

## Reorganizing Government: Bhutan Visa Online

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### Abstract

*Centralized government document infrastructure and a policy commitment to transform the tourism sector to a more vivid and efficient business sector works as drivers for implementing an online visa system in Bhutan. With only 10,000 visitors on an annual basis, Bhutan is nevertheless struggling to increase coordination and cooperation, interaction patterns, and organizational control. While governance principles for building online visa processing IT-systems are appealing to pursue, classical government concerns as accountability, security, and distribution of power are the primary drivers for the specifications of the system.*

### 1 Introduction

The dreams of digitalization of inter- and intragovernmental processes and immediate payback time of investments in IT has existed in government throughout the history of computing. Information systems research has with same magnitude pointed to a need for more modest ambitions and treating IT as a dependent or mediating variable, rather than independent variable.

In this paper we revisit the IS literature on governmental coordination and cooperation, interaction patterns and organizational control as part of an action research project building an online visa system in Bhutan.

Governments are against odds going online with visa application processes. Whereas security concerns and speed of bandwidth are often quoted as reasons not to proceed with online visa forms and processing, lack of interoperability of government IT-systems and private sector IT-systems are equal important inhibitors.

The tourist industry in Bhutan is highly regulated and centralized. Tourists can apply for visa only at one location and not as in most other countries at various locations. All tourist visiting Bhutan have to book their trip through a Bhutanese tour operator (TO). The TO plays a central role for organizing the visit. The TO has to do all paperwork related to the

visa application. Given that no passenger without a valid visa can enter a Druk aircraft (which has monopoly on flying to Bhutan) it is of high importance that the visa is approved for the visitor and that information is communicated to Druk Air when the tourist enters the aircraft.

The process of the visa-application from when the tourist first decides to visit Bhutan and until the piece of paper stating that the visa is granted is in his hands is a process which involves numerous stakeholders. The objective of this paper is to discuss the challenges of streamlining the process using IT.

We start this paper by introducing the lens we use to view reorganization of government, namely coordination and cooperation, interaction patterns and organizational control. After presenting the analytical framework, we describe the Bhutanese tourist sector (in brief). Thereafter follows a section presenting our research method. The final section presents an analysis and discussion of our observations.

### 2 Reorganizing government

The commitment to transform the processing of data within government controlled domain is far from unique to Bhutan or visa processing. Similar ambitions has been echoed and implemented in visa processing in Australia, Myanmar and Malaysia with variance in implementation scope.

In academic research in other areas of government, data integration and interoperability has been stressed as a strategic vision as part of the transformation [1-6] and provision of guidelines on managing the transformation to a more dynamic interaction brought about by the technology [7, 8].

Based on previous studies on IT in the public sector, we propose that, in particular, three areas will raise challenges for implementing the internet based visa system in Bhutan:

- Coordination and Cooperation
- Interaction patterns
- Organizational control

## 1.1 Coordination and Cooperation

Online visa processing are highly dependent of coordination and cooperation across agencies. In other areas than visa processing, there are only a few documented cases of increases in IT-supported coordination and cooperation in government [9, 10]. Computer-based modelling, electronic registration of users/citizens, and computer-supported collaborative work are examples of IT uses that have increased coordination and cooperation between the different units in public administration [11] [12].

IT has also provided various social service agencies with information on the services being provided to a particular individual and family, as well as the eligibility for state benefits from other agencies [13, 14].

## 1.2 Interaction patterns

A key component in the Bhutan case is the ability to cross boundaries between private sector (businesses and tourist) and government.

Studies that focus on the business-to-government analysis are rarely studied although there have emerged a few such as eProcurement [15] and the building of a satisfactory infrastructure for businesses [5]. As IT has improved the access of citizens [16, 17] and companies [18, 19] to public information and has improved communications between these groups and the public sector employees, the interactions between these groups have generally improved in area spanning from interaction between aboriginals and the Canadian e-government plan [20], Maori people's access to IT [21], and "...MPs who want great control of their own local campaigning and the party elite who want to ensure a consistent, coherent and controlled message" [22].

