Integration of ICT Infrastructure in service provision and its economic effect on households in Kenya

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Abstract- Information and communication technologies (ICTs) developments have taken place in Africa with the significant growth over the past decade. This study will seek to assess the economic effects of technological integration of ICT in service provision and the economic impacts on households in Kenya. This study will employ a cross-sectional survey. The survey will be of existing commercial enterprises drawn from within Nairobi Countyin Kenya. A sample of 100 enterprises will be selected using stratified random sampling while the subjects for each stratum will be obtained using convenience sampling technique. Data will be collected through the use of primary and secondary data collection methods. The primary data will be collected using a semi-structured questionnaire, having both open-ended and closed-ended questions. Secondary data will be the data that already exists in various records because they are collected for other purposes other than that of the research at hand. Data analysis will be done by content analysis, mean and standard deviation, correlation and multiple regression. It is expected that from this research, future researchers will benefit with useful information and data. The ICT firms, industry and the government will also get some valuable information which may be of use in formulating strategies and policies. Following the launch of M-Pesa money mobile technology in 2007 in Kenya and the emergency of other mobile application like Jumia, Jiji, Uber, Whatsapp among many others, several household have benefited from its convenience, safer and reliable services which in return have enhance their economic status. Many organizations are stepping up the pace to increase the size of investment in ICT due to the benefits accruing on such investments and as a result organizations, and hence ICT departments, are under increasing pressure to achieve an above-average performance using ICT. Apart from mobile money transfer, other service providers in diverse industries have incorporated the use of ICT in providing services to their customers such as banks, insurance companies, health industry, hospitality, retail outlets amongst many others. This has brought efficiency and effectiveness as well as major increase of the volume of service provided. The epitome of ICT in service provision was during the Covid 19 peak period that set in Mid-March 2020 to September 2020, the Kenyan government with the introduction of some well thought out containment measures appealed to Kenyan to make use of mobile transactions to pay for goods and services. This therefore meant that all business people across board had to embrace mobile transactions. The financial institutions responded to this requirement by waiving or reducing transaction charges as well as increasing the daily transaction amount. With this containment measure, the attitude of Kenyans towards online money transactions changed and this has set a new dawn where most people to not carry hard currency.

Index Terms- Information Communication Technology, Business Performance, Mobile Phones technology, Internet, Social Media, Broadcast Media Technology

Article Classification - Research paper

Significance of the study: Most sectors of the economy have embraced ICT in their quest to achieve customer satisfaction effectively. Likewise, this has meant that the customers must likewise appreciate and interact with ICT in their daily lives. This paper will the merits, demerits and drawbacks to both the service provider and the customer and recommend on how the existing gap can be closed to bring the two parties at par. The research work will also equip the Kenyan ICT policy makers on issues that need to be addressed so as to assist the

household decision makers to demystify ICT so that they can gain from the convenience. It will also help institutions that depend households for their economic activities to open up on the range of services that can be offered and transacted through the ICT infrastructure for improved business environments. According to Kenya Digital Economy, (2019) the country's ICT sector was set to contribute up to 8% of the country's GDP through IT-enabled services (ITES) and create 250,000 jobs by the end of 2020. However, this prediction was disrupted by Covid 19 and therefore this paper will establish to what extent this disruption interfered with achieving this objective.

I. INTRODUCTION

Information Communication Technology (ICT) infrastructure is made up of seven components which include computer hardware platforms, operating system platform (software), enterprise and other software applications, data management and storage, networking and telecommunication platforms, internet platforms and consulting and system integration services. This paper will concentrate on the latter component as it is the one that is relied on so as to integrate a business organization's legacy systems with innovative technology and infrastructure in an endeavor to provide cutting edge expertise. This aspect comes in handy in implementation of new infrastructure along with relevant integration of technology driven business processes, capacity building efficiency. Every entity optimizes the use of these seven components and in most cases explores the option of up scaling the existing legacy systems to steer older transaction processing systems to ensure that the high cost high cost of replacing or redesigning them is minimized.

