THE "INTERMEDIARY" IN PUBLIC PRIVATE PARTNERSHIPS FOR ICT PROJECTS IN DEVELOPING ECONOMIES

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ABSTRACT

Overall, PPPs are becoming an increasingly prevalent feature of ICT projects in the developing world, yet this structure for developing and executing such endeavors is not yet well-understood. The mechanics of bringing together partners with differing agendas to pursue objectives at the point where their interests are symbiotic is the key to management and continued alignment of project participants. Successful outcomes can be facilitated through the role of the third-party that promotes and represents both private entities as well as the public sector, which includes government, local business, and end-user constituents. We provide a definition of PPPs, the rationale for their necessity and growth, followed by a description of a PPP initiated in the rural agricultural province of Lao Cai in northern Vietnam. The progression of interactions among partners and project outcomes in this case are detailed based on data provided by the Project Manager as well as interviews and discussions with project partners. Several success factors that can be applied to future PPPs in the ICT sector are noted including the need for more rigorous benchmarks and assessment matrices for evaluating such projects.

KEYWORDS

public-private partnerships (PPPs), emerging economies, sustainability, information and communications technology (ICT), development, WiMAX, broadband

1. INTRODUCTION

In recent years, there has been a significant increase in projects undertaken in partnerships between governments of developing countries and private firms that attempt to achieve economic and societal benefits through the use of information and communication technologies (ICT). However, while public private partnerships (PPPs) theoretically allow these projects to leverage the strengths of the individual partners, the underlying motivations of the partners may diverge significantly.

Bringing together the right set of complementary partners and managing project implementation is complex and often fraught with failure. As a result, a good deal of organizational and instructional literature has appeared with the goal of enumerating and promoting best practices involving PPPs (e.g. United Nations Foundation 2003, Weigel & Waldburger 2004, World Bank 2003, 2006). Most of the recommendations in this literature are based upon case studies. Although there is value in such an approach, there remains a need for greater in depth assessment and reporting of process and outcomes at all stages of a projects implementation.

Little is known about the operation of the public private partnership model as a means to manage and execute a project in a developing region. This may be due to the uncoordinated dynamic of public-private partnerships; projects tend to be non-comparable on a global scale, and there are no standard metrics for assessment—perhaps due to general resistance to evaluation processes (Rosenau 1999). Further, benchmarking rarely occurs prior to the commencement of a project, and long-term evaluation is often not a part of a project's budget.

This paper discusses how aligning diverse, but complementary public private partners can provide benefit to all involved, including the recipients of the project. The introduction of a third-party non-government/inter-governmental organization, in this case the United States Agency for International Development (USAID) served a pivotal role as a facilitator in managing and negotiating among project partners. This agency cultivated relationships between the public and private partners and functioned as an intermediary in the contract-forming process, as shown in the Lao Cai case discussed in this paper. This case involved bringing telecommunications and broadband technology to remote, rural villages in the Lao Cai region located in the northern part of Vietnam near the Chinese border. Success factors at this point are noted along with the need for more comprehensive assessment and monitoring of ICT initiatives in the developing world so that systematic knowledge-building can progress. Involving an intermediary at the formative stages of PPPs can facilitate the clear formulation of partner's roles which supports the longer term success of the venture.

1.1 OVERVIEW OF GLOBAL PUBLIC-PRIVATE PARTNERSHIPS IN THE ICT SECTOR

Over the past few years, the phenomenal growth in private investment for development projects has been equally matched by corporate interest in partnerships with governmental organizations. The proportion of funding from the U.S. government relative to that from private corporations has shifted in recent years, with 85 percent of resources now coming from fixed capital investment, remittances, and other forms of non-governmental giving. Some 15 percent of resources transferred from the U.S. to the developing world come from Official Development Assistance. In the 1970s the breakdown was nearly the opposite (Runde 2006). In the next few years, the annual investment into the ICT sector in the developing economies is expected to reach some $100 billion.

PPPs are most commonly business relationships or agreements, between two or more parties that combine private sector capital (and sometimes public sector capital) to improve public services and the management of public sector assets. Theoretically, PPPs are supposed to achieve optimal outcomes by harnessing the synergies created by the combination of expertise and resources of the private partner, with the administrative and political power of the governmental partner (Gerrard 2001). PPPs that utilize ICT to address development and societal issues currently enjoy broad support. A recent World Bank report advocates that developing country governments work across departments and partner with private enterprise to extend the use of ICT (World Bank 2006). Similarly, the United Nations Millennium Declaration specifically recommends the creation of public private partnerships to "ensure that the benefits of new technologies, especially information and communications technologies…are available to all," (Weigel & Waldburger 2004, p. XV).

