ELECTRONIC PARTICIPATION INITIATIVES IN AFRICA: EXTRACTION FROM LITERATURE REVIEW PERSPECTIVES

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ABSTRACT

The main objective of this research is to examine the use of Information & Communication Technologies (ICT) and derive the success factors of eParticipation initiatives according to the electronic government (eGovernment) content evaluation. For this purpose, an African study took place using a two-step methodological technique: 'review of the United Nations' eGovernment survey report; and a wide review from the existing literature. The results suggest that the tools and technologies presently applied are mainly general purpose and not exactly designed for eParticipation. In addition, the results indicated that success factors can be categorized into seven groups of factors: government commitment; usability; combination of both online and offline networks; comprehensive communication and encouraging plan; security and privacy, organizational issues; and topics complexity. A comparison with reviewed factors of eParticipation initiatives success suggests there are similarities and significant differences on ICT usage among countries. This study anticipates that its results could be of interest to practitioners as it highlights some knowledge in a practical way. Furthermore, this research could be of interest to researchers as it contributes in validating eParticipation evaluation models.

1. Introduction

Electronic participation (eParticipation) has been defined as the use of Information and Communication Technologies (ICT) to enlarge and develop political involvement through allowing citizens to link within themselves, their government and with other voted representatives (Macintosh, 2006). The existing eParticipation initiative is encouraged by relevant policies at all levels; for instance, "Establishment of Participation and Democratic Decision-Making in Africa" is one of the arrangements that the African Union (AU) has launched within Consultancy Services for the Development of eGovernance Framework and eGovernment Implementation Strategies for the benefit of the entire African's Union Member (Africana, 2018).

The potential for ICT to increase public participation and address the increasing democratic deficit across African has long been the issue of academic discussion (Okeke-Uzodike & Dlamini, 2019). However, there has been sufficient practical design and application of eParticipation suggesting that this potential could be considered within a real-life context (Coleman & Gøtze, 2001; Panopoulou *et al.,* 2010). Besides, the advent of the new sophisticated ICT technology has produced a growing field of research and practice that is exploring eParticipation. This study includes among others, to explore the role of technology in public participation and learning from the knowledge of others. Preceding studies includes frameworks and approaches to well

understanding eParticipation as a domain of research. Also, however, there is a lack of an eGovernment evaluation framework.

The main objective of this research is to examine the use of ICT and the success factors that derive eParticipation evaluation through; a review from the recent United Nations eGovernment survey (UNeGS) report and review of other related literature. With this purpose, a search of eParticipation initiatives across African nations at different levels (using the United Nations' report on eGovernment) was considered. We anticipate that the results will be of interest to practitioners as it highlights some knowledge in a practical way. Furthermore, this research could be of interest to researchers as it contributes in validating eParticipation evaluation models.

2. Evaluation of E-Participation Frameworks

Past a decade, the OECD stated in a report that the key challenge was "evaluating eParticipation: making sense of what has, or has not, been reached; understanding how to evaluate the benefits and the impacts of applying technology to the processes of democratic decision-making" (OECD, 2003). Since then, and as the preceding studies on eParticipation is increasing, several studies that discuss methodological frameworks for the evaluation of eParticipation practices have emerged (Aichholzer & Westholm, 2009; Loukis *et al*., 2013; Rowe, & Frewer, 2000; Wimmer & Bicking, 2013). However, it has been largely agreed that despite the significant investments made in eParticipation there has been limited consideration in evaluating these efforts. It is widely acknowledged that there are no established complete methodologies for the evaluation of eParticipation (Macintosh & Whyte, 2006; Rose & Sanford, 2007). The studies further described that there are only less frameworks suggesting dimensions and criteria that should be considered for evaluating eParticipation. It includes frameworks consisting of elements that can be useful for the development of a framework for the evaluation of eParticipation in the development decision-making process; for this reason, in the following paragraphs are briefly reviewed the most important of them. Whyte and Macintosh (2003) proposed a framework for evaluating eParticipation from political, technical and social perspective:

- In the political evaluation perspective, some criteria considered includes: clarity concerning the eParticipation objectives, the roles and responsibilities of both the participating citizens and the competent group of government; the degree of influence of participating citizens, the owners and the actors; similarly to the degree the targeted participant groups have truly participated, how available and understandable was the information provided to the participants before entering the e-consultation, and whether the eParticipation took place early enough in the policy life cycle thus that it can influence decisions, and lastly adequacy of time, adequacy of financial, human and technical resources and extent of giving feedback to the participants during and after the eParticipation.
- In the technical perspectives, the evaluation judged whether the ICT system that has been used was easy-to-use and suitable for the targeted participants groups; it is based on software usability and accessibility frameworks and its main criteria include: clarity, organization and consistency of screens, informative feedback, simple error handling, easy reversal of actions, appropriate language, user control of the pace of interaction, adequate shortcuts for the frequent users, accessibility by people with disabilities, and so on.
- In the social perspectives, the evaluation judged the extent to which the social practices and abilities of the participants have affected the participation outcomes. A framework of seven 'issues for the evaluation of online participation' was developed, each of which having the form of a basic question which was further evaluated into several sub-questions (OECD, 2003; OECD, 2004). These questions include as follows:
  - ✔ Whether the eParticipation process was conducted in line with best practice? (Ask participants whether they are content with the process, evaluate whether adequate resources

were in place to conduct the participation, check whether process followed best practice plans, evaluate whether the choice of an online tool was fitting for the participation).

✓ Were the eParticipation objectives and what was expected of the citizens made clear? (Ask stakeholders if they understand what is being asked, assess whether the participants' contributions were appropriate.)

✓ Did the participation reach the target viewers? (Assess the adequacy of the promotion of the eParticipation, find who and where likely participants are, in terms of demographic and geographic characteristics).

✓ Whether the information offered is suitable and relevant? (Measure how easily the participants could access the information, evaluate whether the participants' contributions were informed by it).

✓ Whether the feedback provided both during and after the participation? (Measure whether questions are answered by the government during the participation, measure the extent to which the government feedback relates to the contributions).

Furthermore, Henderson (2005) also contributes with an 'evaluation framework of e-Democracy", which comprises of a set of key evaluation dimensions that address the issues such as follows:

- Effectiveness (Do the initiatives bring intended results? To what extent do the targeted objectives meet?)
- Efficiency (Do the initiatives offer value for money?)
- Equity (Is there reasonable access to the benefits of the initiatives?)
- Quality (What is the level of user and shareholder satisfaction? Are relevant benchmark standards met?)
- Appropriateness (Are the e-democracy initiatives appropriate for a context currently? Do they provide a relevant response to identified needs or opportunities in this area?)
- Sustainability (Do the initiatives offer a durable and generalizable way to achieving the targeted results?)
- Process (How can the existing initiatives be enhanced to provide better results?).

A holistic approach for local government eParticipation evaluation initiatives was proposed by Macintosh and Whyte (2008) as well as Macintosh and Whyte (2006), that proposed a framework around three dimensions: the evaluation perspectives, the analysis approaches and the actors involved. The evaluation perspectives involve three overlying views: democratic, project and socio technical. In details:

- The democratic perspective considers the main democratic parts that the eParticipation initiative is addressing. The most vital of them and at the same time the hardest to understand is to what extent the eParticipation affects policy. Other measures of this perspective were the effect on representative democracy and included representative institutions and government, transparency, political equality and community control, and also the adequacy of mechanisms for conflict management and consensus building.
- The project perspective evaluates the extent of success of the aims and objectives of each eParticipation initiative, as set by its project management team. Measures of this perspective could be the extent of participating with a broader viewer, obtaining better informed opinions, enabling more in-depth participation, providing feedback to citizens and cost-effectiveness of contributions' analysis.
- The socio-technical perspective evaluates the extent to which the design of the ICTs directly affects the results and covers aspects of usability, usefulness and acceptability, which could be measured using established frameworks from the software engineering as well as IS domains.

Lastly, another useful source of elements for building a framework for the eParticipation evaluation from a process perspective could be the existing eParticipation organization frameworks, which comprise of guiding principles for successfully establishing eParticipation, such include the one proposed by the OECD (2003) and the OECD (2004) which suggests ten guiding principles includes: start planning early; demonstrate commitment; guarantee personal data protection; adapt approach to fit target group; integrate eParticipation with traditional methods; test and adapt ICT tools; promote the eParticipation; analyze the results, provide feedback and evaluate eParticipation development and impact.

