ASHESI UNIVERSITY

AN EXPLORATION OF THE IMPACT OF TECHNOLOGY AND DIGITIZATION ON
COMMERCIAL QUALITATIVE RESEARCH IN GHANA.

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B.Sc. Business Administration

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DECLARATION

I hereby declare that this thesis is my original work and that no part of it has been presented for another degree in this university or elsewhere.

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I hereby declare that the preparation and presentation of this thesis was supervised in accordance with the guidelines on supervision of theses established by Ashesi University.

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Abstract

Over the last few decades the world has witnessed an increase in the use of technology across industries and brought along with it digitization. The qualitative market research space has not been an exception. Ghana, which like many other African countries lacks bodies of knowledge on this branch of research which depends heavily on the interventions of human researchers and subjects has also witnessed increased technology use. This research paper therefore explored how technology and digitization has impacted the commercial qualitative market research industry in Ghana by answering the following research questions;

1. What forms of technology are available to qualitative market researchers in Ghana, and how have they been used?

2. In what ways has technology impacted the commercial qualitative research space in Ghana?

3. How can market research personnel in Ghana successfully moderate the impact of technology and digitization to better their work outcomes?

A review of literature from different authors was done to build a conceptual framework for the study, with the final stage of the ICT4D value chain developed in 2009 being settled on. Three skilled qualitative researchers from three commercial market research firms in Ghana, were interviewed to get a sense of their perceptions of technology's impact on their work, with one of the firms was observed closely as well. The data collected was then analyzed and themes identified as; access to respondents, duration of projects, roles of researchers and data management. By analyzing the unique experiences and perceptions of the researchers, lessons were drawn on how researchers could sustainably improve the qualitative research process in the presence of new technology and recommendations made for industry as well as for future research.

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CHAPTER 1-INTRODUCTION

1.1 Background

A 2020 global research study of the global business environment spearheaded by Kantar TNS, a leading research firm, showed that of all the features a firm needed to sustain good business growth, its insights engine was the most crucial. An insights engine describes a firm's coffer of market and consumer intelligence supported by technologies like artificial intelligence and machine learning. The study concluded by outlining specific building blocks that had been identified to assist firms successfully create and sustain growth for all key parties especially their customers. These blocks when combined ideally focused on; being human-centric, recognizing and addressing the needs of all stakeholders, delivering ever-evolving experiences for customers and tapping into the limitless power of the combined force of creativity, data and technology.

Bill Gates, the founder of the world's leading software manufacturer, Microsoft, once described information technology and business as inextricably interwoven, with each being almost ineffective when considered without the other. Information technology is a term coined to describe the use of any form of technology to process, store and communicate any type of information (Terashima,2002). Technology has been defined widely by different entities, and one such definition described it as a two-fold resource consisting of both a physical and an informational aspect. The physical aspect according to this definition is made up of things such as products, processes, blueprints and machines, while the informational aspect consists of 'knowledge' in the form of insights or capabilities in different aspects of work (Kumar et al, 1999, as cited in Wahab, 2012). Other definitions by Lovell (1998) and Bozeman (2000) describe technology as not only the expertise encompassed in a product but the application of this expertise in other forms as well. Technology in its different forms has been described as an indispensable tool that the success of

every business depends on whether heavily or otherwise and allows them to get and possibly maintain a competitive edge over competitors (Kolaski, 2018).

Data, which also moves hand in hand in with technology encompasses little different pieces of information, some of which may or may not be relevant for a certain cause (Sanders, 2016). As the definition suggests, data is vast and can come in many different forms, thus leaving the decision to the user as to what they consider relevant or useful. This brings up the discussion of how much data is available to businesses globally and how they can successfully navigate through the plethora of data. Data is growing at rapid rates as new forms of technology are being created and together are spearheading change in economies globally (Kagermann, 2014). As a result, data credibility is has become an issue, forcing firms to become more intentional and strategic about their use of technology and all that comes with it. Unavoidably, this weighs heavily on firms' monetary resources and time therefore increasing the need for commercially generated reliable firm or industry-specific data especially for entities that cannot afford to manage independent research departments.

With technology came the creation of a 'virtual universe' made up of platforms such as the Internet, where data and information is made available to people online. This availability of information on such channels has largely been facilitated by digitization, which is the conversion of data and information into digital form such that it can be read, processed, stored and shared by computers (Bloomberg, 2018). Kagermann (2014) also described digitization as the convergence of real and virtual worlds made possible by Information and Communication Technology, and in addition the connecting of people regardless of geographic location or scope. A study ranking the most important qualities of service delivery to consumers showed that 82% placed high value on speed (Guta, 2018). This estimate may increase further owing to the now fast-paced nature of the

'digital era', which makes consumers demand more from their service providers. Similarly, users of data have become keener on getting access to useful and quality data in the shortest possible time.

1.2 Technology and Digitization in Ghana

This research study will cover technological changes and the impact of digitization in the country of Ghana, a West African nation with a population of an estimated 29 million (World Bank, 2019). The country runs under a democratic system of government and has been noted to be one of the most peaceful countries in the West African sub-region. It has chalked many economic successes and has also been described as one of the fastest growing economies in Africa, noting an estimated 6.7% growth in its GDP in the first quarter of 2019 alone (World Bank, 2019).

Ghana was interestingly identified as the first African country to get access to internet after its initiation in the year 1994 (ICT Catalogue, 2020). It now houses over 140 ISPs in the country catering for users spread across the nation, and the need for access to reliable internet services has seen the growth in the telecommunications industry which is leading the digital revolution taking place in the nation (ICT Catalogue,2020). Kimura (2015) in an article highlighting the implications of digitization in Ghana, described the phenomenon as "more than just capturing paper records into a digital format", but also encompassed the complete process of data identification, data accessibility, transformation and storage using technology. However, the proliferation of technology into the Ghanaian system and economy like many African countries has been slower compared to other parts of the world. However, in recent years many African governments including the government of Ghana have made it a point to be more intentional and strategic with the use of technology and embrace digitization in order to stay abreast with the rest of the world. The Finance Minister of Ghana, Mr. Ken Ofori-Atta for example expressed the government's

intention to focus on digitization, to pave way for innovation and transformation in the nation's economy (Ghana News Agency, 2019). The government has therefore over the year prioritized partnerships with the private sector, to facilitate the digitization of administrative systems across the country, like that at the ports and immigration offices. The introduction of the paperless port systems, digitized driver license registrations and mobile money interoperability are just a few examples of how the Ghanaian economy has been made digitized (Ghana News Agency,2019). These structures have reaped many benefits, for example increasing transparency in government institutions, easier revenue mobilization and increased financial inclusion across different social classes in the country.

For private businesses in the country as well, having to digitize some part of their business has been inevitable. To remain relevant, businesses must stay abreast of trends which also continue to change quickly in this era. They must also be well prepared for change to meet the needs of customers (Atigah, 2019).

1.3 The State of Research in Ghana

Research shows that most of the data gathered in Ghana currently is neither mined or harvested for value-generation purposes, and often ends up as valueless, unstructured data (Kyerematen-Jimoh, 2018). As expected, data on the research industry is woefully lacking. For commercial research the last ten years has seen an influx of foreign research firms like Ipsos and Kantar into the country, to cater for the steady growing demand for commercial research data. These multinational firms have access to newer and more improved technologies and conduct private research work on their own as well.

Although the presence of such firms offer new opportunities for research to reach new heights in Ghana, their advantaged position puts them at a place that is almost out of the reach of

the typical business entities in Ghana, who may not be able to afford their services. To fill this gap, several indigenous commercial research firms have sprung up, but also face their unique challenges when it comes to expertise. Besides, a good number of trained local researchers either work as consultants to firms or work under research or marketing departments for corporate bodies as opposed to venturing off into private commercial practice which comes with a fair share of challenges. Till date, a unique body by which local researchers can be identified, has not been formally established in the country. This has made access to information about researchers difficult and has put the pooling of resources and expertise almost completely out of the reach of indigenous research practitioners who could have benefitted the most from unionization.

1.4 Problem Statement

The primary role and purpose of research is to facilitate the discovery of ideas and creation of theories to contribute to the development of bodies of knowledge (Morse & Field, 1996). The qualitative branch of research caters for the conceptualization of real life and capturing of unique experiences of people in a manner that keeps this knowledge separate from that of the researcher's beliefs (Morse & Field, 1996). With the help of technology, qualitative researchers can now not only reach out to more people, but collect, process and distribute findings from their research faster and easier. This has been manifested by the move from the use of analog systems like handwritten notes and tape recordings to collect data to the use of technologies such as transcription software and online meeting rooms now.

