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Revisiting the Capacity Development Approach through Comparative Case Analysis

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“Pockets of Effectiveness” - A Case of Innovative Turnaround of
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No. 127

March 2016

JICA Research Institute

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Deciphering Capacity Development through the Lenses of “Pockets of Effectiveness” - A Case of Innovative Turnaround of the Phnom Penh Water Supply Authority, Cambodia -

Kyoko Kuwajima*

Abstract

This paper intends to identify the process of capacity development for urban water supply and management of public service organizations by examining the case of the innovative transformation of the Phnom Penh Water Supply Authority (PPWSA) of Cambodia. Reflecting on the analytical lenses of “pockets of effectiveness,” this paper explores the dynamics of “relational spaces” in which functional and internal factors of the organization proactively interact with political and contextual factors in the initial process of turnaround.

While efforts for developing sustainable capacity for public sector performance often encounter difficulties due to the insufficient understanding of the political contexts and a lack of a coherent strategy especially in aid-dependent countries, a huge amount of foregoing research focuses on distilling cross-country lessons from intervention failures and looks for macro strategies. In contrast, research into “pockets of effectiveness” sheds insightful light on anatomizing factors of successful public sector organizations that can compensate for their contextual constraints.

The case analysis presents the findings regarding the conditions to ignite initial change: a top-down political intention of reform for visible change, the assignment of a capable technical manager with strong communication skills, and political “rapport” to secure support and to protect from interference. Specific findings imply mutually reinforcing three patterns of interconnected factors or tight coupling in the “relational spaces,” which emerge in the process of improving capacity for urban water service with high “specificity” of targets and outcome. Tight coupling includes those between service qualities and public trust, positive organizational culture and operational autonomy, and political legitimacy and catalytic role of international aid.

Keywords: Cambodia, access to safe water, public service reform, capacity development, incentive structure, social accountability

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This paper has been prepared as part of a JICA Research Institute research project entitled “Revisiting the Capacity Development Approach through Comparative Case Analysis.”

The author sincerely thanks the former and current PPWSA officials and the Japanese experts for the interviews and for the provision of relevant materials. She also appreciates valuable and thoughtful comments from the two anonymous reviewers and the insightful discussions with Professor Michael Barzelay, London School of Economics, in 2016. She owes much to the JICA Cambodia Office, JICA HDQ and the JICA Research Institute for their suggestions, encouragement and support for the study.

Introduction

Throughout the 2000s, capacity development has been increasingly recognized in the international community¹ as a crucial cross-cutting element of development effectiveness.² The most widely cited OECD/DAC guideline depicts capacity development as a guiding concept to understand the endogenous nature of long-term development and the holistic process encompassing multi-layers of individuals, organizations, and society on the whole (OECD/DAC 2006).³ Beyond technical capacities, the OECD/DAC guideline also stressed so-called core capacities including “ability to commit and engage, to identify needs and key issues, to plan, budget, execute, and monitor actions and to acquire knowledge and skills” (Baser and Morgan 2008, as cited in Hosono et al. 2011, 180). Consequently the roles of external donors are reconsidered as those for facilitating rather than creating capacities (Hosono et al. 2011).

The underpinning of the debate is the shift in the development paradigm, in which development is redefined as a long-term process of social transformation involving multi-level stakeholders (Stiglitz 2001; Fukuda-Parr, Lopes and Malik 2002). The OECD/DAC guideline demonstrates that efforts for supporting

¹ The significance of capacity development for achieving better development results has been repeatedly stressed for nearly a decade, in the Millennium Development Declaration in the UN General Assembly in 2000 and at a series of the OECD/DAC High Level Forum (HLF) on aid effectiveness. The discussion was culminated in the HLF on Aid Effectiveness in Pusan in 2011. (www.oecd.org/dac/capacitydevelopment)

² The international initiatives for “capacity building” can be traced back to the 1950s mainly in the form of skill development, organizational strengthening, and institution building within developing countries. However, the role of technical cooperation in capacity building especially in Sub-Saharan Africa was critically reviewed in the early 1990s, with major critiques focusing on its supply-driven nature, excessive dependence on costly expatriates and limited short-term impact (Berg 1993). Reformed guiding principles for technical cooperation have offered a revised concept of “capacity development,” including more emphasis on local ownership and participation based on local priorities, outcome-orientations, and the creation of an enabling environment for policy making and public management to take root (OECD/DAC 1992; UNDP 1994).

³ The OECD/DAC guideline defines *capacity* as “the ability of people, organizations, and society as a whole to manage their affairs successfully.” *Capacity development* refers to “the process by which people, organizations and society as a whole create, strengthen and maintain their capacity overtime” (OECD/DAC 2006).

sustainable capacity development require a deepened and contextual understanding of interlinkages between the knowledge and skills of individuals, leadership and performance-based management of organizations, and power structures and institutional environments (OECD/DAC 2006).

Despite the growing international attention on the importance of an internally-driven and holistic process of capacity development, the practice still faces challenges on the ground. Especially difficult are attempts for developing sustainable capacity for public sector performance.

The World Bank disclosed the overall unsuccessful results of its programs for civil service and administrative reform in aid-dependent countries during 1998 and 2006.⁴ These reports cited the insufficient diagnostic understanding of the political contexts of the reform and a lack of a coherent strategy linking governance and investment as the underlying causes of frequent failure (World Bank 2008). The Independent Evaluation Group (IEG) of the World Bank further pointed to “a degree of disconnect” between “operational success” as designed by the reform initiatives and “actual change in functional capacities of the public sectors” as it would take considerable time for the latter (World Bank 2011, as cited in Bunse and Frits 2012, 5).

While a huge amount of research tends to focus on distilling cross-country lessons from failures in macro-level strategies for improving public service performance,⁵ the research on “pockets of effectiveness” sheds insightful light on

⁴ The World Bank evaluated four areas of its advisory support to public sector reform: public financial management (PFM), civil service and administration, tax administration, and anti-corruption and transparency. It was found that while support of PFM, tax administration, and transparency have generally succeeded, performance in civil service reform has only improved in fewer than half of the borrowing countries of International Development Aid (IDA) (World Bank 2008).

⁵ There are limited exceptions, such as the research program “Innovations for Successful Societies” by Princeton University, which has been collecting cases of government innovation especially in low- and middle-income countries since 2008. (<http://successfulsocieties.princeton.edu/about> accessed on May 2015)

anatomizing political and social dynamics of successful public sector organizations that can compensate for their institutional and contextual constraints. “Pockets of effectiveness” refer to exceptionally well-functioning government or government-supported agencies in countries that have otherwise poor governance and weak public sectors (Leonard 2008, 2010).

Responding to a variety of strands in the cumulative research, David K. Leonard provides meta-hypotheses on both organization-specific and contextual interlinked factors that produce such exceptional organizations (ibid.). Michael Roll further advances comparative case analysis so as to identify patterns of factors and mechanisms explaining why and how “pockets of effectiveness” emerge and persist (Roll 2014). Particularly intriguing is the argument that organizations do have operational autonomy and their proactive interaction with external factors would create any change in the unfriendly environment itself that was supposed to be determinant of the behaviors and performance of organizations.

Reflecting on the analytical lenses of “pockets of effectiveness,” this paper will look into the case of the transformation of urban water service of the Phnom Penh Water Supply Authority (PPWSA), a public utility in Cambodia well-known globally for its drastic turnaround. (See Biswas and Tortajada 2010, 2012; and Das et al. 2010 among others.) Beginning in 1993 under the leadership of newly assigned General Director Ek Sonn Chan and with support from international donors, PPWSA underwent a striking ten-year change from a typical dysfunctional organization into one of the most excellent water utilities in Southeast Asia.⁶ Through its innovative policies it has been demonstrating world-class performance such as a non-revenue water ratio as low as 6 percent and increased access for the poor to clean water (Das

⁶ In the benchmarking study conducted in 2003, PPWSA was ranked at the top in overall performance indicators among 47 water utilities in Southeast Asia (SEAWUN 2005).

et al. 2010). It became the first enterprise listed on an initial offering of the Cambodia stock exchange in 2012.

In contrast, the public sector in Cambodia in general continues to suffer from the detrimental influence of “the patronage system and power sharing among rival factions” which has led to expansions in the size of the civil service, low pay, and a lack of standard personnel management (Grishankar et al. 2011, 6). According to Freedom House, Cambodian social fabric remains “driven by traditional hierarchical patron-client relationships”⁷ based on “inequalities of wealth, status and power and personalized interactions between the powerful and weak” (Freedom House 2006).

Focusing on the initial turnaround process of PPWSA spanning from 1993 to 1997, especially before it was granted legal autonomy, this article attempts to answer the following three questions: (1) Why and how was PPWSA transformed from a degenerated and almost bankrupt urban water supplier into a “pocket of effectiveness” in an otherwise under-performing environment? (2) Specifically, how did PPWSA and its leaders manage and change their environment? (3) How facilitative has the role of international development cooperation been for these processes? Special attention is paid to the intersection between internal and external factors of PPWSA.

This paper will contribute to arguments on the following three issues: firstly, the experience of PPWSA illustrates the dynamic impact of an early shift in customer relations on restoring functional capacity for managing access to the water supply, and on changing people’s recognition of PPWSA and creating a culture of “pay for service” in the society. The relational shift created a social coalition for iterative improvement.

⁷ The patron-client relationship generally refers to the situation in which a patron of higher socioeconomic status provides protection and/or benefits to a client of lower status, while the latter reciprocates by offering general support and assistance to the former.

Secondly, PPWSA presents significant evidence that the formal settings of legal autonomy at the end of 1996 could only be functionalized with the accompaniment of prior experimentation with rule-based management and the formation of a managerial team for operation during the initial reform process.

Thirdly, while the above mentioned initial turnaround emerged under the initiatives of the General Director, the case suggests that international development cooperation served a catalytic role in providing essential resources for his leadership and hence for the emergence and continuation of the successful turnaround of PPWSA.

This paper is organized as follows: Section 1 reviews the preceding literature and presents the analytical framework. Section 2 describes the initial transformation process of PPWSA between 1993 and 1996 to examine why and how internal factors interact with external factors to make the turnaround possible. Section 3 synthesizes the case analysis in light of the propositional framework of “pockets of effectiveness.” The final section presents conclusions.

1. Literature review and analytical framework

It is known that there are exceptionally well-functioning public organizations in states with unfavorable conditions. There has been cumulative research during the past three decades, albeit a small number of studies, on attributes and/or contexts of such public sector “pockets of effectiveness.” Section 1.1 first looks at the comprehensive overview by David K. Leonard and the five meta-hypotheses on causal factors of “effectiveness” that he identified. After reviewing the somewhat unique findings drawn from preceding research, this section then examines the comparative study of Michael Roll, who analyzes the interactive nature of internal

and external factors to explain why and how “pockets” occur and persist. Section 1.2 and 1.3 explain the analytical framework and the methodology for studying the case of PPWSA in this paper.

1.1 Literature review

(1) Overview of studies on “pockets of effectiveness”

David K. Leonard’s comprehensive overview of existing literature provides an insightful framework to examine both internal and contextual factors affecting how “pockets of effectiveness” are produced and sustained. Following the foregoing study, Leonard defines “pockets of effectiveness”⁸ as “public organizations that are reasonably effective in carrying out their functions and in serving some conception of the public good, despite operating in an environment in which most agencies are ineffective and subject to serious predation by corruption, patronage, etc.” (Leonard 2010, 91).

He examines 62 hypotheses in the foregoing studies and groups them into five meta-hypotheses, each of which explains decisive factors either endogenous to the organizations or contextual and political.

Out of five meta-hypotheses, two are concerned with endogenous factors:

- i.** Styles of management and leadership under which the organization performs its tasks can override any other factors.
- ii.** Organizational function and its specificity of benefits and incentives can determine its administrative autonomy and effectiveness.

⁸ According to Leonard, variant terminology is used for such exceptional organizations: “pockets of productivity” or “excellence” or “effectiveness” and “islands of excellence” or “effectiveness.” Some literature implicitly describes organizations by noting their high performance in a setting otherwise under-performing and weak (Leonard 2008). Likewise the focus of studies encompasses successful organizations, exceptional managers, public policies, policy reform initiatives, and development projects as well as one study that cut across other categories (Leonard 2008, 9).

The other three meta-hypotheses deal with contextual and political factors:

- iii. The political process by which organizational policy reform is undertaken can overcome other factors.
- iv. Political institutions such as depoliticized chief executives who are still responsive to political leaders can shape the political feasibility of its operation and outcome.
- v. The underlying political economy can determine possible effectiveness, most especially whether beneficiaries are organized by their interests in services and not into patron-client networks.

