path of modernization of water service provision in Amman should not be left. On the other hand the adoption of the public company arrangement was clearly influenced by the successful pilot project in the Governorate of Aqaba. The adoption of the best practice relates to what was earlier described as mimetic isomorphism – a mechanism of imitation. The decision for an arrangement that proved to be successful in a context closely related to that of Amman, reduced insecurity and uncertainty which are always inherent in organizational transformation processes. Other proposed options such as leasing and concession arrangements or the full divestiture of water provision to the private market are from the viewpoint of the involved decision makers always more uncertain and unsecure. Such arrangements would have resulted in a lesser extent of governmental control. Especially within the water sector, the transfer of full responsibility to the market is to be regarded very critical due to various factors. First, the network-bound nature of the water industry makes it almost impossible to establish a competitive environment. If private companies operate within a quasi monopolistic market expected cost advantages are most likely not to unfold due to the interest of profit maximization. Simply converting a public sector monopoly into a private one provides no competitive incentives for the utility to operate efficiently, make appropriate investments or respond to consumer demands. Second, the regulation on the water price which exists due to social reasons does not foster an open market setting. And third, a comprehensive regulative environment for the water sector does not yet exist in Jordan. However, in order to fully transfer responsibility for such a vital resource as water to the private market, a sound regulative framework is an essential precondition. The eventually taken governmental decision for a public company arrangement can therefore be regarded as a clear decision for strong public governance in the water sector.

In contrast to the initial public authority arrangement, the public company's institutional setup brings together all relevant public stakeholders through the establishment of the Management Committee. This institutional structure ensures the consideration of public interests on a strategic level, whereas in its operation and management the public company is autonomous. Though, the separation of responsibility for operation and investment imposes certain restrictions. However, so far cooperation between Miyahuna and WAJ has been stated to be mainly fruitful and productive. This rather positive cooperative spirit can be explained with a greater alikeness and overlap between the involved systems of rules. Compared to the management contract arrangement, the 'cultural gap' between involved actors is less distinct. For the time coming the development of the spirit of cooperation will be decisive for the extent of operation-investment optimization – something which is crucial in network-bound sectors.

The organizational transformation to a public company involved a crucial change in the organizational identity. This primarily stemmed from the change of the system of reference, a different institutional setup and a different legal framework that has a fundamental impact on inner organizational structures, processes and opportunity for operational and managerial flexibility. These factors have initiated change in the system of rules, mechanisms of work and organizational expectations towards the employees which fostered the development of a distinct and future-oriented atmosphere in the company. Guided by this frame organizational members were slowly enabled to collectively struggle for a redefinition of the conditions and methods of their work. This related to what as earlier been discussed as normative isomorphism. Whether it will result in the long term in an improved ability to adapt to changing requirements and conditions in the organizational environment – namely the changed demands and societal expectations for operations and management of water provision in Amman – has to be seen.

The public company in terms of systems of reference is bound in an in-between of the public and the private sphere. In order to achieve a good performance in the long run the organization must be able to balance and switch between different modes of communication – money as the crucial medium of communication in the private sector environment and authority as the prevailing medium of communication within the public sphere. This will remain a permanent challenge for this provision arrangement.

6.2 On future prospects and path dependency

Having investigated the path of transformation of water service provision in Amman up to this point, of course the questions arise, how the issue will unfold in the future and whether a path dependency is likely. As part of the expert interviews conducted the interviewees have been asked about their perception on these matters. Regarding the specific case of water provision in Amman it was stated several times that for now it is very important that the still very young public company needs to be given some time to stabilize and demonstrate its capabilities. Once this is fully the case – in about two to three years – expansions to the surrounding Governorates, which are already discussed today seem feasible and sustainable for the organizational setting. However, expansions also bear the risk of recreating strong centralization as it has been the case in the initial public authority arrangement.

Referring to PSP in the Jordanian water sector in general it was stated that the major role of private companies is to be seen in delivering specific services in arrangements primarily related to outsourcing of task and service contracts supporting public or party public provision arrangements on clearly defined operations. However, the bottleneck for the involvement of private companies in water service provision was described to be the underdeveloped state of the local private market in water sector related services and the rather weak environment for private investments.
The opposition against a stronger involvement of the private sector in water provision is still very apparent among administrative and political decision makers. To overcome this opposition it is crucial to facilitate smaller and manageable PSP projects. The orientation and overall successful implementation of so-called Mirco-PSP projects in different Governorates underlines that this type of cross-sectural cooperation might for the time being be the right approach to dissolve prevalent opposition within the public sphere.