The proliferation of technology into qualitative research also brought about digitization, which changed the way and form of information storage and dispersal. Early qualitative researchers who witnessed the beginning of technology proliferation expressed fears about its use altering the known and established analytical and methodological structures in the field since technology came

with its own unique biases (Davidson & Di Gregorio,2007, as cited in Moylan, Derr, & Lindhorst, 2015). For quantitative research however, it has been evident that the correct application of technology has contributed greatly to increasing efficiency, speed and expanding the limits of the researcher without necessarily altering the key structures (National Academy Press, 1989). Owing to these changes, new problems have arisen in the research space that researchers must be aware of in order to preserve the quality of the research they conduct. One such example for qualitative research is the widened gap between the researcher and the subject, which can affect the depth of the research if not checked (Gibbs, Friese & Mangabeira, 2002). Another which could double as an advantage is the characterization of the research industry (qualitative research included) by speed and innovation. This development has increased client expectations of research they pay commercial research firms to provide them with. These commercial research firms now by all means, must find ways rise to the challenge in order to stay relevant and stay in business.

For researchers in Ghana, there is an even bigger challenge of firstly catching up with the rest of the world in terms of research technology use, and at the same time mastering the use of the available technology locally to deliver superior value for clients. Therefore, in their use of this current technology which has increased the complexity of their jobs, qualitative researchers in Ghana must stay well-informed and constantly up their expertise. A survey of data available about successfully navigating through the technological era of qualitative research conduct showed a great gap in the study of the subject especially in the African context, where technological advancements have been relatively slower as compared to other parts of the world. This finding motivated this study of the impact of technology and digitization on commercial qualitative research in Ghana.

Technology is evolving and will continue to take over different aspects of business. Although it offers a host of benefits to researchers in the qualitative research field, it could generate even better outcomes if the researchers were equipped with knowledge on how to optimize the benefits and possibly moderate any drawbacks of technology use. This study will therefore explore current technology available to and used by qualitative market researchers in Ghana and zoom in on how its use has impacted the outcomes of their work. This will be done with the objective of drawing lessons from the findings to feed to make recommendations for best practices for technology application in qualitative research conduct in Ghana.

1.5 Research Objectives

1. To explore the availability and use of current technology in the conduct of commercial qualitative market research in Ghana.
2. To investigate how the use of technology affects the outcomes of the qualitative research process.
3. To identify best practices that researchers in Ghana can adopt to provide superior results for their clients in this technological era.

1.6 Research Questions.

1. What forms of technology are available to qualitative market researchers in Ghana, and how have they been used?
2. In what ways has technology impacted the commercial qualitative research space in Ghana?
3. How can market research personnel in Ghana successfully moderate the impact of technology and digitization to better their work outcomes?

1.7 Significance of the study

The findings from this study will contribute to the body of knowledge concerning qualitative market research conduct especially in the African context, which is quite limited. The increasing demand for quality research data globally also justifies the need for better and more effective research practices that inculcate technology, which is taking over the world. The current state of market research all around the world, to a large extent, requires the use of some form of technology. It has become necessary since this branch of research, like other fields, is seeing drastic changes, especially with the influx of information and communication technologies. The use of phones, computers and social media platforms to conduct research now shows how much qualitative research conduct is moving away from traditional market research practices. The world of business now being characterized by speed and agility with technology acting as the trigger of fast-paced innovation across industries, which puts businesses under a lot of pressure to deliver or risk getting left behind (Kagermann, 2014).

Qualitative research has often been described as a supplement to quantitative research. It acts as a means of deriving insights into the reasons behind human behaviours, choices, and reactions. It fills in the 'why' gap that quantitative research, in most cases, cannot explain. The findings are what feed into shaping policies, product design, and marketing strategies, and this shows how vital the qualitative research field is. Firms in the research industry, must illustrate a competitive edge to win in the market, this is an advantage that technology can offer them. Just like any area of expertise, qualitative research has pillars that guide the way research is conducted and how findings are made. It has therefore become economically and commercially wise to be more intentional and more informed about data gathering and analysis. As highlighted earlier it is inevitable that certain elements in qualitative research conduct will change with the introduction

of technology, and this some has resulted in some resistance from researchers. However, research shows that these fears dissipate as the researchers become more familiar with the technologies and master their applications and this increase in expertise quickens the spread of technology use in the given field (Gilbert, Jackson & Di Gregorio, 2014).

It is therefore prudent to investigate what some of the implications of technology could be to equip researchers with more knowledge. Findings from this study will assist qualitative researchers in Ghana have a better understanding of technology use in their field, offer ways they can reap more benefits from their current technology use and essentially provide more value for their clients-which will enable them excel in their practice. It will also offer ways they can moderate any possible demerits of technology use. For researchers in Ghana where technology use in qualitative research conduct is still not widespread and intensive, this could be an opportunity to expand their horizons and stay ahead in their field by utilizing more technology with the right understanding of how it benefits them.

The rest of this paper will contain a review of literature also exploring similar issues relevant to the topic at hand and discuss an underlining theoretical framework which will be the basis of the study. The methodology will give a breakdown of the research design for the collection of primary data, key findings discussed, and recommendations made for personnel in the market research field in Ghana with light also thrown on challenges and limitations faced in undertaking research for this paper in subsequent chapters.

CHAPTER 2- LITERATURE REVIEW

2.1 Introduction

This chapter will discuss a variety of literature linked to the use of technology in qualitative research enquiry globally and how the space has been transformed by digitization over the years. It will zoom in on the state of qualitative market research in Ghana in the presence of new technology and how research in Ghana is responding to now technological developments. It will also round up with a by reviewing the work of other authors who have designed frameworks that essentially can help assess the impact of technology in its different forms relevant to this study, like ICT and digitization of information.

2.2 Technology Use and Digitization in Qualitative Market Research

In the book Questioning Technology, Feenberg described technology as an essential medium that humans could use daily to their benefit only if they grasped its great power (Feenberg, 2012). In his opinion, it was so powerful that humans needed to study its nature and capabilities in order to "be liberated from its control". Like the description by Feenberg, technology has been described as an evolving force which is becoming more and more widespread in various aspects of business including qualitative research. However, Alan Pauu in his 2001 study expressed the vastness of the definitions of technology. The author highlighted some examples which spanned from the application of knowledge, intellectual property, to the use of tools, methods and know-how to undertake a process (Pauu, 2001). He also acknowledged that the variations in the definition came about as a result of professional biases that led people to describe it based on their unique outlooks. What has been established is that, just like its varying definitions, technology comes in different forms. Two such examples are information technology and communication technology. They have been noted to have had the greatest impact on the branch of qualitative research, whose

processes are now being changed as a result of the evolution of these technologies (Brown, 2002). In addition, the creation and proliferation of technology in the research space has come with digitization of processes and data forms which is in turn changing how we communicate (Brown, 2002).

Redlich-Amirav and Higginbottom (2014) discuss the evolution of qualitative research technologies the last decade noting that communication technologies having the most profound impact on the field. Qualitative enquiry they noted however, first began with traditional means of data collection and analysis mainly comprising of interviews, observation and document reviews which all required some level of physical interaction between the researcher and the respondent. In-person interactions with participants allowed researchers to grasp deeper findings as they were able to establish closer relationships with them. In the late 1900s however, the communication technology evolved and led to the use of telephones for example for interviewing, they were then integrated into the system and found to contribute greatly to research efficiency (Stephens, 2007). Gibbs, Friese and Managabeira (2002) however believe that although such new approaches reduced the weight of work on the researcher, it resulted in a widened gap between the researcher and the data especially with the introduction of third parties like note-takers. This could therefore create two main outcomes; it could increase the researchers' ability to create a deeper analysis of the data or it could backfire and reduce his or her ability to 'relate' to the data. This disparity between views has also brought about the theory of 'digital convergence'. This phenomenon describes the idea of merging both new and old research technologies in synergistical manner (Brown, 2002). Covell (as cited in Brown, 2002) also explained that this meeting of new digital and multimedia technologies paved way for improved ways of communication among humans (which qualitative research runs on) and improved collaboration.

Interestingly, formerly 'new' technology in qualitative research, like the use of tape recorders and even phone calls are slowly becoming obsolete as they only offer data in analogue form as opposed to digital data that the technological era of business now runs on. Digital information offers the advantage of transmitting real-time data to researchers as it is being generated. One such example is the use of Closed-Circuit Television (CCTV) systems that research companies in advanced parts of the world use to capture videos of their clients (with permission) and receive live digital telecasts (Gibbs et al., 2002). The ubiquitous use of such technologies in those parts has also made their respondents more comfortable and willing to partake in research studies especially those of qualitative nature, because these modern systems do not directly interfere with their lifestyles. With technologies such as the CCTV footage and live streaming on social media platforms like Instagram, respondents can go about their daily activities, while researchers receive data on what they are looking for. For example, clothing and apparel firms in the United States can gauge their consumers love for their products through live "try-on hauls" and online discussions. In most parts of Africa however, because technology has not caught on as much and is still not as widespread, people are less willing to partake in such research studies.

