

Exploring the Readiness for Electronic Voting (E-Voting) in Emerging Economies: Evidence from Dodoma, Tanzania

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ABSTRACT

There has been a lot of research on e-voting recently. Most studies assume that the implementation of e-voting is not merely about technology but also relates to several critical factors, such as the readiness of human resources and infrastructure, public trust, and others. This study explored the readiness for e-voting in developing countries, a case study of Tanzania. Specifically, the study aimed to examine the challenges of the current voting system, establish the e-voting readiness status in Tanzania, and find out factors for establishment of e-voting system in Tanzania. This study was quantitative in nature and obtained data from 196 respondents selected from Independent National Electoral Commission (INEC) officers and voters in Dodoma using purposive and convenient sampling techniques. Data was obtained from questionnaires distributed to officers and voters. The obtained data were analysed through descriptive statistics by the help of MS excel. The results show that the current voting system is faced with several challenges including limited safety, lack of trust, threat and insecurity vulnerability to mention but a few. It was further revealed that respondents were ready to adopt and use e-voting because it improves voters' trust, ease voting procedures, reduces transportation costs on election materials/equipment and saves time. The study recommends the Independent National Election Commission of Tanzania, through various stakeholders see the possibility of establishing e-voting to achieve free and fair elections.

Keywords: Elections, E-Voting System, Free and Fair Elections, INEC

I. INTRODUCTION

Information has always played a vital role in the human history. Over the ages, people have used it to gain a more accurate picture of their current situations, make better decisions for the future, and improve the quality of their lives (Dijis-Elsinga et al., 2010). But never has information been more accessible and more widespread than it is today (Hirsh, 2022; Borgman, 2003). The recent developments in Information Technology (IT) have been phenomenal. It has been connected to the increase in the Gross Domestic Product (GDP) (Magoutas et al., 2024), advancing the quality of education (Saif et al., 2022) healthcare provision (Pasquale et al., 2014) to mention but a few. It is recorded that, the presence of computers and other applications that can be executed through mobile phones have made things easier for most people around the world. The presence of interconnected networks available through telephone lines, satellites, and fiber optic cables that span the world, have enhanced the possibility of communicating and sharing information among people across borders (Adebanjo et al., 2024; Praditya et al., 2015) With this rapid advance of technology, it has been easy to eliminate the digital divide among people (Kuteesa et al., 2024).

The advancement of information technology has not only been observed in the economy, healthcare and education but also in democracy and governance (Sirma & Kihara, 2023; Adams & Akobeng, 2021). According to (Amoretti, 2007), IT has been used as a tool to enhance representation and participation in government related decisions. A study by Ayeni and Esan (2018) report that Information and Communications Technology (ICT) is of pivotal importance in elections. The study records that the use of IT related devices and systems have minimised incidences of multiple registration and voting, result manipulation as well as excessive electoral fraud. A study by Michen and Murumba (2018) report that the presence of ICT has influenced the prevalence of health democracies and high level of citizen participation in the political lives of their countries. As Iwuoha (2018) provided that ICT plays a crucial role in the entire election process right for registration to tallying and declaring winners.

While some countries have only been using ICT related services in registering voters, others have even adopted electronic voting (a result of ICT advancement). A study by Achieng and Ruhode (2013) report that in Brazil and India, electronic voting was successfully adopted and was used in general elections. In other countries like Belgium and Philippines, Estonia, Norway and USA were at different stages of instituting e-voting in their respective countries (Omotayo & Adekunle, 2020). It is further reported by Michen and Murumba (2018) that in Kenya although other procedures of election are IT driven, the real process of casting the vote is still done manually.

Tanzania being a democratic state, gives greater value to elections. It is through which people decide on who to represent them. Moreover, elections guarantee political participation and competition, political transition as well as consolidation (Omotola, 2010). While the country has been carrying several elections normally after every five years, it has always carried such elections based on manual paper ballots. This system has been associated with election fraud, result manipulation, double registration, increased costs to mention a few (Omatayo & Adekunle, 2020; Adams & Akobeng, 2021; Kramon, 2010). A number of earlier conducted studies (Omatayo & Adekunle, 2020; Adams & Akobeng, 2021; Iwuoha, 2018; Achieng & Ruhode, 2013; Kramon, 2010) which in most cases revealed the weaknesses of manual voting advocated for the adoption of e-voting system. To them electronic voting breaks the barriers and weaknesses hindering the manual voting system. The systems facilitate voting by people with disability, allows remote voting, minimises operational costs and logistics complications and allowing prompt voting and counting (ACE Project, 2018).