(Adapted from Leonard 2008, 2010)

Leonard values the groups of research for their potential contribution to identifying feasible conditions that make “pockets of effectiveness” possible against the odds as “an incremental process of administrative reform and improvement” (Leonard 2008, 8). However, he also points to the lack of coherence in the preceding studies, explaining that they “have gone in multiple directions” by applying different concepts of administrative reform.⁹ They have such a wide range of divergent analytical foci that some primarily look at effective organizations, while others study exceptional managers or public policies, successful policy reform initiatives, or aid projects (Leonard 2008, 8-9).

Through his prepositional inventory study, Leonard proposes to explore strategic opportunities for reform, by weighing the relative importance and the probable sequence of the five meta-hypotheses that are not mutually exclusive but interlinked each other (Leonard 2010).

⁹ Citing Heredia and Schneider, Leonard points to the three alternative conceptions of administrative reform which led to different weights of determinants in the preceding research: *civil service reform* (directed against clientelism and corruption); *accountability reform* (countering abuse of power and unresponsiveness); and *managerial reform* (directed against inefficiency and inflexibility) (Heredia and Schneider 2002, as cited in Leonard 2008).

(2) Individual unique findings from the selective studies

It is worthwhile to look closely at studies that imply solutions to public sector reform that are different from the practices of “new public management,” which stress formal organizational structures and the increased use of markets and monetary incentives. From among the comprehensive inventory provided by Leonard, Michael Roll provides selective reviews of four research works that provide unique explanations for public sector performance (Roll 2014).

The four studies reviewed by Roll are those of Arturo Israel (1987); Leonard (1991); Judith Tendler (1997); and Merilee S. Grindle (1997). While Israel stresses the prominence of functional attributes of organizations in determining success, the others attach crucial importance to internal factors such as “positive motivational factors” and “a sense of mission, professional values, skill- and performance-orientation and a general sense of public service” as well as “organizational autonomy” (Roll 2014, 32-33). One of the significant features of the latter studies is the exploration of the interaction between internal factors and the political and social environment in explaining performance.

Yasuo Fujita adds another case analysis on exceptionally successful public sector performance, illustrating mutually reinforcing relations among the internal elements such as functional, structural and behavioral factors (Fujita 2011).

Incentives created by specificity and competition of the assigned tasks (A. Israel)

Arturo Israel tries to identify “universal features that make organizations perform more or less effectively” among 159 institutions financed by the World Bank from the 1960s to the 70s. He concludes that the incentives created by “specificity” and “competition” are exclusive determinants of institutional performance irrespective of other internal and external factors. “Specificity” is twofold: (1) “the extent to which objectives, the methods for achieving them as well as ways of controlling

these achievements can be defined”; and (2) “the effects of the activity in terms of intensity, temporal immediateness or time lag, the number of people affected and realistic possibilities of tracing these effects.” “Competition” refers to “pressures produced by clients, beneficiaries, suppliers, the political establishment, controlling and regulatory agencies and an internal competitive atmosphere created through managerial agencies” (Israel 1987, as cited in Roll 2014, 27-28).

Excellent managers and good institutional inheritance (D. Leonard)

Leonard studies successful rural development programs in Kenya. He emphasizes the importance of successful managers who can exhibit “leadership and skill at manipulating the environment of their organizations” as well as “good institutional inheritance” that can sustain success. He points to three attributes as most critical for managerial effectiveness: “organizational mission, professional integrity and risk taking.” From the perspectives of the political economy, both a “professional group” and “a political demand for the service” are conditions for successful administrative performance (Leonard 1991, as cited in Roll 2014, 28-29).

Workers’ sense of mission and stronger monitoring by community (J. Tandler)

Tandler looks at the success of sectoral policy reform programs (preventive health, employment-creating public works, agricultural extension to small farmers, and assistance to small and micro enterprises through public procurement) in the northeast of Brazil. With reference to the experience of developed countries, she stressed five explanatory and interrelated factors of success in her case studies: (1) “exceptionally strong dedication of workers to their jobs” which can lead to trust-based relationships within the organization; (2) a sense of a “calling” and “mission” created through the process of social recognition of success and good performance; (3) a large variety of tasks carried out by workers who have “greater

autonomy and used it to respond to their clients' need"; (4) stronger monitoring of service delivery and civil servants by communities; and (5) state governments' engagement in unorthodox tasks such as public awareness campaigns for outreach activities to the poor and support to establishing civic associations, leading to civic demand for better performance from local governments and improved accountability (Tendler 1997, as cited in Roll 2014, 30-31).

Organizational culture and autonomy in personnel management (M. S. Grindle)

The work of Merilee S. Grindle with Mary E. Hilderbrand specifically asks why "there are organizations that perform relatively well, despite dauntingly unfavorable contexts and despite overall poor public sector performance" (Grindle 1997, 481). Based on the findings from the funded research by the United Nations Development Programme (UNDP) and the World Bank on capacity building initiatives of the public sector in six developing countries,¹⁰ she concludes that positive organizational culture and the degree of organizational autonomy in personnel management could compensate for disruptive aspects of the environment. She defines "organizational culture" as "a shared set of norms and behavioral expectations characterizing a corporate identity" (ibid., 482).

Roll highlights the following findings of her work: (1) a management style that includes "consultation with staff, participation, teamwork, leading by example and open non-hierarchical styles of interacting with staff, in combination with clear rules and procedures" has a greater impact on organizational performance than strong hierarchies and control mechanisms do; (2) training and study leaves can be successful when "awarded for good performance" and "connected to professional

¹⁰ This study examines public sector service delivery in the areas of agricultural extension (Ghana, Morocco, and Sri Lanka) and maternal/child health (Bolivia, Central Africa, and Tanzania), and macro-economic management (budgeting) in all six countries.

career development” as ways of creating consistent performance expectations; and (3) the sense of mission or “mystique” inculcated among the staff is a stronger determinant of performance than rules, regulations, or the remuneration structure and control. “Mystique” includes shared professional norms, a cherished reputation and prestige attached to the organization, a belief in being selected for their positions due to high levels of competence, and a strong sense of service to their country (Grindle 1997; Hilderbrand and Grindle 1997, as cited in Roll 2014, 31-32).

Among 29 public organizations that Grindle analyzes, she found fifteen to be relatively good performers. Grindle argues that most of the successful organizations exerted observable and substantial organizational autonomy in hiring, posting, promoting, and firing their employees, by escaping from “the norm” that characterizes the centralized and patronage systems of civil service management in the countries. She implies that the proactive effect of internal factors such as management style, performance expectations, and a shared mission or “mystique” could overcome some of the constraints caused by “institutional context.”

In summary, Grindle provides a hypothesis for reforming organizational performance by examining the intersection between the pressure from the institutional environment and the organizational dynamics. She suggests that promoting organizational characteristics that produce positive cultures may not be a substitute for civil service reform but could be the “missing ingredients in the disappointing results of many reforms” (Grindle 1997, 491).

Interactions among organizational function, structure and behavior (by Y. Fujita)

Fujita argues that the intertwined functional and managerial factors explain exceptional effectiveness of the Local Government Engineering Department (LGED) in Bangladesh without fully applying “key recommendations of ‘new public

management' such as transformation of government organizations into agencies, merit-based personnel management and decompression of salary structure" (Fujita 2011, 4).

Through the analytical framework of management and organization theory, he attributes the success of the LGED to the mutually reinforcing relations among the elements of its organizational strategy, structure and behavior. The factors he investigates are: (a) organizational strategy (business domain of small-scale rural infrastructure development with a short construction period but highly prioritized by the government), (b) organizational structure (decentralized management, complementary horizontal coordination mechanism, standardization of inputs through training, etc.) and (c) organizational behavior (staff incentives, group cohesiveness through teamwork, collective decision-making and internal communication, leadership, and culture) (ibid., 38).

According to Fujita, the leadership of the founding chief engineer, who served for the exceptionally long period from 1992-99, and his successors was crucial in designing and establishing the major LGED characteristics in all the elements mentioned above. Fujita assumes that sustained top management and the limited exchange of personnel with other Bangladeshi government organizations effectively avoided "the negative tendencies of the bureaucracy" (ibid., 35, 37).

He suggests that while there remain weaknesses including those in "procedures/rules of financial management, audit and quality assurance," they have been compensated for by the strength in organizational behavior and structure that has been consolidated over time (ibid., 38). Fujita implies that a series of donor's assistance to systemic and hardware aspects throughout the 1990s and 2000s has properly complemented the LGED's own strength in organizational behavior (ibid., 39).

In summary, his analysis on the LGED illustrates the combined effects of Israel's "specificity" (benefits and incentives associated with its business domain), Leonard's "excellent leadership" and "good institutional inheritance" and Grindle and others' consultative and cohesive management style, performance expectations, and positive organizational culture. With regard to the aspect of "competition" (Israel 1987), Fujita explains that the feature of its business domain has linked to its decentralized management structure, responsive organizational learning and work-hard culture due to quick feedback from beneficiaries. It is noteworthy that his study traces more than twenty years of successful evolution of the LGED which has established and consolidated positive characteristics gradually overtime.

Regretfully, missing in his analysis is the interaction between the internal and external political factors in Bangladesh. For example, it is not known why the founding chief engineer could sustain his tenure for more than six years and how he could continue his influence on the LGED by monitoring the management and its officers even after his retirement. It also unknown how the LGED leaders could resist practices of personnel exchange with other government organizations.

(3) Intentional and proactive model of "pockets of effectiveness" (M. Roll)

Michael Roll advances comparative analyses on "pockets of effectiveness" through his detailed case studies of public organizations and state-owned enterprises in the Republic era of China and Taiwan, Brazil during the 1950s, and Nigeria, Surinam, and the oil-producing countries in the Middle East.

To discern patterns of processes and mechanisms explaining why and how such organizations emerge and persist in hostile environments, Roll tries to deepen the examination of how functional and internal factors interact with political and external factors according to the organizational sociology. Referring to the concept

of “loose coupling” (Weick 2001), Roll assumes that “organizations do have considerable autonomy” to perform irrespective of their environments and “can block, let through, transform, selectively process and implement but definitely shape environmental inputs as well as to some even the immediate environment itself” (Roll 2014, 35).

For the purpose of case analyses, Roll offers a specific definition of “pockets of effectiveness” using the following criteria:

- A. Relative effectiveness in providing the public goods and/or services the organization is officially mandated to provide.
- B. Capacity to provide this public good or service throughout the country.
- C. Mode of public good or service delivery that is in line with human rights principles and laws of the country concerned.
- D. Period of persistence of at least five years.¹¹ (Roll 2014, 25)

In his literature review, Roll further condenses Leonard’s five meta-hypotheses into three aspects: prominence of internal factors such as leadership and management; prevalence of external/political economy factors that shape the benefit and legitimacy of the organization; and function- or task-related factors.

Through the comparative analysis of seven case studies, Roll extracted the following three conditions for why “pockets of effectiveness” emerge. First, it is “*the political or personal interest of the head of state in the effective execution of a particular task that allows the public organization that is mandated with executing this task to emerge as a pocket*” (ibid., 197; italics in original). The main drivers range from the president and state commissions to foreign banks which underlay specific motivations. He points to the interactions between the task-specific function

¹¹ In their work on successful public policies, Bebbington and McCourt define the duration of endured success as a minimum of ten years to survive over a change of government (2007, 6). In his analysis, Roll reduced the durational criteria to five years to include the cases of Nigeria, which has more frequent government changes.

of the public organization and the specific political interest at the higher level, which likely induced the unusual appointment that followed.

Secondly, such an exceptional organization can emerge “when the head of state breaks with the usual public sector appointment practice based on patronage rationale and appoints a person with weak ties to the political elite network and administrative experience as the chief executives of a public organization” (ibid.,198; italics in the original). Newly appointed chief executives were all administrators and technocrats rather than politicians who belonged to the prevailing patronage network. Importantly, however, they were nominated as chief executives by other individuals in the network.

Thirdly, successful organizations are more likely to emerge due to “*the head of state’s preference for agencies that produce quick and politically tangible results*” (ibid.,198-199; italics in original). Roll claims that state leaders, who preferred produced results or “political legitimization and competition,” provided political support to the organizations. Accordingly, Roll disagreed with the hypothesis of Israel stressing the direct effect of “specificity.”