In the year 2013, a research study was conducted to explore the use of mobile technology in qualitative research inquiry in Africa with Kenya as the case study. Two institutions for higher education were used and a sample of the university students taken for the study. Johnson (2013) found that the use of mobile phones in qualitative data gathering facilitated wider access to respondents, and increased participation rates. However, the author noted the unique bias of the study sample was that it was made up of only educated young people who were more likely to be tech-savvy. The author worked with the assumption that students at this level, were more likely to communicate officially with email systems more but was surprised to find that the respondents

opted to be contacted via phone which improved response rates drastically. Vast cultural disparities were found between the case in Africa (Kenya) as compared to the authors country of origin, USA. The author expressed some level of cultural dissonance where there were records of respondents agreeing to partake in the interviews without much familiarity between them and the researcher, however most responded after many missed calls. Thus, people in this sample were more open to giving out information where technology was available.

Johnson (2013) acknowledged the work of other researchers who pointed out existing digital divide between Africa and the rest of the world. Interactions with her respondents also gave her knowledge of how mobile phone usage was more common in many villages in Kenya with inhabitants owning one to two phones each. However, phones were found to be the only main form of 'extreme' technology most of the locals were exposed to and for some of it was even a shared property of an entire family. This meant that for most 'lower-class' individuals, there was little to no exposure to more 'sophisticated' technology like smartphones and laptops that modern day qualitative researchers could make use of. In her concluding statements, Johnson (2013) acknowledged the existence of cultural differences between people in different parts of Africa. The study however, found that in Kenya, the mobile phone facilitated good communication between researchers and participants very much.

Similarly, another study on the digitization of consumer research found that tools such as the internet had not only increased the possible sample of respondents researchers could access but created the opportunity for new types of research. For example, firms could now track online traffic on their websites, create online replicas of their products and services to elicit reactions from different groups of people including their consumers (Johnson, 2001). Other authors have described the internet as a flexible technology which different people can now use for their unique

purposes. Palys and Atchison (2012) argued that the internet since its inception has single-handedly facilitated communication and information sharing across countries and across diverse social groups, much more than any other technology has.

The use of information and communication tools is still woefully low although the African continent has seen an over 50% increase in mobile phone penetration despite the lagging infrastructural and economic indicators (Massachusetts Institute of Technology, 2009, as cited by Johnson, 2013). Some main issues identified as causes of low research response and turnout rates for qualitative studies in the sub-region included health issues, location accessibility and low literacy, these all now look addressable with the use of mobile technology (Johnson, 2013). This goes to show that the state, perceptions and conditioning of a people in an organization or community influences their use of technology and their ability to draw benefits from it. Apart from the ability of people in Africa to embrace and utilize technology faster and easier, unique circumstances like socio-cultural elements as well as political dynamics tend to be different from that in other parts of the world.

Although not much data was available on the technology use in qualitative research inquiry in Ghana, indications from the previously discussed research studies in the Africa sub-region could be good indicators of what the case is on the ground. The World Bank anticipated that the country along with a few others on the continent would record some of the best economic growth figures in the year 2018. Kyerematen-Jimoh (2018) however argued that, for this to come into fruition, Ghana, had to up its investment in technologies of various kinds and equip its human resource with the skills needed to stay abreast with technological advancements globally. Indications from the article show that the country's information and technological systems left much to be desired, with most of the data existing being unstructured and thus having little value. This left private research

entities with an even bigger task of spearheading research transformation and data-driven business using appropriate technology. The commercialization of research is however becoming a very competitive trade, which now means that research firms must carve out niches for themselves in the market and offer unique value to their prospective clients through specialization (Sunderland & Denny, 2007). This therefore offers a promising future for research and data gathering in Ghana since firms in that field will continually work hard to out-do themselves.

2.3 Measuring the Impact of Technology

For the measurement of technology's impact to be necessary, human beings must first make use of this technology. Therefore, the underlying theoretical framework of all subsequent technology acceptance and technology usage frame works will be discussed and lead up to the conceptual frameworks developed to measure the impact of information and communication technologies used for specific projects. This will there help give a structure for which the study will capture and analyze data.

2.3.1 Reasoning Behind Technology Use

As rational beings, humans make decisions that are most beneficial to them. The creation of tools and machines has therefore occurred to help humans achieve their goals and objectives. Technology is one such tool. In 1989, the Technology Acceptance Model (TAM) was created by Davis and has since seen some revisions with the creation of the Technology Acceptance Model 2 (TAM 2) by Davis, Bargozzi and Warshaw in 1989. It was a framework that outlined the reasoning behind humans' use of technology which Davis identified was influenced by stimulus- which describes "reasons" why they tried out certain tools and perceived certain capabilities of the tools (Davis, 1985 as cited in Chuttur, 2009). As seen in Figure 1, the framework was made up of three main variables, all ideally leading to 'the use of a particular system'. External variables described

a person's exposure to a type of technology which could build a perceived level of usefulness in their minds and gauge how much skill or training they needed to have to be able to "use it easily". These two then built in the person, either a positive or negative attitude towards the use of that technology, which would lead them build an intention to use it or not. If this intention was positive based on their first "impression", they would go ahead to use the technology (Davis et. al, 1989). This framework can be seen below in Figure 1.
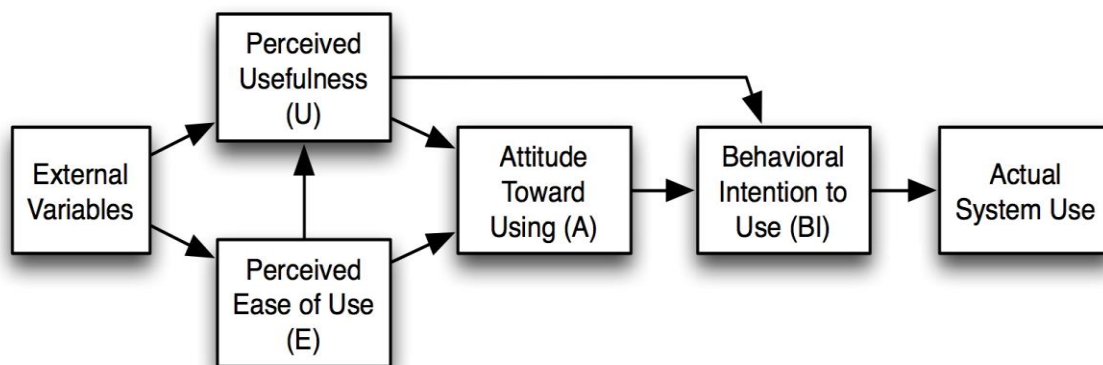
Fig 1: Technological Acceptance Model 1 (TAM).
Source: Davis, Bagozzi & Warshaw, 1989.

Further revisions by Davis himself in 1993, linked system characteristics to how useful a form of technology was believed to be. By analyzing this decision made by human beings Davis was able to model a framework that ideally captured all decisions made around the choice of whether or not to make use of technology based on the benefits that would come with its use and not just by virtue of its specifications. However, in a further study, the external variables were defined more properly into societal factors as well as personal factors. The authors believed that, a person's use of technology or their willingness to use a technology. This revision also threw

more light on variables that could influence perceived usefulness more and would facilitate easier

acceptance and higher usage. They concluded that some of these variables would include, the

person's experience using similar technology, quality of output, job relevance, production of

needed results and then the perceived ease of use as well (Davis & Venkatesh, 2000). This revision

brought about the second model of the framework and named TAM 2.