In response to such advocacy, the government of Tanzania in 2010 adopted the use of Biometric Voters' Registration (BVR) as a move towards making voting electronic based. Although it began as a pilot in eighteen constituencies, it was later rolled out across the country. Although the plan was to automate the entire election process from the beginning to the end, efforts were only fairly observed in the registration of voters. While the government was determined to automate the entire election process, the level of voters' readiness to adopt and use e-voting is not well documented. The E-voting Readiness Index by Krimmer and Schuster (2009), in which environmental analysis and comparison for introducing e-voting in 31 countries, including all EU member states, is only centred on presenting the European level of readiness and does not address the unique circumstances and challenges countries like Tanzania face. On the other side of the coin, despite the e-voting system being advocated for by different scholars, some countries like Netherlands, Germany, and Ireland have banned the use of electronic voting, reporting it to be prone to various weaknesses (Omatayo & Adekunle, 2020). An earlier study by Gupta (2011) revealed that the changing nature of voters and voting procedures make infrastructure deficiency a major setback to the full implementation of e-voting. In the same vein, a study by (Cetinkaya & Cetinkaya, 2007) report that many nations hold back from fully deploying e-voting due to these systems being vulnerable to security, privacy issues and trust. In the USA, the use of electronic voting still holds an unravelled situation with reference to Florida elections in 2000 and the general elections in 2017 that brought Mr. Donald Trump in power. With the existence of contradiction about e-voting, and limited data regarding the adoption and readiness of voters in Tanzania, there is a need for a study to assess the situation. This study explored the challenges of the current voting system and then assessed the status of readiness towards e-voting use in Tanzania. It is expected that findings obtained will help responsible authorities to know the prevailing situations pertaining readiness of the environment, voters, politicians and all other stakeholders. The study shows whether e-voting is a viable system that should be implemented or not.

1.1 Statement of the Problem

The increased interest in using information and Communication Technology (ICT) to enhance governance and democracy highlights the growing potential of e-voting in democratizing Tanzania. For instance, the Tanzanian Government has implemented various e-Government Systems, enabling access to vast government information system as to provide online related services as stated in Tanzania e-Strategy (2022). Common standards for e-voting, which reflect and apply the principles of democratic elections and referendums, are essential to ensuring that e-voting respects all democratic principles and builds trust and confidence in domestic e-voting systems. However, studies on e-voting readiness have predominantly focused on developed countries, leaving a gap in understanding how this technology could be effectively implemented in emerging economies like Tanzania. The e-voting Readiness Index by (Krimmer & Schuster, 2009), which analysed and compared the environment for introducing e-voting in 31 countries, including all EU member states, does not address the unique circumstances and challenges countries like Tanzania face. This lack of data highlights the need to assess whether Tanzanian voters are ready to adopt e-voting technology, especially when the 2025 general elections in Tanzania approach. In many emerging economies, manual voting systems face significant challenges that hinder the democratic process. For instance, studies in countries such as Nigeria and Kenya have revealed such problems as logistical difficulties in reaching remote areas, long queues, voter intimidation, and ballot tampering. These problems are particularly pronounced in rural regions with weak infrastructure and limited access to polling stations. Voter turnout in these areas is often low due to the physical and financial burdens of traveling long distances to vote. E-voting presents a viable solution to these challenges by providing a more accessible, secure, and efficient voting process. For example, one major challenge in manual voting is ensuring equal access to voting for all citizens, particularly those in rural areas. For instance, the distance to polling stations in Tanzania has been a significant barrier to voter participation in rural areas. Moreover, issues of trustworthy elections Kimbi et al. (2014) by introducing e-voting, voters could cast their ballots electronically from designated centres or even remotely through secure online platforms, eliminating the need for extended travel and ensuring that more citizens can participate in the electoral

process. Moreover, e-voting can enhance the transparency and security of elections by incorporating advanced technologies such as biometric verification, encryption, and real-time result monitoring. These features can significantly reduce the risk of electoral fraud, a persistent issue in many emerging economies, thereby increasing public confidence in the electoral process. To address the current gap in understanding e-voting readiness in Tanzania, this study will assess the extent of e-voting diffusion and analyse the factors influencing the uptake of e-voting among Tanzanian citizens. By doing so, the study will contribute to the broader discourse on e-democracy and provide insights crucial for implementing e-voting in Tanzania, particularly in the lead-up to the upcoming general elections.