1.2 BENEFITS OF PPPs

For governments, PPPs offer access to infrastructure, hardware, software, and expertise from world leaders in technology, and possibilities for bridging the digital divide, increasing efficiency and economic growth. Besides improving its social and political capital, other advantages for governments include increased private finance and investment, technological experience and expertise, risk-sharing, the public legitimacy that results from being associated with a successful global corporation, and a potential downsizing of the public sector or a decrease in governmentally subsidized programs. PPPs also potentially afford the benefits of increased exposure to technology, more efficient ways of doing business, and a stronger incentive to adhere to the policies of fiscal discipline.

Private partners are motivated by the desire to shape new markets where future growth is anticipated (Detar 2006). Involvement in economic development

activities also has contributed internally to improved workforce morale and a positive "global citizen" company image.

1.3 ALIGNING MOTIVATIONS WITH OUTCOMES AMONG PROJECT PARTNERS

Partners sometimes have divergent perspectives in several key areas, including the definition of the appropriate technology for the situation, the definition of the end use for a technology, and finally, differences that exist due to differing organizational cultures among the partners which necessitate certain preferences. Additionally, asymmetries of power and information, and the ramifications of political and financial risks in the event of failed projects all affect choices and decision-making.

Project partners come to the table with different expectations, goals, backgrounds, organizational structures, and ways of "doing business." Enterprises often consider financial viability as the primary legitimacy in a PPP, while the public partner may view local appropriateness and public (electoral) support as overriding objectives (Angerer & Hammerschmid 2005). In fact, these objectives can be mutually supporting, and the third-party facilitator is a means to align these goals.

Current commentaries on the utility of PPPs are mixed. Some argue that PPPs in the developing world do not address the larger issues of socio-economic development and poverty eradication. Kanungo (2004) reports that private sector participation in such projects has not demonstrated better results than previous public sector initiatives.

1.4 ROLE OF THE THIRD PARTY FACILITATOR

Due to the potential divergence in motivations between public and private actors, the inclusion of a third-party facilitator in the PPP could be an important factor for success. A neutral and informed third party who communicates between constituents and private and public partners may be best poised to calibrate needs to appropriate technologies.

The third-party facilitator does not carry out the project itself, but rather brings together the interested parties and proposes a plan of action for a sustainable project. However, at some pre-defined time point the facilitator exits the project and allows the public and private partners to complete execution.

The third party intermediary for the Lao Cai case study was the USAID. They were able to play the role of matchmaker between public and private partners as they were already "on the ground," involved in various development-related projects, with a presence and local contacts. They handled the pre-project

assessment through interviews and surveys of local residents. Additionally, they sought to educate "end-users" about the ways in which ICT services and applications could be useful. The typical project process involves a two week planning stage. USAID assesses the feasibility and local interest for a project, identifies the potential partners and their interests and creates a proposal.

2. CASE STUDY: THE VIETNAM LMI PROJECT

In 2004, the U.S. Agency for International Development (USAID) began its Last Mile Initiative (LMI) to address the gap in connectivity between rural and urban developing areas. At this point, LMI projects have been initiated in about 33 countries. The Vietnam LMI project (carried out in the Northern Vietnamese region of Lao Cai, an agricultural province of 600,000) began in spring/summer 2005 with an assessment study that led to an initial plan which was refined used to gather support from partnering organizations. Assessment led to funding approval and allocation of funds. During this stage discussions took place with Intel, and workshops were held to negotiate roles, targets and resources among other tasks. The project entailed deploying two WiMAX (see endnote) networks, the first, a demonstration project for a metropolitan area network in the city of Lao Cai and the second, a rural community network in the village of Ta Van.

USAID facilitated bringing the partners together, with the stated goals of leveraging complementary contributions and forming a partnership that would enhance sustainability and scalability. The principal partners included USAID, Intel and entities within the Vietnamese Ministry of Post and Telecom, (VNPT), the dominant carrier. Internet services were provided by the Vietnam Data Communications Company, (VDC) a local carrier (Owen 2006). A partnership also existed between USAID and the Vietnam Telecommunications Fund (VTF), a government body within the Ministry of Information and Communications. Local firms Vegastar and VTC provided technical support which engaged these companies with Intel during implementation, laying the groundwork for future interaction. Finally, since significant political power is found at the local level in Vietnam's government structure, the Lao Cai Peoples Committee, the provincial power proved to be a foundational partner in the structuring of the two deployments.