2.3.2 Frameworks for Measuring the impact of Technology

A framework for measuring the impact of the use of forms of technology in an organization

was built on the principle of data processing in ICT, using the basic principle of inputs being

processed to create outputs. Similarly, any form of technology used to achieve a certain goal

represented an input into a value chain to undertake a process and produce an output. The ICT4D

framework outlines this process in a more detailed format breaking the system into four main parts,

mainly measurement of readiness, availability of funds and technologies, uptake into the system

and then finally the expected outcome or impact (Heeks & Molla, 2009). As seen in Figure 2,

before impact can be measured, there are forerunners to the use of a form of ICT, which comprise

of the demand or need for the technology, the availability of the technology, which when

'available' leads to use and then impact. Now, for the impact stage, the authors believe that impact

itself is manifested in three main forms; outputs, outcomes and development impacts (Heeks

&Molla, 2009). These elements represent different ways in which impact is represented; outcomes

describe any changes in the actions and behaviors of people in an organization as a result of the

technology use, outputs encompass quantifiable financial and intrinsic benefits that come about by

virtue of the ICT project being done and finally the development impacts represent the contribution

of the project to achieving the larger societal goals (Heeks & Molla, 2009, as cited in UNCTAD,

2011). The full breakdown of the ICT4D Value Chain can be seen below in Figure 2.
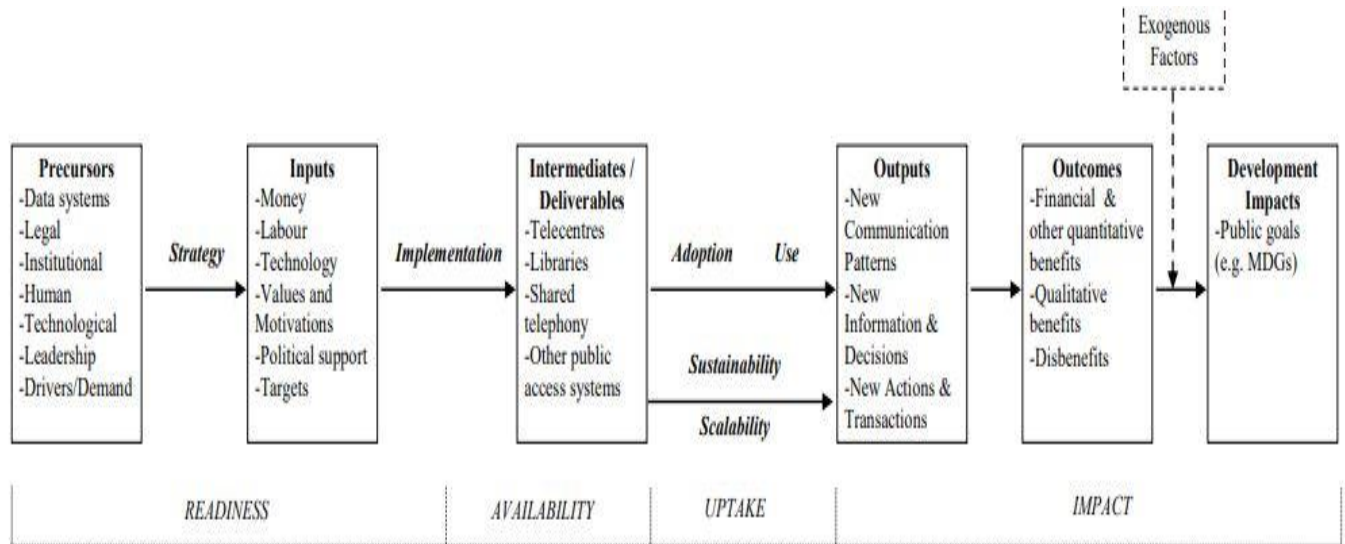
Fig 2: ICT4D Value Chain.
Source: Heeks & Molla 2009.

Another conceptual framework designed to aid in the measurement of the impact of technology was created by the OECD in 2007, it approached the issue differently. For the OECD, the larger societal impact was very key to consider, whenever a type of technology was used. This framework used a hypothetical 'information society' to represent an organization where ICT would be used. An information society describes a community where information sharing, processing and distribution is a significant part of the creation of value. This can be likened to the global situation now where data and information is running economies and has become a 'currency' to some extent. This framework considers groupings of certain technological segments in a society as being interrelated and come together to 'run' and information society. There forces are namely; the demand of ICT, its creation and supply, the systems and structures that facilitate its use, technological tools and also considers ICT is the broader societal view (OECD, 2007, as cited in UNCTAD, 2011).
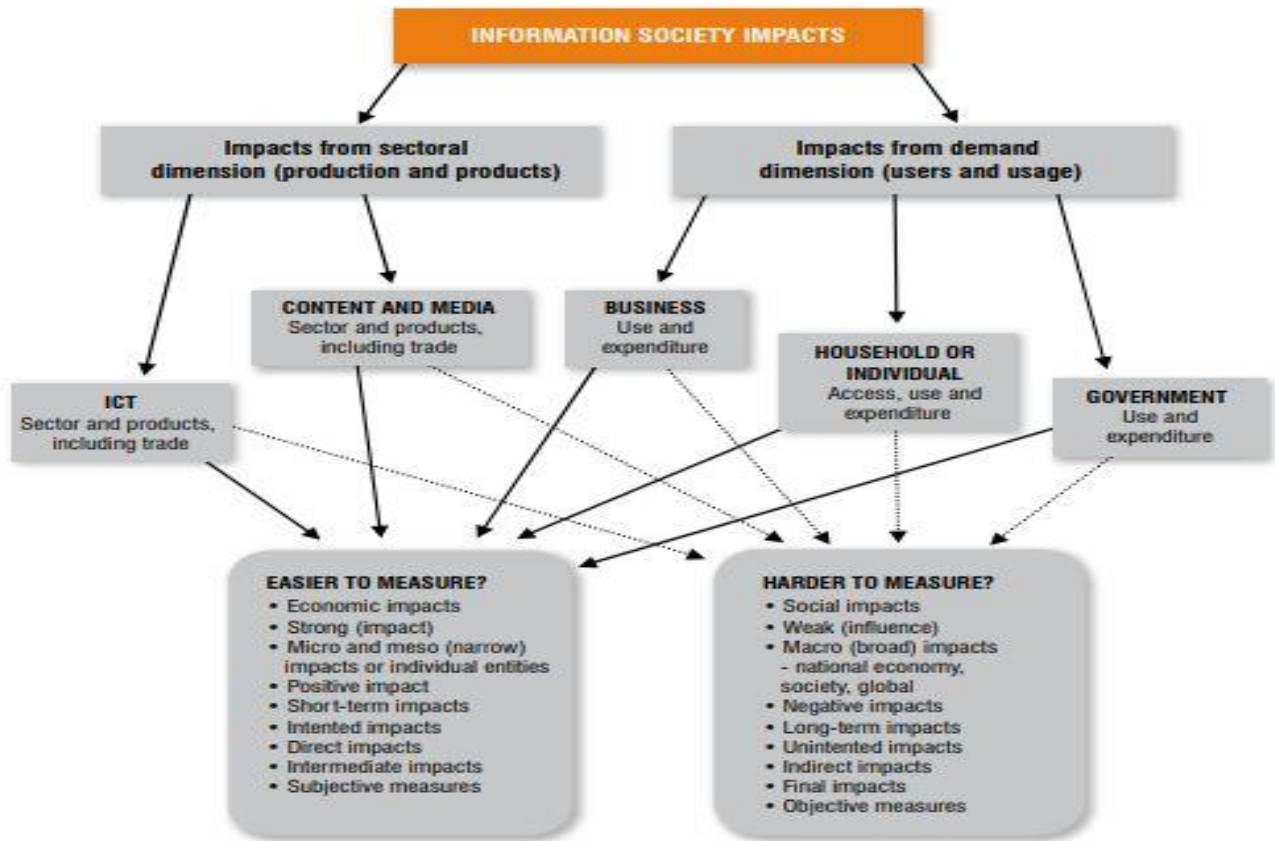
Fig 3: Information Society Impacts Model.
Source: Organization for Co-operation and Development (OECD), 2007.

This framework as seen in Figure 3, however does not breakdown exactly what could indicate a positive or negative impact of the use of technology. It merely brushes the surface, by identifying what broader "types" of impacts could be made and whether or not they could or could not be measured easily. The ICT4D approach however, with its breaks down what impact looks like, and what could indicate a positive or negative impact. Heeks and Molla (2009) however admit that owing to the increased proliferation of ICT into various organizations and projects, less emphasis is placed on assessing the uptake of technology or any other of the first three stages of the ICT4D framework. Since ICT has become more common, to move from one end to the another on the framework will mean bearing more financial costs, although there is a good reward for

doing so. Most therefore now place emphasis on measuring more of impact which comes down to how effective, efficient and equitable the use of a technology is to them (Heeks & Molla, 2009).

For purposes of this research study, the last stage of the ICT4D will be used to measure the impact of technology use by qualitative market researchers. It will consider the three forms of impacts, that is the outputs, outcomes and development impacts, specifically considering how technology use has 'changed' the efficiency, effectiveness and value creation of qualitative enquiry. It will do this by highlighting and assessing changes witnessed in for example, time spent conducting qualitative studies, budget spending, researcher confidence and skill, chosen research methodologies and even client feedback-which could be a good gauge for assessing value creation.

CHAPTER 3-METHODOLOGY

3.1 Overview

As a follow up from findings about the low penetration of technology into qualitative research enquiry in Ghana, an industry perception study was carried out to explore the study topic which was carefully designed to enable the researcher to holistically achieve the set research objectives outlined in the introductory chapter. This chapter outlines steps taken to explore more deeply, how technology has affected the commercial qualitative research industry in Ghana, how client expectations had also changed in this new age of technological advancements, and how market research personnel in Ghana were responding to the changes. It also sought to explore the how the work of the researchers was affected by digitization. This study particularly focused on the branch of qualitative market research enquiry where research roles have been made more complex, a researcher interacting with respondents to gather qualitative data but combining the most suitable tools and processes that would yield the most efficient research processes, quality results and actionable insights that clients would be willing to pay for.

