Adoption of e-government in Papua New Guinea

PNG Update 2017

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Outline

• Research context
• Research problem/question
• Methodology
• Results
• Summary
Research context

- E-government is needed in public agencies to improve service delivery (Singh et al., 2011)
- PNG development plans aim to:
  - provide access to e-government services
  - fully adopt by 2030
- Adoption is slow compared to other countries (Nelson, 2003)
- E-government has not been implemented completely (Manohar, Rao, & Mellam, 2010)
Research problem/question

- Research studies reveal that various factors influence e-government adoption in developing countries (Jumaa, 2013).

- How can factors influencing adoption of e-government in PNG be addressed?
Sub questions

1. What is the state of e-government service implementation?
2. What is the state of e-government service usage?
### Methodology (sub question 1)

<table>
<thead>
<tr>
<th>Theoretical perspective</th>
<th>UN e-government model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research methods</td>
<td>Content analysis (government websites)</td>
</tr>
<tr>
<td></td>
<td>Descriptive statistics</td>
</tr>
</tbody>
</table>

- **UN model**
## Content analysis: Coding categories

<table>
<thead>
<tr>
<th>Categories</th>
<th>Items of measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emerging</td>
<td>Vision/mission statement, organisational structure, news and events, contact details, frequently asked questions (FAQs), links to other agencies’ sites, government documents, services provided, employment details</td>
</tr>
<tr>
<td>Enhanced</td>
<td>Search facility, contact form, help and support, sitemap, downloadable forms, multimedia and multi-language support</td>
</tr>
<tr>
<td>Transactional</td>
<td>Financial transactions (e.g. payment of bills or fines), non-financial transactions (e.g. Online registration)</td>
</tr>
<tr>
<td>Connected</td>
<td>Feedback and polling mechanism, use of social media, discussion forum, chat facility</td>
</tr>
</tbody>
</table>
# Coding of 32 government websites

|                       | Vision/mission | Org. structure | News/events | Contact | FAQs | Links to others | Govt documents | Services info | Employment | Search facility | Contact form | Help | Sitemap | Forms | Multimedia | Multi-language | Non-financial service | Financial service | Feedback | Social media | Discussion forum | Polling | Chat |
|-----------------------|----------------|----------------|-------------|---------|-----|----------------|----------------|---------------|------------|-------------|--------------|-------------|-----|---------|-------|------------|----------------|---------------------|-------------------|----------|-------------|-------------------|--------|------|
| Immigration & Citizen | 0              | 0              | 1           | 1       | 1   | 1              | 1              | 1             | 1          | 1           | 0            | 1           | 0   | 0       | 1     | 0          |                | 0                   | 0                 | 0        | 0           | 0                 | 0      | 0    |
| Investment Promotion  | 0              | 0              | 1           | 1       | 1   | 0              | 0              | 1             | 1          | 1           | 1            | 1           | 1   | 0       | 1     | 0          |                | 1                   | 0                 | 0        | 0           | 0                 | 0      | 0    |
| Electoral Commission  | 1              | 0              | 1           | 1       | 0   | 0              | 0              | 1             | 0          | 0           | 0            | 0           | 1   | 0       | 1     | 0          |                | 0                   | 0                 | 0        | 0           | 0                 | 0      | 0    |
| Lands                 | 1              | 0              | 1           | 1       | 1   | 1              | 1              | 1             | 1          | 0           | 0            | 0           | 0   | 0       | 0     | 0          |                | 0                   | 0                 | 0        | 0           | 0                 | 0      | 0    |
| Internal Revenue Com. | 1              | 0              | 1           | 1       | 1   | 1              | 1              | 1             | 1          | 0           | 0            | 0           | 0   | 0       | 0     | 0          |                | 0                   | 0                 | 0        | 0           | 0                 | 0      | 0    |
| Labour                | 0              | 0              | 0           | 1       | 1   | 0              | 0              | 1             | 1          | 0           | 0            | 0           | 0   | 0       | 0     | 0          |                | 0                   | 0                 | 0        | 0           | 0                 | 0      | 0    |
| Personnel Management  | 1              | 0              | 1           | 1       | 0   | 0              | 1              | 1             | 0          | 1           | 0            | 1           | 0   | 0       | 1     | 0          |                | 1                   | 0                 | 0        | 0           | 0                 | 0      | 0    |
| National Fisheries Au.| 1              | 1              | 1           | 1       | 1   | 1              | 1              | 0             | 1          | 0           | 0            | 1           | 0   | 1       | 0     | 1          |                | 0                   | 0                 | 0        | 0           | 0                 | 0      | 0    |
| National Statistics O.| 1              | 1              | 1           | 1       | 0   | 1              | 1              | 0             | 1          | 0           | 0            | 1           | 0   | 1       | 0     | 1          |                | 0                   | 0                 | 0        | 0           | 0                 | 0      | 0    |
| National Training Cn.| 1              | 1              | 0           | 1       | 1   | 0              | 1              | 1             | 0          | 0           | 0            | 0           | 0   | 0       | 1     | 0          |                | 0                   | 0                 | 0        | 0           | 0                 | 0      | 0    |
| Mineral Resources Au.| 1              | 1              | 1           | 1       | 1   | 1              | 1              | 1             | 1          | 0           | 0            | 1           | 0   | 0       | 0     | 0          |                | 0                   | 0                 | 0        | 0           | 0                 | 0      | 0    |
| Forest Authority      | 1              | 1              | 1           | 1       | 0   | 1              | 1              | 0             | 1          | 0           | 0            | 0           | 0   | 1       | 0     | 0          |                | 0                   | 0                 | 0        | 0           | 0                 | 0      | 0    |
| Customs Service       | 1              | 1              | 0           | 1       | 1   | 0              | 1              | 1             | 1          | 0           | 0            | 0           | 0   | 0       | 1     | 0          |                | 0                   | 0                 | 0        | 0           | 0                 | 0      | 0    |
| Central Supply & Tend.| 0              | 1              | 1           | 1       | 1   | 1              | 1              | 1             | 1          | 0           | 0            | 0           | 0   | 0       | 0     | 0          |                | 0                   | 0                 | 0        | 0           | 0                 | 0      | 0    |
| Tourism Promotion Au.| 1              | 1              | 1           | 1       | 0   | 0              | 1              | 1             | 0          | 1           | 0            | 1           | 0   | 0       | 1     | 0          |                | 0                   | 0                 | 0        | 0           | 0                 | 0      | 0    |
Results: Implementation of emerging information services
Implementation of enhanced information services