The overall budget for the project was over 500K with USAID and Intel providing the bulk of funding (Owen 2007, p.4). Hardware and technical support were provided by Intel and operational support was provided by VDC. The VDC provided the day-to-day operational monitoring and operation of the network with Intel stepping in occasionally to fill in when problems emerged (Owen 2007, p.12).

2.1 PUBLIC-PRIVATE PARTNERSHIPS IN VIETNAM LMI

The components to the partnerships in the Vietnam projects are as follows:

USAID-Intel- this partnership brought together pre-existing programs from each entity that had complementary ends. The cornerstone for the partnership was Intel's desire to introduced WiMAX into Vietnam and USAID's interest in extending telcommunications into the rural areas of Vietnam (Intel 2007).

USAID-Intel-VDC – VDC is the local carrier based partner within the Vietnam Post and Telecom (VNPT) that handles Internet services. VDC was responsible for gaining government approval and the operational support. They gained technical experience through the implementation of the projects.

Lao Cai People's Committee - This provincial committee provided critical support in locating and structuring the deployments in the Lao Cai province.

USAID-VTF – This was a public-to-public partnership in that USAID is an arm of the US government and the Vietnam Telecommunications Fund is a government entity within the now Ministry of Information and Communications. VTF was interested in seeing that the public utility funds would support sustainable and scalable community-wide broadband.

Intel-Vegastar/VTC – Intel helped support local technical support that was provided by in-country firms Vegastar and VTC. The engagement between these companies was intended to lay the foundation for long term cooperation.

USAID-SRA – USAID's technical support is carried out through US contractors, such as SRA who in turn rely on other US and local in-country sub-contractors (above section from Owen 2007, p.8).

2.2 PROJECT GOALS AND LAO CAI PPP's

Having recently enacted a universal service fund, the Vietnamese government's goal in these projects was to learn how to best provide underserved rural areas with telecommunications access. These projects will serve as models for the deployment of similar projects to be funded by Vietnam's universal service/access funds. The VTF also hopes to establish procedures that will promote the sustainability and scalability of future projects (Owen 2006).

2.3 PROGRESSION OF THE LAO CAI PROJECT

The first project was to bring WiMAX to the rural, agricultural village of Lao Cai, (the capital of the province of the same name), in the Northern, mountainous region of Vietnam. This village was specifically chosen because of the economic benefit the residents could realize if they were able to communicate inexpensively with their Chinese neighbors just across the border, in order to promote trade. Local people were consulted both prior to and during the project's

implementation. In Vietnam there are strong provincial governments that operate within the state's regions, and the head of the Lao Cai People's Committee was a local champion of the project; this lent the project considerable local credibility and support.

Technology installed included a base station, nearly 20 fixed-access WiMAX modems, wireless and wired VoIP phones, and related networking infrastructure. The modems were installed throughout the city and region: at the local post office, an Internet café, a government office, in secondary schools, health care centers, hotels, and in a farm household outside the city (Intel 2007). At each location a VoIP-enabled phone was set up and linked to the modem, providing both broadband internet access and telephone service at minimal cost and with little complexity.

The project moved quickly: implementation-level planning began in January, 2006. By June of the same year, Memorandums of Understanding were signed between all of the parties, and by the end of September, the first WiMAX deployment at Lao Cai was fully operational (Owen 2006).

Given the success of the first Lao Cai project, all three partners decided to move ahead with the second project in the village of Ta Van to provide broadband Internet access and VoIP by satellite, using the already-existing IPStar satellite system. Deployment was financed by substantial investments already made by the government of Vietnam which was interested in learning whether satellite-enabled broadband was appropriate for other rural areas in the country (Owen 2006, p. 4).

This project was carried out even more quickly than the first: planning took place in late September of 2006 and the project was fully operational by January 2007. Hardware included a central antenna to receive satellite Internet, with approximately 10 modems distributed throughout the commune, while wired and wireless VoIP phones and a small number of rugged laptops were also distributed (Owen 2006).

2.4 OUTCOMES OF THE LMI PUBLIC PRIVATE PARTNERSHIP

It is too soon to comment on the long-term economic and social benefits for the communities involved in the preceding case. Nonetheless, this project has been deemed successful on several fronts and some preliminary critical success factors can be identified.

First, the project took advantage of the intersection of interests common to the parties involved. All partners had long-term goals motivating their participation. Next, the project benefited from committed public partners, at both the local and national level.

The project was structured to include a US-based manager as well as one based in Vietnam. Monthly status reports and thorough periodic project reviews and projections were provided (Owen 2006). One complementarity that promoted flexibility and compromise was the fact that all of the participants viewed the project through a long-term lens: USAID acknowledged that their role had an end date; Intel wanted to test WiMAX and create future markets, and the VDC used the project to enhance its position within the Vietnamese marketplace.