This chapter maps out the main data collection techniques and tools used, justification for the choice of research design approach, data sources and types, the research scope of the study, how the data was analyzed and any prior ethical considerations and limitations all meant to achieve the set research objectives.

3.2 Problem Statement

The methodology of this paper was designed to explore the primary research problem: the impact of information technology and digitization on commercial market research in Ghana. By interacting with key players in the market research industry in Ghana, their unique experiences and views concerning their interactions with technology, "responses" to digitization in the course of

their work and how it affected their ability to achieve and subsequently produce quality and actionable research findings and insights that met the needs of their clients.

3.3 Research Design

The research design of a study offers a structure that allows the researcher to explore and coherently deliver findings to achieve the set research objectives (Bordens & Abbott,2002) This research paper employed an exploratory research design. This approach seeks to look deeper into an existing phenomenon or problem spaces without intending to make any conclusive statements or offering permanent solutions to the problem (Saunders, 2012). Considering the problem this paper studied, which lacked a wide body of literature, this research design allowed for more about the problem to be uncovered and explored more widely. It paved way for the author to explore possible gaps identified in the findings of other researchers.

This study made use of secondary data findings from peer reviewed articles as well as primary research which was garnered from qualitative data. Qualitative data allows for better contextualization and understanding of the subject matter, it also provides the opportunity for a narrative of the phenomenon to be created. For this study, qualitative data was collected using semi-structured interviews with market research personnel in the commercial research space in Ghana to learn of their experiences and views on how technology had impacted their industry and how digitization was also affecting the way they did their work. Based on this qualitative and exploratory research design which involved only a small sample, findings from the study cannot be considered to be generalizable, but merely an addition to a body of knowledge.

Based on the conceptual framework, which was deduced from the ICT4D framework, three main variables representing types of impacts were identified in this study as highlighted in the previous chapter.

For primary data gathering, a similar structure to the case study approach is used. Merriam (1998) describes the case study approach as an in-depth inquiry into a phenomenon as it exists in real life, where clear-cut boundaries cannot be made between the phenomenon itself and the context, over a specific period. The case study has been noted by many researchers as a good way to investigate a specific interest in a unique case or scenario and a good attempt at adding to the depth and breadth of knowledge about a phenomenon (Yin, 2012). Case studies can be broken into two main types based on the number of cases that are studied to develop an understanding of the phenomenon, the single case study and a multiple or collective case study.

By considering three different market research firms as unique cases, the interviews were a way to get the perceptions of qualitative researchers from each firm. Perception surveys lack much objectivity, they provide good information on what people consider as merits and demerits of ICT (UNCTAD, 2011). The approach for this study was different however, because the researcher made use of semi-structured interviews rather than mere surveys to get researcher perceptions on the topic which increased the depth of the findings.

3.4 Research Scope

3.4.1 Study Area

The study was centered in the Greater Accra Region of Ghana, the capital city which has experienced accelerated growth in technology, digitization and is made up of a very cosmopolitan population (2020). Although specific data on the market research industry in Ghana is quite absent, survey of an online directory of marketing and market research firms show a concentration of most of them in the capital city. In addition, the main contractors of the services of market research firms in Ghana which include telecommunication companies and insurance companies have their main branches also located in the capital.

3.4.2 Study Population

The larger target population for this study were market research personnel in Ghana who based on the conceptual framework would essentially qualify as the users of the technology. In addition, clients of the Ghanaian market research firms were also considered a useful population to be considered for the study since they were the end users of the qualitative research findings. This was to help provide a relatively balanced view of the impact of technology on the industry, since the demand for qualitative research needed to exist for the supply to be justified.

3.5 Sample Description

3.5.1 Sampling Strategy

The sampling technique used for this study was the purposive sampling technique. It is a non-probability sampling approach where the researcher is deliberate in the choice of respondent and selects only those who can provide answers to research questions owing to their unique characteristics, experiences or interactions with the phenomenon being studied and also their willingness to partake in the study (Tongco, 2007). Simply put, the aim and basis of purposive sampling is to recruit respondents who can help the researcher achieve the set research objectives.

The wider population for the study as highlighted was market research personnel in Ghana who comprise of those working with indigenous and multinational or foreign commercial market research firms as well as those who conduct quantitative studies and those who handle qualitative research. The study area was further broken down to comprise of commercial market research firms in the city of Accra who conducted qualitative market research as part of their service offers, since the study sought to explore technology's impact on this branch of research specifically. The firms that finally formed part of this study after the sampling procedure were based on their willingness to partake and availability of the researchers for the interviews. In addition, the criteria for the selection of the researchers to partake in the interviews was at least a three-year experience in the conducting qualitative market research.

3.5.2 Sample Size

Three indigenous market research firms operating in Accra who have operated for more than 10 years in Ghana and have experience of working with firms on Ghana's partook in the study. For each firm, one researcher was selected to partake in the in-depth interviews. Two of the selected researchers headed the qualitative market research arms in their respective firms and the last was the Chief Executive officer of the third firm. All three had worked in the industry for more than 8 years. This ensured that they each would have witnessed a good amount of the change in how research had been conducted over the years in the relation to digitization and the introduction of new technology in the research space. The sample comprised of both genders. Their common characteristics as well as differences offered depth to the study, with their wealth of knowledge and experience providing great insights.

In addition, the researcher had the opportunity to interact unofficially with only one client of Firm B sometime before the interviews were conducted and some insights were also gathered from there. Owing privacy issues and confidentiality contracts, client details could not be released by the firms which prevented the researcher from reaching out to more of them.

3.6 Data Collection

3.6.1 Data Collection Instruments

The primary data collection tool was semi-structured in-depth interviews conducted using an interview guide as seen in Appendix 1, which outlined the key areas needed to be covered by the researcher by the close of the interviews. This technique allowed the researcher to give the interviewee some degree of freedom to express their personal thoughts on the matter while ensuring that the main topics were still covered with the use of the interview guide (Drever, 1995). Drever (1995) also recommends semi-structured interviews as a good technique for gathering qualitative data for small-scale research for example case studies, which supports the researcher's choice of technique. The key purpose of the technique was to find out how the researchers uniquely

utilized the technology available to them in their work, their experiences using technology to conduct commercial qualitative research. In addition, the interviews sparked conversations about the digital era and how digitization in general was affecting their work as qualitative researchers. Data on how technology usage in the conduct of their work had changed, how it had affected their research methodologies and how they were able to meet the expectations of their clients considering all the constraints they were bound to by based on client-specific contracts was collected. The interviews each interview took at least 25 to 30 minutes each.

Observational studies were also used, only possible in Firm B however, where the researcher spent some time on their premises and witnessed peak periods during qualitative data-intensive projects. The researcher was able to study how they used technology in their work and identified unique ways in which the personnel used different forms of technology, how efficient their research processes were by virtue of their use of technology and essentially how they delivered results to the clients. Observation helped to identify certain features in the workplace that could easily be overlooked or needed to be investigated during the in-depth interviews.

3.6.2 Organization of Data

Before the main research study was conducted, a pilot test was conducted. Pilot tests allow the researcher to check the suitability of the suggested research design and at the same time offer the opportunity for changes be made before the actual research study is conducted (Dikko, 2016). This was in the form of a long and semi-structured discussion with a market research expert where sample questions for the interviews were discussed and key areas were discussed to lead up to the main study. After the interviews for the study were conducted, the transcripts were organized using Microsoft Word along with the notes made by the researcher after which thematic analysis was done.

3.7 Data Analysis

Since the data collected was qualitative, the main analysis approach thematic analysis. Transcripts were firstly prepared from the audio recordings of each of the interviews, supported with notes made by the researcher during the interviews. Thematic Analysis then allowed for all that data to be studied closely to identify patterns from the responses and identify any possible relationships between them. In addition to better the analysis, unique findings ideas and experiences were highlighted and examined. In order to improve the quality of the research as well, some form of comparative analysis was undertaken. This helped the researcher to draw parallels between the intensity of a phenomenon based on variation in the contexts in which it exists or is being examined (Tilly, 1984, as cited in Pickvance, 2005). Comparisons were made across the firms to get a sense of how different or similar the phenomenon manifested in each case, with the themes identified being guides.

The results and findings were then reported in the best way possible to project the trustworthiness of the analysis process. Thus, this report was made with simple and understandable language, with the breakdown of any seemingly complex terms provided to make it easy for readers to understand.

3.8 Data Validity and Reliability

The validity and reliability of data in a study ensure that the findings generated are truthful and provide a good reflection of the true case on the ground. To ensure this, the participants selected for the study had to fit a strict criterion which included having more than 3 years' experience working in the market research industry. Again, they were each selected from well-established firms in Ghana who had relatively good access to technology used in the industry. Additionally, an extra question was provided at the end of the interviews which allowed

participants to add any thoughts at all they had on the subject matter, which surprisingly brought up very interesting findings.