Percentage of websites offering enhanced information services:

- Forms: 70%
- Search facility: 60%
- Contact form: 50%
- Sitemap: 30%
- Multimedia: 10%
- Help: 5%
- Multi-language: 5%

Enhanced information services
Implementation of transactional services

![Bar chart showing the percentage of websites offering transactional services categorized by financial and non-financial services. The chart indicates that a significant higher percentage of websites offer non-financial services compared to financial services.](chart_image)
Implementation of connected services

% of websites

Connected services

Social media
Feedback
Forum
Polling
Chat
State of service implementation

E-government service stages

Emerging
Enhanced
Transactional
Connected

State of service implementation
Methodology (sub question 2)

<table>
<thead>
<tr>
<th>Theoretical perspective</th>
<th>UN e-government model</th>
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<tbody>
<tr>
<td>Research methods</td>
<td>Paper survey (purposive sampling)</td>
</tr>
<tr>
<td></td>
<td>Online survey (self-selection sampling)</td>
</tr>
<tr>
<td></td>
<td>Descriptive statistics</td>
</tr>
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</table>

- Survey question (95 respondents)

Please indicate what sort of information and services you access/use from government Websites.

- News & events
- Vision/mission
- Contact details
- Downloadable forms
- Policies
- Plans
- Frequently asked questions
- Employment
- Links to other e-government sites
- Services provided
- Organisational structure
- Site map
- Use feedback form
- Online applications
- Search feature
- Contact form
- Help feature
- Discussion forum
- Online chat rooms
- Multimedia (videos & audios)
- Other (please, specify)
Results: Usage of emerging information services
Usage of enhanced information services

![Bar chart showing usage of enhanced information services](chart.png)
Usage of transactional services

% of users

Non-financial services

Financial services

Transactional services
Usage of connected services

<table>
<thead>
<tr>
<th>Connected services</th>
<th>% of users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social media</td>
<td>100</td>
</tr>
<tr>
<td>Discussion forum</td>
<td>10</td>
</tr>
<tr>
<td>Feedback form</td>
<td>5</td>
</tr>
<tr>
<td>Polling</td>
<td>1</td>
</tr>
<tr>
<td>Chat</td>
<td>0</td>
</tr>
</tbody>
</table>
State of service usage

Stages of e-government services

- Emerging
- Enhanced
- Transactional
- Connected
Summary

- Implementation is mainly operating at a basic level
  - Fewer sites are providing transactional and connected services
  - Potential for many of them to provide more advanced services,
- Service usage is also operating at a basic level
  - Fewer users are accessing the limited transactional and connected services,
  - Great potential for more users to access advanced services
- Level of adoption could be affected by various influential factors
End of Presentation

- Questions or comments?