1.2 Research Objective

The following are the objectives of this study:

- i. To explore the challenges of existing voting system in Tanzania
- ii. To explore the e-voting readiness status in Tanzania
- iii. To Suggest the appropriate framework for e-voting readiness in Tanzania

1.3 Research Questions

The following are the specific Research questions, there included:

- i. What are the challenges of the existing voting system in Tanzania?
- ii. What is the extent of the e-voting readiness status in Tanzania?
- iii. What is the suggested appropriate framework for e-voting readiness for Tanzania?

II. LITERATURE REVIEW

2.1 Theoretical Underpinning of the Study

Just like other changes, technology change has always been difficult to be adopted. An earlier study by (Burton-Jones & Hubona, 2005) provides information that because of such difficulty, many scholars have been drawn into this phenomenon trying to explain how technology is being adopted. In this study we use a theoretical framework which acts as a lens through which readiness to adopt the technology is provided. The Theory of Planned Behaviour (TPB) and Technology Acceptance Models were used to explain the phenomenon under the study. The theory of Planned Behaviour was developed by Fishbein and Ajzen in 1980s. It postulates that attitudes and subjective norms influence the behaviour intention. The intention in most cases defines and determines the behaviour. The theory assumes that individuals are rational and assess the outcomes of their actions before formally deciding on eliciting a given behaviour (Ajzen & Fishbein, 1980). TPB has been criticised of being too intuitive in explaining a given behaviour. This being the cause, it cannot control for non-controllable variables that affect behaviour (Bagozzi, 1982). As Foxall (2007) adds that, the theory predicts other than dealing with outcomes of behaviours.

To minimise weaknesses of this theory, the researcher decided to use the Technology Acceptance Model (TAM). It was developed by Davis. The model was used to study how users accept and use a technology. It is an outcome of the Theory of Reasoned Action (TRA) which according to Davis (1989) belief influence intention and while plans influence one's actions. The theory denotes that people accept and use a technology because they either consider it easy to be used or has its usefulness. In other words, an easy to use and useful technology is more accepted and used than a complicated one. According to (Fusilier et al., 2008), TAM considers both social psychology and technology usage elements that influence adoption. This being the case, it has been used by several researchers (Abramova & Böhme, 2016; Albayati et al., 2020; Alqaryouti et al., 2020) to determine technology adoption among individuals. Although the theory has been criticised for ignoring social and external influence in the adoption of a technology, it still stands as a powerful model in explaining issues of technology adoption.

2.1.1 Weaknesses of Manual Voting System

A study by de Vries and Bokslag (2016) that evaluated both voting systems in different parts of the European countries identified a number of weaknesses of manual systems. They identified that the system was hindered by aspects of accessibility by people with disability. Moreover, the voting ballots were not unique enough and thus easily replicated and smuggled in. in the same vein, it is possible for voters to be coerced by a third party. This leads to inhibiting fairness. A further study by Olumide et al. (2020) note that the paper based manual system is stressful as it requires voters to line up waiting for their turn to cast their votes. In the populated areas, it takes a lot of time and thus, results may delay and in the eve of waiting for them political-related upheavals may erupt. While the system is condemned for being vulnerable to multiple voting which results in weak candidates emerging as winners, it is accused of results alteration to favour a particular candidate of their own interests. In the same vein Ajayi (2004) earlier recorded that manual voting was marred by election malpractices including multiple voting, false counting, deliberate disenfranchisement and impersonation.

Farhath et al. (2014) reports that excessive expenditure was a great problem. Similarly, Neha (2014) records that rigging of votes, inaccuracy in counting and low speed in voting and counting were orders of the day in manual elections. On the similar note, Samsul and Limkar (2014) write that duplication of votes and high costs of ballot papers were major weaknesses of the system. Other weaknesses included excessive corruption, insecurity, false voting just to mention a few (Stenbro, 2010).