PSP in general holds great potential to foster the integration of effective and innovative solutions for water service provision, such as the introduction of innovations in incentive structures, the incorporation of new technologies and a creation of new opportunities or an enhancement of service quality for the benefit of the general public. Also they foster the overall orientation towards more specialized and lean organizational forms. This results in a greater flexibility for public service provision and allows better adaption to a changing environment. The complementation of capacities and capabilities of stakeholders within a PSP arrangement creates a common pool of knowhow which for public bodies holds the opportunity to better fulfill public tasks in an increasingly complex environment. Although it must be mentioned that regarding overall efficiency gains PSP arrangements are not necessarily superior to purely public arrangements.

Whether PSP arrangements will be a long-term strategy for water provision in Jordan is also depending on how enduring and relational partnership between the sectors can be developed. It is important that partners are commonly tuned on the task they want to fulfill together that – although underlying intentions vary as a matter of nature – partners share a common vision. Their attitude and behavior must be oriented on the others respectively. For a relationship to develop a certain continuity is essential that allows familiarizing with the partner's mechanisms of work and allows facing and settling arising conflicts. Furthermore, each of the participants must bring in something of value to the partnership. PSP arrangements seek to draw on the best available skills, knowhow and resources, whether they are located in the public or the private sector. For the potentials to unfold, each partner has to transfer resources to the common arrangement such as financial funds, authority, tangibles, rights, social capital, specific knowhow or even reputation (positive image). PSP arrangements involve a sharing of responsibility for the outcomes, a sharing of associated risks and a sharing of benefits, whether they are financial, economic, environmental or social in nature. Especially the concrete allocation of risks often seems to be neglected in PSP arrangements.

Whether one can speak of a path dependency in water sector transformation is a matter of definition. The involvement of the private sector at one point does not necessarily lead to further involvements. Rather, PSP especially in developing countries has to be understood as an instrument to achieve certain goals in water sector modernization. Depending on the public sectors' ability to learn and mobilize internal resources as well as on the prevailing interests in the political-administrative system, PSP will be a long-term strategy or rather a temporary phenomenon. Although, if path dependency is understood as the general direction departed on such as a shift of steering mechanisms, management approaches and commercial orientation it is most likely that the transformation described above was only the beginning of a more comprehensive modernization process that can also incorporate private sector companies.

6.3 On knowledge and organizational learning

So far the investigation conducted focused primarily on aspects relating to the nature and impacts of organizational transformation. It was found that the involvement of a private sector consortium in water provision in Amman initialized performance improvements and a change of mentality among the organization's members and therewith paved the way for institutional restructuring. Transformation was furthermore found to be fostered by the mobilization of existing capabilities as well as by the creation of new capacities in technical, operational, and managerial fields. However, this aspect relates to the dimension of knowledge. The questions how knowledge has been build in the course of the transformation process and how it was handled in order to achieve improvements is investigated in the following.

Aspects of knowledge run like a red thread through the entire transformation of Amman Water. The transformation process has been a process of mobilizing, creating, and handling knowledge – in short managing knowledge. Knowledge shall here be understood as a scarce resource comparable to capital or work. Knowledge is characterized by its continuous revision and permanent improvability and it is inseparable coupled with non-knowledge. Whereas data is a raw material, information is data which is embedded in a context of relevance such as subscriber data in a water utility. The transformation of information to knowledge takes place when information is processed through patterns of experience and as a result is accessible as a resource. Subscriber information which is embedded strategic experiences can for example be understood as water sector knowledge relating to a specific circumstance.
A distinction can aslo be made between implicit and explicit knowledge. Whereas implicit knowledge refers to the experiences an individual can build upon in a sense of knowhow – no matter if directly tangible or not – the latter refers to knowledge which is communicable and can directly be referred to. There is further a distinction to be made between organizational knowledge which is bound in transpersonal systems of rules, structures, and processes in organizations independent of the individuals; and individual knowledge which sticks to the members of organizations (Willke 2005a: 78pp)

