

**Policy Implications of Mass Media and Telecommunication Convergence in Developing
Countries: The Case of Korea Communications Commission**

By

Ampoma Augustine

THESIS

Submitted to
KDI School of Public Policy and Management
in partial fulfillment of the requirements
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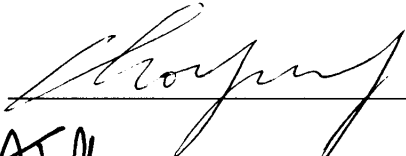
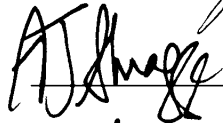
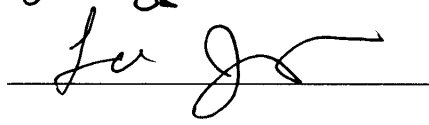
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Committee in charge:

Professor Cho, Yoon-Cheong, Supervisor 
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ABSTRACT

Policy Implications of Mass Media and Telecommunication Convergence in Developing Countries: The Case of Korea Communications Commission.

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The globalization of technology coupled with the expanding world market size is changing the pace of technology adoption in developing countries. The collision of traditional mass media and telecommunication as a result of technology convergence presents opportunities as well as challenges to developing countries. A policy alternative that has been proposed for developing countries is the introduction of greater competition and unification of regulatory agencies for mass media and telecommunications. These policy responses, however, have implications for the development of indigenous communications industries, cultural preservation, national security, defense, and national development planning.

This study therefore examines the policy implications of mass media and telecommunication convergence in developing countries in order to empirically determine the truth or otherwise of the claims that have dominated public debate. While some policy experts argue that effective communication convergence policies promote competition by opening up the market for new entrants, others believe that third world countries do not need competition. Secondly, as some policy experts recommend unification of regulatory institutions as a necessary condition for effective regulation, others do not see unification as a

sufficient condition. They recommend proper coordination of institutions instead of mergers as ideal for developing countries to benefit from convergence.

After an empirical study, the evidence seems to support the assertion that greater competition is useful to all countries, including less populous developing countries with low GDP per capita and low literacy rates. Again, the evidence supported the view that effective coordination between institutions for traditional mass media (newspaper, radio and Television) and the telecommunication media (telex, landline telephone), instead of simple unification is the practical path for developing countries to benefit from communication convergence.

DEDICATION

This work is dedicated to all the fallen souls of South Korea who through unforgivable indignity and adversity won the war against poverty and toiled to change their nation for the better. As a beneficiary of their sacrifice, I salute all South Koreans, especially those who never witnessed the goodness of their labor, for giving hope to the developing world. By their action, they have proven that there is nothing nations cannot do if they have a sense of purpose and the determination to succeed.

ACKNOWLEDGEMENTS

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LIST OF ACRONYMS

KCC	Korea Communications Commission
KCSC	Korea Communications and Standards Commission
KISA	Korea Internet Security Agency
NCA	National Communications Authority
NMC	National Media Commission
KDI	Korea Development Institute
GDP	Gross Domestic Product
GPS	Global Positioning System
USF	Universal Service Fund

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CHAPTER I

INTRODUCTION:

The fast wave of scientific innovations did not influence only the realm of medicine and industrialization but has significantly affected the field of communications. As a result, there is an increase in the collision of technologies in communication creating a convergence between telecommunication and mass media. These emerging technologies are changing our lives and how we view our world. The convergence in the communication industry due to the state-of-the-art technology presents an interesting phenomenon for future policy directions.

Traditionally, the mass media which comprises newspaper, radio, and television used different means, and the roles of each of these media were clearly demarcated. People devoted separate time and attention to all. People bought large newspapers and read them at their leisure. Radio, which used to be broadcast through reinfusion boxes (in most developing countries), also had a special time to listen, at least until wireless radio was introduced (Hagan, 2007).

There was also dedicated time for television and separate devices were used. Due to the special role of the media to national development, newspaper, radio, and television were nationally owned. Agencies were formed by national governments to exploit these media for public education and information dissemination. Today, owing to the ever-evolving speed of communication technologies, the traditional mass media (newspaper, radio, and television) have merged with telecommunication. See the impact of the various types of convergence and their benefits as illustrated by Raja and Singh (2008 pg 2) in table 1 below.

	Service convergence	Network convergence	Corporate convergence
Definition	Firms use their networks to provide multiple services.	A service can travel over any combination of networks	Firms in one sector acquire, merge, or collaborate with firms in other sectors.
Example	Communication companies offer telephone, television, and internet service using telephone, cable, or fixed wireless network. Examples are found in Chile, Egypt, India, Poland, and Ukraine.	Internet telephone services like Skype and Jajah carry voice telephone using the traditional internet networks. In the United Kingdom, BT's fusion service carries calls over Wi-Fi and cellular networks.	Internet, broadcasting, and telecommunications firms partner, merge, or expand their range of services. Such developments have occurred in Brazil, Nigeria, and Sri Lanka.
Benefits	Service providers can enter new sectors, use their networks more efficiently, offer discounts for bundles, and increase access to new ICT services.	Reduced costs can lower tariffs. Network integration permits mobility for consumers and expands coverage.	Mergers create opportunities for new services or markets, lower costs and tariffs, and increase the coverage of individual firms.
Risks	Subscribers could be locked into one provider. Smaller firms, especially those without own broadband networks, might get pushed out of market.	Could lead to lower investment in networks.	Mergers could lead to less competition, market dominance, and less diversity of media content.
Policy implications	Convergence changes the scope and boundaries of markets and alters entry barriers.	Connecting different networks allows location-and network-independent service provision.	Mergers create new business models, and alter the market structure, changing the dynamics of the sector.

Table 1: Different forms of convergence

By the use of the internet, the traditional mass media can conveniently employ the use of new technologies to convey multidimensional messages. For instance, online newspapers attach audio recordings and video streams to their stories. Online radio stations use graphic text and pictures together with videos on their web pages to convey messages. Lastly, online

television networks use text and audio recordings in their broadcasts. As ICT technologies advance it appears seemingly difficult to distinguish among these media from one another in terms of provision of content.

A similar revolution is happening in the telecommunication sector. Fixed lines, cable, and telefax have merged. By the use of the internet, data processing which used to be the main function of telefax is made possible through the mobile phone. The internet again is bridging the divide between traditional mass media and telecommunication media. The linkage between traditional mass media and telecommunication (example, online journalism and Short Message Services advertisement) has brought mass media and telecommunication under one umbrella. The convergence of telecommunication and mass media has brought about new innovations such as mobile banking, e-learning, online marketing, and even online policing using the Global Positioning System (GPS) technologies.

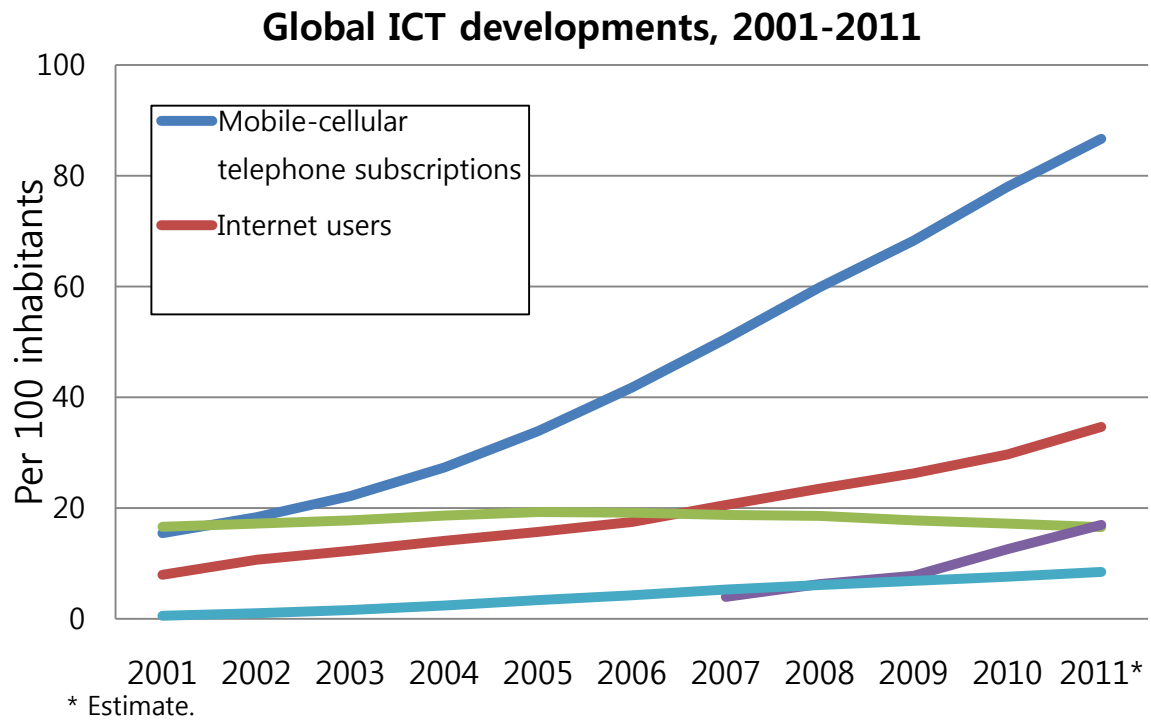
There are many advantages as well as disadvantages with the spread of Information Communication Technology. According to Grant (2010), communication technology can be a mixed blessing to nations that are not fully prepared for its impact on politics, economy and social lives of the people. Grant (2010) argues that due to its importance, "...any change in communication technologies has the potential to impact virtually every area of society." The positive sides of communication convergence are seen on a daily basis. The use of the iPhone to access bus schedules on the internet has reduced the time commuters wait at lorry parks and bus stops. Mobile phone banking services and e-commerce have also reduced the length of queues at banks and provided customers with convenience. It has also assured companies of secured financial accounting since sale speople deal very little with physical cash. Much more can be said about how convergence is making lives comfortable.

Nevertheless, convergence poses danger to society. The destructive nature of technology can also be felt in all segments of human endeavors (Schumpeter 1942). Not only is convergence of technology making regulation difficult for national governments, parenting is also becoming difficult since parents no longer control content on their children's mobile phones. Cyber crime and terrorism have also become easy on the internet. The need for a comprehensive national regulatory policy therefore cannot be overemphasized. Fortunately, many policy alternatives have been proposed by experts to deal with technology convergence. Each policy alternative, however, must be examined based on country-specific context to achieve its optimal value.

