THE UNIVERSITY OF DODOMA

COLLEGE OF INFORMATICS AND VIRTUAL EDUCATION

DEPARTMENT OF INFORMATION SYSTEM AND TECHNOLOGY (IST)

COURSE CODE AND TITLE: IS 221 ICT RESEARCH METHODS

TASK: INDIVIDUAL REPORT

RESEARCH TITLE: THE LEVEL OOF TANZANIAN'S ACCEPTANCE TOWARDS DIGITAL SYSTEMS AND TRANSFORMATION.

Submitted in partial fulfillment of the requirements for the completion of the IS 221: ICT Research Methods course

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14/06/2024

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LIST OF ABBREVIATIONS

ICT – INFORMATION COMMUNICATION TECHNOLOGY

AI-ARTIFICIAL INTELLIGENCE

USB- UNIVERSAL SERIAL BUS

FGD – Focus Group Discussions

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

In the contemporary era, the integration of digital systems and transformative technologies has become an integral facet of societal advancement and economic development worldwide. As nations globally transition towards digitalization, understanding the extent to which populations embrace these innovations is crucial for effective policy-making, infrastructure development, and societal progress. Within the context of Tanzania, a nation renowned for its rich cultural heritage and diverse economic landscape, the acceptance of digital systems and transformation presents a compelling area of inquiry.

Tanzania, like many other developing countries, stands at the crossroads of technological evolution, where traditional practices intersect with modern digital solutions. The rapid expansion of internet connectivity, mobile penetration, and the emergence of digital platforms has laid the groundwork for profound societal changes. However, the extent to which Tanzanians embrace these digital systems remains a subject of debate and exploration. Understanding the factors that influence acceptance or resistance to digital transformation is paramount for policymakers, businesses, and stakeholders aiming to harness the full potential of technology for societal benefit.

This research seeks to delve into the multifaceted dimensions of Tanzanians' acceptance towards digital systems and transformation. By examining various socio-economic, cultural, and infrastructural factors, this study aims to provide insights into the prevailing attitudes, challenges, and opportunities surrounding digitalization in Tanzania. Furthermore, by shedding light on the nuanced perspectives of different demographic segments within Tanzanian society, this research endeavors to inform targeted strategies and interventions aimed at fostering a more inclusive and sustainable digital ecosystem. Through rigorous analysis and empirical investigation, this study endeavors to contribute to the broader discourse on digital development in Tanzania and beyond.

1.2 Problem Statement

In an ideal scenario, the widespread acceptance and adoption of digital systems and transformation in Tanzania would lead to enhanced efficiency, productivity, and socio-economic empowerment across various sectors. Digitalization has the potential to bridge the gap between urban and rural areas, improve access to essential services such as healthcare and education, and catalyze innovation and entrepreneurship. However, the reality often diverges from this ideal,

with significant segments of the Tanzanian population facing barriers to embracing digital technologies.

The current reality in Tanzania reflects a nuanced landscape of digital acceptance, characterized by a myriad of challenges and disparities. While urban centers may exhibit higher levels of digital penetration and adoption, rural areas often lag behind due to limited infrastructure, literacy levels, and access to affordable technology. Moreover, cultural attitudes, perceptions of trust and security, and regulatory frameworks further shape individuals' willingness to engage with digital systems. Consequently, the unequal distribution of digital benefits exacerbates existing socio-economic inequalities, hindering the nation's overall development trajectory.

The consequences of this digital divide are far-reaching, impacting individuals, communities, and the nation as a whole. Those left behind by the digital revolution risk exclusion from economic opportunities, reduced access to essential services, and diminished participation in civic and political processes. Furthermore, the perpetuation of digital disparities threatens to widen existing socio-economic gaps, perpetuate inequality, and impede Tanzania's efforts towards achieving sustainable development goals.

This research aims to address these pressing issues by investigating the factors influencing Tanzanians' acceptance of digital systems and transformation. By identifying key determinants, barriers, and facilitators, this study seeks to inform evidence-based strategies and interventions aimed at promoting more inclusive and equitable digital development in Tanzania. Through rigorous analysis and empirical research, this study endeavors to contribute actionable insights to policymakers, practitioners, and stakeholders working towards harnessing the full potential of digital technologies for the benefit of all Tanzanians.

1.3. Research Objectives

1.3.1 Main Objective

The main objective of this research is to comprehensively analyze the extent of acceptance of digital systems and transformation among Tanzanians. Through empirical investigation and data analysis, the study seeks to identify the key factors influencing individuals' attitudes and behaviors towards digital technologies. Additionally, the research aims to explore the socio-economic, cultural, and infrastructural determinants that shape digital acceptance in Tanzania.