An application of these briefly sketched ideas on knowledge in general to the findings of the case study fosters an understanding of what the nature of "capabilities" and "capacities" actually is. The initial situation can be regarded as characterized by a lack of technical, operational and managerial knowhow necessary to run water service provision effectively and to keep improvements on track with changing conditions such as degrading public budgets, increasing water demands and soaring resource scarcity. Although many public employees possessed certain knowledge on technical and operational matters, the necessary large-scale improvements could not be initialized. From an knowledge perspective an explanation for this phenomenon can be found in an inherent lack of institutionalized reflexive mechanisms to deal with change (e.g. changed conditions, new instruments) as well as in the hierarchical learning culture prevalent in the public authority that did not foster the creation of sufficient organizational knowledge to approach pressing challenges. However, even individual knowledge on the matter has to certain extent been existent, prevalent rule structures that governed the public organization made it mostly impossible to apply it – a phenomenon common in many organizations whether public or private.

Through the PSP arrangement adopted, external knowhow has been integrated in the public authority arrangement. International private sector operators brought in operational and management expertise in a sense of implicit knowledge through experience. Although being responsible for management and operations of water provisions in Amman, the international operators were highly influenced by the existing system of rules of the public authority which became apparent in the conflictious spirit of cooperation. This, in combination with the fact that expertise of international operators has been build within different contexts than the situation in Amman, imposed difficulties in the cross-sectural arrangement. It took some time until they found orientation within the new context, gained an understanding of existing processes and as a result of learning were able to effectively act upon the challenges they have come for in the first place. Compared to members of the water authority they had the comparative advantage to build upon a broad basis of individual and organizational knowledge which – even created in a different context – enabled to approach the challenges more effectively. With their mother companies in the background, they have been backed by sophisticated reflective mechanisms – something which in the context of development cooperation is often referred to as backstopping.
Capabilities and capacities build in the course of the PSP arrangement were mainly on the level of individuals – so to speak individual knowledge. The training of employees – whether in special training courses or on the job – had the effect that different references and mechanisms of reflection were created among them. This enabled employees to approach existing challenges more openly and design solutions more efficiency oriented. What in the previous chapters has been referred to as a change of mentality can in this context be described as a change of "maps of mind" among public employees.

The PSP arrangement as a matter of its nature had not been an organization in a narrower sense and therefore did not develop strong anonymized transpersonal rules and reflective mechanisms of its own. This changed with the establishment of the public company. Due to the full transfer of staff, different institutional expectations imposed on employees and changed institutional and legal conditions a new system of reference has been created. It changed the organizational identity and therewith the thitherto existing routines of work, behavioral structures and self-conceptions of participants. As far as this can be judged after such a short period of existence, the public company started to develop reflexive mechanisms that allow efficient and effective management and allocation of knowledge. The introduction of a comprehensive business plan that is adjusted on a regular base is just one example.

However, for the time to come it remains a challenge for the public company to create a dynamic interplay between personal (individual) and organization knowledge. In order to be sustainably successful both organizational members and the organization itself in a complementary manner have to generate knowledge and share it collectively. Expertise on water provision – be it of technical, operational, or managerial nature – have to be integrated in the anonymized transpersonal system of rules of the company.

7. Conclusion

The objective of this study has been to gain a further understanding of the momentum of change initialized by cross-sectural arrangements in public service provision. Emphasis has been put on the exploration of the nature of cross-sectural cooperation. The adoption of a systems theory perspective has highlighted the differences in systems of reference between the public and the private sector and shown which modes of communication and functional codes constrain public and private sector organizations. Whereas the public administrations' function is rooted in the formal execution of political decisions, the core function of private companies is the reduction of transaction cost in social relationships. This has crucial implications for the modes of communication, evolving role structures and behavioral expectations. Public-private service provision arrangement feature a convergence of organizations rooted in the different sectors. Institutionalized patters of operation, role structures, values and beliefs differ significantly. Cross-sectural convergence holds a great potential for beneficial complementation of abilities and resources. However, it is also the cause for various challenges. Awareness for these in-build mechanisms and characteristics fosters an understanding for potential achievements as well as potential conflicts.