To explain the processes and mechanisms of the emergence of “pockets of effectiveness,” Roll identifies nine interactive factors that he places into three categories: *organizational strength*, *organizational culture*, and *organizational proactivity*. Organizational strength is “infrastructure and procedural components or ingredients” of effectiveness, which include “focused powers,” “ways in which staff is deployed” and the “standardization of operations and procedures.” Organizational culture refers to the driving forces of success, which consist of “inclusive leadership” (a feature of leaders who attach importance to internal communication and care), “performance orientation” and “organizational identity.” Organizational proactivity encompasses facilitating factors such as the “political management” of leaders to

obtain political support and protection, “organizational autonomy” based upon political relations and bargaining, and “outreach and cooperation”¹² with clients and other organizations to build trust and cooperation (ibid., 202-15). (See Table 1)

Table 1 Categorized factors affecting how “pockets of effectiveness” emerge

Factors		Features and components
Organizational strength (<i>infrastructure and procedural components or “ingredients”</i>)	(1) Focused powers	Specific and comprehensive legal mandate enabling the organization to maintain a high degree of autonomy.
	(2) Staff deployment	<ul style="list-style-type: none"> ● Staff who shares the chief executive’s work ethic in terms of promoting performance and integrity ● Relationship of loyalty and trust ● Higher salaries and adequate training opportunities
	(3) Standardization of operations and procedures	Written internal guidelines and standard operating procedures based on objective technical criteria, etc. contribute to generating reliable information, internal stability, and the obedience of customers.
Organizational Culture (<i>driving forces</i>)	(1) Inclusive leadership	Chief executive who communicates his goals, mission and expectations clearly, invites and pays attention to new ideas and suggestions, and cares for staff.
	(2) Performance orientation	Non-material incentives and non-formal controls produce motivated and “principled agents”: a sense of seeing their jobs as meaningful and fulfilling through personal responsibility or even passion for doing so.
	(3) Organizational Identity	<p>A sense of purpose or mission as defined as “the meaning and purpose of the organization’s task in broader context of the country” and its challenges and development.</p> <p>Facilitating process: initial communication and actions of the chief executive (physical improvement of workplace, reorganization and job description, job-specific training, example by the top, and commitment to pay increases) will create expectations and set a group dynamic process in motion. A sense of cohesion, pride, prestige, and status through facing a common “enemy” and gaining positive feedback from outside enables alignment of an organization’s and a group of individuals’ mission,</p>

¹² Because the work of Roll includes cases of tax inspectorate and development banks, he explains that the factor “outreach and cooperation” is applied only to service delivery organizations or regulatory organizations.

Organizational proactivity (<i>facilitating factors</i>)	Political management	Informal and continuous activities of chief executives that aim at influencing decisions and conditions that enable the organization to maintain or increase its effectiveness. Organization's reputation for being effective is crucial for (re)activating personal "trust and interest" of the head of state, "obtaining political support and protection" and "negotiating political interference."
	Organizational autonomy	In the context of weakly institutionalized and strongly personalized politics and administration, autonomy critically depends on strong political relations and successful political bargaining.
	Outreach and cooperation	Proactive reaching out to its clients, domestic non-governmental organizations and actors, and other public organizations in order to build trust, establish relationships, and eventually cooperate with each other.

Source: Adapted from Roll 2014, 202-215.

Roll cautiously summarizes that all these factors are not sufficient to produce exceptional organizations but are necessary in that without their existence and interactions, "pockets of effectiveness" might not occur. Further he tries to illustrate a model of "stylized sequential order" to explain the evolving process of an organization emerging into a full-fledged "pocket of effectiveness." Starting with the appointment of a chief executive with weak ties to the political power, it is argued that his/her constant "political management" within the political environment and the unfolding interactive process of nurturing "organizational strength" and "organizational culture" lead to the emergence of a "pocket of effectiveness" (ibid., 215-17).

Finally regarding the important conditions for sustaining "pockets of effectiveness", Roll explains the underlying "foundational legacy" of enduring organizations, including the organization's "legal basics," its "management team," and its "first successes and the subsequent reputation" for non-corruptibility and

effectiveness (ibid., 219-20). He also argues that successive chief executives constantly deploy strategies for insulating their organizations from political interference and gaining further legitimacy through their enhanced “political management” at various levels.

In summary, despite a variety of strands and diverse research foci, the studies on “pockets of effectiveness” offer insightful analytical perspectives on why and how such exceptional public performance can emerge and sustain. Especially intriguing are the Roll’s questions about how functional and internal factors proactively interact with political and contextual conditions to produce and sustain “pockets of effectiveness” in the public sector. Based on the forgoing studies and the original case studies with new perspectives of organizational sociology, Roll provides an illustrative model of organizational transformation in which the combination of a somehow top-down political decision to assign a new chief executive and internal dynamics that are functional, managerial, and motivational create room for organizational autonomy to cultivate success in an otherwise hostile environment. He confirms that constant political management of new leadership is crucial for maintaining and enhancing political support to protect the organization.

Roll’s proposed framework is the valid gate to the further exploration for the emergence and persistence of “pockets of effectiveness” from wider angles. While there are no uniform findings from the empirical work, he selectively analyses cases that are mostly newly established entities¹³ with minimum five years of successful persistence and pays less attention to the technical/commercial aspects of public services than he does to the institutional/behavioral factors. Additional angles for effective comparison may include the analyses on the change process in existing

¹³ Six out of the seven cases in Roll’s comparative study are about newly established organizations (Roll 2014).

entities, their chronological change with longer-term perspectives, the iterative interactions between the technical and commercial aspects of organization's functions and the social and political consequences, and the roles of international actors that are not explicitly examined in the case studies. In the following sections I will discuss the analytical framework and methodology for the case of PPWSA.

1.2 Analytical framework

This article will analyze the process and mechanisms of the initial transformation of urban water service of the Phnom Penh Water Supply Authority (PPWSA) in the 1990s, focusing on the interactions between internal and functional aspects of the organization and its institutional and socio-political contexts. Specifically it will trace the factors and conditions (founding features, organizational strength, culture, and proactivity) that explain PPWSA's emergence and persistence as a "pocket of effectiveness," with additional emphasis on its technical and commercial aspects to compare with the study of Roll presented in the previous section¹⁴.

In the analysis, special attention is paid to "relational spaces"¹⁵ in which the internal dynamics of PPWSA proactively intersect with their external factors to create a new enabling environment that also affects the organizational process, by looking at (1) the change in the company's relationships with both domestic and international external stakeholders, (2) the evolution of autonomous power of the PPWSA to deliver water service, and (3) the iterative effects of "relational spaces" on the performance of service delivery.

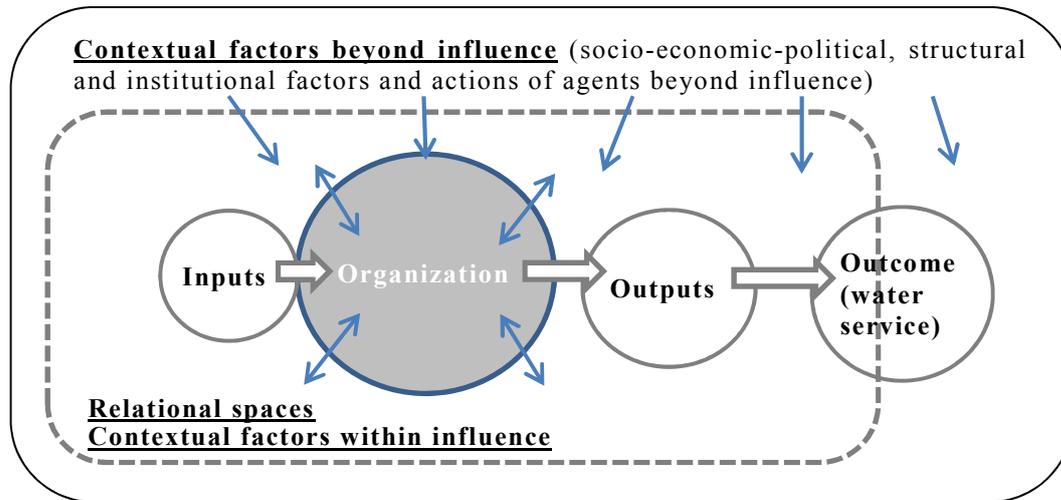
¹⁴ Unlike Roll, I do not limit the duration of persistence to five years in my definition: however, the initial transition from 1993 to 1997 will be closely examined, during which major characteristics of PPWSA were founded for its enduring success over two decades.

¹⁵ The notion of "relational spaces" is inspired by the argument on the organizational field by Wooten and Hoffman that places importance on contextualized spaces where organizations "involve themselves with one another in an effort to develop collective understandings regarding matters that are consequential for organizational and field-level activities" (Wooten and Hoffman 2008, 138).

As K.E. Weick with J. D. Orton suggest in the revisited dialectical and multi-dimensional interpretation of a “loosely coupled system,” this paper attends to the change process of organizations with the recognition of “the simultaneous existence of rationality and indeterminacy” in dynamic organizational contexts (Orton and Weick 1990, 204-205). Weick argues that any hierarchical level in an organization contains interdependent elements by which individual units are mutually constrained, conditioned and connected. While “these elements are linked and preserve some degree of determinacy” (“coupled” and closed to outside forces, thus producing stability), they are “also subject to spontaneous changes and preserve some degree of independence and indeterminacy” (“loosely coupled” and open to outside forces, thus producing flexibility) (ibid., 205). For strategic change management in “open systems” in which organizations are understood as subsystems of the wider systems (environments), Weick stresses the active role of organizations in creating the environments that subsequently constrain their actions (“sense-making of the organizations”) (Weick 2001, 178-204).

As a framework for analyzing organizations as open systems, this paper distinguishes contextual factors upon which the PPWSA could exert any influence and those beyond its influence. For analytical purposes, “context within influence” is interpreted as synonymous with “relational spaces” in which internal factors of the PPWSA interact with external and political factors. (Figure 1)

Figure 1. Schematic diagram for analyzing organizations as open systems



Source: Made by author, adapted from European Commission 2011 and Boesen and Therkildsen 2005.

1.3 Methodology

The methodology of this study combines interviews, reviews of existing literature on the transformation of the PPWSA, donor reports of aided projects for PPWSA, and official documents published by PPWSA. The author conducted a series of semi-structured interviews with the former and current PPWSA senior management officials and the relevant Cambodian officials in 2010¹⁶ and 2014 respectively. The author also owes much to the interviews with PPWSA officials and the people involved in the “Project History” study on PPWSA organized by the JICA Research Institute of Japan International Cooperation Agency (JICA).¹⁷

The foregoing literature on PPWSA comprises case analyses and essays made by academics and by practitioners of donor agencies, including JICA, the Asian

¹⁶ The interviews in 2010 were conducted as a joint effort with professors of the University of Tokyo for “the research on governance reform toward ensuring sustainability.” (See the published report, Motoda 2013). The interviews in 2014 were made by the author under the sponsorship of JICA.

¹⁷ The “Project History” on PPWSA was co-authored by Yasujiro Suzuki and the author (see the publication, Suzuki and Kuwajima 2015). The interviews with PPWSA officials in 2012 were done by Y. Suzuki. Those with the Japanese academics, consultants, JICA senior specialists and JICA officers involved in the Japanese aid projects for PPWSA were jointly conducted by the co-authors in 2013 and 2014.

Development Bank (ADB) and the World Bank. Donor documents published in the 1990s include the final report on “the Master Plan Survey on Phnom Penh Water Supply System” supported by Japan, the staff appraisal reports, and the implementation completion reports of the loan projects namely “Urban Water Supply Project” aided by the World Bank and “Phnom Penh Water Supply and Drainage Project” assisted by the ADB. Official documents of PPWSA contain their annual reports, business reports, and occasional review reports such as “Clean Water for All.”

2. Turnaround from the brink: A case of the Phnom Penh Water Supply Authority (PPWSA) in Cambodia

The PPWSA in the early 1990s exemplified a dysfunctional water supply and inferior service delivery. It looked quite depressing not only for its inefficient operation but also for its apathetic workforce and rampant corruption. By dividing the organization’s trajectory into three phases, this chapter examines why and how the PPWSA turned into a “pocket of effectiveness” in its early days. First the paper looks back at the historical background of the organization’s devastated situation before 1993. Secondly it examines the change process initiated by the General Director and the initial reform of PPWSA from 1993 to 1996. Thirdly it traces the pursuit between 1996 and 1997 for self-sustainable operation through the achievement of a tariff change and legal autonomy.

2.1 Historical background of the PPWSA before 1993

Foundation of the PPWSA and the civil war

The urban water supply system in Phnom Penh City was founded under French colonization during the 19th Century. After reaching the height of its production

capacity in the 1970s, the system had deteriorated because of the political turmoil inflicted on the country for more than two decades.

After the independence of Cambodia in 1953, the Phnom Penh Water Supply Authority (PPWSA) was legally established as an administrative arm of the Phnom Penh Municipality (PPM) in 1960. The PPWSA achieved a supply capacity of 150,000m³/day with a total supply network of 280 km. It supplied water to about 40,000 households with its revenue covering its expenses until the outbreak of the civil war in 1970 (PPWSA 2010; Chea 2007).