1.3.2 Specific Objectives

1. To assess the current level of digital literacy and access to technology among different demographic groups in Tanzania, including urban and rural populations, various age cohorts, and socio-economic strata.

2. To examine the cultural, social, and economic factors influencing Tanzanians' attitudes towards digital systems and transformation, including perceptions of trust, security, and perceived benefits of digital technologies.

3. To identify the barriers and challenges hindering the widespread acceptance and adoption of digital systems in Tanzania, such as limited infrastructure, affordability constraints, regulatory hurdles, and disparities in education and awareness.

1.4 Research Questions

1. What is the current level of digital literacy and access to technology among different demographic groups in Tanzania, and how does this vary between urban and rural populations, age cohorts, and socio-economic strata?

2. What cultural, social, and economic factors influence Tanzanians' attitudes towards digital systems and transformation, including perceptions of trust, security, and perceived benefits of digital technologies?

3. What are the primary barriers and challenges hindering the widespread acceptance and adoption of digital systems in Tanzania, and how do these factors differ across regions, demographic groups, and sectors?

1.5 Significance of Research

This research holds significant implications for policymakers, development practitioners, and stakeholders involved in shaping Tanzania's digital development agenda. By shedding light on the factors influencing Tanzanians' acceptance of digital systems and transformation, the study can inform the design and implementation of targeted interventions aimed at bridging the digital divide. Understanding the nuances of digital adoption across different demographic groups and regions can help tailor initiatives to address specific barriers and leverage existing strengths, ultimately fostering more inclusive and equitable digital development outcomes.

Furthermore, the findings of this research can contribute to the broader discourse on digital inclusion and socio-economic development in the African context. Tanzania's experiences and lessons learned can serve as valuable insights for other countries facing similar challenges in harnessing the potential of digital technologies for societal advancement. By disseminating research outcomes through various channels, including policy briefs, academic publications, and stakeholder engagements, this study aims to catalyze informed decision-making and

collaborative action towards building a more resilient and prosperous digital future for Tanzania and beyond.

1.6 Scope of Research

This research will focus specifically on Tanzanians' acceptance of digital systems and transformation within the context of the country's socio-economic, cultural, and infrastructural landscape. The study will encompass both urban and rural areas to capture the diversity of experiences and challenges faced by different segments of the population. However, it will primarily concentrate on mainland Tanzania, excluding the semi-autonomous region of Zanzibar due to its distinct governance structure and socio-economic dynamics.

The research will employ a mixed-methods approach, incorporating both quantitative and qualitative data collection methods. Quantitative surveys will be conducted to assess the level of digital literacy, access to technology, and attitudes towards digital transformation among Tanzanian residents. Qualitative interviews and focus group discussions will complement survey findings by providing deeper insights into the cultural, social, and economic factors influencing digital acceptance.

While the research will strive to capture a broad spectrum of perspectives and experiences, it may not be exhaustive in its coverage of all potential factors and nuances affecting digital acceptance in Tanzania. Additionally, the study will primarily focus on identifying barriers and challenges rather than proposing specific policy solutions. Nonetheless, the findings will serve as a valuable foundation for further research and policy dialogue aimed at fostering more inclusive and sustainable digital development in Tanzania.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The digital transformation landscape in developing countries like Tanzania is a subject of increasing scholarly interest. Studies by Smith et al. (2019) and Nguyen et al. (2020) highlight the potential of digital technologies to drive economic growth, enhance service delivery, and improve living standards in these contexts. However, the literature also underscores the significant disparities in digital adoption across different segments of the population, with rural areas and marginalized communities often left behind due to infrastructural limitations, affordability constraints, and low levels of digital literacy (UNESCO, 2019; Alampay et al., 2021). Understanding the drivers and barriers of digital transformation in developing countries is essential for crafting inclusive policies and interventions that address these disparities.

2.2 The effect of information quality on trust in e-government systems ' transformation.

NAME: The effect of information quality on trust in e-government systems ' transformation AUTHOR: Lee Ally and Lee Lair YEAR:2014

AIM: To investigate the effect of information quality on citizens trust on e-government systems

METHODOLOGY: The methodology used is mixed methodology which was qualitative for 20 people and web questionaire research for 1000 people.

FINDINGS: This two-phased study uncovered citizens ' perceived IQ factors and determined the influence of the IQ factors on trust in e-government system.RESEARCH GAP: It used only the value focus approach in assessing IQ characteristics that effect citizens ' trust in e-government systems.

2.3 Laying the foundations for the digital transformation of the public sector in Morocco

NAME: Laying the foundations for the digital transformation of the public sector in Morocco

AUTHOR: Organisation for Economic Co-operation and Development, author. YEAR:2018AIM: This chapter examines the potential of digital government

for regional development in a context of rapid uptake of digital technologies by Moroccan citizens and businesses.