The term ICT is extension of the use of use information technology that is computers to store acquired data, retrieve stored data, transmit data from a source to a desired point, and manipulation of such data or information to complete a process or perform a transaction. It emphasizes the role of unified communication to provide interface and user experience through multilayered devices and different media types. Thus, ICT has become a backbone through which economical, societal and interpersonal transactions and interactions by individuals and organization are carried out leading to a dynamic digital world. The ICT component range will continue to grow depending on the level of invention and innovation. This is based on the fact that whereas previously the hardware component included the desktop computers, laptops, servers and storage, smart phone devices are now an addition to this category. Parasuraman and Colby (2015) opine that technology readiness (TR) is a major driver of innovative products and services. This determines organizational and personal readiness to adopt and embrace technology.

ICT- Household-Environment Framework (ICTHE)

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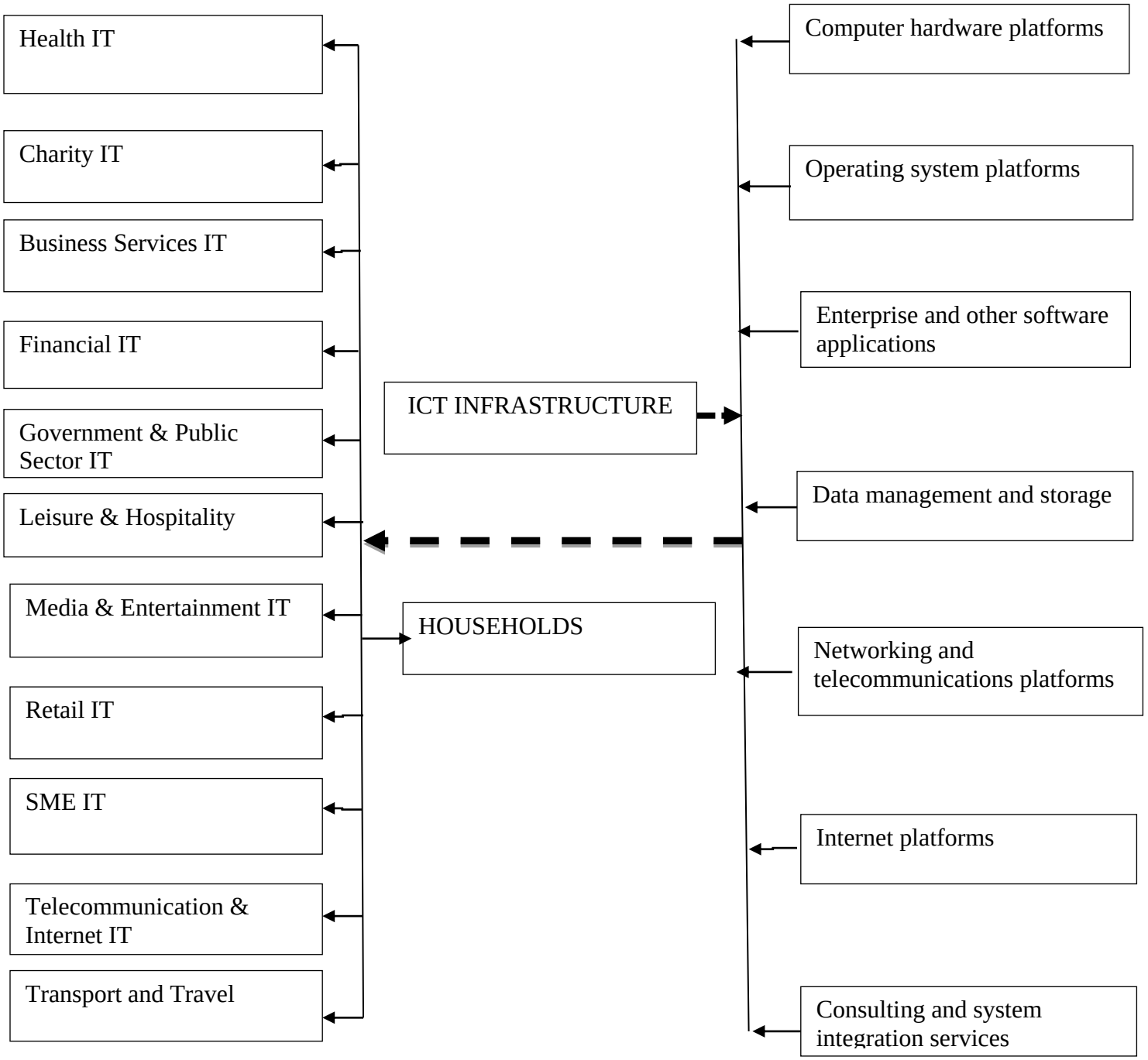

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