DEBATE ON ICT POLICIES:

The linkage of industries as a result of Information Communication Technology (ICT) and its influence on national and corporate governance has dominated scholarship in the 21st century. The rapid expansion in mobile phone subscription, internet connectivity and the revolutionary growth of social media networks across the globe has necessitated a debate among policy experts on how policy can be used to reap greater benefit from ICT (www.itu.int). The health and security implications of ICT expansion for nations have also captured policy discussions. What appears obvious in all the discussions on this subject matter is that the speed and impact of Information Communication Technology cannot be halted. Nations have only one option; to develop policies to manage the prospects and challenges it comes with.

Figure 1



According to Schumpeter (1942) as quoted by Markova (2009: pg1) “Technology is not kind. It does not wait. It does not say please. It slams into existing systems . . . and often destroys them while creating a new system.” The options for policy makers as a result, have become fewer when one takes into consideration the effects of the globalised nature of ICT on the future of market economies and politics. In the view of Grant (2010), “Communication technologies are the nervous system of contemporary society, transmitting and distributing sensory and control information and interconnecting a myriad of interdependent units.” Grant (2010) again explained that not only is ICT good in shrinking time and space but it is “critical to commerce, essential to entertainment, and intertwined in our interpersonal relationships...”

The importance of communication convergence and its impacts on development was echoed by Ha (2008), who explains that convergence was speedily altering the mode of competition among industries; stating that the process was led by “the market forces of demand pull of user and technology push by innovative companies.” Ha (2008) noted that for companies to be profitable in the current corporate environment:

they needed to be able to read the changing industry value chain in order to enjoy profitability. ...A company without a forward-looking response will lose much more than before as a follower. ...government policy on telecommunication was the third force that rules the industry. ...government has to take the initiative to direct the development of the telecommunications industry and to lay down game rules for all players in the market. If the government plays its role successfully - by setting the right direction, promoting competition and supporting market shortcomings, it can give a great stimulus to the industry's growth and dynamism

The expanding world market size coupled with free trade has increased the speed of the ICT explosion. The world is said to be experiencing exponential increase in ICT Technology and that the amount of new technical information is doubling every year (www.innovationamerica.us). The rapid expansion in mobile phone subscription, internet connectivity and the revolutionary growth of social media networks across the globe has necessitated a debate among policy experts on how policy can be used to reap greater benefit from ICT (www.innovationamerica.us).

THE PROBLEM:

Similar to the controversies surrounding economic, social, and political benefits of globalization, the mass media and telecommunication convergence also presents a unique debate. The interesting debate focuses on appropriate policy alternatives for developing countries like Ghana. While some policy experts argue that effective communication convergence policies promote competition by opening up the market for new entrants, others

believe that such countries do not need competition. Their reason is that developing countries do not have the economic backbone that supports market competition. Instead, they propose that third world countries should focus on investments in education to improve on their GDP per capita. On the regulatory front, there is also another debate as to whether regulatory agencies for mass media and telecommunication should be consolidated to promote communication convergence or that they should be kept as separate institutions. The revolutionary impact of social media networks like Facebook, Twitter and Skype in the Arab uprising which has seen the collapse of the regimes of Col. Muammar Al-Gaddafi of Libya, Muhammad Hosni Mubarak of Egypt, President El Albidine Ben Ali of Tunisia, and the continuous protest, in Syria and Algeria have reawakened national governments to the potential threats of social networking media to national security (Archibuli and Pietrobelli, 2002).

In 2008, the government of the Republic of South Korea started plans to promote communication convergence with many initiatives from the government through the Korea Communications Commission (www.kcc.go.kr). Ghana and South Korea had similar prospects after independence. South Korea has, however, risen to become a world economic powerhouse while Ghana still wallows in poverty as a developing nation. Unlike Ghana, South Korea have been able to take advantage of communication convergence through proper institutional and regulatory reforms. Through pursuit of its policies the Korea Communications Commission has been able to promote market competition to increase the GDP of the sector while bridging the digital divide (www.kcc.go.kr). This study will examine the policy implications of mass media and telecommunication convergence in developing countries. The experience of the Korea Communications Commission (KCC) will be used as a guide.

RESEARCH OBJECTIVES:

The study will seek to (1) examine the implications of government policy response to communications convergence (on industry's growth and investment attraction) in developing countries, (2) analyze the legal, economic, and political implications of communication convergence on developing countries, and finally (3) explore the prospects and challenges of communication convergence on developing countries.

DEFINITION OF TERMS:

The key terms in this study are Mass Media, Telecommunication, Convergence, and Developing Country. All the terms are broadly applied in a number of situations to denote scores of meanings. In this study, they are used in their basic denotations. Mass Media refers to the major mediums of mass communication, including the newspapers, radio and television (cable and regular). Telecommunication simply refers to fixed landline telephone, mobile phone, telefax, internet and their enabling infrastructure (including network access, backbone, and network operations). Convergence is the fusion of mass media and telecommunication due to the advance in ICT technologies. Developing country refers to less populous, low GDP per capital, and low literacy rate third world countries.

RESEARCH QUESTIONS:

1. Should communication convergence necessarily lead to the consolidation of regulatory agencies for mass media and telecommunication?
2. Are there significant economic, political and social benefits for developing nations to facilitate communication convergence through policy?

3. Is greater competition due to convergence policy of telecom and mass media operators useful for developing countries?
4. Can Ghana draw any lesson from Korea's policy direction and experience in telecommunication and mass media convergence?

To Be Answered By Literature Review

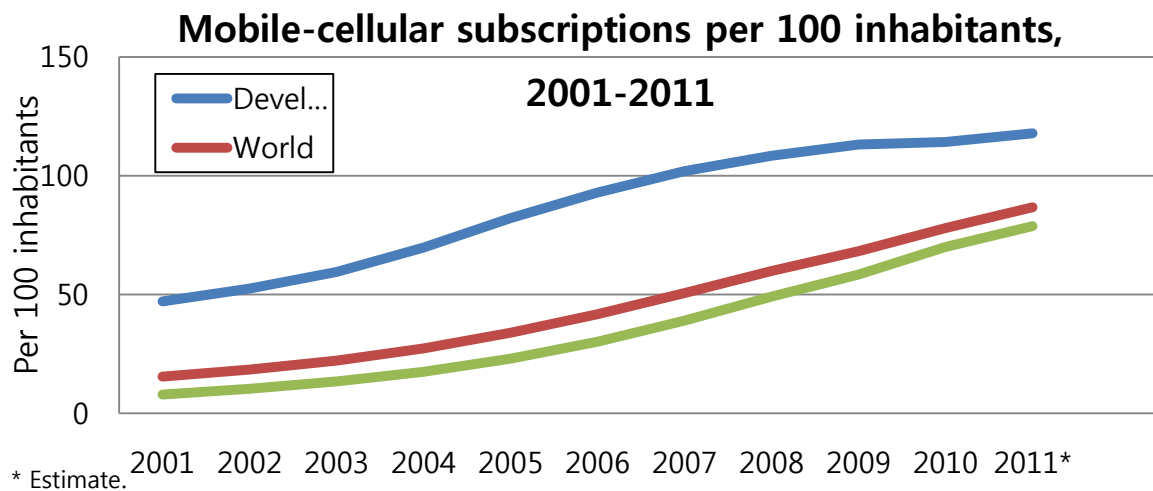
1. Which policy option (restrictive, "watch and see," or enabling) did South Korea adopt in managing telecommunication and mass media convergence?
2. How true is the claim that Communication Convergence increases competition by allowing new entrants?
3. How true is the claim that Communication Convergence promotes private investment in communication infrastructure?
4. How accurate is the claim that conducive Convergence policies translate into lower prices for consumers?
5. How accurate is the statement that competition due to convergence leads to reduced tariffs and increased service coverage.
6. Are there any dangers of Communication Convergence to national security and development of local ICT industries in developing economies?
7. Is it economically feasible for national governments to invest in ICT Infrastructure as a platform to attract investment in the communication sector?

CHAPTER II

BACKGROUND OF STUDY:

The growth of the information communication technology (ICT) industry is changing lives at a faster pace than it used to. What makes it more interesting is that it has a global outlook. This means the exponential growth is not manifested only in developed countries but also it is fast expanding in developing countries. Research conducted by the International Telecommunication Union (ITU) illustrates that with the exception of fixed line which is declining in subscription, mobile phone, internet, active mobile broadband and wired broadband subscription are increasing (www.itu.int). Mobile phone subscription, however, enjoys the largest percentage of increase (see figure 2).

Figure 2



Even though the world projection seems positive, Africa and other developing countries still lag behind in the active mobile broadband subscription (see figure 2). Africa again is at the bottom of ITU survey in the proportion of households with internet access by region (see figure 4). The problem, however, is that no developing country made it to the top ten countries in the ITU ICT Development index of 2008. The Republic of South Korea was third

(3rd) among the ten, following Sweden and Luxemburg as first (1st) and second (2nd) respectively.