During the period of the civil war from 1970 to 1979, especially under the so-called “Khmer Rouge Regime,” the water supply system in the capital, including the human resources and the physical infrastructure, was heavily damaged. After the deposition of the Khmer Rouge government from Phnom Penh in January 1979, water services in the city were resumed under the newly established “Heng Samrin Administration,” assisted by the Vietnamese Government. The water supply system, however, did not work as it did before the eruption of the civil war. Attempts at recovering production capacity were hampered by international sanctions until 1991.

Peace Accords in 1991 and the challenges of the PPWSA

In October 1991, the Heng Samrin administration and the three opposition factions formed the comprehensive Paris Peace Accords, with 19 countries witnessing. Following the accords, the United Nations Transitional Administration for Cambodia (UNTAC) deployed an eighteen-month peace keeping operation in March 1992 tasked with helping the country in its recovery. With the support of UNTAC, the general election was held in May 1993, which was followed by the establishment of the constitution. In September 1993, the new coalition government was formed

with two Prime Ministers, Prince Norodom Ranariddh of the Funcinpec Party and Hun Sen of the Cambodia People's Party.

By 1992, with emergency support from the international NGO Oxfam, the production capacity of PPWSA had recovered to 65,000m³/day, which was equivalent to merely 45 percent of the total supply capacity in 1970. Water distribution pipes had aged and deteriorated. In addition the supply of electricity was seriously damaged and intermittent. Limited capacity and a degraded network for the water supply made it difficult for PPWSA to provide sufficient water to even 20 percent of citizens in Phnom Penh.

Furthermore rampant illegal connections and inefficient fee collection contributed to the high percentage of non-revenue water (NRW),¹⁸ which totaled 73 percent (PPWSA 1996, 2004). As a result, the annual revenue of the PPWSA could only cover 60 percent of its total expenses. The PPWSA even owed accumulated debt¹⁹ totaling 0.3 million dollars to the Electric Authority and chemical suppliers, which accounted for nearly 90 percent of its annual expenditures.

The water service provided by the PPWSA in 1993 was in stark contrast to the common understanding of good water service as indicated by international benchmarking exercises:²⁰ It could only intermittently provide unsafe water to a

¹⁸ Non-revenue water (NRW) is defined as “the difference between ‘System Input Volume’ and ‘Billed Authorized Consumption’,” by the International Water Association (IWA) (Lambert and Hirner 2000). NRW consists of three components: “Unbilled Authorized Consumption” (for example for the use for firefighting), “Apparent Losses” (through theft and customer metering inaccuracies) and “Real Losses” (leakages). While this paper consistently uses the term NRW based on the data publicized in PPWSA 2010, it should be noted that the definition of NRW was not internationally established during the 1990s. In fact, the PPWSA reports published in the 90s used the term “Unaccounted for Water” instead, which had no generally accepted definition.

¹⁹ In 1988, the PPWSA was once authorized to collect fees and retain revenue: however, it soon financially collapsed and returned to the direct control of the PPM in 1991. The failure in autonomy entailed an accumulated debt which amounted to 768million Riels in 1993 (approximately 0.3million dollars, as \$1=2500 Riels) (Ek Sonn Chan 2012).

²⁰ For example, the International Benchmarking Network for Water and Sanitation Utilities (IBNET) managed by the World Bank and the Southeast Asian Water Utility Networks (SEAWUN) supported by the Asia Development Bank (ADB) provide comparative performance reports of respective utilities using common indicators.

limited population. The PPWSA was trapped in a vicious cycle of financial loss, impaired operation and maintenance, exacerbated bad service, increased social distrust, and a culture of non-payment in the society.

2.2 Change in 1993 and the emergence of a “pocket of effectiveness” in the PPWSA

Two significant events took place in 1993. One was the assignment of a new General Director (GD) to the PPWSA in September. Coinciding with this leadership change was the resumption of international aid to Cambodia and the aided formulation of a long-term plan for reconstruction and development of an urban water supply system in Phnom Penh (the “Master Plan 1993”).

This section provides analysis on why and how the turnaround process of the PPWSA unfolded during 1993-1996. It firstly describes the background of the assignment of a new GD and the formulation of the Japan-aided Master Plan 1993. It then examines the new GD’s initial reform initiatives in the PPWSA, including creating a positive organizational culture, renewing customer relations, and cultivating a culture of payment in the society.

(1) Appointment of a new General Director of the PPWSA and the Master Plan 1993

In September 1993 when the new government was formed, Ek Sonn Chan, an official of the Phnom Penh Municipality (PPM), was appointed as the new GD of the PPWSA. He had formerly headed the Commercial Department and the Electricity Department in the PPM but had never worked in the water sector before.

Chea Sophara, who is a People’s Party member and was at the time the Deputy Governor and had been Ek Son Chan’s close workmate in the PPM since 1981, recalls that he nominated Ek Sonn Chan as the new GD because improving

drinking water had been in acute need in Phnom Penh but was fraught with formidable challenges. “As I know that he is a capable manager ‘who works by heart’, I was quite sure that he could restore and ensure reliable management of PPWSA in line with our idea”²¹ (Chea Sophara, pers. comm., March 2014).

It was clear that the leaders of the PPM under the newly formed government strongly expected Ek Sonn Chan to bring about a change to the PPWSA and its dysfunctional services. While the deficit of the PPWSA caused a persistent financial burden to the PPM, its poor water supply was also causing endemic diarrheal-diseases in the city.²² This situation apparently gave “high specificity” (Israel 1987) to PPWSA’s mission.

Having nominated Ek Sonn Chan to an unenviable position, Chea Sophara encouraged him to take on the challenge by noting that “international aid would expectedly be resumed for PPWSA” (Ek Sonn Chan, unpublished interview by Yasujiro Suzuki, November 2012). Thereafter Chea Sophara and the PPM leaders time and again offered advice and support to Ek Sonn Chan for his reform efforts.

Coming to work at the PPWSA, Ek Sonn Chan soon realized that the organization had totally lost its proper command and order. The working conditions were poor: the shoddy office became swamped whenever it rained, while his desk was missing one leg. Around four-fifths of the employees were not appropriately assigned or were incapable of doing any substantial work. Most of them were under qualified and morale was low. Almost all the staff seemed apathetic, despairing of any possibility of change in the PPWSA (ibid.).

As a new GD, he was resolved to “do-or-die” to break out of the impasse and

²¹ Chea Sophara (currently, Minister of Rural Development) served as Deputy Governor during 1988 and 1999 (First Deputy Governor during 1995-1999) and Governor during 1999 and 2003.

²² The infant mortality rate was reportedly 117 per 1,000 lives in Cambodia in 1990, which was among the highest in the world (World Bank 1992, 1994a).

to improve the situation of PPWSA (Ek Sonn Chan, unpublished interview, June 2010). He decided to investigate what was actually happening in the PPWSA with his own eyes during the first month of his assignment.

During this time he noticed that the UNDP/World Bank experts were in the country and the study for formulating the “Master Plan 1993” was about to be completed by Japan. This “Master Plan,” which projected the long-term development of the water supply system in Phnom Penh by 2010, provided not only a physical construction plan but also a wide range of technical and managerial guidance to improve the operation of the PPWSA in practical terms (TEC and NSC 1993).

After thorough interviews and observation, Ek Sonn Chan embarked on his initial reform initiatives: namely the restoration of organizational discipline, team building with motivated managers, and the reestablishment of customer relations.

(2) Change in organizational culture of PPWSA

a. Restoration of organizational discipline

Through his one-month investigation, Ek Sonn Chan found that the former GD, who was still working as a Deputy GD, had illicitly installed his own pipeline directly from the main distribution pipe to his house, 300-400m away. He obtained water for free and routinely resold it to his neighbors for his private benefit. Within the PPWSA he formed a network of 50 to 60 cronies, who unlawfully charged residents US\$500-5,000 to make new household connections. While those in the company earning money illegally enjoyed uproarious drinks every day, many others remained underpaid, making merely \$10-20 per month.

As a first step, Ek Sonn Chan took the initiative to install a meter at his own house and started to pay water fees. Then, he ordered the Deputy GD to stop his

illegal connection and warned that if he didn't, he would either be disconnected or be obliged to install a meter for regulated payment; if bills were not paid, he would be forcibly disconnected. Naturally this created a furious antagonism within the PPWSA. Ek Sonn Chan recalls that after gradual and patient persuasion, the Deputy GD finally agreed to install a meter "with bad grace and anger." Despite his hostile resistance,²³ his final obedience gave rise to changes in his followers and the employees, who gradually agreed to install individual meters (Ek Sonn Chan, unpublished interview by Yasujiro Suzuki, November 2012).

Secondly Ek Sonn Chan penalized any staff members who were found to be associated with malfeasance, such as illegal connections, with immediate dismissal (Chea 2007). He applied this rule equally to anyone who violated it by demoting or dismissing (Ek Sonn Chan, unpublished interview by Yasujiro Suzuki, November 2012). It is important to note that the GD at that time was not authorized to recruit nor dismiss his staff on his own but was required to obtain the approval of the Ministry of Interior (*ibid.*). He could, however, earn the political support of the PPM leaders for his firm stance by consistently upholding strict rules and hence could avoid further interference in their enforcement.

b. Team building with young managers

During his one-month investigation, Ek Sonn Chan noticed that there were a handful of qualified young professionals in the PPWSA with college educations, including those who studied in the Soviet Union or East Germany. Generally they had not been deployed at appropriate positions and remained idle under the preceding

²³ Ek Sonn Chan had been relentlessly slandered throughout 1994. On the front page of a local paper, he was continuously denounced as an unqualified leader with little knowledge of the water sector and insulted as "a water devil" with a photo of his ugly-looking face almost every day (Ek Sonn Chan, unpublished interview, March 2014).

management. Those who adhered to Ek Sonn Chan's vision of reform were allocated managerial responsibilities and made up a "team" thereafter.

Some of the current vice GDs still vividly remember the day in late 1993 when Ek Sonn Chan assembled such young members to a meeting to call for unity.

Ek Sonn Chan started by saying that he was assigned to PPWSA not because of his own interest but because of the need of the government. Declaring that from here on knowledge and expertise of engineers would be seriously important for tackling loads of problems of PPWSA, he required them all to study and work hard so as to assume respective duties. He added in turn that he would make his utmost efforts to secure additional resources to improve their salary. (Samreth Sovithia and Ros Kimleang (currently the vice GDs of PPWSA), unpublished interview by Yasujiro Suzuki, November 2012).

The organization, which had been stretched out across nine office levels (TEC and NSC 1993), was soon restructured into three departments in charge of technical, administrative, and commercial affairs respectively. To those who responded to his message, Ek Sonn Chan selectively provided opportunities for training in and out of Cambodia and promoted them as young managers such as deputy department directors or office chiefs working beneath the deputy directors. In making his selections, he placed more emphasis on a sense of duty than simply on individual capabilities (Ek Sonn Chan, unpublished interview by Yasujiro Suzuki, November 2012).

Ek Sonn Chan did not forcibly remove incapable senior staff members but gave them more dormant roles (Chea 2007; Das et al. 2010). Before long, as the old generation retired, the young engineers were positioned to become department directors and deputy directors.²⁴ Ek Sonn Chan affectionately gave them a name “Team of ‘*Three Musketeers*’”²⁵ or “My Team.”

Under the leadership of Ek Sonn Chan, a positive organizational culture had gradually emerged in the PPWSA through the introduction of rule-based personnel management and a shared sense of responsibility among the team of young middle managers. Through the process, the organizational mission, which Grindle argues is an important determinant to success, started to be instilled in PPWSA.

(3) Reestablishment of customer relations

Ek Sonn Chan and his team started to search for ways to improve bill collection, which accounted for fewer than 50 percent of the issued bills in 1993. While there were 26,881 documented consumers to which PPWSA was issuing bills, it was unknown who actually used how much water from PPWSA. In fact, the customer file had not been updated since 1979 (PPWSA 1996).

Therefore Ek Sonn Chan decided to conduct a complete customer survey to ascertain the actual number of connections in the city area. PPWSA also introduced an automatic billing system which made the bill issuing process accurate. He then instituted compulsory meter installation for customers to give support to metered bill collection against the prevailing culture of non-payment in the society.

²⁴ Six of the vice GDs of the PPWSA as of 2012 were the ones who were promoted to young managers during 1993 and 1994. In addition to the incumbents from the PPWSA, a few managers were deployed from those who were transferred from the PPM upon the assignment of Ek Sonn Chan. Those who moved from the PPM included then commercial director and chief of the accounting office of the PPWSA (Lack Pathana, Director of Finance and Accounting Department, unpublished interview, March 2014).