Building on these considerations implications of cross-sectural arrangements for the transformation of public sector organizations have been investigated. The exploration of the Amman Water case study has shown how a temporary involvement of the private sector succeeded in initializing internal capabilities within the public sphere and therewith laid the basis for a comprehensive and sustainable improvement of water provision in Amman. Suboptimal preconditions within the public-private arrangement have certainly constrained the extent of performance achievements. However, it introduced a momentum of facing pressing challenges and fostering a shift from input orientation to output and outcome oriented management. Furthermore, achievements and shortcoming of the cross-sectural arrangement has fostered a controversial debate among political and administrative officials on the future of water service provision in Jordan. The eventually taken decision for a purely public arrangement as the successor of the management contract, although in a different legal and institutional environment, underlines the prevailing intentions to keep control over water resources and water service provision within the public sphere in the long run.

Aspects relating to the dimension of knowledge have been found to be crucial for transforming water provision arrangements. However, in order to obtain organizational intelligence in a water provision arrangement that enables to face existing challenges, be it the improvement of service provision or the adaption to a changing environment, knowledge handling and management has to be considered in particular.

The deficiency of purely administrative arrangements lies in the potential inability to integrate the constantly increasing knowledge in water, operation and management related fields in transpersonal systems of rules that are independent of individuals. Even though in the investigated case there has been considerable individual knowhow existent among administrative employees, it could not be utilized to initialize the large-scale improvements necessary. There is also a danger inherent in cross-sectural arrangements that knowledge is primarily build and handled on an individual level. However, whether this comes to effect is depending on the type of public-private arrangement hence on the contractual and institutional setup. Although especially in the context of transformation processes the integration of external knowhow through the adoption of a cross-sectural arrangement can significantly foster the initialization of improvements and change.

For water organizations to be intelligent it requires a dynamic interplay between personal and organizational knowledge. In a complementary manner, water organizations and their employees have to generate knowledge and share it collectively. However, such a development is constrained by institutional setups, prevailing organizational cultures and expectations as well as the mental modes of participants. Even though it is constrained by various challenges, the public company arrangement established in Amman in general holds the potential to implement the required measures.

Epilogue

This study has intended to make a contribution to the overall discussion of private sector participation in water service provision. The awareness of underlying mechanisms and existing phenomena inherent in public-private arrangements facilitates a deeper understanding of the topic and therewith leads the attention to the cause of potentials and sources of conflicts of cross-sectural cooperation. Whereas previous studies on this matter have mainly focused on the economic and institutional perspective, it has been the intention to highlight aspects related to social mechanisms.

There still lies a great potential in combining these perspective in order to foster the still limited comprehension of arrangements located on the interface between the public and the private sphere. Imposed by the limitations regarding the scope and timeframe of a mastherthesis many aspects, which are of central significance or closely related to the topic investigated, could not be considered. It would be interesting to extend investigations on the question of the legitimization of cross-sectural provision of public goods and services as well as on the question of implications of private sector participation for the governance of water. Regarding the organizational level, it would be interesting to further investigate the concrete mechanisms and strategies water organizations have to implement in order to achieve what has been described as organizational intelligence.

The case-related findings presented in this study are constrained by a limited sample size of interviews conducted and a non-random-based selection of interview partners. Further, there have been limitations in data availability at certain points. Hence, the results of this study are not statistically representative. Although generalization of findings is restricted, the in-depth investigation of a single-case-study has fostered the awareness of some fundamental aspects of cross-sectural cooperation.

Bibliography

Abu-Shams, Ibrahim; Rabadi, Akram (2003): *Commercialization and Public-Private Partnership in Jordan. In: Water Resources Development*, 19(2), p. 159–172.

Alfen, Hans W.; Fischer Katrin (2006): *Der PPP-Beschaffungsprozess*. In: Weber, Martin.; Alfen, Hans Wilhelm.; Weber-Schäfer-Hausmann (Ed.): Public Private Partnership. [rechtliche Rahmenbedingungen, Wirtschaftlichkeit, Finanzierung]. München: Beck, p. 1–84.

Al-Jayyousi, Odeh (2003): *Scenarios for Public-Private Partnerships in Water Management: A Case Study from Jordan*. In: Water Resources Development, 19(2), p. 185–201.

Baaklini, Abdo; Denoeux, Guilain; Springborg, Robert (1999): *Legislative politics in the Arab world. The resurgence of democratic institutions*. Boulder, Colo.: Rienner.