Figure 3

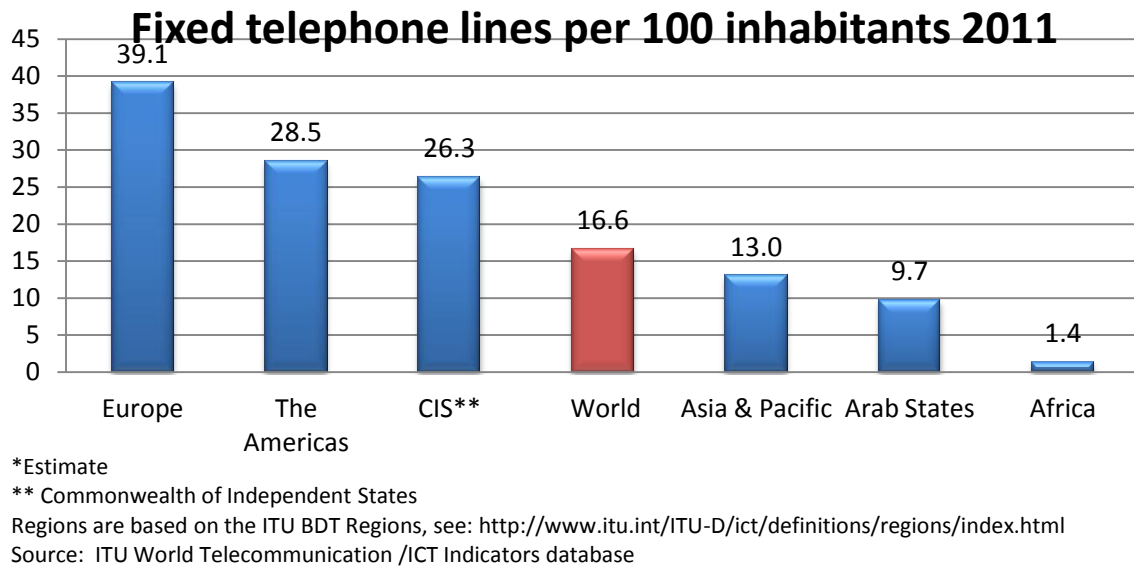
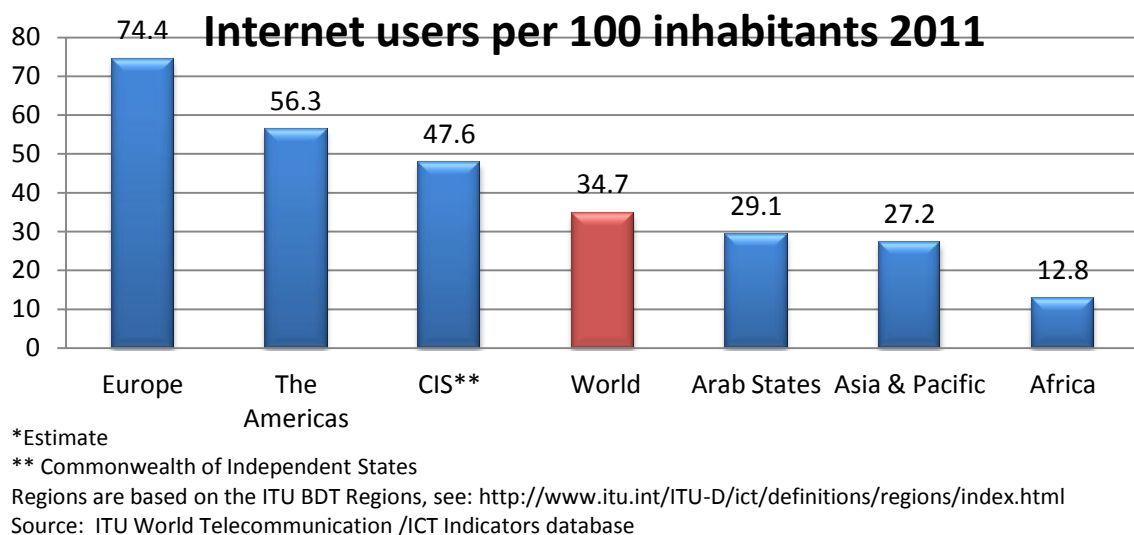


Figure 4



REPUBLIC OF GHANA

Ghana is an African country with 24.79 million people (CIA Factbook: 2010). The urban population stands at 51 % (CIA Factbook: 2010). The country shares borders with Togo, Burkina Faso, and Cote d'Ivoire and the Gulf of Guinea. The total area of the country (size) is 238,533 sq km, out of which 11,000 sq km is occupied by water (CIA Factbook: 2010). Ghana has about 60 different languages with many tribes. The country gained independence from Britain in 1957 and established self

rule. Ghana's GDP per capita currently stands at \$2,500 (CIA Factbook: 2010). Electricity consumption as of 2010 stood at 6.06 billion kwh (CIA Factbook: 2010). According to figures from the Ghana Statistical Service the literacy rate of Ghana as of 2010 stood at 57.9%. (www.statsghana.gov.gh/). Since independence in 1957, Ghana has seen four military coups, and returned to stable constitutional democracy in 1993. Until the Bretton Woods institutions recommended deregulation and privatization of state corporations as conditionality for receiving assistance from the World Bank and International Monetary Fund, telecommunication and mass media were solely in the hands of the state. The mass media (newspapers, radio and television) were government owned and were under the Ministry of Information. Telecommunication (telefax, landline telephone) was together with the postal service and called Ghana Post and Telecommunication (P&T). The sector was under the Ministry of Communication. Regulation was not much of a problem in the telecommunication sector because it was one hundred per cent government-owned. The only area where the government had issue with regulation was the mass media which had a few private newspapers outside the control of government; due to the politically sensitive nature

Figure 5, Flag and Map of Ghana: thebrightestman.com



of private newspapers many laws, including censorship, were adopted by the various regimes to control the media.

Ease of Doing Business Ranking 2012

On the Ease of Doing Business ranking 2012, Ghana's overall score was 104 as against the Sub-Saharan average of 119. Out of the 183 countries surveyed worldwide by The World Bank and International Finance Cooperation (IFC) on the nine (9) point criteria, below are Ghana's rankings. Getting Electricity (68), Resolving Insolvency (106), Enforcing Contract (45), Trading across Borders (90), Paying Taxes (90), Protecting Investors (46), Getting Credit (48), Registering Property (36), and Dealing with Construction Permits (156).

Ghana's Ease of Doing Business Ranking Compared with Sub-Sahara African Average

Ghana's Ease of Doing Business Ranking in 2012 was better than the Sub-Sahara African regional average in almost all the categories except Dealing with Construction Permits where Ghana scored 156, lower than the Regional average of 112. This is depicted by figure 2. The 2012 rankings however shows reductions in the gain made in 2011. Comparison between the 2012 and 2011 rankings showed retrogression in Starting Business. Although Ghana has experienced a drop in ranking from the 2011 figure of 85 to the 2012 figure of 104 in the ease of doing business indicators, Ghana is still the best place in the Sub-Saharan African region to invest because the regulatory milieu is favorable for the commencement of local and foreign investment operations. The table below is the summary of the 2011 and 2012 Ghana rankings compared with the Sub-Saharan African Regional Best Performers and the Global Best Performers.

Starting Business Ranking (Ghana 104)

Item	Rank (Year 2012)	Rank (Year 2011)	Regional Best 2012 (Sub- Sahara Africa)	Regional Average (Sub- Sahara Africa)	Global Best Performer
Getting Electricity	68	74	68 (Ghana)	122	1 (Iceland)
Resolving Insolvency	106	115	70 (Cote d'Ivoire)	127	1 (Japan)
Enforcing Contract	45	45	45 (Ghana)	117	1 (Luxemburg)
Trading Across Borders	90	87	90 (Ghana)	134	1 (Singapore)
Paying Taxes	90	52	76 (Sierra Leone)	115	8 (Canada)
Protecting Investors	46	44	29 (Sierra Leone)	112	1 (New Zealand)
Getting Credit	48	45	48 (Ghana)	110	1 (United Kingdom)
Registering Property	36	34	36 (Ghana)	119	3 (New Zealand)
Dealing with Construction Permit	156	112	59 (Ghana)	112	1 (Hong Kong SAR, China)

Table 2: Summary of World Bank, IFC Ease of Doing Business Rankings

National Media Commission (NMC)

Upon the promulgation of the 1992 Constitution, an independent state agency (National Media Commission - NMC) was formed to regulate the media and also insulate the



government-owned media houses from governmental interference for them to play their roles efficiently as the fourth estate of the government power structure (1992 Constitution of the Republic of Ghana: Chap

12). The NMC takes its powers from article 163(1) of the Constitution, which, among other things, mandates them to seek the independence of the media for mass communication of information, and to pass regulations to manage issues of ethical standards and mode of registering media houses. The NMC also settles complaints, monitors media responsibility by providing capacity-building training for media professionals and also periodically conducts research to measure improvement of the industry. Activities of the Commission are carried out in line with the national communication policy of Ghana. Records from the NMC indicate that as of December 2011 Ghana had a total of 1600 registered newspapers, journals and magazines. Records from the National Communications Authority also indicated that as of December 2010, there was a total of 203 number of radio stations and 56 Television stations in operation in Ghana. , The Commission is headed by an Executive Secretary and twelve Commissioners, representing major stakeholders in the media industry, including government representatives.

National Communications Authority (NCA)

To promote efficiency as part of deregulation and privatization, the government of Ghana in 1999 established the National Communications Authority (NCA) in order to set policy a direction to regulate the telecommunication industry.

The NCA is in charge of licensing, spectrum allocation (including Television and Broadcasting), standards and specifications, and settlement of disputes in the sector. The NCA is headed by a Chief Executive who manages activities of the agencies with an eleven member Board of Directors.

They set standards for technology, pricing structure, fair competition and sound environmental practices (<http://nca.org.gh/>). In 2010, the telecommunication sector contributed 2% of Ghana's GDP. Figures from the NCA indicate that there is an increase in the number of licenses requested in the sector.



Although the NCA and the NMC are two different independent government agencies performing different tasks, their functions sometimes overlap. While the NMC is constitutionally mandated to regulate the mass media, the power to allocate license and spectrum for television and radio has been given to the NCA, a situation which sometimes creates confusion among investors.

COMMUNICATION CONVERGENCE: THE GHANAIAAN EXPERIENCE

As part of efforts to maximize the benefits of the communications sector, Ghana has separated telecommunications from transport in response to trends in information communication technology. The purpose of this exercise was to “manage the convergence of

communications and technologies to promote a viable integrated national development within a global setting” (www.ghana.gov.gh). Upon its creation, the Ministry of Communications have formulated many policies, including the National Communications Policy (COMPOL ‘98’), Information Communications and Technology for Accelerated Development (ICT4AD), National Telecommunications Policy 2005 (NTP’05), and the establishment of Ghana Investment Fund for Electronic Communications (GIFEC) to make communication services accessible and affordable by all the citizenry. The National Communications Authority (NCA) was later created to provide a neutral environment for the proper functioning of the communication industry. Since its establishment, the NCA has embarked on several initiatives to facilitate easy deployment of communication services. Currently, the NCA is in the process of changing over television broadcasting from the analogue to digital under the Digital Terrestrial Broadcasting (from the frequency band 174-230 MHZ and 470-862 MHZ) to present an enhanced spectrum effectiveness. This is to ensure high quality audio, video and also an interactive communications services (www.nca.org.gh). Through the innovative policies introduced by the NCA, most of the telecommunication networks have introduced IPTV which is gaining popularity among the masses, increasing the Mobile Voice Subscriber Base.

REPUBLIC OF SOUTH KOREA

The Republic of South Korea is a country distinguished in the comity of nations by rising from extreme poverty to become a world economic powerhouse with a per capita GDP of thirty



thousand dollars (US\$30,000) (CIA Factbook: 2010). South Korea gained independence in 1945 and has a population of 48,754,657 out of which 83% live in urban centers (CIA Factbook: 2010). The country consumes 402 billion kwh of electricity annually (CIA Factbook: 2010). South Korea exports about US\$464.3 billion worth of goods every year (CIA Factbook: 2010). Export commodities include automobiles, petrochemicals, steel, ships, semiconductors and wireless telecommunications equipment (CIA Factbook: 2010). The country spends 4.2% of GDP on education and has literacy rate of 97.9%. About 19.289 million of South Koreans use fixed line telephones, 47.944 million use mobile cellular, and 39.4 million are internet users (CIA Factbook: 2010). The mass media industry is fairly vibrant with many newspapers, radio stations and television networks using state of the art technology. Technology has been on the agenda of the South Korean government from the early 1960s when President Park Chun Hee included Electronics as part of the six major industries to be promoted as part of his Heavy and Chemical Industry (HCI) Drive. The institutions that regulate the industry include Korea Communications Commission (KCC), Korea Internet Security Agency (KISA), and Korea Communications Standards Commission (KCSC).