²⁵ The name comes from the French novel of Alexandre Duma (the original title: *Les Trois Mousquetaires*). In the novel the protagonist and his inseparable friends live by the motto, “all for one, one for all.” This phrase is also often heard among “the Team” members of PPWSA.

a. Identifying real customers to improve bill collection

In 1994 the PPWSA embarked on a customer survey by visiting all the households, business units, and government institutions in the city area. The PPM assisted the efforts by mobilizing officials who received education or had ever worked as teachers, considering this to be an “adequate level of communication abilities with the public” (Chea Sophara, unpublished interview, March 2014). Using a hundred city officials divided into 10 teams, they started a master survey in March and completed it for the whole city with the population of 400,000 by the end of 1994.

At first, we did not have any idea about how to make the survey or what kind of information to be collected. Therefore we informally learned it from a French Expert. When he made a modest advice to start with a small-scale survey with ten people per one *Sangkat* (unit of towns) in a year, I [Ek Sonn Chan] promptly rejected the idea: ‘in such a leisurely fashion it would take 70 years to complete’. So as to conduct exhaustive survey in 76 *Sangkats* of seven districts (four *Khans* and three *Sroks*), I consulted with the Deputy Governor Chea Sophara to lend manpower of the Municipality. In response the PPM mobilized a hundred city officials to PPWSA. About one month after the inception of the survey, the French Expert also generously and delightfully joined our team (Ek Sonn Chan, unpublished interview by Yasujiro Suzuki, November 2012).

The survey result was striking: it was found that there were 12,980 documented connections which were not receiving any water from PPWSA, while there were an additional 13,722 connections which were not documented but were actually receiving piped water. As a consequence, out of 26,881 documented connections, only 50 percent were receiving water and 30 percent actually paid fees. At the end of 1994 the customer files were revised and reflected 27,623 connections. (PPWSA 1996)

In 1994, the PPWSA introduced an automatic billing system with assistance from the government of France. Using the computerized consumer database, the bill issuing procedures became considerably more efficient and accurate as of the middle of 1995. In 1996, the computerized system was established combining the customer information and the data on bill collection. The system enabled the PPWSA to

connect the process of issuing and collecting bills so that non-paying customers could be identified easily (PPWSA 1996, 1999).

Throughout 1995 and 1996, the PPWSA continued to update the customer file. The number of customers was revised to 32,404 by the end of 1996 (PPWSA 1996). As the Commercial Department standardized the application and registration procedures for new connections, the customer database has been systematically updated every year since then (PPWSA 1999).

b. Public campaigns and shift to metered bill payment

As the next step, Ek Sonn Chan decided to make the installation of meters compulsory for customers. At the juncture in 1993 only 10 percent of connections were metered, while some meters were defunct and others were located in areas where they were difficult to read (TEC and NSC 1993). For the majority of customers, low flat fees were applied with a uniform rate of consumption of 80ℓ/day/person.²⁶ As a result, while some metered customers complained about excessively high bills, many others were enjoying unlimited water consumption at low prices (PPWSA 1996). Installing either new or replacement meters was indispensable to the shift to metered bill payment.

In 1994 with the support from the PPM, the PPWSA initiated public campaigns to inform people about their obligation to pay for water consumption in compliance with an earlier regulation which had thus far not been implemented as stipulated.²⁷ The PPM leaders were well aware of the need for “civic cooperation”

²⁶ Since the uniform rate was too low, the unit rate was amended to 150 ℓ/day/person in November 1993 (PPWSA 1996).

²⁷ The Decree No. 32 titled “Government Decree on the Supply and Consumption of Drinking Water” was promulgated under the previous government in December 1987. The Decree allowed the PPWSA to collect fees and to collect penalties in case of violations. However, public disobedience because of the poor water supply was obvious. As of 1991 the effect of the Decree had become nominal (TEC and NSC 1993).

for the restoration of the water system in Phnom Penh (Chea Sophara, then Deputy Governor of the PPM, unpublished interview, March 2014). As Ek Sonn Chan's team and the deployed city officials tried to raise people's awareness, the PPM in turn advocated that it would ensure water supply to all in the city with the support of the international aid (ibid.).

The campaign especially focused on the following message: (1) Misbehavior such as drilling water pipes and stealing water are strictly forbidden for the sake of a functioning water distribution system. (2) Water is not free and should be sold to consumers at a moderate rate. The core message was that customers' bill payments would ensure a stable and sustainable water supply as water production necessitated adequate finance (Som Sovann, currently Deputy Director of Commercial Department of PPWSA, unpublished interview, March 2014).

Under international support from external donors such as UNDP/World Bank, France, and Japan, the PPWSA initiated the meter installation program for commercial consumers under which new water fees were adopted in July 1994.²⁸ Then the program targeted administrative institutions because of their habitual late payment as well as concerns over wasteful consumption far beyond the estimated billed amount. During this time, the pace of meter installation for domestic consumers was slow because of their wide spread locations. As of 1995, a "block by block" operation was adopted to expedite installation works.²⁹ As a result, the metering rate was steadily increased from 10 percent in 1993 to 53 percent at the end of 1995, 85 percent in 1996, and finally 99 percent in 1999 (PPWSA 1996, 1999).

²⁸ The tariff for commercial and industrial customers was separated from domestic fees in September 1993 and was revised in June 1994 (See Table 2). The percentage of the respective types of customers was only be traced starting in 1997: domestic 58.5 percent, administrative 10.7 percent and commercial and industrial 30.9 percent in 1997 (PPWSA 1999).

²⁹ Ek Sonn Chan formed teams for both the installation and repair of meters. Repairing or replacing defective meters proceeded in tandem (PPWSA 1996, 1999).

(4) Discouraging illegal connections and cultivating culture of payment

Along with the public campaigns and the meter installation program for metered bill collection, the PPWSA took a third step to curb illegal connections and ensure conscientious public payment, applying differential strategies that combined both hard and soft approaches. One strategy was a forcible and punitive policy to rigorously enforce disconnection penalties against the most influential offenders of non-payment. The other was a transitional and gradual approach to bill collection for the poorer segment of the society including the users of illicit public underground tanks and squatter residents. To facilitate these processes, meter readers of PPWSA were trained and motivated.

In the early 1990s, people in Phnom Penh were generally unwilling to pay the PPWSA for their water supply (PPWSA 1999). Resentment against the drastic shift to the new billing policy was especially fierce among powerful figures such as high-ranking officials and local generals, who had been enjoying free water service and in many cases indulged in illegitimate reselling. Similarly problematic were socially ingrained practices of “public underground water tanks” and illegal water systems in squatter areas in the city, over which the PPWSA had no control.

This section describes the dual strategies of the PPWSA to approach influential offenders and poor communities as well as the incentive mechanisms for meter readers and the general public.

a. Targeting the most powerful offenders to pay first

The strategy to apply a strict punitive policy targeting the most powerful offenders was based on Ek Sonn Chan’s belief that top leaders should exhibit a good example (Ek Sonn Chan, unpublished interview, March 2014). There was a well-known

episode in 1994 in which he stood faced the intimidation of an armed general and in the end secured the peaceful installation of a meter at the general's house.

At first, the installation team was driven away by the armed security guard at the gate of the general's house. When I [Ek Sonn Chan] visited his house with the team for disconnection, we had to retreat again because the general threatened us by pointing a gun to my head. However, on the following day I decisively cut off the service line to the general's house, which was laid along the public road. Prepared for possible vital revenge by the general, I requested the Municipality Government to mobilize the military police to guard against at the gate of PPWSA. After having noticed the fact of disconnection, the general showed up at PPWSA with his armed safeguards as expected. The military police successfully stopped them from entering the gate by warning that anyone bearing arms should not be allowed to the public institutions. Therefore he could not choose but to call me for negotiating the resumption of water supply. I put forth conditions that the general should come to the office alone. Through a face to face tenacious conversation, the general eventually agreed to install meter at his home and even allowed to have the installation work televised. (Ek Sonn Chan, unpublished interview by Yasujiro Suzuki, November 2010).

With support of the PPM³⁰ but risking his life, Ek Sonn Chan finally succeeded not only in obtaining the general's consent to install the meter but also to broadcast the installation work on air. The media coverage certainly generated the expected impact among the public, showing that even such powerful figures obey the rule. After that Ek Sonn Chan continued to have a series of face-to-face communications with high ranking officials including then Prime Ministers to inculcate the principle of "the top should pay first" (Whaley 2010; Ek Sonn Chan, unpublished interview by Yasujiro Suzuki, November 2010; Ek Sonn Chan 2010).

In 1995 the PPWSA established an inspection team directly under the GD, Ek Sonn Chan, which was responsible for the control and prevention of illegal connections. The resistance against meter installation and bill collection, though persistent, waned considerably until it ceased in late 1990s.

³⁰ Chea Sophara, the then Deputy Governor (later the Governor), considered civic cooperation necessary for restoring proper management of the water service. (unpublished interview, March 2014). The author assumes that Ek Son Chan had well informed the PPM leaders about his strategy and actions in advance to obtain their timely support.

b. Transitional and gradual corrective approach to the poor

In Phnom Penh city, illegal “public underground tanks” had been widely used since the 1980s.³¹ Underground tanks were installed along roadsides and directly connected to the distribution network to receive water whenever available. A non-negligible number of people got used to these practices as a kind of self-protective measures to obtain water. The customer survey in 1994 revealed 1,945 public underground tanks, from each of which roughly 20 households consumed water for free. The total estimate of non-revenue consumption was as much as 20 percent of the total water production of the PPWSA (Das et al. 2010).

Instead of abruptly removing these tanks and forcibly shifting to individual metered connections, the PPWSA applied a transitional representative system to allow for a soft landing. The PPWSA installed a meter to a tank and signed a contract with a representative of the users, who would be responsible for collecting fees from the other users and paying for the total metered consumption as a domestic customer to the PPWSA. If a representative for a specific tank could not be identified, the PPWSA disconnected the tank and proposed individual connections for residents who had been using it. Until the end of 1996, 95 percent of the total public underground tanks were under control of PPWSA (PPWSA 1996).

Similarly, a temporary representative system was adopted for regulating the water supply in squatter areas where poor migrants from the provinces illegally lived. The distribution system was anarchic and poorly engineered. These low-income residents refused to pay for water consumption as illicit connections had proliferated in these areas.

³¹ Historically such underground water tanks were proliferated after the fall of the Khmer Rouge regime in 1979, when an increasing number of people returned to Phnom Penh, where basic social infrastructure was severely damaged (PPWSA 1999).

Until the PPM launched a full-scale development program for the squatter areas so that PPWSA could shift to individual connections, the PPWSA, in cooperation with the PPM, specified 28 areas among these areas and nominated one or two representatives of respective communities. The PPWSA then installed new distribution pipes and meters for those representatives, while disconnecting old networks. Under the new system, the PPWSA sold water to the representatives as domestic customers, who in turn collected fees from community consumers at a recommended tariff which was regarded as affordable for the poor. The installation of community service pipes were mostly supported by a local NGO named PADEK. By the end of 1996, 26 squatter areas (92 percent of the total) were under control of the PPWSA. By the end of 1998, 53 representatives in the poor communities received and resold water to their neighbors. (PPWSA 1996; Das et al. 2010; Biswas and Tortajada 2012)

These transitional measures were later replaced with individual connections when the rehabilitation and renewal of the distribution network progressed with the support from international donors. There were two major reasons behind this change. One is because some representatives started to behave as whole-sellers.³² The other is Ek's conviction that "the slam residents did not always steal water and even if they did, it could be easily found, while the abused amount might be negligible."³³

³² The temporary representative scheme in the squatter areas was soon found to be infeasible. Unlike the initial intention, some representatives started to sell water to non-users at 20 to 30 times the privileged rate that they purchased from PPWSA. These practices resulted in little revenue to PPWSA (Biswas 2010, PPWSA 2013).

³³ Ek Sonn Chan clearly recalls the Sunday in the mid-1990s, when he visited the Slam No. 23 at Chamkar Morn District with his colleagues. He found that the houses were quite open, as they were not at all protected by fences unlike luxurious residences. The average water use was much smaller than big consumers such as hotels, restaurants and factories (pers.comm. by email, February 2016).