Barnard, Chester I. (1970): *Organizations as systems of cooperation*. In: Etzioni, Amitai (Ed.): A Sociological Reader on Complex Organizations. Second Edition. London: Holt, Rinehart & Winston, p. 15–19.

Barnard, Chester I. (1982): *The functions of the executive*. 30. anniversary ed. Cambridge, Mass.: Harvard Univ. Press.

Ben Salha, Edwige (2003): *Das Verhältnis zwischen Staat und Zivilgesellschaft in Jordanien unter besonderer Berücksichtigung der Berufsverbände*. Münster: LIT Verlag (Demokratie und Entwicklung, 48).

Bickers, Kenneth; Williams, John T. (2001): *Public policy analysis. A political economy approach*. Boston: Houghton Mifflin Company.

Bogner, Alexander (Ed.) (2005): *Das Experteninterview. Theorie, Methode, Anwendung*. 2. Aufl. Wiesbaden: VS Verlag für Sozialwissenschaften

Breton, Albert; Wintrobe, Ronald. (1986): *The logic of bureaucratic conduct. An economic analysis of competition, exchange, and efficiency in private and public organizations.* Cambridge: Cambridge Univ. Pr.

Budäus, Dietrich (Ed.) (2004): *Public Private Partnership. Formen - Risiken - Chancen* ; Referate eines Symposiums der Gesellschaft für Öffentliche Wirtschaft, des Verbandes Kommunaler Unternehmen, der Deutschen Sektion des Europäischen Zentralverbandes der Öffentlichen Wirtschaft (CEEP) und des Deutschen Städtetages am 30.31. Oktober 2003 in Berlin.

Budäus, Dietrich (Ed.) (2006): *Kooperationsformen zwischen Staat und Markt. Theoretische Grundlagen und praktische Ausprägungen von Public Private Partnership*. 1. Aufl. Baden-Baden: Nomos (Schriftenreihe der Gesellschaft für öffentliche Wirtschaft, 54).

Budäus, Dietrich.; Grüb, Birgit. (2007): *Public Private Partnership: Theoretische Bezüge und praktische Strukturierung*. In: ZögU, 30(3), p. 245–272.

Dietrich, Renate (1999): *Transformation oder Stagnation. Die jordanische Demokratisierungspolitik seit 1989*. Hamburg: Dt. Orient-Inst. (Schriften des Deutschen Orient-Instituts).

DiMaggio, Paul J.; Powell, Walter W. (2008): *The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields*. In: Powell, Walter W.; DiMaggio, Paul J. (Ed.): The new institutionalism in organizational analysis. [Reprint]. Chicago: Univ. of Chicago Press, p. 63–82.

Ehrensperger, Marc (2007). *Erfolgsvoraussetzungen von Public Private Partnerships im öffentlichen Hochbau*. Beiträge zum öffentlichen Management. Schriftenreihe des Instituts für Öffentliche Dienstleistungen und Tourismus. Haupt Verlag, Bern.

Etzioni, Amitai (Ed.) (1970): *A Sociological Reader on Complex Organizations*. Second Edition. London: Holt, Rinehart & Winston.

European Commission (2006): *Provision of Two Long-term Experts, of Several Short-term Experts and of Training Programme to Support the Programme Management Unit of the Greater Amman Water Sector Improvement Programme. Report: Experiences with PSP in Jordan's Water and Wastewater Sector (Task 1)*.

Farazmand, Ali. (Ed.) (2001): *Privatization or public enterprise reform. International case studies with implications for public management*. Westport, Conn.: Greenwood Press (Contributions in economics and economic history, 220).

Flick, Uwe (1995): *Handbuch qualitative Sozialforschung. Grundlagen, Konzepte, Methoden und Anwendungen*. 2. Aufl. Weinheim: Beltz Psychologie-Verl.-Union.

Flick, Uwe; Kardorff, Ernst von; Steinke, Ines (Ed.) (2005): *Qualitative Forschung. Ein Handbuch*. 4. Aufl. Reinbek bei Hamburg: Rowohlt-Taschenbuch-Verl. (rororo Rowohlts Enzyklopädie, 55628).

Froschauer, Ulrike; Lueger, Manfred (2003): *Das qualitative Interview. Zur Praxis interpretativer Analyse sozialer Systeme*. Wien: WUV (UTB Soziologie, 2418).