METHODOLOGY: The methodology used is mixed methodology which was qualitative for 20 people and web quantitative research for 1000 people.

FINDINGS: Over the past two decades, the government of Morocco has progressively integrated the use of digital technologies in its internal processes to become more agile and functional,

RESEARCH GAP: It doesn’t support factors on how morrocan government become functional and agile

2.4 Digital transformation and public services : societal impacts in Sweden and beyond

NAME: Digital transformation and public services : societal impacts in Sweden and beyond

AUTHOR: Taylor & Francis

YEAR:2019

AIM: Investigate how digital transformation process affect various welfare services provided by public sector

METHODOLOGY: Quantitative

FINDINGS: Transformation to digital health care systems in Sweden

RESEARCH GAP: There is no clear description on how data was collected and measured.

2.5 Digital Transformation in Norwegian Enterprises

NAME: Digital Transformation in Norwegian Enterprises

AUTHOR:
Cham Springer Nature

YEAR:2022

AIM: Explore the process of adoption, diffusion and value generation from digital technologies

METHODOLOGY: Mixed Methodology

FINDINGS: It provided guideline for other government on importance of transformation to digital systems and convince people on acceptance of digital transformation.

RESEARCH GAP: It does not show citizens acceptance and Participation in

Transformation

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This study employs a mixed-methods research design to thoroughly examine the extent of acceptance of digital systems in Tanzania. By integrating both quantitative and qualitative approaches, the research aims to capture a comprehensive picture of digital technology adoption across diverse demographic segments.

3.2 Research Design

This study will employ a mixed-methods research design to comprehensively analyze the extent of Tanzanians' acceptance of digital systems and transformation. This approach combines quantitative methods, such as surveys, to gather broad, generalizable data, and qualitative methods, such as interviews and focus group discussions, to provide in-depth insights into the factors influencing digital acceptance.

3.3 Study Location

A stratified random sampling technique will be employed to ensure representation across different demographic segments, including urban and rural populations, various age groups, and socio-economic strata. The sample size for the survey will be determined based on the population size and desired confidence level to ensure statistical significance.

3.4 Data Collection Methods

1. Quantitative Data Collection: The primary method for collecting quantitative data will be through structured surveys. This approach will enable the collection of data from a large sample, providing a broad understanding of digital literacy levels, access to technology, and attitudes towards digital transformation.

2. Qualitative Data Collection: Qualitative data will be gathered through semi-structured interviews and focus group discussions (FGDs). These methods will provide deeper insights into the cultural, social, and economic factors influencing digital acceptance, allowing for a more nuanced understanding of the research problem.

3.5 Data Collection Tools

1.Questionaire

2.Interview

3.Focus Group Discussion

3.6 Data Collection Procedure

- Surveys will be administered either face-to-face or online, depending on accessibility and participant preference.
- Interviews will be conducted in person or via phone/video calls, depending on logistical considerations.
- FGDs will be organized in accessible locations for participants, ensuring a comfortable environment for open discussion.

3.7 Ethical Considerations

I asked for their permission before asking questions in group

CHAPTER FOUR

DATA COLLECTION, ANALYSIS AND INTERPRETATION

4.1 Introduction

To gather comprehensive insights into the acceptance of digital systems among Tanzanians, this study employs a mixed-methods approach, integrating both quantitative and qualitative data collection methods.

4.2 Research setting

The research will be conducted across various regions of mainland Tanzania, encompassing both urban and rural areas to reflect the country's diverse socio-economic landscape. By including multiple regions, the study aims to capture a wide range of experiences and perspectives on digital technology adoption, ensuring that the findings are representative of the different contexts within Tanzania.

4.3 Data Collection Tools

Focus Group Discussions (FGDs):

- **FGD Guide:** A guide for focus group discussions will be developed to structure conversations among different groups, such as youths, women, and rural residents. The guide will include prompts to explore:
    - Group experiences with digital technologies.
    - Shared challenges and opportunities related to digital adoption.
    - Collective attitudes and cultural factors influencing digital acceptance.
    - Community-based solutions and recommendations for improving digital access and literacy.

4.4 Data Collection Methods

1. Quantitative Data Collection: The primary method for collecting quantitative data will be through structured surveys. This approach will enable the collection of data from a large sample, providing a broad understanding of digital literacy levels, access to technology, and attitudes towards digital transformation.

2. Qualitative Data Collection: Qualitative data will be gathered through semi-structured interviews and focus group discussions (FGDs). These methods will provide deeper insights into the cultural, social, and economic factors influencing digital acceptance, allowing for a more nuanced understanding of the research problem.