3. Research Methodology

To achieve this research objective, we led a study on African nations. More precisely, we applied a two-step methodological technique includes: the identification of Africans' eGovernment initiatives using two different approaches includes: (a) a review of the recent survey report of eGovernment by the United Nations (United Nation, 2018; United Nations, 2020); and, (b) through review from other critical literatures.

3.1 Research Sample

This research sample draws on fourteen African countries that were recently reported with the highest eGovernment development index (EGDI) classified by the United Nations (United Nations, 2020, p. 44), as the case was in 2018, only four nations reached high index in the region. Mauritius was ranked at the highest group of the high EGDI group and became the head of its Africans' region in eGovernment development. Followed is Seychelles, South Africa and Tunisia, altogether which are ranked in the third high (H3) group. But many of the designated nations in this research are still at the middle of EGDI level, eight of them includes, Namibia; Cabo Verde; Egypt; Gabon; Botswana; Kenya; Algeria; and Zimbabwe; shifted from the middle group in 2018 to the high EGDI in 2020. The increasing number of these high African nations groups helps the claim that the zone is experiencing a serious digital revolution.

The rising drive in EGDI rankings is determined mainly by the improved focus on infrastructure and other online establishing services (led to higher average of telecommunication infrastructure index and online service index standards). These movements are encouraging the region for digitalization (United Nations, 2020). Regarding the level of participation, the initiatives in our sample are active at all different levels (e.g, eInformation, eConsultation and eDecision-making). Besides, many of these countries' web portals were described to be owned by the government, however many are in partnership with other groups such as private organizations; 80% of them are established and maintained by public government and about 20% by private organizations (United Nations, 2020).

4. Research Results

This section presents the result of the study. The analysis instigates with information on each country's profile initiative considered with criteria relevant to the participatory requirement (zones and focus of participation), the ICT applied (systems, instrument & technologies) and in conclusion an analysis of the lessons learned.

4.1 Use of Information & Communication Technology (ICT)

One of the interesting features of this research sampling is the presence of one or more channels supporting the participation process (Figure 1). All the samples support the typical internet channels, whereas one third of them are still using non-electronic channels for participation (e.g.,

phone call). Interesting is as well the usage of mobile channels (usually to involve young ages), kiosks (usually to involve citizens without internet access) and access through other intermediaries (usually to involve citizens without much experience in ICT). These research findings also discover interesting details on the ICT tools and technologies used (see Figure 2).
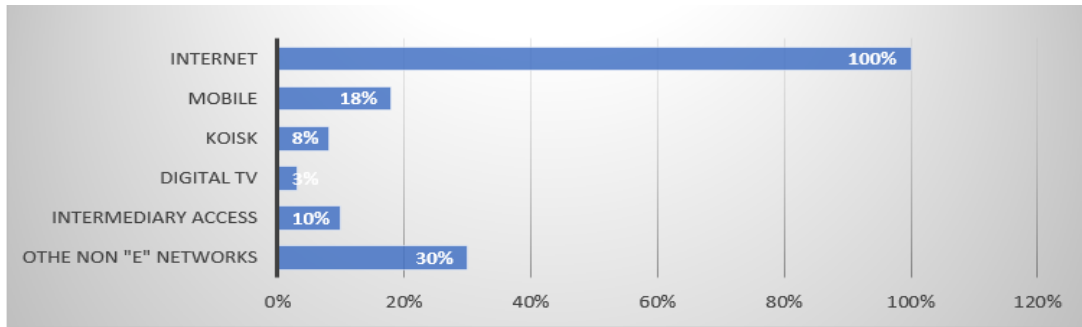