Glaser, B. G.; Strauss, A. L. (1993): *Die Entdeckung gegenstandsbezogener Theorie: Eine Grundstrategie qualitativer Sozialforschung*. In: Hopf, Christel (Hg.): Qualitative Sozialforschung. 3. Aufl. Stuttgart: Klett-Cotta, p. 91–111.

Haddadin, Munther J. (2006): *Water resources in Jordan. Evolving policies for development, the environment, and conflict resolution*. Washington, DC (Issues in water resource policy).

Hanemann, W. M. (2006): *The economic conception of water*. In: Rogers, Peter P.; Llamas, Manuel Ramón.; Martínez-Cortina, Luis. (Ed.): Water crisis. Myth or reality? Marcelino Botin Water Forum 2004 ; Santander June 14 to 16, 2004. London: Taylor & Francis, p. 61–92.

Howe, Chales W. (2005): *Property Rights, Water Rights and the Changing Scene in Western Water*. In: Gopalakrishnan, Chennat; Biswas, Asit K.; Tortajada, Cecilia. (Ed.): Water Institutions Policies, Performance and Prospects. Berlin, Heidelberg: Springer-Verlag Berlin Heidelberg (Springer-11646 /Dig. Serial]), p. 175–185.

Hopf, Christel (Hg.) (1993): *Qualitative Sozialforschung*. 3. Aufl. Stuttgart: Klett-Cotta.

Hopf, Christel (2005): *Qualitative Interviews - ein Überblick*. In: Flick, Uwe; Kardorff, Ernst von; Steinke, Ines (Ed.): Qualitative Forschung. Ein Handbuch. 4. Aufl. Reinbek bei Hamburg: Rowohlt-Taschenbuch-Verl. (rororo Rowohlts Enzyklopädie, 55628), p. 349–368.

Juuti, Petri S.; Katko, Tapio S. (2005): *Water, Time, and European Cities. History Matters for the Future*. Water Time Project, European Union. Online access: http://www.watertime.net/Docs/WP3/WTEC.pdf, last checked: 10.10.2008.

Kieser, Alfred. (Ed.) (2006): *Organisationstheorien*. 6., erw. Aufl. Stuttgart: Kohlhammer.

König, Eckard; Zedler, Peter (Ed.) (2002): *Qualitative Forschung. Grundlagen und Methoden.* 2., völlig überarb. Aufl, Dr. nach Typoskript. Weinheim: Beltz (UTB Pädagogik, Erziehungswissenschaft, 8218).

Lawrence, Paul R.; Lorsch, Jay W. (1967): *Organization and environment. Managing differentiation and integration*. Boston: Harvard Univ. Press.

Lawrence, Paul R.; Lorsch, Jay W. (1969): *Differentiation and integration in complex organizations*. In: Litterer, Joseph A.: Organizations: Systems, control and adaptation. p. 229-253. New York, NY: Wiley.

Luhmann, Niklas (1966): *Theorie der Verwaltungswissenschaft: Bestandsaufnahme und Entwurf*. Berlin, Köln: Grote.

Luhmann, Niklas (1999): *Funktionen und Folgen formaler Organisation*. Mit einem Epilog 1994. 5. Aufl. Berlin: Duncker & Humblot (Schriftenreihe der Hochschule Speyer, 20).

Luhmann, Niklas (2004): *Ökologische Kommunikation. Kann die moderne Gesellschaft sich auf ökologische Gefährdungen einstellen*. 4. Aufl. Wiesbaden: VS Verlag für Sozialwissenschaften

Luhmann, Niklas (2006): *Soziale Systeme. Grundriß einer allgemeinen Theorie*. 1. Aufl., [Nachdr.]. Frankfurt am Main: Suhrkamp (Suhrkamp Taschenbuch Wissenschaft, 666).

Mayntz, Renate (1985): *Soziologie der öffentlichen Verwaltung*. 3., überarb. Aufl. Heidelberg: Müller Juristischer Verl. (UTB für WissenschaftUni-Taschenbücher, 765).

Mayring, Philipp (2002): *Einführung in die qualitative Sozialforschung. Eine Anleitung zu qualitativem Denken*. 5., überarb. und neu ausgestattete Aufl. Weinheim: Beltz-Verl. (Beltz Studium).

McLaughlin, Kate.; Osborne, Stephen P.; Ferlie, Ewan. (Ed.) (2002): *New public management. Current trends and future prospects.* London: Routledge.