Several studies have explored the introduction in some local governments of an electronic "front-desk" where public employees can access a range of databases which provide citizens with information and actions in response to their specific needs. Some local governments have introduced videotext systems or web-based systems to streamline this function or to allow citizens to make direct inquiries electronically [23]. These systems enable citizens to gain information and to communicate with relevant units of the government by a means that is considerably easier than attempting a face-to-face connection. Such linkages also make it more difficult for bureaucrats to suppress or retain information which citizens have a legitimate right to access.

Hoff and Stormgaard [24], for example, analyze an information system that enables employees to check

electronically whether a citizen is entitled to a given benefit. Normally, a generalist employee deals with citizens at a "front-desk," using an expert system linked to a range of databases to answer citizen requests. In the 1990s, a number of local Danish governments introduced videotext systems that gave citizens the opportunity to retrieve information themselves about a number of services and other government programs. Consequently, the system appeared to empower citizens by reducing or breaking the information monopoly of the public administration.

Such changes associated with IT should increase the transparency and predictability of the administration, but these benefits can also result in some negative effects for citizens. In fact, nearly half of the findings in this category are negative. For example, the possibility of individualizing services to citizens in the Dutch social services has been reduced [16]. Similarly, Ingelstam and Palmund [25] report that the bureaucracy/administration has reinforced its position in relation to the citizens/clients in Sweden.

## 1.3 Organizational control

Regarding intraorganizational control, there has been considerable attention in the literature placed on how IT can contribute to key functional objectives (e.g., total quality management, business process reengineering) that emphasize the capacity of top management to assert greater control over middle levels by setting up work teams rather than offices.

Seen from this perspective, IT has had a positive impact on public managers, even if the findings of Overman and Loraine [26] are correct that the impacts of IT have a more symbolic rather than substantive value in terms of cost control, planning, or quality control. For example, in the management of social security and in supervision by state legislatures, IT has enabled increased organizational control [25, 27, 28].

The impacts on intraorganizational control are more ambiguous [29]. In his study of gender and job functions, Norris [30] concludes that IT has not changed important aspects of control or created friction among work peers or between employees and managers. Similarly, Dunkle et al. [31] find that the distribution of computer resources within U.S. local governments has been relatively stable among functional units across the years 1975, 1985 and 1998, suggesting that there has been no redistribution of power associated with those resources.

While most studies deal only indirectly with the impacts of IT on power relations between government and citizens, this topic is a core concern in Rodan's

[32] analysis of the relationship between the government of Singapore and the impacts of the Internet. While Singapore has been committed to reliance on the new economy and creating one of the most wired societies in the world, its dominant People's Action Party (PAP) has been unwilling to surrender to authoritarian political control. Given the presumed effects of the Internet in loosening control over politically-relevant information, the government has responded aggressively. Its policies regarding IT have used legal threats, censorship and surveillance to insure that no serious opposition to PAP rule is facilitated by the Internet.

## 2 E-tourism and the Bhutanese tourism sector

In 2003 the revenue of the tourist industry in Europe was EUR 249.2 billion. That represents a substantial value of the total national revenues of the European countries. From this perspective it is worth focusing on the tourist industry and future prospects of tourism and e-tourism. Wertner and Klein state that tourism services will be increasingly informatized:

- More information about the services is made available at the front end to the customer, improving transparency,
- new service elements are added improving convenience and easing problem solving,
- complementary services are added such as electronic guides leading to "edutainment",
- information about the customer is utilized more efficient.

The tourist industry has in other words similar to other business areas become target for the "e" – similar to e-commerce, e-business, e-government etc. It is reasonable to ask if e + tourism differs substantially from the area of e-business. Buhalis discusses the trends of e-tourism in his book, Buhalis defines e-tourism as:

"eTourism reflects the digitalization of all processes and value chains in the tourism, travel, hospitality and catering industries. At the tactical level, it includes eCommerce and applies ICTs for maximizing the efficiency and effectiveness of the tourism organization. At the strategic level, eTourism revolutionizes all business processes, the entire value chain as well as the strategic relationships of tourism organizations with all their stakeholders."

The e-tourism is in other words a part of e-commerce. Buhalis presents a good overview of the link between e-commerce and e-tourism which includes three different parties involved in e-

commerce: businesses, consumers, and governmental institutions.