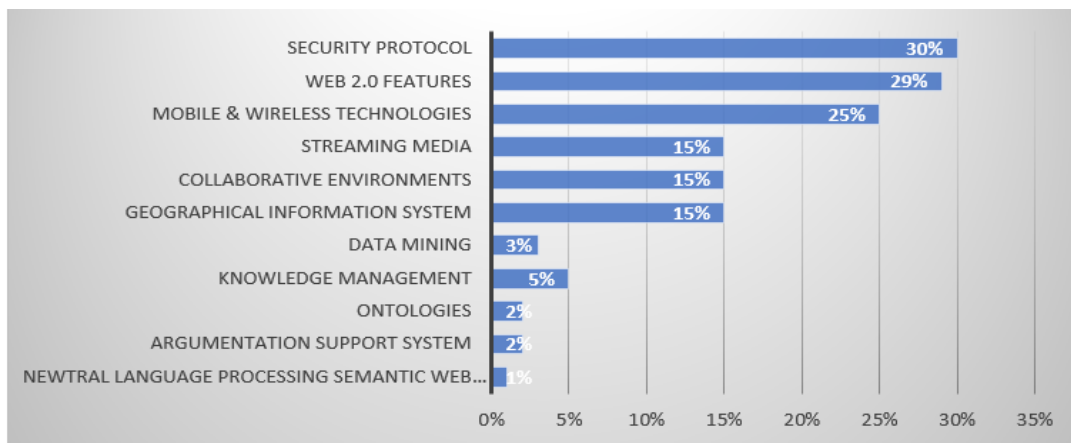Figure 1. Use of Communication Network

Figure 2. Use of Technologies

5. Barriers and Success Factors

This study focuses on the problems faced by eParticipation, the critical success factors and the lessons learnt. The analysis of the results stated under this study contributed with an understanding that there is a certain set of issues of importance that come up in most of the literature. Evidently, one issue could be a problem for a study, or a lesson learnt for another depending on several issues. This is depending, for example, on the design of the model processes, the available content, the willingness of the different participants, or simply on whether it was anticipated, and thus particular proactive measures had been taken earlier or not. The literature results show that there are about seven factor groups to be giving attention which could make a real difference between a successful and a mediocre eParticipation initiative. The following section presents the description of each factor group and provides the relevant implications as found in the literature.

5.1 Government Commitment

The actual participation of governmental bodies and departments not only as stakeholders but throughout the entire participation process has been found from numerous of the preceding literature as a critical success factor. In precise, participation and definite commitment of the government has been revealed as important in the following settings:

- **Determination to structure and encourage the initiative:** An effective initiative structure by governmental bodies revealed that there is an absolute need for success from within the government to embrace and encourage internally the project backed up by a definite willingness of the government to embrace a government and citizen cooperation.
- **Participatory support process:** Supporting an initiative from its design to its operation and evolution is required from all parts of the government; from the executive and management down to the secretariat of every operational part. This support could be established through the business integration of the relevant part to the participatory process then as well through means more apparent to the participants, such as through actual participation of representatives/chosen civil servants in the initiative (virtual meeting) and physical meeting in related events, conferences, and so on.
- **Responses & integration of results:** Literature has revealed that participants of an initiatives revealed their steadily fear that "the whole process could lead to nothing" and thus demand a clear commitment for integrating the results of the initiative into the political process or at least for getting response on the entire results of the participation and how these will be applied in the future. Unfortunately, this fear is confirmed through the United Nations eGovernment survey report; there are none of the African countries' web portals that provide feedback to the issues and questions raised or that they provided answers either too broad or too selective (probably only to the "easy" issues raised up). Evidently, this issue is of importance when trying to come up with a platform of transparency, trust and inspired collaboration in the government-citizen relationship.

5.2 Usability

Much has been previously published on the importance of usability and user-frankness for all types of eGovernment (and eParticipation) initiatives. Eleni *et al.* (2005) defined usability as one of the most frequent and important success factors in the area of eParticipation. The United Nation eGovernment Survey suggests that any type of eParticipation initiative should be categorically easy and intuitive for all kinds of users, from internet savvy ones to those with inadequate ICT skills (United Nation., 2012). With this motive, it has been revealed that a special attention must be put into the user interface with the option of dynamic development of technical features whenever it is seen as vital. Moreover, the aims of the initiative and the usage rules must be visibly clear and openly designated online for the users' convenience. Also, the establishment of help-desk facilities is found as a positive lesson learnt as users may demand assistance with things that may at first seem minor and straightforward. For example, it was discovered by the United Nations eGovernment report that about 5% of the people that accessed the electronic consultations portal did not lastly give with their view due to difficulties with the software implemented. However, the need for ease and usability must not become an issue for enhanced functionality; it has as well been reported that users expect from such initiatives to keep in pace with technological developments and to integrate new features used in different settings, such as more interactivity and social networking.