4.5 Data Analysis Techniques

The data collected through the mixed-methods approach will undergo rigorous analysis to derive meaningful insights. Quantitative data from the structured surveys will be analyzed using descriptive and inferential statistics. Descriptive statistics will summarize key variables such as digital literacy levels, access to technology, and usage patterns, while inferential statistics, including chi-square tests and regression analysis, will explore relationships and identify significant determinants of digital acceptance.

4.6 Research Findings

RQ1:How oftenly do you use digital technology

Daily Usage: The data reveals that individuals, especially students, frequently use digital technologies such as smartphones and the internet on a daily basis. This suggests a high level of engagement with digital tools among certain demographics, particularly those involved in education.

Research Qn 2: **Access to Information and Education:** Digital systems are perceived to significantly improve access to educational resources and information. Students in remote areas can now participate in online classes, which was not possible before, indicating a positive impact on education.

Research

Qn 3: Identify the barriers and challenges hindering the widespread acceptance and adoption of digital systems in Tanzania

- **Limited Infrastructure:** A significant barrier is the inadequate infrastructure, including unreliable electrical supply and inconsistent internet connectivity, especially in rural areas. This limits the use of digital technologies.

4.7 Interpretation of Findings

1. Current Level of Digital Literacy and Access:

- **High Engagement Among Students:** Tanzanian students use digital technologies like smartphones and the internet daily, indicating a relatively high level of digital literacy and integration of these tools in their educational routines.

- **Popular Platforms:** Platforms such as Whats app, Google, Zoom, and social media are widely used for communication, education, and recreation, showing their central role in everyday activities.

2. Cultural, Social, and Economic Influences:

- **Educational and Social Benefits:** Digital systems are seen as significantly enhancing access to education and improving social connectivity, especially in remote areas. This suggests a positive attitude towards digital tools for their practical benefits.
- **Service Improvement:** The adoption of digital systems has improved access to essential services like education and healthcare, which became particularly evident during the COVID-19 pandemic, highlighting the transformative potential of digital technologies.

3. Barriers and Challenges:

- **Infrastructure and Cost Issues:** Inadequate infrastructure (e.g., unreliable electricity and internet) and high costs of digital devices and services are major barriers to wider adoption. These issues are more pronounced in rural and low-income areas.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this data analysis and interpretation project, we embarked on a comprehensive journey to transform raw data into actionable insights. Our objective was to systematically analyze the dataset, extract meaningful patterns, and derive conclusions that could inform decision-making processes

5.2 Conclusion

The research reveals a dynamic landscape of digital technology adoption in Tanzania, characterized by significant engagement among students and the widespread use of platforms like Whats App, Google, and Zoom. While digital systems have positively impacted access to education and social connectivity, particularly in remote areas, the widespread adoption of these technologies is hindered by substantial barriers such as inadequate infrastructure, high costs, and technical challenges. These findings highlight both the transformative potential of digital systems and the critical areas that need attention to achieve more inclusive and equitable digital integration across the country.

5.3 Recommendations

To enhance the acceptance and adoption of digital systems in Tanzania, it is crucial to address the infrastructural and economic barriers that limit access. The government and private sector should collaborate to improve internet connectivity and electrical supply, particularly in rural areas, and make digital devices and services more affordable. Additionally, expanding digital literacy programs and providing targeted training can empower more Tanzanians to use digital tools effectively. By fostering a supportive environment and addressing these challenges, Tanzania can fully harness the benefits of digital transformation for socio-economic development.

References

1. University Of Dodoma Institutional Repository.
2. Google Scholar

APPENDICES

Appendix 1: Interview Questions:

1. Can you describe your experience with digital technologies in your daily life?
2. What digital tools or platforms do you use regularly for work or personal purposes?
3. How has the adoption of digital systems impacted your profession or industry?
4. What are the main challenges you face when using digital systems in Tanzania?
5. Have you observed any specific trends or changes related to digital transformation in your community?

Appendix 2: Questionnaire tools for students **Closed-Ended**

Questionnaire Items:

1. How frequently do you use the internet? (a) Daily (b) Weekly (c) Monthly (d) Rarely (e) Never

2. Which digital services do you use regularly? (Select all that apply)
    - Social media
    - Online banking
    - E-commerce platforms
    - Mobile money services
3. How satisfied are you with the reliability of internet connectivity in your area?
    - Very satisfied
    - Satisfied
    - Neutral
    - Dissatisfied
    - Very dissatisfied
4. On a scale of 1 to 5, how comfortable are you with using mobile apps for everyday transactions? (1 - Not comfortable at all, 5 - Very comfortable)
5. What is your primary device for accessing the internet?
    - Smartphone
    - Laptop/desktop
    - Tablet
    - Other (please specify)