3.9 Ethical Considerations in Data Collection and Analysis

The study required dealing with human subjects. It was therefore necessary to take steps to protect and preserve their rights as humans who are entitled to privacy and power over how the information they provide can be used. There are ethical principles therefore, that seek to guide the researcher's pursuance of the subject matter to ensure that the knowledge gathered is done so in right and fair means.

These principles applied in collating data for this paper are broken down as follows;

    i.   Informed Consent received using the form seen in Appendix 2.

    ii.   Respect for subjects' request(s) for anonymity and confidentiality which necessitated the deletion of all audio recordings and data forms after the study was completed and all data was extracted and analyzed.

    iii.   Respect for the privacy of research subjects. Pseudonyms were used for both firms and there was no mention of personal names of respondents to protect their identities.

    iv.   Voluntary Participation- Participants received no monetary payment for partaking in the study and were free opt out any time during the interview or recall their information.

    v.   Review of interview guide and questions by the IRB of Ashesi University ensured that the interview questions and participant protection details met the required standard and did not violate any rights of the respondents. The interviews were conducted only after these were approved by the Board.

3.10 Limitations

One of the first downsides to using a purely qualitative approach to data gathering is the inability to generalize the findings. The sample could have been more than three firms, however three other firms that were contacted for purposes of the study either declined the offer or did not have researchers who were available to partake in the interviews. This limitation was almost inevitable considering the sampling approach used by the researcher which also required the willingness of the parties to partake in the first place. This undermined the depth of the data gathered to some extent.

The occurrence of the COVID-19 Pandemic at the beginning of the year 2020, which coincided with the data collection period also affected the data collection process greatly. The pandemic caused a great shift in work schedules, making it more difficult to get hold of the researchers. Due to the imposition of a lockdown in the city of Accra where all potential firms for the sample were located it was difficult to get in touch with personnel for previously scheduled in-person meetings. Although phone interviews were also an option suggested by the researcher, some potential participants opted out of partaking in the interviews. This though unforeseen, ate into the possibility of gathering many more insights and responses from market research personnel.

In addition, was the element of researcher bias. Here the researcher possessed some biases that may have reflected in the way the data was collected, the type of people interviewed or sampled and how the data gathered was interpreted thereafter. The potential for all this to influence the findings and conclusions could not be downplayed.

CHAPTER 4- RESULTS AND FINDINGS

This chapter outlines findings from data collected over the course of this study, between the month of March 2020 to April 2020. The study explored the impact the use of technology and digitization had on commercial qualitative research enquiry in Ghana. The data collected was purely qualitative in the form of researcher notes and transcripts of audio recordings, collected during observational studies and semi-structured in-depth interviews. A total of three experienced qualitative market researchers from three different indigenous market research firms (Firm A, Bb and C) located in Accra, Ghana were interviewed and additionally the working processes of one of the firms (Firm B) observed over a period.

The research questions this study sought to answer formed the basis for the design of the semi-structured interviews and observational studies. The research questions were as follows;

1. What forms of technology are available to qualitative market researchers in Ghana, and how have they been used?

2. In what ways has technology impacted the commercial qualitative research space in Ghana?

3. How can market research personnel in Ghana successfully moderate the impact of technology and digitization to better their work outcomes?

The semi-structured interviews sought to draw knowledge from participants while keeping focus on addressing the research objectives. The findings from the study are outlined in this chapter and subsequently put under themes that were identified based common trends from the accounts given by the participants. The main themes drawn from the data were; researcher expertise and roles, management of data, project duration and access to respondents. These themes guided the discussion of the findings in the study.

4.1 Overview of Major Findings

Firm A

       For firm A, the head of their qualitative research department was interviewed for purposes of this study. This researcher had over 10-years' experience in market research locally and had slowly risen through the ranks at the firm. The firm is noted for its emphasis on providing quality consumer insights that provided clients with the results they were looking for. Its approach to research reporting was quite different, although they approached the conduct of qualitative research in a similar fashion, they chose the storytelling approach to gathering data for their findings. Storytelling here involved shaping real life events in order to elicit reactions or responses from participants. This approach allows them to feel more connected to a narrative or phenomenon and so could spark unique reactions from which insights can be gleaned. This approach however was described by the representative from Firm A as "more manual" and involved more work even though it could gather very good insights. Most of the work came up when it came to data analysis where there was a lot more to sift through. Firm A was involved in conducted advertisement concept testing for clients, where their customers were able to react to adverts before they were released to ensure that they understood and connected with the content.

       Firm A's representative also reported that, they made use of live streaming via Facebook to keep clients in the loop during data collection, like focus groups. This allowed the clients to also contribute actively in the research process.

Firm B

       This interview was with the Chief Executive Officer (CEO) of Firm B, an experienced researcher and strategist with great experience both locally and internationally. Their conducted qualitative studies in the form of product tests, in-depth interviews and focus groups for clients

from different industries. This firm put much emphasis was put on 'priming' participants for their interaction with the brand in question. Priming here described the process of giving participants some exposure to the brand or product even before their feelings and thoughts on that brand or product were elicited. This approach they believed gave respondents the ability to know more about the brands and express themselves more easily and clearly either during interviews or focus group sessions. For example for a project involving Product A used by ladies, Firm B would sample participants from the target population, put them unto online platforms where they were able to firstly get comfortable with one another, get comfortable with expressing themselves and ideally share their true feelings and or experiences with using Product A. This allowed some level of familiarity among participants even before they met for focus group discussions for example, which further increased the ease with which they expressed themselves in person without much fear of being judged or being out of place, which is usually a downside for focus groups. Again, for them, the moderator of the focus group also took part in discussions on the online platforms which increased their knowledge of the behaviors and attitudes of the participants before time. This as expected improved the quality of their questioning during the discussions, allowed them to steer the conversations in the right direction to get the most from the participants and keep every participant involved in the conversation from start to finish. Thus, for this firm the use of online social media platforms such as WhatsApp directly improved the quality and depth of information they gathered. The CEO of the firm described this approach to be a way to "identify the pain points of consumers without necessarily asking". To the firm, they were able to 'befriend' their participants and get as much information from them as possible in the most casual conversations online. The focus groups were therefore a formality to 'crosscheck' data gathered using such platforms.

Firm C

This interview also involved the head of the qualitative research department at Firm C. Of all the three firm representatives interviewed, this representative was the most confident about their firm's 'preparedness' for the 'digital era'. According to them, they had envisaged the industry becoming characterized by speed and digitization. This had allowed them to prepare quite well to meet client need in this time.

Like the other research firms, they were experienced in conducting field research, advertisement reviews and brand health assessments. They also conducted market segmentation studies to assess what types of products appealed to different social groups and brand audits to check how clients' products were faring in retail outlets. The firm made use of about three types of software to undertake quantitative research. For qualitative research however, they also made use of Computer Aided Telephone Interviews (CATI) and online perception surveys, where they shared links with their respondents who then sent in their responses. The representative however acknowledged that the online surveys were only possible with respondents of "higher living standard measure (LSM) groups". Interestingly, this firm had enquired from some of their respondents during a past focus group discussion, their sentiments on being contacted online the next time rather than coming to their office location. Majority gave negative responses with only the "younger people agreeing".

Firm C also had a unique approach to presenting client reports. Since clients were more impatient, this firm organized meetings for their qualitative research teams immediately after every focus group session or interview, to make a preliminary report for their clients. Although this report was not as detailed as the final one it reduced the pressure from clients considerably.

4.2 Identified Themes

4.2.1 Researcher Roles and Expertise

This first theme identified was quite profound across the three firms. The respondents of Firm A and C worked in the similar capacities in their respective firms, heading the qualitative research departments, with the representative from Firm B being the acting Chief Executive Officer. Their jobs daily consisted of proposal writing, conducting focus group, research planning and reporting, pitching, advertisement reviews and project setups. All three reported to use basic ICT tools in the course of their work. For example, in Firm A, they frequently used emailing to communicate among themselves in the workplace, since oftentimes, other members of the qualitative team worked from different locations in Ghana and even from different countries sometimes. For firms B and C, emailing was also a well-used communication form, but was used more for sharing updates since the office spaces were relatively smaller. Work colleagues could therefore easily walk into offices to discuss any needed issues. These findings showed how much the level of technology usage was quite minimal in the firms.

"The things we do as researchers have not changed much, it is the tools that we use that are

changing more and more."

In addition, almost all the forms of technology available to them for specifically qualitative research analysis like, NVivo, Express Scribe and Atlas.ti which helped with transcribing audio recordings required some level of expertise before they could be used by the researcher effectively. All the respondents admitted that they had used only NVivo actively before and were not very comfortable doing so. This made them revert to the old means of transcribing and analyzing data which were more manual and therefore more time-consuming.