5.3 A Combination of Different Channels (Online & Offline Systems)

A channel combination is an important process/strategic decision for any eParticipation initiative. It has been revealed from the literature that most of the eParticipation initiatives rely severely on traditional internet access via private PCs and laptops. However, there is a 50% of eParticipation initiatives research that report at least one additional online or offline channel, though one third described that they synchronized online with offline channels. However, the channel's blend came up as a success factor to ease inclusiveness in an initiative. Literature showed that multiple channels increase the participation facts; this has been evidently measured in initiatives performing different kinds of voting either authorized countrywide voting or general and limited voting. There are several citizens that cast their votes online but there are also citizens that choose mobile voting or performing their elections in the dedicated kiosks. Therefore, to increase inclusive numbers, literature revealed that a synchronization of channels is required. Another common example of improving publics' participation is over merging online consultation/deliberation tools with offline meetings and workshops. In general, there has been an encouraging lesson from the countries that did use a mixture of two or more channels, while others were found at the process of expanding their doings to more channels apart from the typical internet access.

5.4 A Comprehensive Communication and Encouraging Plan

Preceding studies reported problems and lessons learnt regarding the need for a comprehensive communications plan and directly linked encouraged with the actual success of an initiative. It has been revealed that there is an ample need for a thorough, skilled and intensive communications strategy and for the will and the resources to support it up until the end. It is important for each initiative to develop an appropriate branding including a distinct and easily recognized title and logo, but similarly to pay special attention to the key message that gets across to citizens (and of course live up to that message). It has been additionally proposed that there must be one dedicated resource with the aim to encourage the initiative, to be in persistent communication with all kinds of stakeholders and to engage in getting participants on board. Of course, many ways and channels for communication have similarly been projected by the government, including announcements in online and offline channels, presence in meetings and workshops, even demos at the road. Evidently, the right marketing combination is to be decided by each initiative after looking at its personal specificities.

5.5 Security & Privacy

Security and privacy of participants is one of the concerns that each eParticipation initiative must face. The absolute need for security is self-evidently manifested in all initiatives that implement any kind of eParticipation tools. All these initiatives have found that they apply security mechanisms of different kinds and no security breaks were found among them (United Nations, 2020). However, regarding the privacy and the level of anonymity allowed each country seems to depend on a unique and ideal solution. On the other hand, it has been found in many of the countries that participation has been intentionally designed to be anonymous in order not to intimidate participants that are concerned whether their personal information will be available online to the rest of the participants. On one hand, it has been found that the fact that those participants that are posting using their full name promote integrity to their views and an overall confidence towards the whole initiative and the produced results. Evidently, the ideal approach to privacy concerns depends as well on the actual conditions of each initiative, the kind of participants it targets, the prestige the government brings to the effort, and so on (Eleni *et al.,* 2005). However, it is a feature to be systematically debated and decided at the design stage.

5.6 Organizational Issues

It has been revealed that every administrative concern has been highlighted in the literature as a success factors, which could brief into three groups includes: Management Issues, Process Issue, and Moderation Issue:

- **Management Issue:** There is consent that strong project management is a critical factor for success; a top management person must be preferably appointed as a dedicated resource accountable for the entire project's process. Furthermore, it is important to establish an effective and sustainable management process with short tasks and spot check and described communication media among the team adherents. Lastly, the need for substantial timescales and contingency planning has been similarly emphasized; top management must leave sufficient time for planning and implementation and must try to exploit earlier experience in the field (include lessons learnt, replication of tested approaches and tools, and so on).

- **Process Issue**: Processes are of importance in an eParticipation as the whole initiative should offer an endlessly effective, satisfying as well as timely experience. Process planning starts from the initial conceptualizing stage when certain attentions and decisions must be made. For example, governments must be concerned about the importance of taking into consideration the particular needs and conditions of the targeted participants (including with regards to internet usage designs, ICT skills, cultural and political specificities, and so on) and developing a perfect participation methodology to suit the purposes of the initiative on ground. Evidently, the decisive intention is to reach inclusiveness (include by assuring that relevant special participants and minority groups are as well considered) and a balanced participation and user engagement to the best possible grade. Moreover, literature showed that active two-way communication between government and participants of the initiatives is a must; it is proposed that tools for users' comments and contact are kept as simple as likely and that users are involved in the development/improvement process. Lastly, clear and realistic business processes need to be put into consideration for guaranteeing that all different roles/units deliver relevant content/response in due time and according to the promises made to the participants.