2.1.2 The Strength of E-Voting Systems

A number of scholars have delved into discussing the potential of e-voting systems in the world today. A study by Amuzie (2015) provides that e-voting ensures a credible election process making it free and completely fair to all candidates. More emphasis is given by Okediram and Ganiyu (2015) who provide that apart from maximizing security, e-voting is time conscious as it requires a very short time for the voting and counting process. Moreover, Omotayo and Adekunle (2020) recounts that e-voting minimises election malpractices, speeds up the processing of voting results, increases accuracy of ballot tabulation and minimises the rate of human errors. A study by Stenbro (2010) further reveal that the system helps in counting ballots with the required speed, caters for the physically challenged, minimises the proximity of going to voting station thereby increasing the possibility increasing the number of voters. Khelifi et al. (2013) reports the system to increase the integrity of elections and maximize the security of the entire voting process.

While the system presents enormous benefits and has been welcomed elsewhere in the world, the state of voters' disposition in most developing countries is not clearly documented. In Nigeria Olusadun and Anulika (2018) studied about voters' perception on the use of e- voting and found that voters had a positive disposition to the system. A more study by Omotayo and Adekunle (2020) that investigated about citizen's readiness to using e-voting found that citizens were ready to the system and were in favour of it. While such realities are presented, they do not depict the Tanzanian situation. The situation calls for a more localized study to determine the level of readiness of Tanzanian citizens with regard to the introduction and use of the e- voting system.

III. METHODOLOGY

3.1 Research Design

The study employed the descriptive survey design. The design allowed the researcher to explore the phenomenon and give a thorough description thereafter. The researcher used all employees of Independent National Electoral Commission (INEC) and voters in Dodoma as the population of the study. The population was considered unknown due to the fact that the available data reflecting the situation in the last voter's registration done in 2020, is not real as more people have turned up the age of 18, others have left Dodoma, others have migrated to Dodoma and others registered in 2020 have already died. Hence, depending on the available list leaves other eligible people out of the study.

3.2 Sample Size and Sampling Procedures

The study sampled 196 respondents from both INEC employees and voters who visited the commission offices in search for different services. Because the population was considered to be more than 10,000 persons, a sample of 100 was sufficient and adequate representation of the entire population (Saunders et al., 2007; Nirathron, 2006). The researcher added in more respondents because the higher the sample the higher the validity of findings and generalizability (Creswell, 2013). The sample was obtained through purposive, simple random and convenient sampling. While INEC officers in high ranking positions were sampled purposively, simple random sampling was used to sample other INEC employees and other voters sampled conveniently as long as the voter accepts to participate in the study.

3.3 Data Collection and Analysis

In this study data were collected by the use of questionnaire. The questionnaire involved close ended questions from which respondent's dispositions were determined. The approach was useful in minimising any cases of biases because the researcher was completely detached from the responses obtained. The collected data was analysed by the use of descriptive analysis. In this, frequencies, percentages, means among others were used to analyse findings. For a thorough description, graphs and tables were used to describe the situation in a more vivid manner.

IV. FINDINGS & DISCUSSION

4.1 Demographic Characteristics of Respondents

Demographic characteristics of respondents helps to show the nature of people who participated in the study and thus help the researcher determine the nature of responses. The demographic characteristics of respondents is presented in Table 1 of this study.

Table 1*Demographic Characteristics of Respondents*

Variable		Frequency	Percentage
Gender	Male	145	74
	Female	51	26
Age	15-25	7	4
	26-35	102	52
	36-45	77	40
	45 and above	10	5
Education	Certificate	5	3
	Diploma	12	6
	Bachelor's Degree	120	61
	Above	59	30
Election participation in voting	General election	102	52
	Local government election	16	8
	Local government and General election	78	40

Findings as presented in Table 1 reveal that 74% of respondents were male, while 26% were female. The results indicate that the researcher used both male and females in the study. Although the number of males outshines that of females, the presence of both genders minimises the chance for biases and conflict of interest. Regarding age, findings reveal that 4% of respondents had an age between 15-25 years, 52% had an age between 26-35 years, 40% had an age between 36-45 years, and 5% had an age of 45 years and above.

The results further indicate that 3% of respondents had attained a certificate level of education, 6% of respondents had attained a diploma level of education, 61% had attained a bachelor level of education, and 30% had achieved an above level of education. This implies that most respondents had attained a bachelor's level of education. Education can increase the ability of a person to understand and participate in certain activities offered because the level of understanding of issues discussed increases as education increases.

On the aspect of participation in elections, findings indicate that 52% of respondents had been participating in the general election, 8% of respondents had been participating in the local government election, and 40% had been participating in both the local and general elections. This implies that a greater segment of respondents had sufficient experience regarding election as it is conducted in Tanzania.