Korea Communications Commission (KCC)

To provide direction to the convergence of broadcasting and telecommunication, the Korean government on February 29, 2008 founded the Korea Communications Commission (KCC) as a presidential commission to actively respond to the changing trends of digital convergence. According to their brochure (KCC 2010) "...The KCC plays a key role in advancing Korea as a communications leader by integrating diversified functions of



broadcasting and telecommunications, and thereby increase efficiency, improve regulations and market environment, as well as promote new technology development (KCC 2010 Brochure).” KCC as the consolidation of the previous Korean Broadcasting Commission and Ministry of Information and Communication has the responsibility of making policies as well as regulations for the industry.

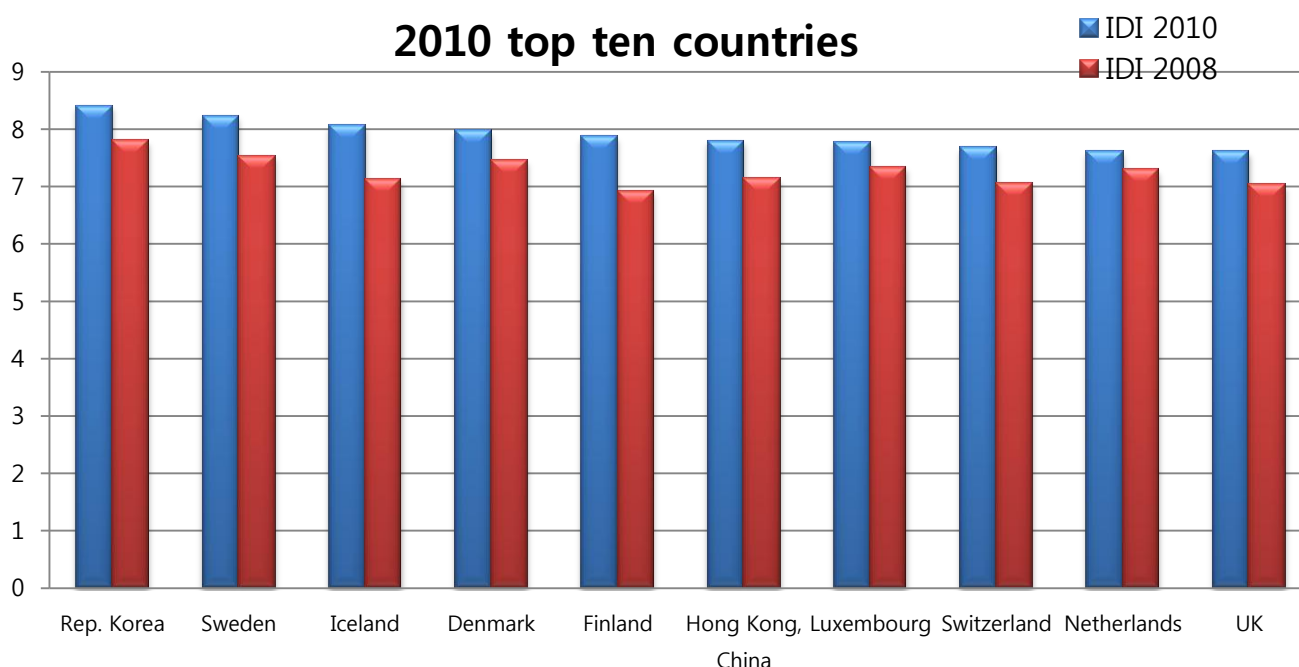
KCC’s policies seeks to promote communications and media industries, lead the development of future networks, enhance the rights and interests of communications users, enhance global communications capabilities, and provide capacity-building and knowledge sharing in the industry through the organization of ICT Experts Training Courses (KCC Brochure, 2010). The government of South Korea further consolidated the Korea Information Security Agency, the national Internet Development Agency of Korea, and Korea IT International Cooperation Agency Development into Korea Internet Security Agency (KISA) to maximize the benefit of ICT while protecting users from cyber threats. KISA carries out its mandate by working hand in hand with the Korea Communications and Standards Commission (KCSC). Below is the organizational chart of the KCC detailing its functions and scope (www.kcc.go.kr).

COMMUNICATION CONVERGENCE: THE KOREAN EXPERIENCE

With the vast experience coming from the Heavy and Chemical Industry (HCI) Drive initiated by President Park Chung He with specific reference to the semiconductor industry, South Korea took great advantage of the opportunities offered by the information superhighway by promoting technology enhancing policies. As far back as 1981 South Korea had started passing laws on terrestrial broadcasting laws. For instance, between the years

1988 and 2011, seven major reforms were carried out in the sector, including the Broadcasting Law (1988.11.) Cable TV Act (1991.12.), the telecommunications Business Act (1995.1.), the Broadcasting Law (2000.3.), Korea Communications Commission (2008.2.29.), and the Korea Communications Standards Commission (2008.5.14.). South Korea was ranked number one in The E-Government Development Index & the E-Participation Index by the United Nations in 2010. South Korea is also ranked number one in the ICT development index in a survey conducted by International telecommunications Union (www.itu.int/).

ITU ICT Development Index (IDI) :



Source: ITU Measuring the Information Society 2011.

In their bid to maintain their lead role in the expansion of convergence services, South Korea has adopted measures to ensure ubiquity by offering to all uncomplicated access to latest convergence technologies. This was achieved by making possible the convergence of broadcasting and telecommunications through the development of digital technologies; making legal and systematic enhancements; promoting ancillary industries to catalyze the development of new technologies; and crafting a vision for the industry. Policy wise, South Korea ensured fair competition, enhanced communications content, and protected the interest

of communication users (KCC Brochure 2011). For instance, the Korea Communications Commission as part of reform created a special office (Broadcasting and Communications Convergence Office) which was manned by a Convergence Policy Officer. The duty of the Convergence Policy Officer was to create conditions for people to gain from new services and improved content (www.convergencekorea.org). To increase convergence services, South Korea amended the legal regime of the communications industry as a means to boost business viability. On security, Korea developed safer a communications environment that insured citizens against cyber attacks. By the close of 2012, South Korea plans to end analogue broadcasting and migrate to digital broadcasting to provide data broadcasting and interactive services. Find below Korea’s action plan for communications convergence. In line with international best practices, South Korea is embarking on policies to decrease CO2 emission in the communication industry by promoting low-power broadcasting equipment, by supporting the building and shared utilization of communication infrastructure, and finally endorse the recycling of used cellular phones.

South Korea’s Action Plan Towards Improved Communication Convergence

TO PROMOTE
COMMUNICATIONS
AND MEDIA
INDUSTRIES.

- Support growth in the communications sector and assist domestic media companies to evolve into global players. Low entry barriers for new players, encourage free and fair competition, and ease rules and regulations.
- Help global communications markets grow by investing in core next-generation communications technologies, including 3D TV, 4G, and cloud computing.
- Promote economic development and contribute to job creation by growing the industrial sector such as advertising, content, and communications services.

<p>TO ENHANCE THE RIGHTS AND INTEREST OF COMMUNICATION USERS.</p>	<ul style="list-style-type: none"> • Develop better security technologies to reduce internet privacy issues due to hacking, cyber attacks, and the disclosure of personal information as well as strengthen the ability to cope with such events when they occur. • Reduce telecommunications cost by promoting convergence services such as TPS (Triple Play Services: Broadband+IPTV+VoIP) and QPS (Quadruple Play Service: TPS+Mobile), reducing mobile phone subscription fees, and improving billing systems. • Help customers guard against unfair service contracts and excessive user penalties. Increase monitoring of communications service providers.
<p>TO LEAD THE NETWORKING WORLD OF THE FUTURE.</p>	<ul style="list-style-type: none"> • Create a high-quality communications services environment by building a Giga-Level UBcN (Ultra-Broadband Convergence Network). Develop a vision for the future Internet by creating innovative core technologies and participating in international research efforts. • Extend the range of Mobile WiMax (Wireless broadband access) and WiFi (Wireless LAN) to enhance the use of the wireless internet. Develop new services that utilize the wireless internet and foster the growth of associated industries. • Extend the digital divide among regions and within income brackets. Extend broadband network coverage to outlying areas, and increase their access to e-Learning and telemedicine services.
<p>TO ENHANCE GLOBAL COMMUNICATIONS CAPABILITIES.</p>	<ul style="list-style-type: none"> • Continue hosting overseas promotional events and operating exhibition halls to increase the overseas expansion of communications convergence services such as DMB (Digital Multimedia Broadcasting) and Mobile WiMax. • Support feasibility studies and launches of pilot programs to introduce new services. Help small-and medium-sized enterprises produce PR materials. • Grow Korea's profile as a global communications leader by expanding the range of ODA (Official Development Assistance) in the communications field both quantitatively and qualitative, participating in cooperative projects with international organizations, hosting world conferences and events.

Source: Beyond & More Communications for a New Decade by KCC

LITERATURE REVIEW:

In considering strategic and regulatory frameworks governing communications convergence with emphasis on developing countries, Raja and Singh (2010) observed that, “Countries that enable convergence through appropriate policy and regulatory responses will realize significant benefits in terms of expanded access, lower prices, and greater competition.” The fundamental assumption behind this proposition is that competition is useful for the development of telecom and mass media operations in developing countries. However, most investors in the sector use population size, geography, GDP per capita, and literacy rates to assess their investment opportunities in the communications sector (Sakai, 2011). Consequently, it would be unprofitable for a private investor to invest in a country with small population, low literacy rate, and low per capita GDP. I am therefore of the opinion that competition as a convergence policy to attract investments would not yield the desired results when a country’s population is small, and it has a low per capita GDP and a low literacy rate.

The role of communications for national development has dominated intellectual discussions from the days of Wilbur Schramm to the present. Schramm (1964) held the opinion that, if effectively used, the mass media could play a pivotal role in the development of poorer countries, believing that the media could improve lives by exposing citizens to learning opportunities. Schramm made these observations with the view that the mass media’s role in society was to help inform, entertain and educate. Perhaps, Schramm did not take into consideration the profit motives of private investors in the mass media industry as they exist in the contemporary environment. Schramm may not have anticipated a public service broadcaster existing side by side with a multinational private media entity competing for audience. A question which comes to mind when one assesses Schramm’s proposal amidst the introduction of competition as a

policy by government by Raja and Singh (2010) is would private investment in the mass media broadcast programs help the advancement of a country or would it focus rather on issues that would increase its market share and profit?