- **Moderation Issue**: There is a consent among literature on the need for a weighty, active, and timely moderation. Moderators need adequate training to be able to support and encourage open, thoughtful, and high-quality participation although they must also have enough awareness of participation ideologies and practices to find and tackle certain difficulties like the conscious or unconscious dominion of the discussion by some extremely active participants. In conclusion, moderation contributes to an important role in keeping up the promise and interest of participants.

5.7 Complexity of issue and participation value

Technocratic and governmental complexity with limited knowledge and skills of participants prevented participation at narrow and minor level. Furthermore, literature reveals that numerous participants did not appear set to participate in creative dialogue and they rather chose to usually express their views, opinion or beliefs, which were hardly supported by informed arguments, which deteriorated the condition. It was then proposed that a preliminary processing of the data under discussion to make it understandable by non-participants could be a solution to the acknowledged issue.

6. Discussion

Currently, eParticipation has evolved to re-engage individuals with the democratic processes by considering the potential of ICT. At the academic level, several frameworks and models have been proposed for understanding eParticipation including evaluating relevant initiatives. At the practical level, many eParticipation initiatives have been applied at different levels, some with success some without. In this paper, the use of ICTs and the main success factors of eParticipation initiatives and evaluation framework was reviewed from the proceeding literature. The study also focuses on the recent report of the United Nations' eGovernment survey report. Fourteen African countries with the highest score in eGovernment were preferred and reviewed each factor of their development. The analysis instigates with information on each country's profile initiative considered with criteria relevant to the participatory requirement (zones and focus of participation), the ICT applied (systems, instrument & technologies).

The results of this study have shown seven main success factor groups according to the recent United Nations eGovernment survey report; and Literature Review perspective. These include government commitment; usability; combination of channels (online with offline); a comprehensive communication and encouraging plan; security and privacy; organizational issues; and topics complexity. In the relevant literature, academics have recently attempted to find success factors and barriers in the context of eParticipation. Several works led a systematic review while others focused on case studies in finding the barriers and factors of eGovernments (Al Hujran *et al.,* 2013; Dionisio, *et al.*, 2015; Liu, 2017; Mensah & Durrani, 2017; Sinclair *et al.,* 2014; Shuib et al., 2019; Ziemba et al.*,* 2016). To sum the preceding work, Mujali *et al.* (2018) propose benefits which include avoiding personal interaction, control over service delivery, convenience, cost, personalization and time, whereas barriers for eParticipation include confidentiality, easy to use, enjoyable, reliable, safe and visual appearance. Similarly, Almukhlifi *et al.* (2019) as well as Ebrahim and Irani (2005) suggest eParticipation barriers which include IT infrastructure, security and privacy, IT skills, organizational (include unclear vision, lack of communication between departments and so on) and operational cost.

7. Conclusion and Future Work

Different researches focused on eParticipation in eGovernments initiative success (Alzahrani *et al.,* 2018; Le Blanc & Settecasi, 2020; Okeke-Uzodike & Dlamini, 2019; Panopoulou *et al.,* 2014; Santamaría-Philco & Wimmer, 2018; Wilson *et al.,* 2019; Tambouris *et al.,* 2013; Yusuf *et al.,* 2016; Zaharudin *et al.*, 2015). In an initial attempt to put our results in the context of relevant eGovernment work, we note that there are certain factors which are common, such as government commitment, usability, security and privacy. On the other hand, it should be noted that there are certain factors believed particularly important for eParticipation participants, which do not seem to deserve attention in eGovernment. These include combining online with offline channels, having a comprehensive communication and encouraging plan and topics complexity. Moreover, government aspects in eParticipation have different directions as besides project management they also include participatory processes and moderation which are unique to eParticipation. In depth search of comparisons and differences between eGovernment and eParticipation success factors is outside the scope of this study and is left for future search as this could be an initial result to be considered and be empirically validated.

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