4.1.1 Challenges of the Current Voting System in Tanzania

Before delving on the extent to which voters are ready to accept and use e-voting system, researchers were interested to find out the nature of the current voting system and challenges the system encounters. To get these challenges, a list of challenges was presented to respondents, and they were asked to choose the most common challenges. Respondents were allowed to have multiple responses under this question. Findings are presented in Table 2 and visually presented in figure 1 of this section.

Table 2*Challenges of the Current Voting System*

Challenges	Frequency	Percentage
Poor quality of ballot papers, Fewer ballot papers than required, and voters list display	31	16
Safety, especially for elders, pregnant women, and young children with their mothers	27	13.8
No trust of system, officers, and Threats from security	41	21.2
Waiting time in queue/line	36	18.3
Allocation of names in different polling stations and Missing names in the list	32	16.4
Loss of voting ID	29	14.7

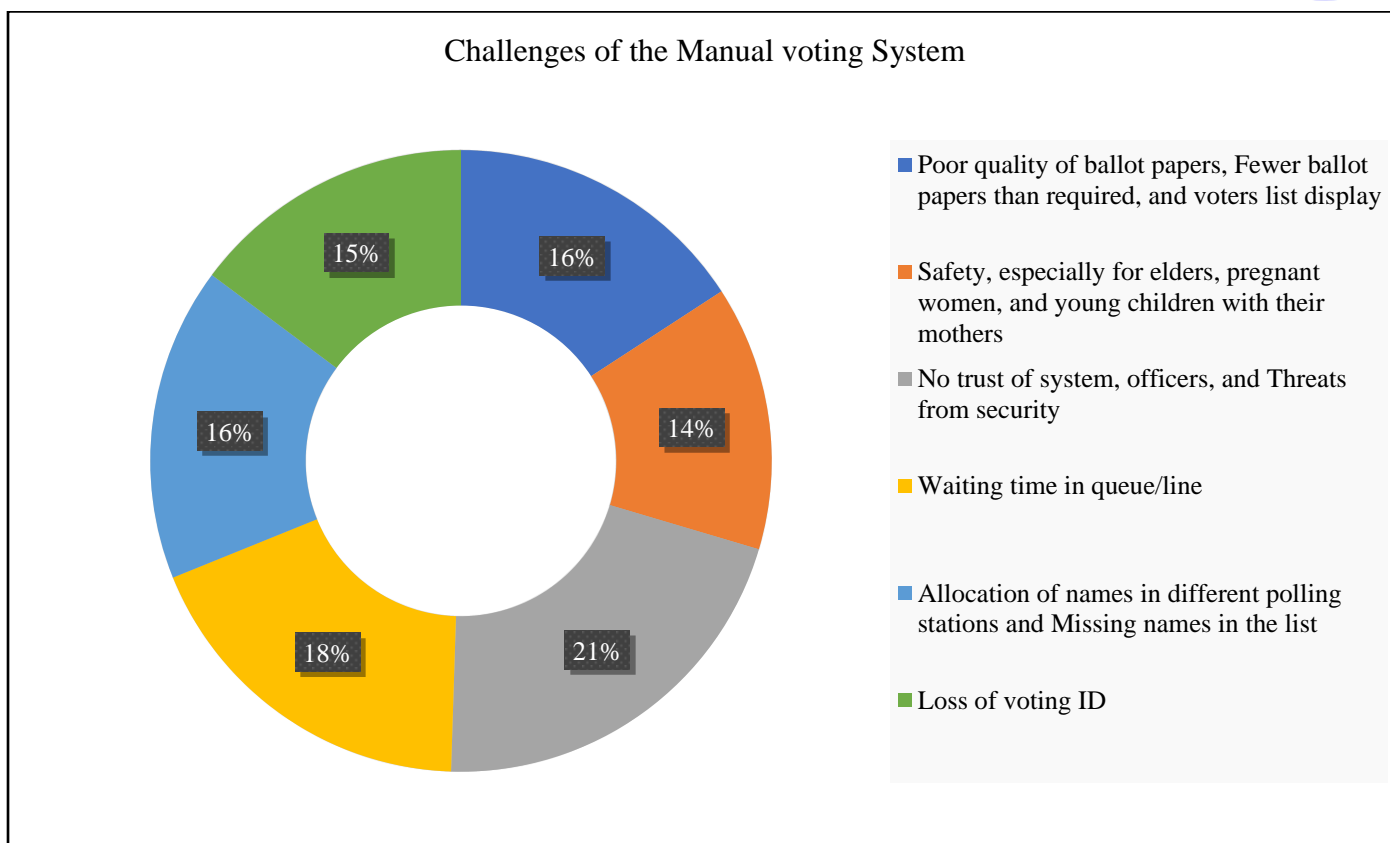


Figure 1
Challenges of the Current/Manual Voting System

Findings presented in Table 2 depict different realities regarding challenges facing the current voting system. With regard to these challenges, the most cited was related to security and trust. Findings reveal that 41(21.2%) respondents believe that the system has trust related challenges. The system itself, officers and its security pose more questions than answers. While the system presents many loopholes for malpractices including rigging of votes, theft of ballot boxes and corruption among INEC officers.

Waiting time in queue/line was another challenge facing the current voting system. This is presented by a total of 36 respondents (18.3%). It should be noted that most voters are on the other side breadwinners of their families who work on a subsistence nature. Failure to work or reporting late to their working stations means going empty handed at home. Every minute to them counts. Thus, spending a lot of time on the queue waiting to vote disrupts their income generating activities and livelihood of their families. On the same challenges, 32 respondents (16.4%) are of the view that at times there is a mismatch between names of voters and the actual polling stations where they are supposed to vote from. While a voter waits on the queue to vote unfortunately the name in the voting register does not completely appear but rather appears on another voting station. Due to the fact that the system only allows a voter to cast a ballot where he/she was registered from, a single mismatch or misallocation of the voter’s name snatches one the right to vote, even if he/she has all other required criteria.