Bhutan, known to most business and tourists for imposing restrictions on the number of visitors, are currently implementing an online visa application system.

The about 1.6 million citizens of Bhutan, squeezed between China (Tibet) and India (Assam & West Bengal and Sikkim) has a total area of 47,000 square kilometers making it equivalent of Switzerland or Denmark in size. With just 10,000 tourist every year spending on average eight nights in Bhutan, there is a long way to go to the 13 millions tourists (number of nights spends at hotels and guest houses) in Denmark. Even more captivating is the fact that the 10,000 tourists visiting Bhutan are the main source of gross foreign exchange earnings for Bhutan secured by requirements of spending minimum US\$ 200 per person/ day in Bhutan (covering all expenses related to hotel, transportation, food, etc.).

The IT-infrastructure in Bhutan is being expanded through satellite technology but are as of 2005 lacking high speed connection at the various entry points and particular among the about 200 tour operators managing the tours for the visitors. A rough calculation of the economy in the tourism sector makes it obvious that payback of investment in state of the art technology in computers, servers, switches, software, etc. would be difficult to afford given the low turnover in the economy. As a result, the online visa system needed to be sustainable not only through an external financed period but also after the external grant had expired.

That put emphasis on designing technical design through low cost, dial-up modem solutions and ensure training in marketing and customer relation management for the tour operators.

**Figure 1. Map of Bhutan**



### 3 Research method

Aiming for an increase in tourism from particular the high end market, an EU funded project provides capacity building and ICT infrastructure for the implementation of governance initiatives within the tourism sector.

The study of the issuing of visas in the Bhutanese tourist industry is designed as action research with partners from the EU funded project. Please consult <http://www.ebhutis.org> for more information.

The particular focus of the project is to develop an Information System, which can support the visa application procedure. Based on interaction with local representatives and a team of international researchers the requirements for the system are identified. Furthermore, organizational challenges of implementation are mapped. In this paper we pay particular attention to the latter.

During a period of six months the international researchers have visited Bhutan three times, each time staying for about a week. At each stay, meetings and interviews with the stakeholders have been organized to scope and specify system requirements. Also, there has been extensive e-mail communication between the visits. Through discussions with different stakeholders and through demonstrations of a prototype of the e-visa system it has become clear that different stakeholders have different ideas of who should be in charge of what with respect to the visa application procedure.

### 4 Data

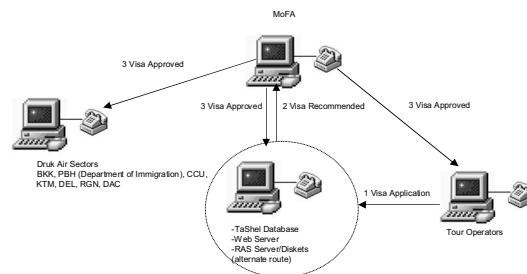
As stated in the beginning of the paper a common perception of Bhutan is that it is difficult to visit the country. However, that is not the case for those that actually visited the country. An a survey from autumn 2004 done for the Bhutanese Department of Tourism (DoT) shows that approximately 80 percent of the visitors found it either “very easy” or “easy” to organize their trip to Bhutan.

Focusing on e-governance initiatives for public & private agencies involved in the tourism sector, the project implement an e-visa application together with relevant capacity building will enable sectoral policy makers to have better access to reliable information and streamline coordination activities amongst stakeholders.

The key stakeholders in the visa processing system being the tour operators, the airline (Druk Air), and the Ministry of Foreign Affairs are as of today not interfaced with computers.

Several observations makes the visa processing far more simple than in other countries: 1) there is only one airline (Drukair) operating from Bangkok, Katmandu, and Delhi, 2) the airline is government owned making the coordination challenges limited, 3) tourist can apply for visa only at one location and not through any consulates or embassies, and 4) there has already been developed a software for record management of the tourism sector (TaShel).

**Figure 2. Dataflow in the visa application processing systems**



## 6 Development of online visa

Classical government concerns as accountability, security, and distribution of power are the primary drivers for the specifications of the online visa system in Bhutan.