Touching on the contentious issue of communication convergence and its impacts upon development, Ha (2008) explains that convergence was speedily altering the mode of competition among industries. Ha notes that the process is led by what he terms “market forces of demand, pull of user and technology, push by innovative companies.” Ha observes that for companies to be profitable they must be able to “read the changing industry value chain and exploit the profitability as first movers. On the other hand, a company without a forward-looking response will lose much more than before as a follower.” [Is this quote fully accurate?]] According to Ha government policy on telecommunication was the third force that rules the industry, stating that

...government has to take the initiative to direct the development of the telecommunications industry and to lay down game rules for all players in the market. If the government plays its role successfully -- by setting the right direction, promoting competition and supporting market shortcomings, it can give a great stimulus to the industry's growth and dynamism.

Ha's views are in line with the proposition by Raja and Singh (2010). Ha again supports the idea that government must facilitate convergence by encouraging national governments to seek to direct the growth of the industry by conducive public policies as a form of stimuli. Looking at the drivers of investment in the communications sector today, would it make economic, social and political sense for a developing country to invest in communication convergence as opposed to focusing on increasing the literacy rate and improving GDP per capita?

In recommending policy alternatives to developing countries on the proper role of the regulatory agencies in promoting mass media and telecommunication convergence, Raja and Singh (2010) argued that:

For regulatory frameworks to create an enabling environment, they have to remove artificial restrictions and promote competition on a level playing field. Ensuring an enabling regulatory framework will require that the tools and approaches used for authorization, spectrum management, interconnection and access, and universal service facilitate the free play of market forces and the deployment of new technologies.

Raja and Singh, however, contend that facilitating convergence by merging regulatory institutions for broadcasting and telecommunication services for the purpose of multiple play “...takes time and political capital” and can reduce the enthusiasm for further reforms, and suggest that “...success in moving toward multiple play depends more on coordination between agencies and their ability to function in a way that enables new business models and operations.” I intend to examine critically this proposition against consolidation of regulatory agencies in the telecommunications and media sector in developing countries, taking into consideration the financial cost of having separate institutions, the time and administrative constraints in having to secure double licenses for a single investment, and the cost of the two regulatory institutions exercising overlapping mandates.

According to Bar (2000) laws and policies regulating communications have undergone many changes with time. Bar explains that the different media have been treated with distinct policies, emphasizing that rules which regulate press, broadcasting and telecommunication have differed from state to state and even sometimes differed from one

regime to another. He maintains that communication policy that keeps different rules to regulate the evolving mass media and telecommunication industry is incoherent:

The current media convergence, fueled by increasingly pervasive digital technologies, represents a double disruption. First, the digitization of existing media questions the basis for many existing rules in each medium. For example, digital transmission eliminates much of the scarcity that justified past broadcasting rules. Second, once separate media now become potential substitutes. For example, telephone calls can now be offered differently over copper cables, TV cables, radio waves or the Internet. While the service is the same, different rules apply to its delivery in each medium. This situation begs the question: Is the communication policy goal or its implementation so different in each case that we should require a different rule or even a different government agency for each device?.

Bar concludes that policymakers must focus their attention on the software configuration that defines the architecture of communications platforms instead of paying so much attention to regulation of ownership of network facilities:

In the pre-convergence world, fundamental policy concerns stemmed from a desire to preserve access to communication platforms. ...Therefore, policy naturally focused on the regulation of physical technological objects and the behavior of their owners. In the new converged environment, multiple communication platforms can be programmed onto interchangeable digital networks. ...the key determinant of the platforms' architecture is no longer the ownership of the underlying facilities, but rather the ability to configure their logical architecture through software (Bar 2000).

In view of the above, Bar contends that policy must emphasize software application as opposed to ownership structure. Though correct this view can have dire consequences if

followed without much precaution, the foremost reason being that depending on the political stability and level of social trust of a country, and not paying much attention to the ownership structure of players of the industry may create more problems than it can solve. For instance, at a time where military warfare employs technologies such as Global Positioning System (GPS) to launch continental ballistic missiles, leaving the ownership structure of the communication architecture in the hands of the market without strict monitoring can compromise national security. Again, the issue of information asymmetry about cost of communication service to the end user requires national governments to be interested in the ownership and shareholders of operators.

On the other hand, the cost implication of not allowing market-based economic principles to shape the mass media telecommunications industry is huge. It is estimated that when the deposed former President of Egypt (Hosni Mubarak) in 2011 shut down the internet for five (5) days in a bid to stop the demonstrators from using the social media networks, Facebook and Twitter, to organize themselves in an attempt to quell the incessant public protests, the country lost about \$90 million (Noble 2011). This shows the power of the media and the economic fortunes it brings to nations. Attacks on the Egyptian President by world leaders for having restricted the right of Egyptian citizens also raised the question as to whether the fundamental human rights of people include their right to use technology. If the right to use technology becomes a basic human right then what would be its effect on regulation? Obviously, this is a dilemma that must be solved as communications convergence evolves to encompass all aspects of society.

Touching on the policy implications of globalization on developing countries, Archibuli and Pietrobelli (2002) observed that the benefit of the globalization of technology was available to all countries that implement policies to embrace it, and added that developing countries were no exception. They argued that globalization of technology offers

opportunities for all nations (including developing countries) but certain enablers like investments in areas of science and technology must be implemented to reap its benefits. They concluded that it is more advantageous when governments seek to promote cooperation through Public Private Partnerships (PPP) in the sector by setting up “strategic technological agreements” instead of seeking to promote foreign direct investment into the sector.

This point is very important because a country must have educational systems to train engineers to be able succeed, for instance, in software development. Without the required human capital, it will be difficult for government to attract investors into the communication sector. Government policy and investment direction in this sense will be useful in benefiting from the globalization of technology. Such a policy would serve as a signpost to attract investors in the field of ICT into a developing country.

Uncertainty surrounding Information Communication Technology makes policymakers cautious of taking decisions since a good decision may turn out to be bad because of the evolutionary and sometimes destructive nature of technology. Governments therefore face three dilemmas according to Raja and Singh (Resist, Wait and Watch, And Enable). By Resist they argue governments unsure of the impact of convergence use policies to restrict its spread by not allowing new services. Other governments hold on to policy and only act when it becomes necessary by observing the world technology scene. Some governments, however, take bold initiatives to update policies in order to promote communication convergence. A case in point is the South Korean government’s decision to consolidate the Korean Broadcasting Commission and Ministry of Information and Communication into the Korea Communications Commission to promote convergence of broadcasting and telecommunication. Find below some implications of convergence policies as discussed by Raja and Singh (2010).

Table 3. Some Examples of Regulatory Impediments to Multiple Play

Impediment: Restrictions on new entry	Implications
An internet service provider with its own network is authorized to provide internet access but prohibited from providing voice-over-internet protocol (VoIP) service.	The regulatory environment prevents networks from delivering all capability to customers. The financial viability of network investment is damaged and deployment of service restricted.
An incumbent telephone company invests in high-speed broadband network but faces delays in obtaining authorization to provide content services such as cable television or IPTV.	The regulatory environment delays implementation of expanded service or service choice to customers and damages the attractiveness of network investment.
An incumbent telephone company has regulatory obligations – such as local loop unbundling, payment of universal service funds, or price control- that do not apply to cable television operators or sellers providing the same or similar services.	The regulatory environment is not providing a technology-neutral level playing field. As a result, customer choices are distorted and there is a loss of economic efficiency.
An incumbent telephone company has better access to public rights of way than cable television operators.	The regulatory environment is not providing a technology-neutral level playing field.
Radio spectrum is available at a nominal price to some users (such as broadcasters) but is available to others only at commercial prices that reflect scarcity value (such as cellular mobile or broadband wireless access operators).	As convergence progresses, with more video content distributed over mobile or broadband wireless access networks, the need to progress all commercial users toward a common system of economic pricing for spectrum becomes important.

Source: Rajendra Singh and Siddhartha Raja (2010:pg38), Convergence In Information And Communication Technology: Strategic And Regulatory Considerations, The World Bank, 1818 H Street, NW, Washington DC, USA

THEORETICAL FRAMEWORK:

According to the “media naturalness” theory as espoused by Ned Kock (2004), human behavior towards technology can be understood in a variety of contexts. The theory argues that since early history communication has taken the form of face-to-face interaction and that technology reduces the naturalness of speech communication. This is because factors such as

body language of speakers (gestures, smiles, frowns, etc.) cannot be found in computer mediated communication. In the view of Kock (2010),

The media naturalness theory predicts that any electronic communication medium that allows for exchange of significantly less or more communicative stimuli per unit of time will pose more cognitive obstacles to communication than does the face-to-face medium... Media naturalness theory places the face-to-face medium at the center of a one-dimensional scale of naturalness, where deviations to the left or right are associated with a decrease in naturalness....

With the advent of Skype where face-to-face communication has been enabled via webcam the electronic medium will place no major obstacle to cognitive communication since factors such as gestures, smiles and frowns can be observed when communicating electronically. Perhaps, the only factor in the naturalness conception which may not be possible is smell or gestures performed off-camera.

Another theory that examines the deliverables of technology and communication is the Social Construction of Technology (SCOT) theory supported by scholars such as Wiebe Bijker and Trevor Pinch (http://en.wikipedia.org/wiki/Social_construction_of_technology). The fundamental import of this theory is that “human actions are not decided by technology. Instead, it is the behavior of humans that influences and molds technology.” This theory shares the fundamental views of the uses and gratification theory propounded by Katz (1959). SCOT explains that technology is rooted in the context of society and as such its usage must be assessed within the situational context of a people. The theory is premised on the idea that to know what motivates the use of technology one must take into account the social milieu of the users.

SCOT presupposes that the educational background and social networks a person keeps, financial status and even political and ideological predispositions of a person will determine

how and for what they use technology. In this vein, it is fair to assume that the success or otherwise of a media and technology policy of a country will depend principally on the country-specific contexts. An effective policy in a developing country can, however, not be said to be appropriate for another that has similar economic indicators but different political and social contexts.

A theory that examines technology and its cost components is Moore's Law (Moore 1965). Moore's Law states that "the number of transistors per square inch that can be placed inexpensively in integrated circuits doubles approximately every 18 months" (http://www.webopedia.com/TERM/M/Moores_Law.html). This law also implies that as the cost of transistors shrinks the cost of technology that uses the devices goes down. By extension, recent advancement in ICT devices proportionally lowers costs to consumers. This is what has led to the proposition by Raja and Singh (2010) that enabling convergence policies translates into lower prices for consumers in telecommunications and mass media. They believe that when government policy enables the use of modern technology, cost of the sector comes down and the consumers receive the benefits.