Findings further depict that 31 respondents (16%) revealed that at times ballots are less than the required and sometimes poor-quality tempered ballots and voters’ lists not being available or displayed. Among others it denies voters chances of exercising their right of voting the candidate of their choice. More findings in table 2 indicate that 29 respondents (14.7%) are of the view that loss of voters’ ID is yet another challenge. The bitter truth shows that in the situation where a voter’s ID is lost, despite his/her presence, the presence of the photo and other biometric data, a person is denied a chance of voting. The findings further indicate that the system offers limited safety to disadvantaged persons including elders, physically challenged people, pregnant mothers and those accompanied with their infants. For instance, it is on rare cases that such voters are given special attention.

Such findings align with several scholars (Vries & Bokslag, 2016; Olumide et al., 2020), who note that the system does not provide equal accessibility to disadvantaged individuals, especially those with disabilities. Additionally, they report that poor-quality ballots are easily manipulated, and some voters can be coerced by third parties to vote for a specific candidate, with long wait times to cast votes. Similarly, Neha (2014) and Stenbro (2010) report that the current manual voting systems are vulnerable to election anomalies, including vote rigging, deliberate miscounting of votes in



favour of certain candidates, and corruption, making the system problematic, difficult to trust, and incapable of delivering credible election results, thus calling for its replacement.

4.1.2 Voters Readiness to E-Voting System

In this part the researcher was interested to find out the level at which voters were ready to accept and use e-voting in the Tanzanian election periods. The respondents were presented with a five-point Likert scale questions for them to state the state of their readiness to adopting and using e-voting system should the system be introduced in Tanzania. Findings are presented in Table 3 presents these findings. Legend: SA = Strongly Agree, A=Agree, NS = Not sure, D = Disagree, SD = Strongly Disagree

Table 3
Voters' Readiness to Use E-Voting System

Items	SA	A	N	D	SD	N
I am ready to learn how to use e-voting system	52	77	12	22	33	196
I am ready to support the use of e-voting to cast my vote if INEC adopts it	63	90	9	13	21	196
Voting through ICT is something I would preferably do	72	83	6	19	16	196
I will be very willing to use e-voting system than the current system	97	62	11	8	18	196
I will not hesitate to use e-voting system to cast my votes if introduced by the Tanzanian government	66	95	2	11	22	196

Findings presented in Table 3 have a mix of respondents' dispositions. In the first instance, regarding readiness to learn using e-voting, 129 respondents were ready to learn using the system for future use in the coming elections. While 55 respondents were not ready but majority respondents were in support and ready to learn the system. It was moreover presented that 153 respondents were ready to even support the use of e-voting system to cast their votes should INEC adopt the system. This is majorly because most respondents are of the view that to overcome the challenges of the manual system and ensuring free and fair elections the use of e-voting is the ideal one.