In 1998, subsidized schemes for facilitating individual connections for the poor were introduced and developed with soft loans from the World Bank (Das et. al. 2010; Biswas and Tortajada 2012; World Bank 2004).

c. Incentive mechanisms to motivate meter readers and civic cooperation

In terms of legislation, the Municipal Order No. 633 was issued in November 1993 to penalize customers, requiring the retrospective payment of one year of unpaid prior water consumption (PPWSA 1996). It was found, however, that demoralized and unproductive behaviors of meter readers (bill collection staff) constrained efficient and honest bill collection. Ek Sonn Chan paid attention to training these workers on the policies of regulated bill collection and provided new incentive structures by setting bonus targets based on the rate of bill collection. Starting with an individual target for receiving bonuses, the target was then linked to an overall bill collection ratio of 70 percent, which was later raised to 90 percent and then higher within a few years.³⁴

Simultaneously strict measures were invariably taken. As part of their duties, all the meter readers were required to watch over illegal connections, leakage, and the incorrect categorization of customers such as those purposely registered in the domestic instead of commercial category (PPWSA 1999). Meter readers who did not find an illegal connection³⁵ that someone else subsequently did find would be penalized, while those who located such connections would receive a reward (Biswas and Tortajada 2009). Such penalties became more stringent in case of malfeasance. For example, if staff members were found to abuse their responsibility

³⁴ The average monthly base salary of meter readers were also doubled to \$40 in 1996 (Mr. Som Sovann of PPWSA, unpublished interview, March 2014).

³⁵ Special attention was paid to whole-sellers and those with high rates of consumption (ibid.).

by providing illegal connections or incorrect meter reading, they were dismissed immediately (Chea 2007).

PPWSA also introduced an incentive system to urge civic cooperation. Citizens who reported any case of illegal use of piped water could receive a reward if the inspection team verified the illegality of the reported cases (PPWSA 1999).

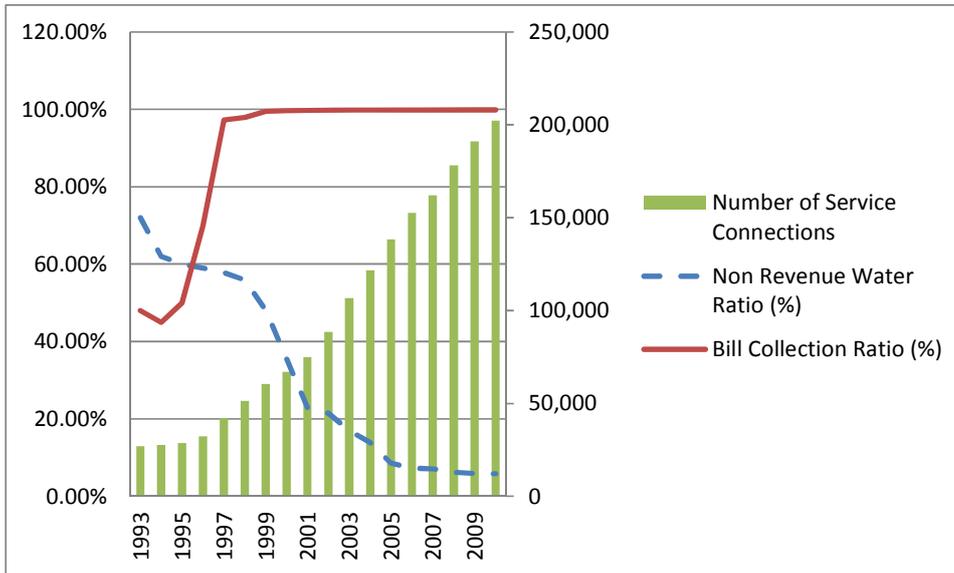
(5) Improved bill collection of PPWSA during the initial reform process

From 1993 to 1996, the result of the initial reform, accompanied by the physical restoration of the water delivery system assisted by international donors, was impressive. The water production capacity was restored from 65,000 m³/day to 110,000 m³/day in 1996 under the urgent rehabilitation project of Japan partly with the French aid. The distribution pipes in the commercial and administrative areas of the Don Penh District were replaced by France and the UNDP/World Bank Project.³⁶ Visible improvement in water pressure and an uninterrupted supply helped to create a favorable climate in Phnom Penh, as a result of which people were more likely to comply.

The ratio of meter installation to the total customers rose drastically from 10 percent in 1993 to 85 percent in 1996. Accordingly, the percentage of bills collected jumped from nearly 50 percent in the early 1990s to 70 percent in 1996 and up to 97 percent in 1997, while the percentage of non-revenue water dropped modestly from 72 percent in 1993 to 60 percent in 1995 and 57 percent in 1997 (See Figure 2).

³⁶ Until PPWSA achieved cost recovery in 1997 (see section 2.3.(2)), international cooperation was basically provided by grant, mainly by France (\$4.89 million), Japan (\$25 million) and UNDP/World Bank (\$4.1 million) (PPWSA 1996 and 1999).

Figure 2 Evolution of bill collection ratio, non-revenue water and number of connections (1993-2009)



Source: Adopted from Ek Sonn Chan 2012

In summary, under the reform initiatives led by Ek Sonn Chan from 1993 to 1996, the PPWSA had regained control over its customer base and to a slightly lesser extent the quality and quantity of its service. With 85 percent of connections metered by the end of 1996, payment of bills became enforceable, as the incentive mechanisms were built-in to motivate accurate meter reading and civic cooperation both through penalties and rewards. The achievements went hand in hand with the progress in the replacement of the old pipe network and the restoration of water production capacity assisted by international aid from France, the UNDP, the World Bank, and Japan.

The initial success paved the way for Ek Sonn Chan to move a step forward to establish the political legitimacy of the improved service and to achieve legal autonomy for the self-sustainable operation of the PPWSA.

2.3 Achievement of political legitimacy and formal autonomy of the PPWSA

As its scope of operation became gradually expanded, the PPWSA's limited administrative and financial authority due to its hierarchy within the PPM increasingly hindered Ek Sonn Chan from flexible management over routine matters. In addition, despite the drastic rise in the percentage of bills collected and the steady reduction in non-revenue water, the financial balance of the PPWSA was not yet significantly improved. It was obvious that the unit price of water was too low to achieve cost recovery.³⁷ Immediate revision of the water tariff of the PPWSA was necessary without discouraging users' ability and willingness to pay, especially among the poor households.

This section analyzes the second reform initiatives from 1996-1997 to enhance the "autonomy power" for the self-sustainable operation of the PPWSA within a political environment that had not always been favorable to the reform. It first describes the legislation to achieve legal autonomy and the combination of the inculcated organizational culture and the crafted strategies of the PPWSA, which substantiated its autonomy. It then discusses the ways in which the PPWSA gained political legitimacy of its improved service through the deliberation process of a tariff change in the government.

³⁷ The Master Plan 1993, which was formulated with assistance from Japan, clearly indicated that the unit tariff level of the PPWSA was too low to maintain its self-sustainable operation. The ratio of monthly water cost to monthly income of the lowest-income families was considerably lower than the average ratio in developing countries, which was around 3 to 5% (TEC and NSC 1993). Though small amendments were made in 1993 and 1994 (see Table 2), operating cost had grown faster than revenue as the water production capacity was restored and expanded.

(1) Achieving legal autonomy for self-sustainable management

The Cambodian government was reluctant to grant financial autonomy to the PPWSA during 1993 and 1994. The issue of privatization of the PPWSA was even occasionally debated by the high-ranking officials.³⁸ The situation had changed after the launch of loan negotiations between the government and the international development institutions such as the World Bank and the Asian Development Bank (ADB). The two leading development banks required the government to approve the autonomy of the PPWSA and revise the tariff structure as preconditions for the effectiveness of new loan projects under discussion.

Policy support for this move was provided by “the Socioeconomic Development Plan (SEDP-I)” of Cambodia, the first national five-year development plan for the years 1996-2000. The SEDP-I, which was formulated with the explicit involvement of ADB, placed a high priority on the improvement of water and sanitation services and adopted a commercial principle for water utilities (Teramoto 2003).³⁹

Consequently, in order to separate the production functions from regulatory functions and to grant operational and financial autonomy to public enterprises, the Law on the General Status of Public Enterprises was approved by the National Assembly in June 1996. In accordance with the general framework of the legislation, The Sub-Decree No.52 granting legal autonomy to the PPWSA was approved by the government in December 1996.

³⁸ Ek recalls that there was pressure from the World Bank to outsource some of the functions of the PPWSA to the private sector in 1993. He successfully defended against the debate by stressing the then-estimated low sales value of the PPWSA (Ek Sonn Chan, unpublished interview by Yasujiro Suzuki, November 2012).

³⁹ In the SEDP-I “water supply and sanitation accounted for 70% of the total \$383 million allocated for the urban sector.” The investment in water in Phnom Penh was outlaid as of 87.2 million during the planned period (ADB 1996). During the Plan period, the government aimed “to rehabilitate, expand water supply, enhance technical and operational expertise and establish a legal basis for converting PPWSA into a fully commercial, financially self-supporting water utility” (World Bank 1998).

The Sub-Decree No.52 clarified that the PPWSA was obliged to manage its activities independently in accordance with commercial principles. It is evident that the legislation largely increased the managerial leverage of Ek Sonn Chan for more flexible personnel management. He had made a strategic commitment to all the staff to raise their salary continuously so as to motivate them in helping to improve the financial performance of the PPWSA.

On one day in 1997, I [Ek Sonn Chan] assembled all the PPWSA employees and publicly announced that if they all made concerted efforts to improve annual revenue of PPWSA, I would be committed to raise their salary continuously for eight years until it reached equivalent level of the private sector. As promised, the actual average salary has been continuously raised over years along with the achievement of financial improvement of PPWSA. (Ek Sonn Chan, unpublished interview by Yasujiro Suzuki, November 2012).

The Sub-Decree No.52 further specified that while the Board of Directors (BoD)⁴⁰ had the full rights to decide all the matters of the PPWSA, the BoD transferred all the necessary authority to the GD for daily operations.⁴¹

It should be noted, however, that the government intended to retain control over public enterprises through assignment of a BoD member from the supervisory ministry and an accounting comptroller from the Ministry of Economy and Finance (MEF). The governing role of the ministries are provided in the Law on the General Status of Public Enterprises issued in 1996: (1) the control of “tutelle” (supervisory) ministry exercised by its representative(s) on the BoD and (2) the assignment of a “state controller” named by the MEF who has discretionary power to object to decisions of the BoD if identified as inappropriate (World Bank 1998).

⁴⁰ The BoD of the PPWSA consists of the following seven members: representative of the Phnom Penh Municipality (PPM), representative of the Ministry of Economy and Finance, representative of the Ministry of Interior, representative of the Ministry of Industry, Mine and Energy, representative of the Ministry of Public Work and Transport, PPWSA’s Employee Representative, and General Director of PPWSA. The PPM representative chairs the BoD, while the Ministry of Interior takes the “tutelle” role.

⁴¹ Provisional translation of the Sub-Decree No.52 by JICA Cambodia Office.

In managing the BoD mechanism, Ek Sonn Chan crafted measures to take the substantial lead in preparing and proposing an annual business plan for approval. In December 1996, following the enactment of the Sub-Decree No. 52, the PPWSA disclosed a five-year plan for 1997-2001, which contained overall objectives and detailed operational plans with quantified indicators in areas of water production and supply, commercial and financial management, organizational structure, and human resources development. Each prescription was based on internal analysis and findings drawn from the reform experience from 1993 to 1996 (PPWSA 1996). In addition to service-related indicators, an “efficiency indicator” such as “number of staff per 1000 connections” was also included in the report. It is reasonable to assume that none of the BoD members could easily refute or defy the content of the proposal, which was grounded on the donor’s commitment to aid and had “high specificity” (Israel 1987) in expected service outcome. It is also presumed that efficiency indicators could be used to prevent any nepotistic pressure over recruitment of new staff.

Internally Ek Sonn Chan created a mechanism to hold each of “the Team” members (the young managers) responsible for a thorough review of their respective undertakings and to propose a challenging but achievable business plan. Department directors would engage in iterative discussions until their drafted plans were approved by Ek Sonn Chan, who would in turn take responsibility with the BoD for their approval and hence their fulfillment. Once approved, the plan was disaggregated into an annual plan and implemented, monitored, and adjusted by the department directors. The progress and needed adjustments were periodically reported and discussed in internal meetings where Ek Sonn Chan would provide consent and direction (Motoda 2013).

By the end of 1996, the total number of the employees decreased to 441 but there was unity among them. Of the employees, 224 were grouped and positioned as “professionals,” out of which 156 received short-term training under the UNDP/World Bank project (PPWSA 1996). Notably, 96 percent of the professionals were those who joined the PPWSA prior to the reform (ibid.). By making the most of training opportunities given by donors and committing to reward better results, Ek Sonn Chan gradually anchored a performance-oriented culture in the PPWSA.