The final theoretical base for the study is the theory of competition supported by the law of demand and supply which forms the bases for the principles of the market economy. According to the law of demand and supply, when supply exceeds demand, prices fall. This is so because consumers will have variety of goods and services to choose from driving the cost of expensive goods down. Producers compete for consumer's limited income by providing better service at cheaper cost. The law holds that competition in the marketplace reduces exploitation by producers on consumers and prevents those (producers) from making supernormal profit on goods and services.

It is this economic principle that has given impetus to the proposition in the mass media and telecommunication sector that effective communications convergence policies promote

competition by opening up the market for new entrants. The question that comes to mind is whether this principle would be effective in a highly capital intensive service industry like mass media and telecommunications in developing countries. Would a competitive environment help draw investors into such a country?

CHAPTER III

HYPOTHESIS DEVELOPMENT:

This study seeks to argue against two major recommendations that have dominated scholarly discussions on mass media and telecommunication convergence. The first argument is that competition as a government policy to attract investment into the communication sector can be counterproductive in less populous developing countries with low literacy rates and low GDP per capita. The second is that delays associated with reorganization of institutions and lack of political will cannot be a justification for regulatory agencies for mass media and telecommunication to be kept separate in the face of communication convergence.

Hypothesis 1.

The fundamental bases for which Raja and Singh (2010) advocate competition as a national policy to draw investment in the mass media and telecommunications industry is the law of demand which states that producers compete for consumers limited income by providing better service at lower cost. They argue that when competition is introduced in the sector, it will encourage innovation and improved technology that will reduce cost to end users. However, in the view of Hodge and Weeks (<http://link.wits.ac.za/papers/telelaw5.pdf>), markets in the telecommunications sector function differently from the conversational markets. Hodge and Weeks argue that “the significant economies of scale in constructing telecommunication networks relative to the market demand has been the rationale for public monopolization of the sector. ...therefore, introducing more operators in the market would increase the average cost for all the operators as their scale is reduced, resulting in increasing prices.” The issue of the economies of scale, along with geography and per capita GDP, still

play a big role in the industry even with convergence. Thus my hypothesis: introducing competition as a government policy to allow more entrants into the mass media and telecommunication sector is not economically wise for a developing country with a small population, low literacy rate, and low GDP per capita.

Hypothesis 1: Introducing competition as a government policy to allow new entrants into the mass media and telecommunication sector is not an economically wise decision for a less populous country with low literacy rate, and low GDP per capita.

Hypothesis 2.

Raja and Singh (2010) further argue that success in putting communication convergence into operation has more to do with coordination between agencies that allows for introduction of new business models but not necessarily by consolidating regulatory agencies for mass media and telecommunications under one umbrella governmental body. Due to the capital-intensive nature of the industry, there is the need for straightforward procedures in the sector. Investment opportunities in the industry are likely to be blurred if there are multiple agencies mandated to regulate the industry. It is imperative to remove bottlenecks that arise out of multiple governmental agencies with overlapping mandates.

My second hypothesis therefore, is that time constraint and lack of political capital cannot be an economic justification to allow separate governmental institutions to regulate the mass media and telecommunication industry in the age of communications convergence. My contention is that when one takes into consideration the financial cost of having separate institutions; the time and administrative constraints in having to secure double licenses for a single investment; and the cost of the two regulatory agencies exercising sometimes

overlapping mandates in the regulations on business attraction, it will ease the burden on investors if regulatory agencies for mass media and telecommunication are consolidated as one agency.

Hypothesis: Time constraint and lack of political capital (will) cannot be an economic justification to allow separate governmental agencies to regulate the mass media and telecommunication industry in the age of communication convergence

Hypothesis 3.

Raja and Singh (2010) observed, “Countries that enable convergence through appropriate policy and regulatory responses will realize significant benefits in terms of expanded access, lower prices, and greater competition. The question is, are there significant economic, political, and social benefits for developing nations to facilitate communication convergence through policy? I contend that communication convergence promotes globalization of media content. Therefore, a nation that opens up its economy may weaken or destroy local media and telecommunications companies. At the social level, developing countries will face difficulty in preserving their national culture and tradition if they allow entry of multinational companies in the mass media and telecommunication industry. On the political front, I am of the view that developing countries stand the risk of compromising their national security if they allow communications convergence in mass media and telecommunication without paying sufficient attention to the ownership structure of operators as suggested by Bar (2000).

Hypothesis 3A: Developing countries that open up their mass media and telecommunication industry to entry by multinational companies in an age of communication convergence risk destroying local media and telecommunications operators.

Hypothesis 3B: It will be difficult for developing countries to preserve their national culture and tradition if they allow entry of multinational companies in the mass media and telecommunication industry.

Hypothesis 3C: Developing countries stand the risk of compromising their national security and defense if they allow the communication convergence in mass media and telecommunication without paying much attention to the ownership structure of operators.

Hypothesis 4.

To reap benefits from communication convergence through policy, the government of the Republic of Korea in 2008 founded the Korea Communications Commission (KCC) by a presidential order. It was mandated to actively initiate policies to respond to the changing trends in convergence. The commission plays a key role by integrating and diversifying broadcasting and telecommunication. In their 2010 Annual Report, the Chairman of KCC, Choi See Joong indicated that their efforts had been a success. Choi pointed out that broadcasting and telecommunication export in areas, including WiBro, set-top boxes and broadcasting content, have been steadily increasing, lifting the industry's share of GDP from 8.0% in 2008 to 8.6% in 2010 (KCC Annual Report, 2010). I am, however, of the opinion that regardless of the differences in context and economic background, Ghana can learn much from the experience of the Republic of South Korea.

My hypothesis is that although Ghana has different economic contexts it can learn many

lessons from the experience of Korea Communications Commission (KCC) in communication convergence.

Hypothesis 4: Ghana has many lessons to learn from the experience of Korea Communications Commission (KCC) in communication convergence.

CHAPTER IV

METHODOLOGY:

This study seeks to argue against two major recommendations that have dominated scholarly discussions on mass media and telecommunication convergence, and which enjoy support from the World Bank. The first is that competition as a government policy to attract investment into the communication sector can be counterproductive in less populous developing countries with low literacy rate and low GDP per capita. The second is that delays associated with reorganization of institutions and lack of political will cannot be a justification for regulatory agencies for mass media and telecommunication to be kept separate in the face of communication convergence. To prove the above points, the study will employ the use of both qualitative and quantitative methods of inquiry.

Qualitative Method

The first research hypothesis (H1) aims at testing whether competition as a national policy to draw investment in the mass media and telecommunication sector can be generalized for all countries, including developing countries. This hypothesis would be assessed by conducting interviews with experts in the field of mass media and telecommunication, economists, investments bankers, ITC policy Experts and government officials in the sector.

The second research hypothesis (H2) would be tested qualitatively by reviewing Ghana's ranking and ratings in areas such as ease of doing business (time it takes to start and close business, ease of enforcing contracts, ability to trade across borders, and ease of resolving insolvency), economic stability, the level of trust in the country, and corruption

perception index. Rankings of ten developing countries would be compared with ten developed countries to help examine whether it would be a good economic decision to allow regulatory agencies for mass media and telecommunication to be kept separate or be consolidated to promote convergence. Additionally, interviews with experts (economists and communications experts) would be done to examine this proposition. The interviews would be recorded and analyzed for useful conclusion. My hypothesis therefore, is that time constraint and lack of political capital cannot be an economic justification to allow separate governmental institutions to regulate the mass media and telecommunication industry. The experience of the Korea Communications Commission would be assessed to draw a conclusion.

The third research hypothesis (H3) would be measured qualitatively by analyzing literature and conducting interviews with political scientists, ICT Experts, Regulators, and economists on the impact of opening up a country's communications industry for competition. The political, social, and economic reasons would be assessed using interview guide for all the interviews. The interviews would be captured by a recorder and interpreted later. Conclusions would be made by deduction, using the interview guide and the objectives of the study.

The fourth research hypothesis (H4) would be measured qualitatively by examining the relationship between the government investment in the mass media and telecommunication sector and its impact on growth. This would be measured observing budgetary allocation to the sector and its impact on the growth in GDP of South Korea. The budgetary allocation for a period of five years would be examined. This, together with achievements of the Korea communications commission in providing convenient environment to the communication convergence would be used to test whether Ghana does have any lesson to learn from the

experience of the Korea Communications Commission (KCC) in communication convergence.

The other research questions: which policy option (restrictive, “watch and see”, or enabling) did South Korea adopt in managing telecommunication and mass media convergence?; How true is the claim that Communication Convergence increases competition by allowing new entrants?; How true is the claim that Communication Convergence promotes private investment in communication infrastructure?; How accurate is the claim that conducive Convergence policies translate into lower prices for consumers?; How accurate is the statement that competition due to convergence leads to reduced tariffs and increased service coverage; Are there any dangers of Communication Convergence to national security and development of local ICT industries in developing economies?; and Is it economically feasible for national governments to invest in ICT Infrastructure as a platform to attract investment into the communication sector?, would be answered qualitatively by reviewing literature from KCC’s Annual Reports, website of PriceWaterHouseCoopers, articles from the Wall Street Journal, and figures from International Telecommunications Union (ITU)

CHAPTER V

DATA ANALYSIS AND DISCUSSION:

The following are the summary reports of the views and opinions from the experts on the major research hypothesis analyzing the policy implications of mass media and telecommunication convergence in developing countries.

