ELECTRONIC VOTING SYSTEM ADOPTION IN DEVELOPING COUNTRIES: GHANA AS A CASE STUDY

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Research Background

- Information Technology (IT) has been used to transform electoral processes in several developed countries such as US, Estonia etc.

- IT are been used to replace the manual parts of the electoral process which has made the electoral process more efficient and effective. But the story is different in Sub-Saharan Africa

- E-voting system adoption for Ghana presidential and parliamentary elections has been a major discussion point after the December 2012 elections

- The clamor for this new system is as a result of the problems associated with the paper based voting system (Nana Karikari-Apau, 2012).
Current Paper-based Voting
Current Paper-based Voting (Cont’d)
Current Paper-based Voting (Cont’d)
Research Problem

- Voters and politicians have no confidence in the existing voting process, and this loss of confidence resulted in the largest opposition party going to court to challenge the results of the last election. (Obetsebi-Lamptey, J. 2012)

- In the past few years, several elections context in Africa has been marred by election violence, few of these countries includes:
WHY THIS CLAMOUR FOR CHANGE?

- Lack of trust in the current system and Entity that organize elections

- Perception of party in power influence the electoral process
Where we want to be
Electronic Voting Systems

Voting remotely via internet / voting from a controlled voting kiosk.
State-of-the-art of The PhD Project

• Previous Studies:
  • Choi, S.O., and Kim, B.C. (2012) studied voter intention to use e-voting technologies using TAM in developed country
  • Mohammed Awad Ernst L. Leiss. (2011), studied on internet voting in the USA
  • Alomari, M. (2016). E-voting adoption in a developing country

• Gap:
  • Limited research in the context of developing countries and most adoption researched focus on other areas (E-commerce, e-banking, Cloud systems etc. but not E-voting)

• For E-voting most studies focuses on the security requirements and technical specifications of its design without significant attention paid to social, political and environmental factors which has arguably determine the successful adoption and use of new innovations.
Research Objectives

• To examine the challenges of paper-based voting and its impact on elections outcome.

• To examine the factors that will influence the adoption and use of e-voting system (Organizational & Individual).

• To investigate how Trust and Risk perceptions affect voter behavioral intention to use e-voting.

• To develop a conceptual model for e-voting adoption in developing countries.
Theories underpinning the study

- Social Technical System Theories
  - DOI (Diffusion of Innovation)
  - TOE (Technological, Organisation, Environment)
- Institutional Theory *(Policy & Legal framework)*
- Trust model
Methodology

- **Research Design**
  - **Mixed Method**
    - **Explanatory Sequential Design (QUANT & QUAL)**

- **Instruments for data collection**
  - Document inspection
    - Past election reports (including results, incidents reports)
  - Observation – Electoral process (voter registration, verification, voting process, counting process and declaration of polling results)
Methodology cont’d

- Semi structured Interviews (using snowballing)
  - EC, Top 2 political parties, Media (Print & Electronic) in charge of election coverage
- Survey – Using closed ended questions for general population

- Sample size:
  - Interviews 10 – 15
  - Survey 500 - 1000
Challenges

• How to get the experts for face to face interviews
  • Alternative is via mailing the interviews questions
    • Skype has been suggested as an alternative (But issues of stable and reliable internet service from their end)

• Difficulty in getting documents (Previous elections reports) from the EC
Thank You

Comments and contributions