4.2.2 Data Management

In Firm A, B and C, all respondents admitted that the management of qualitative data was a daunting task especially after collecting it and moving on to analysis. The representative from firm A described transcribing audio recordings of focus group discussions and interviews as "a headache", saying that, of all the steps in the qualitative research process, transcription was the most stressful and took longer to do. As highlighted under the earlier theme, all three representatives were aware of the existence of qualitative data transcription software like NVivo. However, of the three firms only two actually attempted to use the software, that is firms A and B. Even so, they reported that they used it only occasionally because;

"it was quite complex and requires some level of training"

"it required some training and skill, and that is low, so revert to the manual way, which is also time-wasting"

For these two participants, they were the only ones in their firms who could use the software, but on their own did not feel the need and confidence in their ability to use it effectively. Firm A as mentioned also used storytelling instead of the more commonly used narrative analysis; where researchers create a narrative from a series of events or experiences drawn from respondents. It was also more cumbersome, the representative from firm A described it in this way;

"I would say it is the manual way of doing things, it is not really technical, but it is simpler."

These findings showed how much researchers in Ghana were still behind in terms of skills and exposure to research technologies. Other indicators from the findings showed that when the firms that were exposed to and made use of a good variety of technology at any point in the

qualitative research process were able to take on more projects from clients because they were more efficient.

4.2.3 Project Duration

Project durations have been greatly shortened with the increase in technology proliferation into research, firms can do more faster and clients expect more. A major submission by all three participants was how client expectations had become extremely high without any accompanying increases in the project budget funding. When asked about this, the representatives answered:

"We are at a stage where clients are not ready to wait for results, someone brings you a project today and by tomorrow they want to see something. And I don't blame them the world is changing."

"Our major issue has been the time factor."

"You can no longer get the time you think you would need for the job."

This change in the economy and space of commercial research put more pressure on them to deliver in the shortest possible time. Again, Firm C's representative said that these expectations "pushed" them to make use of more technology because "it was faster". But for firm B, they were not "encouraged" spend time investing in complex technology because it was expensive to do so, and clients were not willing to increase their research spend.

In addition, firm C noted that the main headache was how to manage client expectations since for them technology "was not an issue" and the human resource capacity needed to deliver superior results was present, however, clients remained impatient. All three however acknowledged that owing to how competitive the business environment was, it justified the impatience of their clients. These clients just like them needed to incorporate speed into their work to make prompt decisions. That meant that it was inevitable that results will be demanded faster.

4.2.4 Access to respondents

In qualitative research, the main stakeholder was the respondent. This person partakes in in-depth interviews and forms part of focus group discussions. Technology had done well to take the researcher closer to the respondent with the use of Computer-Aided Telephone Interviewing made possible by phones and then the use of online social media platforms like groups on WhatsApp and discussions forums on Facebook. There was a largely positive review for how technology had helped to get them closer to their respondents. However, Firm C's representative noted that in their experience the use of some of these forms of ICT could be very problematic.

"People do not have time anymore, everyone is busy, although tech can get you closer, for WhatsApp for example even when you post a question on the platform, it takes some people the whole day to respond, this makes your data gathering cumbersome and slower."

In addition, firm A's representative also said; "Tech is always easy, once both parties can use it, it works". This brought into the light the question of respondents' ability to use technology and how researchers handled the issue.

"Most of the respondents that are free and willing to participate are usually middle to lower class and some of them are not able to use some of these platforms."

4.3 Observational Studies

Gathering data with this approach proved to be quite challenging as the workers in Firm B in some way were more conscious of their actions during the data collection, which is a completely natural reaction. It was however still important to record or get a glimpse first-hand of how these employees utilized technology in their work and responded to the emerging trends or requirements of the digital era daily. This data was gathered during impromptu visits to the firm.

For Firm B, one glaring feature observed by the researcher was the under-utilization of technology in their work. Although they made use of online platforms for discussions and software

like for synthesizing the data, much of the work was still done by the qualitative researcher and depended heavily on their innate and professional abilities. For example, it was their job to keep conversations lively on the platforms which was difficult sometimes, and there were times when the researcher had a hard time 'connecting' with the respondents online. This limited how much data could be collected.

In other cases, phone calls for interviews or feedback on products were almost always cut short owing to the inability of the researcher to keep the conversation long enough. And the use of these two forms of technology were as far as firm B went in terms of technology use for one such qualitative project. This to some extent showed, their inability to visualize the use of other forms of technology as an 'easy' addition to their work. Owing to this, their data gathering for qualitative research as well as the synthesis or analysis took longer. Although the moderator or lead researcher for such a project has assistants to record notes or audios, the final analysis process rested solely on their shoulders and their singular ability to extract the most relevant information from all that was gathered.

4.4 Discussions

The use of a technology form like social media to keep track of consumer sentiments and a total replacement of market research in the opinions of the researchers could backfire. In searching for insights from customers, the best and most accurate data was needed, in order to reflect exactly what was going on the ground. In the researchers' opinion, social media could provide good insights on consumers, however, it was a known fact that it does not house the true reflection of some people. For example, a consumer could make up a claim of liking and using brand A, when in fact they were not using it, in order to appear a certain way on social media.

Simply put, data collected from social media had a higher chance of being flawed as compared to data collected through in-depth interactions with consumers after achieving some level of rapport with them.

Based on the types of impact identified under the ICT4D framework, all came up in the interviews with the researchers. For the first, outputs, which basically described behavioral improvements as a result of technology use, the study found that technology facilitated improved communication among the researchers within the firm. They were able to share information easier and faster, which improved the overall speed of the projects. On the other hand, the 'new' use of social media channels for conducting qualitative research which generated data in different forms that the researchers were not necessarily familiar with left them with large quantities of data that required more time to analyze. There was also a lot of information the end that was not very relevant to them at the end of some project, which meant that ironically, time had been wasted at some point. Another benefit however was the ability of the researchers to keep their clients well informed and more 'pacifiable' because they could follow progress in focus groups for example, where live streaming was used. This allowed them to made additions where necessary and overall build a more focused and cohesive project.

For outcomes, which covered mostly any possible financial benefits of using technology, it was quite difficult to gauge since this study was purely qualitative. However, based on the respondents' contributions, it was more costly to use technology in their work. This came in the form of training, software subscriptions, internet bundle purchases, airtime purchases as well as the cost of buying ICT tools such as phones and tablets. It however brought back value in the form of client referrals, which could not necessarily be said to outweigh the financial burden. It is good to note however that for most of the ICT tools used on their own without the need for airtime

purchases, the financial cost would most likely be fixed. Outcomes also considered qualitative benefits of ICT use in an organization which could not be quantified. These benefits could therefore include a reputation of delivering on time, client referrals as mentioned, eased the researcher burdens and even the increased expertise of the researcher.

For the final impact assessment, development impacts considered how the use of technology had contributed to the larger societal goals. For this study, this could include the creation of good quality data for consumer brands which improved their product offerings to consumers or the public at large. It also increased the competitiveness of the research industry which pushed the firms to deliver superior value.

CHAPTER 5-CONCLUSION AND RECOMENDATIONS

5.1 Conclusions

The exploration of the impact of the use of technology as well the impact of digitization on commercial market research in Ghana in this study was guided by the Impact Stage of the ICT4D framework. It was more suited for this study and considered the main outcomes, outputs and developmental impacts of technology use specifically behavioral improvements among users of technology, cost-saving benefits and larger societal impact.

It was noted throughout the study that qualitative researchers in Ghana, were not exposed to a good number of technologies that could be used in their field and were being used by their counterparts in other countries. All the participants made mention of at most three main types of qualitative research software, with NVivo being the most common and most used. This was a software tool that helped them with transcribing qualitative data, identifying themes and disparities in data. Other names like Express Scribe also came up. The qualitative researchers were more aware of quantitative research software and could mention up to three off the top of their heads. Overall, technology presented the researchers with good opportunities to save time and achieve superior results when used in ways that complemented the skills of the researcher and the ability of the respondent. Digitization also presented the sector with the chance to improve the structure of data collection and knowledge sharing. Two of the three research firms made use of social media platforms to collect data from respondents which helped them build closer relationships with them and thus collect more data.

Qualitative research practitioners preferred to use traditional means of data collection which involved little to no use of technology. The approach was time consuming but presented them with the unique opportunity of interacting with participants regardless of whether they were conversant with the use of technology or not. When it came to data analysis however, the

researchers were more willing to try using technology, for the purposes of audio file transcriptions, which when done traditionally would take longer. Similarly, they shared the same positive sentiments towards the use of technology for reporting their findings and insights to clients, with some taking a liking to the use of live video presentations. CATI and the use of other technologies allowed them to generate data more easily and reach out to different respondents regardless of their locations. Its use also helped to build a more progressive relationship between commercial research firm and their clients. A major limitation of technology use however was seen where respondents were not tech-savvy and so could not make use of this technology to provide data for research projects. Overall, technology and digitization had more of a positive impact of qualitative research with it demerits being seemingly solvable.