2.5 KEY FACTORS DETERMINING OUTCOMES

Several of the dynamics that emerged from the Lao Cai pilot and Ta Van Village deployment were important in maintaining momentum and support for providing rural communities with access to communications:

1) Modest efforts in line with local realities and appropriate to local socio-economic conditions are necessary, and yet are still challenging to implement. With the Ta Van village project, there has been a learning curve in regard to maintaining and operating the network. The VDC was charged with providing the ongoing local technical and operational support, however they were not able to fully handle this task and the project did not have funds or backup to cover any lapses. The satellite network deployed in Ta Van village as well as the provision of VoIP services were also technically challenging and demanding (Owen 2007, p.12).

2) The project set out to identify simple technology that was suited to community needs. The availability of the IPStar satellite and the region's mountainous terrain guided technology choices in Ta Van. Provision of low-cost, low-priced telephony and Internet connectivity suggested WiMAX technology was appropriate. These were appropriate technology choices, yet budget restrictions and inadequate on the ground support affected service delivery. Thus, even when the technology and services are calibrated to needs, ongoing support and delivery are demanding issues that are easily underestimated.

3) Close integration of project to government's immediate IT goals will contribute to sustainability and can affect policy actions beyond the discrete project goals. A key aspect of the Vietnam project was supporting the VTF, the government organization newly created and tasked with managing Vietnam's universal access funds which may be on the order of $70-$80 million per year. As a result of the LMI project the VTF is committing to supporting infrastructure build-out using the models from Lao Cai. (They are also seeking additional models however, beyond those demonstrated in the Lao Cai project. Discussions are underway between the VTF and Intel to develop a Digital Community Toolkit, along with preliminary discussions for a follow-on LMI Vietnam initiative.

4) Finding appropriate partners for the public private partnership: all partners in this case shared an interest in the long-term sustainability and scalability of the

project. The third party intermediary, USAID successfully identified and brought together these partners who shared this objective during the initial contract-formulation stage.

5) Initial assessment was critical to bringing together the collection of public private partners when the project was developing. Knowledge building has been possible due to monitoring and post-project review. This activity has given the project longevity and influence that might not otherwise have occurred. The range of public and private partners have been able to build on the experience of Lao Cai to further their involvement in rural communities access to communication technology.

3. CONCLUSION

Numerous "success" factors have been identified through study of developing world ICT projects: services are visible, context specific, have a human face, and meet tangible needs. As the Lao Cai project illustrates, merely getting a project to the point of offering user-friendly services that are also maintained and based on a sustainable business model is a complex challenge even when backed by technical, managerial and economic resources.

The Lao Cai project also demonstrates the value of assessment and monitoring. Substantiation of the positive and negative issues that arose in this effort has provided a base point for the public and private partners to move ahead with related efforts. In fact, the LMI project has led to a spin-off project that is being led by AusAID and USAID to deploy broadband and voice with VoIP using WiFi mesh technology into three rural communes in the Quang Ngai province. Other partners include the provincial leadership, EVN Telecom and World Resources Institute (WRI) (Owen, 2007, p.18). This program will provide tailored applications to improve agricultural performance, health care, micro-credit, educational access, and general connectivity. Both the provincial government and the local mobile company have are interested in scaling this solution across the entire population of the province (one million people), and potentially, across the rest of rural Vietnam. Also stemming from the Lao Cai program's success, Intel approached USAID, proposing to work together to implement this same program in up to 30 different countries (Owen 2006).

Progress has been made in gathering information about ICT-related public private partnerships in the developing world. We can identify benefits in the success stories, yet tracking the effects of programs throughout a project's lifecycle is still an important activity that is too often left undone. The multitude of related projects currently underway provides an unprecedented opportunity to learn how social and economic change can be furthered through advanced technologies.

Governments in developing countries and other institutions have not been able to mount a comprehensive effort to eradicate poverty in the lowest tiers of the economic pyramid (Hart 2005). The Lao Cai case indicates the myriad of considerations to deploy a network in a rural community. The public-private partnership that was assembled in this case and supported and managed by the "third party intermediary" led to a more successful outcome than would have been otherwise possible, but greater study of the dynamics of such partnerships are needed to more fully understand the elements of success and of failure.

ENDNOTES

A principal difference between WiFi and WiMAX is that the WiMAX specification provides symmetrical bandwidth over many kilometers and range with stronger encryption and typically less interference. WiFi has shorter range (approximately 10's of meters,) weaker encryption and suffers from interference, as in metropolitan areas where there are many users, or when there are obstacles to its line-of-sight.

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