Profile of Experts

Professor Yoo, Jung Ho is a Lawyer and an economics professor lecturing at the KDI School of Public Policy and Management, after extensive work experience from the Korea Development Institute (KDI), a research think-tank that propelled South Korea from a receiver of foreign Aid to a donor in a period of 50 years. Prof. Yoo has conducted many research on economic policy and national development and also published many books on Korea's economic development. Professor Emeritus Hongik Chung is the Chairman of the Board of Directors of Korea Culture and Tourism Institute and a Lecturer at the Graduate School of Public Administration, Seoul National University, South Korea. Prof. Chung also lectures in Cultural Policy at the KDI School of Public Policy and Management. He has extensive knowledge in national culture and its impact on national development. Professor Stanley Sakai is an Investment Consultant, ITC Policy Expert, and also lectures in ITC and Development at the KDI School of Public Policy and Management. He has vast experience in ICT related investments in developing countries, having served as a consultant to many governments in third world developing economies. Mr. Ko, Chang Hyu is the Deputy Director at the Korea Communications Commission (KCC) in charge of International Cooperation. He has an immense experience in mass media and telecommunications

convergence, having worked with the KCC since its establishment. Mr. Koo, Jin-Wook is also a Deputy Manager in charge of Strategy and Planning Division at the Korea Communications Standards Commission (KCSC). The KCSC handles issues of media content, media consumer protection and dispute settlement in the media landscape in South Korea. Mr. Koo has dealt with many complaints emanating from mass media and telecommunications convergence, especially on issues of public interest in internet content and national development. Mr. George Sarpong is the Executive Secretary of the National Media Commission (NMC), Republic of Ghana. He is a Communications Consultant and a Lawyer. He is also a Board Member of The National Communications Authority (NCA). Mr. Sarpong is also a member of the Media and Governance Institute of Ghana, a media content and policy think-tank. Mr. Kwame Benjamen Boateng is a Lawyer and a security Analyst. Mr. Thomas Broni is an Investment Banker working with the Prudential Bank Limited, Republic of Ghana. He is also a part time lecturer at the University of Ghana Business School. Ms Rhoda Gavor is an Assistant Director in charge of Policy Planning, Monitoring and Evaluation at the Ministry of Communication, Republic of Ghana. Mr. Yar Ishaq Alhassan is a Director in charge of Legal and Local Administration at the Ministry of Local Government and Rural Development, Republic of Ghana. He also exercises supervisory role on policy issues in communication and rural development. He is a Lawyer and a Sociologist.

Should communication convergence necessarily lead to the consolidation of regulatory agencies for mass media and telecommunication?

The advent of technology convergence between mass media and telecommunication has necessitated the debate as to whether institutions that regulate the two disciplines should be unified to ensure effective regulation. Below are the views of the experts interviewed. On the

above question, Professor Stanley Sakai was of the opinion that unification of institutions in the two sectors would not be necessary if the regulatory framework is well coordinated. He indicated that having two separate regulatory institutions would be a hindrance to effective policy implementation and monitoring only when there is lack of commitment and vision on the part of leaders of the two respective agencies. He said if the two agencies are headed by qualified persons who enjoy support from key players in the sector, including government, civil society and private operators, effective regulation would be possible without a merger. Professor Yoo Jung Ho was of the opinion that a decision to unify regulatory institutions must be based on country-specific economic, legal and political considerations. He also emphasized the essence of coordination over mere unification of agencies. He indicated that when the bottlenecks that inhibit progress are not identified and eliminated, unifying regulatory agencies wouldn't achieve satisfactory results.

Conversely, Mr. Ko Chang Hyu said by virtue of the convergence between the technologies for mass media and telecommunications, unifying regulatory institutions for both was the ideal way to promote effective regulation. He said there had been an increase in investment in the Korea communications sector after the merger of institutions regulating mass media and telecommunications in 2008. He indicated that apart from the communications convergence in mass media and telecommunications, unifying regulatory institutions serves as a means of operating a smaller administrative structure which cuts down government expenditure. He was resolute that the government's decision to unify regulatory agencies in South Korea had reduced the operating cost of media operators. He said if proper consultation is carried out among relevant agencies, unifying the regulatory agencies would have no political backlash. He said by consolidating regulatory agencies for mass media and telecommunications, South Korea created a global level media environment for easy

deployment of technology-based convergent services like Internet Protocol television (IPTV), Smart TV and Ad screen. He recommended that from policy management perspectives, it is vital for the two regulatory bodies to be unified to create effective regulation.

Professor Hongik Chung was of the view that decisions to unify regulatory agencies must be based on investment needs and aspirations of a country. He said if merging the institutions would yield better results countries should not hesitate to unify regulatory agencies. Mr. Thomas Broni was of the opinion that having two separate institutions that exercises overlapping responsibility was not a wise decision for developing countries, especially those with huge budget deficits. For his part, Mr. Koo, Jin-Wook indicated that unifying regulatory agencies for mass media and telecommunication was the best way for developing countries to enjoy the fullest of communication convergence. Ms Rhoda Gavor was of the opinion that a decision to unify must be arrived at after assessing the human resource and the financial capabilities of the agencies in question. He said the legal regime and the political environment of a country should play a key role in the option nations adopt. Mr. George Sarpong was of the view that if regulatory agencies are well resourced and independent from political interference there would be no need to consolidate institutions because of convergence. Mr. Yar Ishaq Alhassan was of the opinion that any attempt to unify regulatory agencies in a developing country would require tedious legal and constitutional processes which had the potential to derail the necessary enablement for convergence. Mr. Yar Ishaq Alhassan was of the view that when powers, functions and roles of the two regulatory institutions are properly demarcated, having two separate institutions wouldn't be a hindrance to communication convergence.

Is greater competition due to convergence policy of telecom and mass media operators useful for developing countries?

On the issue of introducing greater competition to promote convergence, Professor Yoo Jung Ho was of the opinion that greater competition in the communications industry (mass media and telecommunication) is desirable provided there would be fair competition. He explained that market discipline (when there is fair competition,) is better than government discipline since investors make good decisions when there is openness in the market. He stated that market size and technology are important determiners of the kind of policies governments adopt to attract investment to all sectors of the economy, and that the communications industry could not be an exception. He explained that if population size is small, competition sometimes becomes difficult, but competition is useful when population size is large. He indicated that regardless of the market size, competition places pressure on operators (even monopolies) to keep cost to consumers low.

Professor Stanley Sakai believes that regardless of the limitations developing countries face it is still economically attractive to introduce competitions as a platform to attract investment into the communications sector. He indicated that in today's world competition happens to be the only plausible option for attracting investments. He cited the example of Mongolia (where their population size is only three (3) million but which has have four mobile companies and quite a number of internet service providers) to justify his claim. He indicated that the key to attracting investment is in building an environment that delivers lower cost of communications to the country. He explained that government policies should be based on how to deliver i) mobile communications; ii) social networking; and iii) smart phones en masse to the population. He argued that the government's role is crucial in communication convergence, especially in policies that encourage widespread adoption of

technologies that facilitate the advancement and proliferation of convergence services. He stated that the proliferation of convergence services is important for being globally competitive and socially cohesive. He indicated that the government's role in mass media and telecommunication convergence should be: (1) Telecom: allocation of scarce wireless spectrum; and adoption of policies that create a competitive environment; (2) Content: low levels of involvement—more indirect in the creation of a proper business environment that encourages risk taking, investment and competition and protection of copyright, and finally, (3) Devices: No strong government involvement required.

Professor Hongik Chung was of the view that competition leads to efficiency in the market. He indicated that due to the way economies have intertwined at the international level, countries that fail to introduce competition risk collapsing their economies. He indicated that without competition it would be difficult for the sector to be innovative. Mr. George Sarpong was of the view that notwithstanding the fact that competition in smaller economies makes investment attraction sometimes difficult, stifling competition would destroy the potentials of the economy. He said if developing countries employ specialization of technology through business outsourcing, they would reap optimum benefit from convergence since they have the advantage of cheap labor and enough land for plant construction. Mr. Koo, Jin-Wook indicated that competition was essential because it enhances good organization. He said without greater competition, the sector would not be fertile for innovation. Mr. Yar Ishaq Alhasan stated that introducing greater competition could be counterproductive if the right to assess essential business decision-making is nonexistent. Ms Rhoda Gavor felt that competition was the effective way for developing countries to attract foreign direct investment in the communications industry. Mr. Thomas Broni indicated that although introducing competition would have some implications for

local economies, allowing monopolies to operate will eventually kill investment prospects in the sector.

Is it economically feasible for national governments to invest in Communication Infrastructure as a platform to attract investment to the communication sector?

On the question above, Prof. Yoo stated that such a decision must be arrived at after careful and detailed analysis of country-specific economic potentials. He said the positive and negative externalities of technology investments must be individually assessed by national governments and the sum calculated to justify decision making. He said investors pay attention to issues such as GDP per capita, ease of doing business and corruption perception index in deciding which country to invest in. He said if the economic and legal indicators of an economy are favorable, investors would automatically enter if the rate of investment return is high. Professor Stanley Sakai was, however, of the opinion that it is not a good investment decision for developing countries to invest in communication infrastructure as a means of attracting investment. He said the results of government investments in infrastructure in the sector have been poor, except perhaps in China where firms are still run on a private-sector basis. He advised developing nations to focus on creating the appropriate private-sector environment, while still having regulations that encourage widespread diffusion of the network and advanced services. He suggested that developing countries should pay particular attention to policies in the areas of spectrum allocation, copyright, competitive policies/anti-trust, education—making education content available on the internet, training—much required after one gets out of school; should be private sector-led, and finally government should be an effective adopter/user of technology itself. Mr. Thomas Broni was of the opinion that investors are attracted to countries that have stable economies and political

stability. He said as a result, governments in developing countries should focus on growing the economy by developing sound financial markets. Mr. George Sarpong was of the view that governments in developing countries should focus on building strong institutions to enable effective regulation. He said if there is no independent regulator and the judicial system of the country is not professional, government direct investment in the sector would not be useful. Ms Rhoda Gavor was also of the opinion that government's role in the communications industry should centre on facilitation and regulation but not direct investment in laying of infrastructure. She indicated that when the appropriate private sector environment is created investments will follow automatically.

Are there any dangers to the development of local ICT industries, the preservation of national culture, protection of national security when governments in developing countries open up their mass media and telecommunications industry for entry by multinationals as a result of Communication Convergence?

On the above question, Prof. Yoo Jung Ho was of the view that the infant industry argument mostly used to support the view against outward orientation has a weak base. "The implicit assumption in the argument is that an infant industry will grow and be competitive to catch up with multinationals when protected at the initial stage. This point, however, does not factor the cost it places on domestic consumers into consideration. Above all, there is no guarantee that infant companies will grow when protected. In most cases, protectionism leads to inefficiency" he stated. Finally, on the issue of whether opening up a country's mass media and telecommunications industry could compromise national security and threaten the preservation of national culture, Professor Yoo Jung Ho stated that "economics is not an omnipotent science that answers all questions. There is a limit to the usefulness of economics

and one cannot put a price tag on cultural values and national security. Matters of national security and national cultural preservation cannot be economically analyzed.”

On the issue of whether developing countries risk compromising their national security if they allow the communication convergence in mass media and telecommunication without paying much attention to the ownership structure of operators, he explained that FDI was not generally related to national security. He indicated that governments have ample power to deal with any breach of national security (such as taking away the license of an operator) and that it is not necessary to pay much attention to the ownership structure of operators in opening up to foreign investments. He said there were no significant economic and social risks to developing countries when they open up their mass media and telecommunication industry for entry by multinationals. “My colleague co-founded Grameen Communications in Bangladesh. It was the first multinational telecom operator in the country. He brought in Telenor (Norway) as the operator and majority owner. They still are the leader in telecom after ten years and are very successful. There is general acknowledgement by people that their work changed the country—some say it revolutionized the country.