Regarding preference of respondents to use the system to cast their votes, 155 respondents out of 196 showed their readiness to prefer the use of e-voting than the manual one. Despite the presence of those not ready to use the system, the majority would even prefer to use in the forthcoming elections. The presence of disagreement can be explained by fear of unknown, awareness and limited knowledge on the use of IT related systems. While further findings related that 159 of respondents were ready and willing to use e-system than the manual voting one, 161 others declared that they would not hesitate to use the e-voting system should it be used in the forthcoming elections.

These findings are in line with those presented by Omotayo and Adekunle (2020) who, while presenting the Nigerian case revealed that voters were ready to adopt and continue using the e-voting system as a solution to manual one. This would be a step towards solving problems registered by the current manual system which include but not limited to election malpractices which in general inhibit a sense of free and fair elections hence bringing in power unqualified candidate who is not the voters' choice. On the contrary, de Vries and Bokslag (2016) reveal that although voters are ready to adopt and use e-voting system, the sense of security has been a challenge. Thus, in Netherlands, voters are no longer interested in the system unless the security challenge currently faced by the system is solved. The situation tells that although the system has potential benefits and makes it easy for voters to cast their votes conveniently, it is vulnerable to malicious attackers and once introduced in Tanzania, the security capacity of the system should be enhanced.

4.1.3 Reasons for Establishing the E-Voting System

Upon obtaining the results indicating that respondents were ready to embrace and use the e-voting system contrary to expectations, the researcher was interested to find out what drives this readiness. In other words, why should the system be established and what competitive advantages does the system has over the manual one? The researcher provided respondent with exhaustive possible advantages and expected them to choose the most applicable and where necessary mention others. Findings are presented in Figure 2 of this study.