Melosi, Martin V. (2000): *The sanitary city. Urban infrastructure in America from colonial times to the present.* Johns Hopkins Univ. Press, Baltimore. URL: http://www.loc.gov/catdir/bios/jhu051/99029417.html, last checked: 08.10.2008

Miles, Matthew B.; Huberman, A. Michael (2005): Qualitative *data analysis. An expanded sourcebook.* 2. ed., [reprint]. Thousand Oaks, Calif.: Sage.

Minogue, Martin (2000a): *Changing the state: concepts and practice in the reform of the public sector*. In: Minogue, Martin. (Ed.): Beyond the new public management. Changing ideas and practices in governance. Reprinted. Cheltenham: Elgar (New horizons in public policy), p. 17–37.

Minogue, Martin. (Ed.) (2000b): *Beyond the new public management. Changing ideas and practices in governance*. Reprinted. Cheltenham: Elgar (New horizons in public policy).

Miyahuna (2008). Business Plan Brief

Mollinga, Peter P. (2008): *Water Policy - Water Politics*. In: Scheumann, Waltina. (Ed.): Water politics and development cooperation. Local power plays and global governance. Berlin: Springer, p. 1–32.

MWI (1997): Utility Water Policy. Amman.

Naschold, Frieder. (Hg.) (2000): Leistungstiefe in öffentlichen Sektor. Erfahrungen, Konzepte, Methoden. 2., unveränd. Aufl. Berlin: Ed. Sigma (Modernisierung des öffentlichen SektorsSonderband, 4).

Niskanen, William A. (1996): *Bureaucracy and public economics*. 2. ed., Reprinted. Cheltenham: Elgar (John Locke series).

Parson, Talcott (1970): *Suggestions for a socialogical approach to the theory of organizations*. In: Etzioni, Amitai (Ed.): A Sociological Reader on Complex Organizations. Second Edition. London: Holt, Rinehart & Winston, p. 32–46.

Politt, Christopher (2002): *Clarifying Convergence. Striking similarities and durable differences in public management reforms*. In: Public Management Review, 4(1), p. 471–492.

Robins, Philip (2004): *A history of Jordan*. Cambridge: Univ. Press.

Rosenstiel, Lutz (2008): *Organisationsanalyse*. In: Flick, Uwe; Kardorff, Ernst von; Steinke, Ines (Ed.): Qualitative Forschung. Ein Handbuch. 6., durchges. und aktualisierte Aufl., Orig.-Ausg. Reinbek bei Hamburg: Rowohlt-Taschenbuch-Verl. (Rororo Rowohlts Enzyklopädie, 55628), p. 224–237.

Rothenberger, Dieter (2008): *Improving Water Utility Performance through Local Private Sector Participation. Lessons Learned from the Micro PSP in Madaba, Jordan*. GTZ Discussion Paper Nr.1. GTZ Water Programme Jordan.

Rothenberger, Dieter; Meuss, Martina; Stoll, Uwe (2007): *Micro-Macro linkages in Institutional Restructuring Processes in the Water Sector. The Case of the Operations Management Support Project, Jordan*. Herausgegeben von GTZ Discussion Paper.

Samuelson, Paul A (1954): *The pure theory of public expenditure*. Review of Economics and Statistics. 36(4), p. 387-389.

Schröter, Eckhard.; Wollmann, Hellmut (2001): *Empirische Policy- und Verwaltungsforschung. Lokale, nationale und internationale Perspektiven* [für Hellmut Wollmann zum 65. Geburtstag]. Opladen: Leske + Budrich.

Scott, W. Richard (1987): *The Adolescence of Institutional Theory*. In: Administrative Science Quarterly, 32, p. 493–511.

Scott, W. Richard (2008): *Unpacking insitutional arguments*. In: Powell, Walter W.; DiMaggio, Paul J. (Ed.): The new institutionalism in organizational analysis. Chicago: Univ. of Chicago Press, p. 164–182.

Steiner, Sylvia Marlene (2008): *The Impact of Institutional Frameworks on Private Sector Participation in Water Supply and Sanitation. The Case of the Management Contract for Water and Wastewater Services in the Amman Governorate, Jordan.* Unpublished Masterthesis.