Thus, based on the positive culture, which motivated individuals to study and work hard to improve the financial performance of the PPWSA, Ek Sonn Chan and his team laboriously developed new incentive structures by utilizing the BoD mechanism and the performance indicators. In the operation, it was crafted so that organizational goals and planned activities were closely linked to and internalized with individual tasks. These elaborate mechanisms contributed to the PPWSA’s achievement of substantial autonomy for its self-reliant operation.

(2) Political legitimacy and amending the water tariff structure

In the middle of the 1990s, despite the gradual improvement of the water supply in Phnom Penh, nearly 60 percent of people—mostly low-income households—had no access to piped water. They had to buy water from vendors or neighbors at a rate five to ten times higher than what the PPWSA charged. These people consumed much less water than those who had connections. It was obvious that a more extensive water supply to these low-income families would help mitigate poverty. A new tariff structure was prepared under the ADB-assisted socio-economic study during 1995-1996 (ADB 1996).⁴²

⁴² The aim of the survey was to determine the ability and willingness to pay among different types of water consumers in the city. The survey was a part of the feasibility study of the ADB loan project providing 15 million dollars from 1997-2003 for the installation of a transmission main and the rehabilitation of distribution lines (ADB 2005).

The study concluded that a progressive tariff was feasible so as to encourage water conservation as well as to allow cross-subsidies from high consumption users to lower-consuming residential users. The average tariff was estimated as 1,100 riels/m³, by which the monthly cost of water would be within 2 percent of the monthly income of the low-income group.⁴³ The study also indicated that 90 percent of the households surveyed wanted an improved water supply from the PPWSA.

Nevertheless, the Council of Ministers was not at all supportive of raising user fees at first.⁴⁴ Consulting with the then Phnom Penh Deputy Governor Chea Sophara over any remedial measures, Ek Sonn Chan thought out a plan to convey people's messages directly to Prince Ranariddh. He collected thousands of fingerprint petitions from the poor households calling for a water connection.⁴⁵ These people used to pay 5000 riels per small container to water vendors, which was five times more than the average fee to be approved. Chea Sophara accompanied Ek Sonn Chan to meet with the First Prime Minister Prince Ranariddh at his private residence. Direct conversation worked quite well to convince him of the adequacy of the tariff change and the legitimacy of improving access to the poor. They also met with the Second Prime Minister Hun Sen to win his agreement⁴⁶ (Ek Sonn Chan, unpublished interview by Yasujiro Suzuki, November 2012).

Accordingly, a new tariff structure was authorized to be effective as of June 1997 (see Table 2). For community users (see section 2.2 (4) b.), a flat rate was

⁴³ The ratio of monthly water cost to monthly income was as high as 12 percent among the group without a piped connection, who had to buy water from neighbors (ADB 1996).

⁴⁴ In the first meeting, the First Prime Minister simply dismissed the idea of raising fees. Another Minister even insisted that he could not afford higher fees, though it was well known that he owned five 4WD vehicles (Ek Sonn Chan, unpublished interview by Yasujiro Suzuki, November 2012).

⁴⁵ Ek Sonn Chan collected petitions from the poor families in such Districts as Pram Pi Makara and Chbar Ampou, which were in desperate need of a water supply (ibid.).

⁴⁶ Aral points to the consequences of the first multiparty election for members of the National Assembly scheduled in 1996, for which political parties had "strong incentives to win over Phnom Penh's urban poor." As it was required to get a two-thirds vote to form a coalition government, the urban poor issue became politically salient (Aral 2008).

adopted so as not to influence group users with progressive prices. New connection fees were also put into effect in 1997.⁴⁷

The new tariffs allowed the PPWSA to operate without depending on government subsidies. As of 1997, the fiscal balance of the PPWSA had been positive (see Figure 3). In 1998 the PPWSA achieved cost recovery in which operational revenue could cover the cost of the operation and maintenance as well as depreciation and interest payments (PPWSA 1999).

Since 1998, the PPWSA has been continuously paying a tax at rate of 20 percent of its net income to the treasury.⁴⁸ The authorization of the amended water tariff has not only given the PPWSA its financial independence but also confirmed the political legitimacy of its improved water service as being affordable even for the lower income population in Phnom Penh.

⁴⁷ Though Ek Sonn Chan lowered connection fees to \$100 from highs ranging from \$200-1000, they were still expensive. As advised by the ADB-assisted study to lower by half, new connection fees were introduced ranging as low as \$89 ranging to \$484 depending on meter diameters and the distance from distribution lines (data of the Japanese study mission as of December 1998)(exchange rate: \$1 = 3,800 riels). Obviously the revised connection fees were still unaffordable to the low-income consumers as fees far exceeded their monthly income. The PPWSA developed an installment program and later a discount scheme for the poor beginning in 1998 under the World Bank assistance.

⁴⁸ Aside from income tax, interest payment started in 1997. PPWSA repaid its first loan to ADB and the World Bank in the 2000s before the date of maturity (Das et al. 2010).

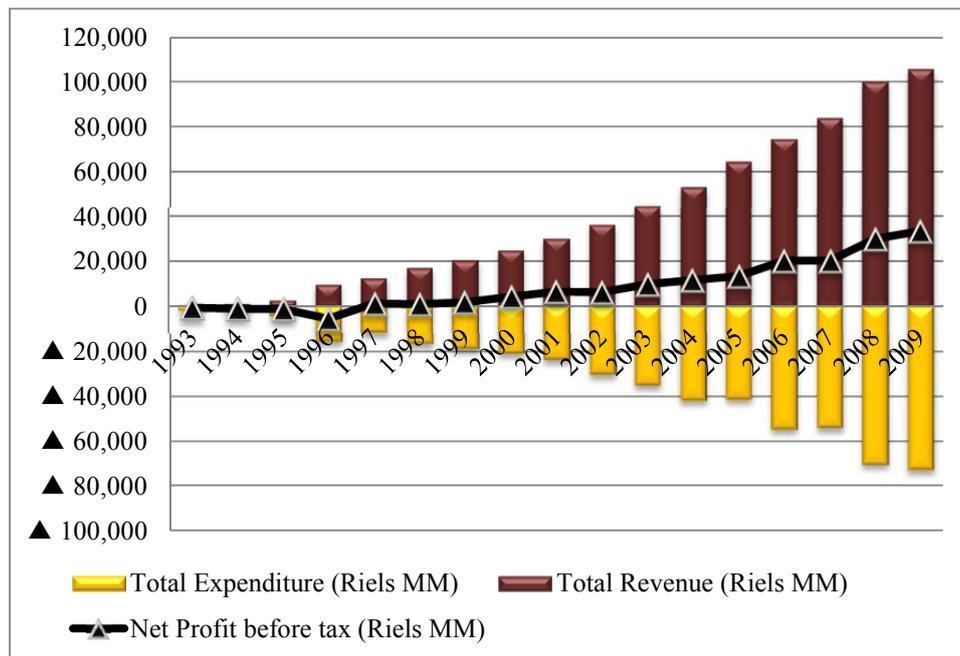
Table 2 Change in Tariff Structure (1993 to date)

Type of Connection	Consumer Category	Level of Consumption (m ³)	Unit of Payment	Jan. 1993-	Sep. 1993-	Nov. 1993-	Jul.1994 - May 1997	1997 - 2001	2001-present					
Metered Connection	Domestic	0 - 7	Riels/m ³ /month	166	166	166	250	300	550					
		8 - 15						300	770					
		16 - 30						620	1,010					
		31 - 50						940	1,010					
		51 - 100						940	1,270					
		>100						1,260	1,270					
	Administrative / Community	Flat rate										940	1,030	
	Industrial or Commercial	0 - 100								515	515	700	940	950
		101 - 200											1,260	1,150
		201 - 500											1,580	1,350
>500							1,900	1,450						
Non-metered Connection	Flat rate by estimated liters consumed	Unit of estimation ℓ/day/capita	80	80	150	150	-	-						

Source : PPWSA 1996, 2004

Note : The data is adopted from Table 3.6 in PPWSA 2004 except the rate for domestic and administrative customers from July 1994 to May 1996, which refers to PPWSA 1996.

Figure 3 Financial trend of PPWSA (1993-2003)



Sources: For 1993, Ek Sonn Chan 2012; for 1994-1995, JICA and TEC 1996; for 1997, World Bank 1998; and for 1998 and onwards, Das et al. 2010

Note: Depreciation is included in total expenditure except in 1993. Interest payments started in 1997. Income tax (20%) has been paid since 1998. PPWSA achieved cost recovery in 1998. It continues to recover all costs from tariffs except land costs, which keeps rising overtime (Das et al. 2010).

3. Synthesis of the case analysis of PPWSA as a ‘pocket of effectiveness’

This chapter synthesizes findings from the case analysis of the initial turnaround process of PPWSA from 1993-1997 comparing with Roll’s framework for the emergence and persistence of “pockets of effectiveness.” The first section reorganizes common features found in the case that coincide with Roll’s propositions. The second section depicts specific features of the case that are apparent in the “relational spaces” of the PPWSA. These features include the effect of early engagement with the society, the internal arrangements that substantiate organizational autonomy, and the role of international cooperation, which are all linked to the improvement of service delivery of the PPWSA.

3.1 Common features of the case analysis with the propositions of Roll

The case of the PPWSA presents not a few shared features with those that Roll identified as explaining why and how “pockets of effectiveness” emerged and persisted. Nevertheless, some of the *how* factors, especially those of *organizational strength* were not prevalent in the initial stage of the reform.

As to the *why* factors, the initial turnaround of the PPWSA was not made possible without the top-down and intentional decision of the government to nominate a technocrat to the position of GD. The decision was driven by the sense of crisis perceived by the leaders of the Phnom Penh Municipality (PPM) with regard to the needs of settling persistent financial loss and endemic diseases in the city. It is evident that high *specificity* of expected benefits (Israel 1987) led to the final end to the inertia, as Leonard and Roll argue (Leonard 2010; Roll 2014).

As to the *how* factors, positive *organizational culture* emerged within a few months after the assignment of the GD. This fits with Grindle’s argument (Grindle 1997). Ek Sonn Chan’s firm stance against corruptive behaviors and the clear rules

of punishment by demotion and dismissal restored organizational discipline. Team building with young managers generated the base for performance-oriented management. Inclusive leadership was manifested in his style of direct communication with “the team” and paternalistic care for retaining even incapable staff members in dormant positions such as making meter boxes. By allocating training opportunities that were linked to required duties, the GD gradually developed troops with a shared sense of mission.

As to *organizational proactivity*, the GD’s tactful political management protected the PPWSA from political attacks by abating the influence of powerful offenders. His political bargaining with Prime Ministers succeeded in gaining further support and political legitimacy to achieve a tariff change and legal autonomy. Outreach to customers contributed to rebuilding trust for bill payment.

The factors related to *organizational strength* were not prominent at the initial stage of the transformation. The existent legislation provided a nominal mandate for a piped water supply in Phnom Penh. The PPWSA could achieve focused power only after it gained substantial control over who accessed its service. Staff deployment started with “the team” but new recruitment and streamlining did not advance at full scale until 1996 when the PPWSA obtained legal autonomy and an official mandate to exercise its own personnel management. Standardization progressed to only a limited extent in areas such as user registration and bill payment,⁴⁹ though it certainly contributed to a “change in internal and external expectation structures” (Roll 2014, 204). The weaknesses in operational capacity were compensated for by the strength in *organizational culture* as Grindle and Fujita discuss (Grindle 1997; Fujita 2011).

⁴⁹ It was nearly 15 years later that “standard operation procedures” were introduced, developed and consolidated as technical and managerial guidelines in the PPWSA. Those for water production, distribution, and water quality management, initially developed by JICA, assisted technical

The interacting features among factors are further explained in the next section.

3.2 Specific features of the case analysis in the “relational spaces”

The case of PPWSA illustrates specific features of the “relational spaces” in which internal and functional factors dynamically intersect with external contexts to affect the service performance of the PPWSA. The features are three-fold: the effect of an early shift in customer relations, the organizational culture that substantiate autonomy, and the role of international cooperation.

(1) Effect of early shift in customer relations on creating culture of payment

An early shift in the relationship between the PPWSA and society was crucial for not only to rebuilding the public trust in its operation but also recapturing the PPWSA’s managerial power over those it served, and to some extent the technical quality and quantity of its service. The social engagement started in early 1994, before the overall order and discipline of the organization was restored, by a small group of selected “team” members and the mobilized city officials using exhaustive customer surveys and public awareness campaigns by a small group of selected “team” members and the mobilized city officials, before the overall order and discipline of the organization was restored.