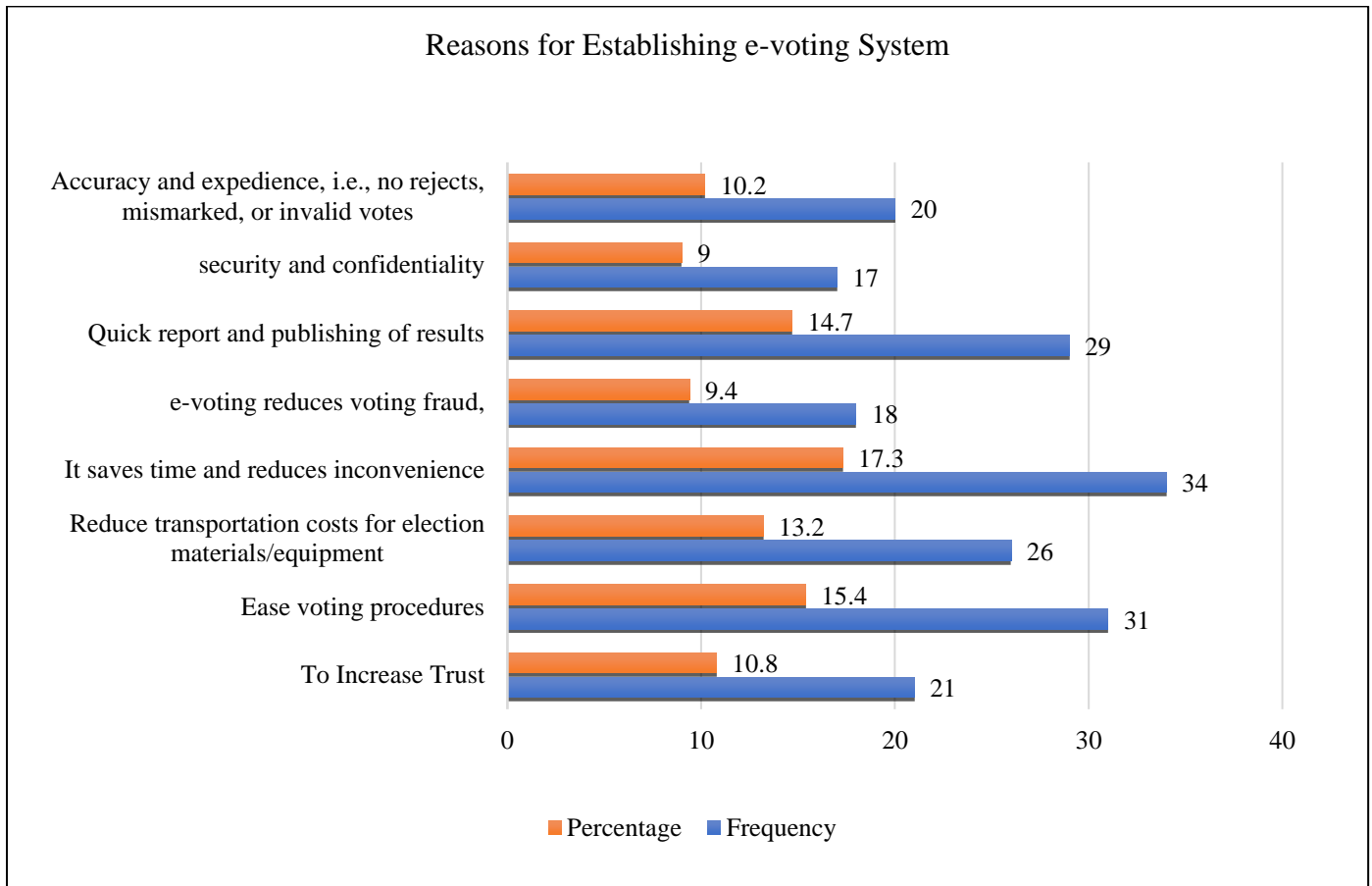


Figure 2
Reasons for Establishing the E-Voting System

Findings depicted in Figure 2 indicate multiple reasons presented by respondents. The most supported reasons include time saving with 17.3% of respondents, easy voting procedures with 15.45 of all respondents and quick reporting and publication of election results with a total of 14.7% of all respondents. Other reasons include minimizing transportation costs of voting equipment and voters themselves scoring 13.4% of all respondents. While increasing accuracy scored 10.8% of respondents, reducing fraud and ensuring security and confidentiality were supported by 9.4% and 9% respectively.

These findings are not a new phenomenon in the world of academia. A number of other researchers had witnessed and reported similar findings. For instance, a study by Amuzie (2015) provides that e-voting ensures free and fair elections. Other scholars provide that e-voting maintains security of votes (Okediram & Ganiyu, 2015) reduces chances of election malpractices and speeds results processing and maintaining accuracy (Omotayo & Adekunle, 2020).

A study by Stenbro (2010) emphasizes that the system caters for the physically challenged and (Khelifi et al., 2013) associates the system with election integrity. Such findings indicate that because the system has great potential for improving the election process and offers a chance for minimizing complaints among all candidates, voters and INEC employers are ready to see the establishment and usage of the system in Tanzania.

V. CONCLUSIONS & RECOMMENDATIONS

Elections are potential practices in ensuring democratic observation in the organization or country at large. This study investigated voters’ readiness in accepting and using e-voting in the Tanzanian context. The study first identified challenges facing the current manual voting system. Such challenges include election anomalies, rigging of votes, security issues, long waiting time during voting and waiting for results, paying less attention to physically challenged people and others in the disadvantaged group. The presence of these challenges qualifies the system to be inefficient and becoming obsolete at the current moment should improvements not be taken.

The study indicates further that both voters and INEC officers are ready to embrace the e-voting system due to its potentialities in solving election challenges. The nature of readiness among respondents sends a message that they are in support of smooth free and fair elections. Cases of rigging votes which normally are coupled with demonstrations

that in most cases dwarf people's livelihood and the country's economy at large in one way, can on the other result in political strife, insecurity among others.

The study recommends all stakeholders to participate in a dialogue and come up with a solution to the existing challenges of the current voting system. The dialogue can be prepared by INEC and involves political parties, ministries departments and authorities as well as voters themselves. The dialogue should be geared towards ensuring free and fair elections.

It is further recommended that because technology is here to stay, there is no way we can run away from it. It is high time for the country to think of implementing e-voting system because it has been proved to have competitive advantages over the manual system. The INEC in collaboration with experts from e-government can ensure designing a simple but secure system that can be used during elections and facilitate the attainment of INEC core objective of facilitating free and fair elections. Despite the need for the system, maximum caution on its security properties should be taken. This will ensure that it is not attacked by malicious hackers to alter election results in favour of a certain candidate.

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