The coordination and cooperation was by most standards well linked and specified prior to the development of the online visa. The mechanisms for coordination and cooperation were achieved through legal enforcement of advance payment and document requirements for the visa applicant.

Also, the requirements to use a tour operator for initiating the visa processing and ensure the logistics of the travelling (entry and exit of immigration) would leave most other countries envious on the ability to coordinate and control the tourist flow.

For other countries there have appeared national online visa application points or online intermediaries that will assist with the visa application. In Bhutan, there was a need not to harm to the existing coordination mechanisms or distribution of power and yet make the application process easier for the tourist.

From the tourist point of view, processing information for visa application could prior to the development of the online visa system be completed through e-mail and attachment of passport documents etc.

The developed application enables the tourist to submit the documents through an online site and receive visa approval electronically. In addition, the often timely immigration process is to be eased due to the online visa system.

Reorganizing of the internal division of labor and processing sequences are, however, not part of the implementation. The biggest potential impacts are strengthening the control of the document flow and ease the work of the tour operators.

Prior to the visa system the operators had to deliver the application documents to the various government actors (Ministry of Tourism and Ministry of Foreign Affairs) as well as the Druk Air and the Bank. The tour operators would not be able to see online whether there had been any progress in the processing and when the visa would be approved.

The new system provides better interaction among the government players and between the private sector players and government.

**Table 1. Online visa processing: Bhutan Experiences**

Variable	Anticipated impacts
Coordination and Cooperation	Generating information about the tourism flow in a standardized format
Interaction patterns	Tour operators get better access to information about processing time  Emphasizing internal government interaction  Tourist substitute e-mail, fax etc with online application form
Organizational control	Strengthening the tour operator association

## Conclusions and discussion of our observations

From a reorganization point of view, there is still substantial room for exploring how the processes can be streamlined towards the endusers. We have elsewhere introduced the *public sector process rebuilding* approach arguing that all new IT applications in the public sector should benefit the endusers and bring the core activities in focus. The Bhutan application is from this perspective a very modest step in terms of reorganization.

From this perspective, pursuing control, internal coordination, and intra-governmental interaction through digital media is one important step towards increasing e-tourism and have pay offs in the back office system. Each stakeholder appears to be in a win-win situation benefiting from increased digital interaction and coordination.

Yet, there are also three key challenges that will emerge if aiming for increasing tourism through the means of digital channels.

First, the web-interfaces are by and large built along existing patterns of interaction. While this on short hand, under which restriction most external projects operates, a revisit on the processes will be needed.

Second, there is in need re-visit of the patterns of competence building and the role that IT plays in this, is a requirement if communication patterns with the external users are to become multi-application based; employees will then face the challenge of mastering multiple applications as a dynamic condition. There is a strategic implication for formulating views on how competence building for government workers should evolve.

Third, the costs for online presence and the associated demand paradox needs to be solved. Contrasting the private sector, government in general cannot use IT to expand its sources for revenue or shift to more profitable products/customer segments. As accessibility to the Internet is approaching 100% at both the supply side (the government) and demand side (the citizens and companies), there needs to be more explicit direction for whether the associated costs should be seen as operating costs only and if so, should they be taken from other areas? Will this reinforce a need for centralization in decisions on how and where IT is being adopted?

By going online with visa applications, government has, intentionally or not, created the expectations that through the online universe, tourist can expect the same service mentality from the public sector as the private sector. Prompt replies, traceability, etc., are key expectations being raised: where does this begin and end? From one perspective, one could fear an endless demand of governmental services in the online universe with no transaction costs from the citizens' point of view.

In its transformation to being online, government has not been clear about how it is going to handle the success. At a workshop in Europe, one of the presenters from the Ministry of Finance in a country considered to be among the worldwide leaders of IT-adoption said:

“When we designed this website for the citizens we downplayed the useability part not because we couldn't do better or were not aware of this. We were exactly aware of that a too good design would cost money on two ends: we would have to pay the consultants and software company more and we would end up having increased workload.”

The lack of budget line for increasing expenditures by going online and higher requirements for instant payoff of IT expenditures in the public sector than in the private sector are issues that will accompany the concerns raised by the manager from the Ministry of Finance and will be increasingly relevant to address the more successful the online visa processing system is.

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