Prior to this people recognized the PPWSA as a “target of predation” by those who indulged in corruptive practices. During 1994-1995, by identifying real customers and introducing compulsory metered bill collection, the PPWSA succeeded in gradually creating a culture of payment in the society with rigorous but differentiated strategies for egregious offenders and the poor communities. The cooperation, “Project on Capacity Building on Water Supply System in Cambodia” (2003-2006).

renewed customer relations enabled the PPWSA to regain active management over its service delivery and to urge conscientious bill payment, while discouraging illegal connection by forcibly enforcing penalties and rewarding public reporting. As seen in Section 2, these changes were facilitated by high *specificity* of the expected benefits (Israel 1987) of water supply.

Notably this process of change was initiated in a top-down manner. The skillful tactics of the GD were deployed with the political support from “his guardian” or “rapporteur,” the Governors of the Phnom Penh Municipality (PPM), who helped to bring him to the Prime Ministers. Despite rather expensive connection fees as high as \$89-\$484 in the mid-1990s, the rapid increase in customers may indicate that such top-down measures of reforms cultivated latent needs of potential users to which PPWSA needed to respond, as Tendler illustrates (Tendler 1997).

The creation of a culture of “pay for service” in the society created an iterative change in accountability relations between the PPWSA and customers, conjointly with the gradual restoration of water supply facilities and the training of the workforce. The tightened connections (coupling) between technical and motivational improvement and social reactions also confirm Tendler’s argument (Tendler 1997). Improved bill collection and a decrease in non-revenue water led to a new reputation for the PPWSA as a “non-corruptive and effective” supplier, which in turn generated a sense of pride among its staff as Grindle depicts (Grindle 1997), as well as further support from the higher-level political leaders.

(2) Organizational culture which substantiates the effect of autonomy

The PPWSA presents significant evidence that the formal establishment of legal autonomy at the end of 1996 could only be substantiated through a positive organizational culture created by the prior experimentation of rule-based personnel

management and the formation of a managerial team for performance-oriented operation during the initial reform process.

The PPWSA managed to restore its organizational discipline by eradicating the culture of impunity and incentivizing meter readers (bill collectors). The GD even dismissed corrupt employees when there was clear evidence of self-interested illegal engagement, although the GD did not have any formal power for dismissing or recruiting employees. Until granted legal autonomy, the GD made a personal effort to negotiate with the PPM leaders all the necessary financial resources as well as spaces for informal discretion, however limited. The PPM leaders in turn provided support, valuing the consistent and fair application of strict rules in the PPWSA.⁵⁰

The GD also formed a team of young managers consisting of selected incumbent professionals and city officials transferred from 1993-1996. Through the social engagement with a firm and flexible stance against illegality discussed in (1), the PPWSA had almost regained major managerial power over who it served as well as the quality and quantity of its service. Based on such a foundation, the PPWSA could quickly move on to self-reliant operation following the legalization of autonomy. The GD took a literal lead as a member of the Board of Directors by holding exclusive responsibility for its business planning, implementation, and monitoring.

These examples are in sharp contrast to the fact that formal legislation had not been put into effect between 1988 and 1993. The Decree 32 was proclaimed in 1987 and provided exclusive authority of the PPWSA to supply water in the city, to collect and retain fees and even to deploy incentive schemes to expedite bill collections. However public disobedience was obvious due to the poor water

⁵⁰ For example, see the episodes described in the sections 2.2. (2) b and (4) a.

supply.⁵¹ The managerial success of Ek Sonn Chan confirms Leonard's points that "the autonomy of an organization from undue politicization is not something that can be simply be granted to it in a single constitutional act" but "has to be earned and then maintained through political connections." (Leonard 1991, 257-58)

(3) The role of international cooperation in the initial reform

While the above-mentioned initial turnaround emerged under the initiatives of the GD, international development cooperation served as a catalyst and provided essential resources for his leadership and hence for the political protection and support by the government. The usefulness of aid was amplified by the GD's proactive management of internal and external dynamics.

The GD recalls that the Master Plan 1993 formulated under the assistance of Japan became a blueprint for his innovation not only by providing a long-term plan for the physical renovation and expansion of the water supply systems, but also by guiding the significant reform process of the PPWSA (Ek Sonn Chan, unpublished interview by Yasujiro Suzuki, November 2012). Prioritized recommendations for management included an increase in bill collection, a reduction of water loss, and a change in the tariff and the managerial fundamentals such as differentiated roles between the government, customers, and the utility (TEC and NSC 1993).

The coordinated international aid by France, UNDP, the World Bank, and Japan that followed continued to back up the reform process step by step. These external partners provided on-site advice and training opportunities in and out of Cambodia and restored water production and distribution networks, including offering user meters and replacing old pipelines that were essential for creating a culture of payment. Specifically, the assistance for the speedy restoration of

⁵¹ See note 27.

production and distribution capacity during 1993 and 1996, albeit still limited in scope, brought about visible improvements in water service to the citizens, leading to the creation of a favorable political climate which made people's compliance more likely.

As seen in 2.3, policy conditionality tied to loan projects from the World Bank and ADB effectively contributed to pressing the government to grant legal autonomy and the tariff change to the PPWSA, in a political environment that was not always supportive to reform in 1996.

On the other hand, the PPWSA proactively made the best use of international aid in many ways. The presence of external experts and on-site/overseas training provided PPWSA staff members not only with opportunities for technical skill enhancement but also non-financial incentives linked with specific positions. The five-year business plans spanning 1996-2001 detailed the plan for human resources development, including technical areas and the number and requisite professional positions of trainees (PPWSA 1996). The wise use of non-monetary incentives associated with performance expectation fits well into the arguments of Grindle and Fujita. (Grindle 1997; Fujita 2011)

Most of the current vice GDs remember how hard they were pressed to explore the most efficient use of aid money (Samreth Sovithia, vice GD and Khuth Vuthiarith, former vice GD, unpublished interview by Yasujiro Suzuki, November 2012). Ample evidence is found including examples of the GD requiring triple the number of user meters in 1994 by negotiating a change in the specifications (Katsutoshi Iwasaki,⁵² unpublished interview, July 2014) and extending the pipe network in the Mean Chey District by utilizing a saved fund in 1999 (World Bank 2004).

⁵² Japanese consultant who engaged in grant aid to the PPWSA from 1994-2003.

In summary, while the case analysis of the PPWSA presents factors explaining the emergence and persistence of “pockets of effectiveness” much in common with Roll’s analysis, it exhibits specific features demonstrating how functional and internal factors proactively interact with political and contextual factors leading to the drastic and mutually reinforcing changes. The case highlights the dynamics of “relational spaces” of urban water supply and management during the early reform process of the PPWSA, which emerged in the interconnections between the changes in its customer relations, service quality, public trust and cooperation, political support and interference, organizational culture, international aid, and functional capacity for active management, operational autonomy and self-sustainable operation leading to improved performance. Among these features, the GD, using “political management,” proactively cut his own way through and developed workable “relational spaces” for the PPWSA, while international support provided essential resources for his leadership and political legitimacy step by step.

Conclusion

This paper intends to identify processes of capacity development for urban water supply and management of public service organizations by taking the case of the initial transformation of a widely-known well-performing water supply utility, the Phnom Penh Water Supply Authority (PPWSA) of Cambodia. While efforts for developing sustainable capacity for public sector performance often encounter difficulties mainly due to the insufficient diagnostic understanding of the political contexts and a lack of a coherent strategy especially in aid-dependent countries, a huge amount of foregoing research focuses on distilling cross-country lessons from intervention failures and looks for macro strategies.

In contrast, research into “pockets of effectiveness” sheds insightful light on anatomizing factors of successful public sector organizations that can compensate for their contextual constraints. Reflecting on the analytical lenses of “pockets of effectiveness” discussed by Leonard and Roll with additional emphasis on technical and commercial aspects, this paper explores the dynamics of “relational spaces” in which functional and internal factors of the PPWSA proactively interact with political and contextual factors to affect its performance.

The drastic turnaround of water service was analyzed by focusing on the initial reform period before the PPWSA was granted legal autonomy. While the case analysis confirms that Roll’s proposed factors of emergence and persistence of “pockets of effectiveness” share much in common, it indicates specific patterns of interconnected factors leading to the innovative changes and their sustenance.

The common features imply conditions to ignite initial change: in transforming public organizations, indispensable is a top-down political intention for reform combined with the assignment of a capable technical manager with strong communication skills with key stakeholders including employees, customers and political leaders. The political “rapport” is important for a technical manager to secure political support and to protect from any interference.

Specific findings identify mutually reinforcing three patterns of interconnections or tight coupling in the “relational spaces” of the PPWSA, which emerge in the process of improving capacity for urban water service with high *specificity* (Israel 1987) of targets and benefits. Tight coupling includes those between service qualities and public trust, positive organizational culture and operational autonomy, and political legitimacy and catalytic role of international aid.

Firstly an early shift in customer relations provides a dynamic impact on functional capacity to manage services and the creation of a culture of payment in the society, which in turn necessitated the change in accountability relations between the PPWSA and users. Secondly, prior experimentation with performance orientation and the creation of a positive organizational culture complemented the formal imposition of autonomy. Thirdly, while the organizational leader's constant political management was a key to protect the organization from interference and gain political legitimacy, international cooperation catalyzed the whole process by providing essential resources for change management.

In retrospect, after the initial transformation, the PPWSA had gone through a ten-year-long process of reforms until it reached its current level of sustainable management (See Table 3). Further investigation is worthwhile to examine the iterative and evolutionary processes of improvement of the PPWSA into an enduring a "pocket of effectiveness" and their potential ripple effect among the other provincial utilities in the country. Such aspects may include diversified customer relations, structural evolution of the organization, standardization of operations and procedures, and enhanced performance orientation of the PPWSA over 20 years, as well as the PPWSA's efforts to share knowledge with the provincial utilities, which started in the middle of 2000s.

Table 3 Performance Indicators of PPWSA (1993-2009)

Indicators	1993	1999	2003	2009
Staff/1,000 connections	22	7.8	3.9	3.2
Production capacity, (m ³ /day)	65,000	120,000	235,000	300,000
Supply network (km)	288 km	455 km	921 km	1,500 km
Water quality	?	?	WHO Guideline	WHO Guideline
Coverage area	25%	62%	82%	90%
Supply duration	10 hours/day	24 hours/day	24 hours/day	24 hours/day
Supply pressure	0.2 bar	2.0 bar	2.5 bar	2.5 bar
No. of connections (population of Phnom Penh City)	26,881 (0.54 million)	60,482 (0.88 million)	105,777 (1.03 million)	191,092 (1.44 million)
Non-Revenue Water	72%	48.5%	17.1%	5.94%
Bill collection ratio	48%	98.9%	99.8%	99.9%

Sources : Ek Sonn Chan 2012, PPWSA 1999 and 2004.

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Abstract (in Japanese)

要約

本ペーパーは、カンボジア・プノンペン水道公社（PPWSA）の革新的な変革事例の分析により、公的機関における都市水道事業におけるキャパシティ・ディベロップメントの過程を明らかにしようとするものである。「成功の孤立地帯 (pockets of effectiveness)」の分析視点をを用いて、初期の変革プロセスにおいて、組織の機能的・内部的要因が政治的・文脈的要因との間で積極的に相互作用する「相関的空間 (relational spaces)」の力学を考察する。

公共セクターのパフォーマンス改善は依然として課題である。政府の持続的な能力向上を目指すはずの公共部門の改革は、特に援助依存の大きい国では、政治文脈の分析の難しさや政策の整合性の問題もあり、うまくいっているとはいえない。膨大な先行研究が、介入の失敗事例から国横断的な教訓やマクロレベルの戦略を抽出することに集中しているなか、「成功の孤立地帯」研究は、ガバナンスの悪い環境においてもパフォーマンスのよい公的機関が周囲の環境要因を克服する成功要因の分析に着目している。

事例分析の結果、次の点が示唆される。「成功の孤立地帯」研究からの示唆と重なるのは、公共セクターに変化を呼び込む条件づけである。有力政治家からのトップダウンによる改革意思、有能かつ意思疎通スキルに優れた技術官僚の総裁任命、政治介入の回避に必要な政治家からの支援である。

分析結果から導かれる独自の示唆は、都市水道のサービス能力が向上する過程において生じる、組織の機能的・内部的・外部的要因が相互に作用・補強しあう3つの連結のパターンである。すなわち、サービスの質と社会からの信頼回復、ポジティブな組織内文化と実質的な組織自治、水道事業に対する政治的な正当性の確保と援助の触媒的役割、の相互関係のパターンが見いだされた。具体的には、供給側主導による顧客関係の早期改善が、水道サービスを能動的に運営する機能的能力や、社会における支払文化の醸成につながった。パフォーマンス志向のポジティブな組織文化の形成が、組織自治を実効化させた。総裁による政治家との意思疎通が介入から組織を守り、政治的正当性の獲得の鍵になると同時に、国際援助がそのための重要な資源、変革の触媒として作用した。



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