Suleiman, Rebhieh; van Well, Lisa; Gustafsson, Jan-Erik (2008): *Governance of the Amman water utility*. In: Development in Practice, 18(1), p. 53–65.

Tsoukas, Haridimos; Mylonopoulos, Nikolaos (Ed.) (2004): *Organizations as knowledge systems. Knowledge, learning and dynamic capabilities*. Palgrave Macmillan.

UNEP (2002): *The role of formal and informal institutions in the water sector. What are the challenges for development*. By Eugenia Ferragina, Mita Marra and Desiree A.L. Quagliarotti.

Weber, Max (1970): *The Three Types of Legitimate Rule*. In: Etzioni, Amitai (Ed.): A Sociological Reader on Complex Organizations. Second Edition. London: Holt, Rinehart & Winston, p. 6–15.

Weber, Max (1994): *Bureaucracy*. In: Fischer, Frank; Sirianni, Carmen (Ed.): Critical Studies in Organization and Bureaucracy. Revised and Expanded Edition. Temple University Press, Philadelphia. p. 4-19.

Willke, Helmut (2005a): *Auf dem Weg zur intelligenten Organisation: Lektionen für Wirtschaft und Staat*. In: Thom, Norbert.; Badet, Jean-Pierre. (Ed.): Wissensmanagement im privaten und öffentlichen Sektor. Was können beide Sektoren voneinander lernen. 2., durchges. Aufl. Zürich: vdf Hochschulverl. an der ETH Zürich, p. 77–98.

Willke, Helmut (2005b): *Interventionstheorie. Grundzüge einer Theorie der Intervention in komplexe Systeme*. 4., bearb. Aufl. Stuttgart: Lucius & Lucius (UTB Soziologie, Interdisziplinär, 1800).

Willke, Helmut (2006): *Grundlagen. Eine Einführung in die Grundprobleme der Theorie sozialer Systeme* ; mit einem Glossar. 7., überarb. Aufl. Stuttgart: Lucius & Lucius (UTB für WissenschaftUTB, 1161).

Willke, Helmut (2007): *Smart governance. Governing the global knowledge society*. Frankfurt/Main: Campus-Verlag

World Bank (2001): *The Hashemite Kingdom of Jordan Water Sector Review Update. Main* Report. URL: http://www.google.de/search?source=ig&hl=de&rlz=&=&q =The+Hashemite+Kingdom+of+Jordan+Water+Sector+Review+Update&btnG =Google-Suche&meta=, last checked: 15.10.2008.

World Bank (2007): Implementation *Completion and Results Report (IBRD-44450). On a Loan in the Amount of US$55.0 Million to the Hashemite Kingdom of Jordan for a Amman Water and Sanitation Management Project, 2007*.

Appendix 1: Interview partners

Interviews conducted between: 18.06.2008 – 24.07.2008

Total length of interviews: 11:05h

Al-Awamleh, Moh'd Eng.

Madaba Governorate Administrator

Ministry of Water and Irrigation/Water Authority of Jordan

06.07.2008 (12:00 – 13:10) → 1:10h

Al-Zoubi, Kamal

CEO Miyahuna Water Company, Amman

08.07.2008 (14:05 – 15:10) → 1:05h

Merz, Arthur Dipl.-Ing.

International Consultant

(Change Management, Information Technology, Business Processes)

18.06.2008 (9:00 – 10:50) → 1:50h

Haddadin, Munther Dr.

Former Minister of Water and Irrigation, Jordan

International Water Expert

21.07.2008 (12:30 – 14:45) → 2:15h

Kachel, Udo

Dorsch Consult Water & Environment

Director Regional Office Amman

24.07.2008 (16:15 – 18:30) → 2:15h

Khashman, Khaldon H. Eng.

Secretary General

Ministry of Water and Irrigation

10.07.2008 (11:05 – 11:55) → 0:50h

Rothenberger, Dieter

GTZ (German technical cooperation), Program Manager

Operations Management Support to the Middle Governorates,

Ministry of Water and Irrigation/Water Authority of Jordan

08.07.2008 (11:00 – 12:40) → 1:40h

Declaration

I declare that the thesis entitled *"Transformation of water organizations. From administrative hierarchy beyond marketization. The case of Amman Water, Jordan"* is my own unaided work. All sources I have used or quoted have been indicated and acknowledged by means of complete references in the text.

December 2008

Philipp Ditzel