Most of the reviewed literature pointed towards technology being the holy grail to almost every discipline but based on the findings drawn from experienced qualitative researchers, technology could be detrimental to the craft if not used with care and proper understanding. For researchers in Ghana to avoid this, it was imperative for them to improve their training and expertise in using such technologies. This would allow them to make judicious use of technologies available to them and mitigate any risks of reducing the quality of their findings.

Again, as suggested by the literature, one of the main advantages of the use of technology in market research was its ability to facilitate communication. This was also reiterated by the study, where the use of tools like Zoom Meetings, Facebook Live Streaming and software like Google Docs enhanced synchronized teamwork by allowing researchers to not only contact their coworkers, but also involve clients first-hand in the research. Digitization also presented the opportunity of storing information in real-time and share across platforms as quickly as they were generated.

The study revealed a glaring finding about why technology was either underutilized or not being utilized enough in Ghana. It all pointed to the fact that, for a lot of locally trained researchers who most likely formed most of the staff of indigenous firms, expertise was lacking. That is, most of them had been trained to use traditional methods and so went on into the industry to continue with this same level of knowledge, then found that the firms they were hired by also maintained the use of the same or slightly improved approaches. It therefore become a cycle, where the researchers being churned out, had not tried to learn to use new approaches on their own, remained almost at the same level of expertise, even after a good amount of time practicing professionally.

5.2 Recommendations for Industry

This study reiterated the fact that technology and digitization largely impacted the commercial qualitative market research industry positively, although there were some minor setbacks. To excel in the current digital era, market researchers would have to embrace the use of technology in their field and find ways to maximize such benefits while keeping any possible demerits in check. Based on the findings of this study the following are some recommendations for the industry to make the best out of the current situation;

1. One key takeaway from the study was the need for a formal organized and recognized body to serve as an umbrella for all market research personnel and specifically qualitative market research personnel. Unionizing labor has been a proven way to improve terms of services and benefits especially for workers in the public sector and those in the private sector similarly were known to benefit in the form of capacity building conferences and access to certain knowledge portals. It would therefore be prudent for stakeholders to initiate the creation of a body for market researchers in Ghana since expertise is a major handicap in their industry.

2. Based on the sentiments of the participants on access to knowledge for both experienced and new qualitative researchers, it can be recommended that firms create knowledge portals. These can serve as digital repositories of past research projects, with record of brainstorming challenges and achievements to help inform younger generations of researchers in the firm of how things are done. This would help prevent the repetition of certain peculiar mistakes as well as serve as a lasting body of knowledge even after experienced researchers have ventured off.

3. Regular training of staff of such research firms is also very necessary to help them keep up with the increasing use of technology and digital platforms. The study found that researchers were sometimes 'forced' to go out of their own way to improve their knowledge in the use of some IT tools, this was difficult for some of them and discouraged them from doing so. For others who were able to improve in that aspect, were likely to leave indigenous firms and take up roles in foreign competitor firms where they could end up being posted out of Ghana. There was therefore some level of brain drain occuring because Ghanaian firms were not being proactive. This if changed can completely transform the state of commercial research in Ghana.

4. Conducting this study also brought out the fact that, research was still not valued highly in Ghana, as compared to other parts of the world. People in the country were running businesses based on 'feelings' and some went out of business after a few years, because of their inability to properly gauge or identify their target market with appropriate research data. Researchers were also not being creative and innovative with their use of technology to gather useful and though-provoking data, giving a lot of business owners the idea that they could successfully do their own research. There is therefore a need for commercial

research firms to consider undertaking independent research studies on specific issues or phenomena in the country and produce quality research findings. This will help throw light on the importance of such and the relevance of market research firms.

5.3 Recommendations for Further Research

1. A major limitation of this study was getting access to clients of commercial research firms or users of qualitative research insights. Due to confidentiality agreements between the research firms and their clients it was difficult to get typical users of such data to interact and find out how the rise in technology use and digitization has affected or changed their needs as clients. This would be a good study to conduct as research like other products has users whose need may change with time.

2. It would also be interesting to study the unique experiences of foreign market research firms in Ghana with respect to their use of technology in order to draw lessons for local market research firms as well since they seem to be ahead.

3. Also, considering the speed at which the world is becoming more and more digital and technologically inclined, one area of study could be the feasibility of conducting qualitative research using purely digital means or using only technology.

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Appendix

1. **INTERVIEW GUIDE(S): AN EXPLORATION OF THE IMPACT OF INFORMATION TECHNOLOGY AND DIGITIZATION ON COMMERCIAL QUALITATIVE RESEARCH IN GHANA**

For Market Research Personnel

1. Job Description (Get a sense of what their job basically entails)

2. Do you belong to an indigenous or foreign research firm operating in Ghana?

3. How many years have you worked in the market research industry?

4. What are some changes you have witnessed over the years in the industry? (How have these changes affected the way you do your job)

5. How has your role as a researcher has changed over the years?

6. What are some qualitative research projects you have undertaken? (here project names are not necessarily important, only the type of project it was for example; focus group discussion for a new phone brand etc.)

7. What forms of technology do you make use of in your qualitative research projects? Let respondent give some examples of technology tools or mediums and **how they use them**. (all forms of technology from start to the end of the research process)

8. Are there other forms of technology (or uses of technology) that you do not employ personally but are aware of? Let respondent mention or describe as many as possible.

9. How do you successfully manage the qualitative data you gather in your research work? (Get a sense of how easy or difficult this is to the researcher- with respect to the use of any form of technology or digital medium)

10. How would you say the use of technology in your work has improved it or otherwise?

11. Do you sometimes have challenges in meeting clients' needs? Why do you think this is the case? (If not, what helps you overcome possible challenges)

12. Any extra contributions/ suggestions from the participants on the subject are welcome.

For Clients

1. Which market research firm(s)' services have you employed before? Did you know whether they were indigenous or foreign before hiring them? (If yes, did that influence the decision)

2. What influences your choice of research firm? (family or peer recommendations/news reports/ track record/ their resources/ spread)

3. What was your reason for employing the services of market research firm; what kind of data did you need/ was it for personal business/a corporation/ product test/ focus group.

4. How long have you been employing the services of market research firms? (get a sense of how long they have been doing business with research firms)

5. How would you say your needs changed over this period? /Since the last time you employed such services.

6. How satisfied have you been with their work overall? (the research process -speed and their ability to innovate)- try getting a sense of whether the client recommended the specific research methods to be used for their projects, if not, what they thought of the means used by the firms (if they were aware).

7. How useful and timely were their research findings in meeting the intended purpose for which you employed their services? (Where they actionable? Usable?)

2. PARTICIPANT CONSENT FORM

I would like to ask your permission to be part of a research study being conducted for purposes of an Undergraduate Thesis. The research study seeks to explore the use and effect of technology in the commercial qualitative research space in Ghana and subsequently make recommendations on how to utilize different forms of technology to achieve efficient research processes and improve the quality and usefulness of research findings.

Please read the following before consenting to the interview

- I understand that my participation is entirely voluntary and if I decide at any time during this interview to withdraw, I can do so without the fear of any consequences.

- I can decide to withdraw any information I provided during the interview in which case any audio recordings or notes of this data will be deleted or destroyed completely.

- I understand that my participation will involve me answering a variety of questions and engaging in a conversation that will provide the researcher a means to attain his/her objective.

- I agree that I will not benefit personally from participating in this interview, but I will have contributed to possibly improving the qualitative market research space in Ghana in the light of new technology.

- I understand that if I agree to be part of the study, my interaction with the researcher will be audio recorded to ensure the data collected is precise.

- I understand that any information I provide which is recorded by the researcher in any form will be treated as strictly confidential, and my identity and the identity of any person or entity I speak about will remain anonymous. Our identities will be protected by disguising any details at all that may reveal my identity or the identity of the person/entity I speak about.

- I understand and agree that I am committing at least 25 minutes to 35 minutes (maximum) of my time to partake in this study.

- I understand that the data collected from this study will be analyzed, reported and presented through a Thesis dissertation, in written form as well as a presentation to a group of people

- If I have any questions before, during or after this interview, I can ask the student researcher.

- If I need any further clarifications or questions, I am free to contact the student researcher's supervisor via **aalidu5456@aucampus.onmicrosoft.com**

- This consent form has been reviewed by Ashesi Institutional Review Board (IRB) for Human Subjects Research. For further information contact the committee through irb@ashesi.edu.gh

Signature of research participant: ---------------------------------- Date: -------------------

Signature of researcher: -- Date: -------------------

(By signing this, I believe the participant has given his/her consent to participate in this study.)