The company led the modernization of the country that is continuing today. However, if you go to Bangladesh today you will hear (sometimes) some negative sentiment about the high levels of profit that the operator makes, though they have to compete today against four other multinational operators. There is the potential of political backlash. Yet if one puts a plus and minus table together on Telenor’s investment and involvement in the country, it would be overwhelmingly positive. It created a large win for the country and a large win for the operator—some people choose to focus on other people’s winnings and not the country’s.” He advised that for developing countries to benefit from mass media and telecommunications convergence the key drivers should be boldness in taking risk, show strong levels of

commitment to policies, and above all strive to persevere since the technology industry modeled ‘creative destruction’ as indicated by Schumpeter (1942).

On the question of whether opening up a country’s mass media and telecommunications industry for entry by multinationals is detrimental to the development of domestic industry and a threat to national culture, Professor Hongik Chung explained that preservation of national culture and the infant industry argument cannot be a justification to close up a country to the foreign market. He said although the argument for cultural preservation and protecting domestic industry makes sense to some extent, they are mostly used by dictators and corrupt governments to stifle press freedom and free speech. He said the example of Korea points to the contrary, emphasizing that by opening up the country to foreigners, Korean culture (food, fashion, and entertainment) have received international recognition (through what has been termed the Hallyu Wave or Korean Wave). Korean music and dramas (for example *Winter Sonata*, the *Iron Empress*, and *Bachelor’s Vegetable Store*) are now among the most popular in the world and many countries show them on their national television stations.

He indicated that it becomes problematic when countries with a colonial past speak of preserving national culture since most of such national cultures are remnants of traditional and colonial cultures. On the question of the specific role culture should play in the development of national communications policy, Prof. Chung indicated that national culture must play a pivotal role but emphasized that culture should not be allowed to serve as a hindrance to attracting investment since culture is dynamic. He said the security implications of opening up a country’s borders to foreign investors in the communications sector could be good or bad but that will not be a good justification for closing up a country. “The argument for national security would make sense if closing up a country insulates it from such threats.

But so far, there is not enough evidence to arrive at the conclusion that countries that fail to open up face no threat to national security and culture. He further indicated that although culture is important to the development of nations, it would not be a wise idea for governments to prioritize culture over sound economic reasons like outward orientation. He said the experience of Korea, with regard to culture, is ample proof that opening up a country's mass media and telecommunications industry to foreign investors is not a threat to national culture. Mr. Thomas Broni was of the opinion that opening up to multinational companies would have some implication for local industries, national culture and national security but indicated that such a concern was not a justification for closing up an economy. Mr. Yar Ishaq Alhasan was however of the opinion that opening up the industry to multinationals have the potential to make indigenous communication industries less competitive. He indicated that because interest rates in developing countries are mostly high, indigenous communications industries would not be competitive if the government does not cushion them at the initial stage. He indicated that the powerful nature of social network platforms like Facebook, Twitter and YouTube, poses challenges to developing countries, especially multiethnic ones. He said if maximum security is not taken by governments to identify owners and their motives, the good qualities of convergence would be destructive to the national development. Mr. George Sarpong was of the view that the very nature of the mass media and telecommunication industry makes it difficult for it to be isolated from the international network. He said closing a country to the outside world in the communications industry is tantamount to walling that country from technology itself. He said isolationist policies by developing countries would do more harm to a developing country than opening up the economy may cause. He said the issue of cultural preservation in the modern world, especially in an age of convergence, should not be a major difficulty to deal with.

Can Ghana draw any lesson from Korea's policy direction and experience in telecommunication and mass media convergence?

On whether Ghana could learn anything from the experience of South Korea in mass media and telecommunications convergence, Mr. George Sarpong was of the view that Korea's example in the effective deployment of technology-based convergent services like Internet Protocol Television (IPTV), Smart TV and Ad screen are worthy of emulation. He said that the popularity of Korean entertainment (soap operas, dramas and music) is a good example for developing countries to adopt. He said the Korean example amply indicates that argument against outward orientation on the bases of preserving national culture, protecting indigenous industry, and protecting national security cannot be correct. Ms Rhoda Gavor indicated that Ghana has a lot to learn from the experience of South Korea. She said advancement in technology as a result of effective government policy for the communications industry coupled with the fact that South Korea remains one of the safest places for cultural tourism and technology investment should encourage Ghana to open up to foreign investments. Prof. Stanley Sakai suggested that Ghana can learn a lot from the Korean experience especially, as an adopter and user of technology. He said South Korea's achievement in e-health, e-education and e-government (participatory budget) set a standard for all developing countries. He said governments from developing countries would gain a lot when they follow Korea's example of being a facilitator and also user of communication technology. He indicated that e-government has the potential to reduce cost involved in paperwork and also promote participatory democracy at all levels of the economy.

ISSUES EMERGING FROM THE INTERVIEWS WITH EXPERTS

After extensive interviews with the selected experts on the policy implications in mass media and telecommunication convergence in developing countries, the following salient points emerged.

INTRODUCTION OF COMPETITION

On the main issue of introducing competition as a national policy to facilitate investment in the communications sector (mass media and telecommunications) the experts were of the opinion that regardless of the size of a country (significant economies of scale), the literacy rate, and GDP per capita, the importance of competition in promoting efficiency in the communications sector cannot be underestimated. The experts also argued that although competition is useful in promoting multiple play in the age of communications convergence; governments from developing countries should adopt country-specific competitive policies. They advised that a one-size-fits-all communications policy would be counterproductive since developing countries have different needs and challenges. The views expressed by the experts are in tandem with the views of scholars like Ha (2008) and Raja and Singh (2010) who argue inter-alia that countries that adopt competition as a response to mass media and telecommunication convergence enjoy significant benefits. The argument that greater competition in the industry reduces the investment prospects (rate on investment) for the industry in a less populous country with low GDP per capita and low literacy rate, however, appeared weak after detailed analysis of the views of the experts. This is because the issue of saturation of the industry when population size is small seems not tenable. Even in the most populous nations such as China, India and Indonesia the argument for a saturation point can be made if a projection is made by increasing the number of telecom operators in the country

while all indicators remain the same to assess the level at which introducing more telecom operators reduces profitability of the sector. Regardless of this analysis, the fact remains that in countries with small population, saturation occurs earlier than those with larger population size. However, the magnitude of investment (installation of base stations for telecom operators and transmission stations for radio and television) that would be required in a country with larger population size is higher than the investments that would be required in smaller countries. This same argument, however, can't be made in situations where a country's population size is small but it has a large land mass or a country's population is big with a small land mass. Introducing competition would be more attractive if a country's population size is big but with a small land mass (as in countries like Egypt, Pakistan, Ethiopia and Brazil) than when population size is small with big land mass (as in countries like Chad, Cyprus, Djibouti and Angola). Another point that is worthy of note is the type of technology (cable or satellite) investors and governments adopt in a country. In an archipelagic country like Indonesia the type of technology that would be needed is different from a flat land country like Ghana.

Although competition is effective in increasing efficiency and growth, experts argue that competition becomes productive only when there is fairness. The World Bank view (Raja and Singh 2010) is premised on the assumption that there would be fair competition in the communications industry in all countries. On the contrary, rankings from the Corruption Perception Index (CPI) by Transparency International and data from World Bank's Ease of Doing Business ranking indicate low progress in developing countries. Most developing countries (Ghana included) score low in both the CPI and Ease of Doing Business rankings. It therefore makes academic sense to assume that it will be difficult to expect fair and unbiased competition to exist in countries whose record in corruption and effective business

transaction is low. Having said this, there is also no guarantee that asymmetry of information likely to occasion as a result of corruption and ineffective business environment would make monopolies efficient if competition is discouraged.

UNIFICATION OF REGULATORY INSTITUTIONS

On the second argument over whether developing countries must necessarily consolidate regulatory institutions for mass media and telecommunication to be able to effectively regulate the communications sector in the age of convergence, the experts were not resolute. While some favored the merger as a way of reducing duplication of functions, others were of the opinion that proper coordination, instead of a merger, was the best way to allow easy deployment of convergent services as the borders between mass media and telecommunications become blurred. In the opinion of the experts, a decision to unify agencies or not must be arrived at after careful consideration of the economic, social, legal and political conditions of a country. The views of the experts appear similar to the points raised by Raja and Singh (2010) to the effect that unifying regulatory institutions for the purpose of multiple play take time and political capital and can minimize the eagerness for further reforms. These views are however in contrast with the position of Bar (2000) who argued that communication policy that keeps different rules to regulate the evolving mass media and telecommunication industry is incoherent (Bar 2000). Bar (2000) wondered whether communication policy goal or its implementation is so different, and as such required a different rule or even a different government agency for each device (Bar 2000).

Bar's (2000) argument is fully shared by the experts and even by Raja and Singh (2010). The only difference is that the experts agree more with the proposition that in practical terms the difficulty of reorganization of institutions can derail the real purpose of the unification. In

the case of a developing country like Ghana, such a merger would have administrative and constitutional challenges. The National Media Commission is a creation of the 1992 Republican Constitution of Ghana. A government's decision to unify the National Media Commission and the National Communications Authority would require an inter-ministerial process of reform by the Ministry of Communication which has oversight responsibility for the National Communications Authority, and the Ministry of Information that has an indirect link with the National Media Commission. The inter-ministerial process would be presented to the cabinet of the President for approval before laying the bill for the merger in Parliament. Parliament would forward the bill to the Committee on Subsidiary Legislation that would deliberate on the merger by holding consultation meetings with the relevant stakeholders before laying it back to Parliament for debate. Parliament would pass the bill into law after extensive debate and forward the reform to the President for his assent. Such processes in Parliament if not under the certificate of urgency sometimes take more than two years to complete. Rearranging the administrative setup by aligning agencies will cause some staff, especially top management, to lose their positions or the power and privileges associated with their previous positions. The thought of this dilemma has the potential to kill the interest of top management, thereby reducing their willingness to fully cooperate with legislators to fast-track the constitutional and administrative requirements necessary for the merger. This makes the argument by Raja and Singh (2010) to the effect that accelerating convergence by unifying regulatory bodies for broadcasting and telecommunication is time consuming and requires bold political decision making which has the potential to halt further reform, especially when major stakeholders cannot see what they stand to gain from such a merger. As indicated by Adam Smith, people do not ordinarily work against their own interest. It emerged that although South Korea has consolidated regulatory institutions to promote easy deployment of technology-based convergent services, many institutions coordinate to manage

the sector. For instance, while Ghana has only four (4) major institutions (namely the Ministry of Communications, Ministry of Information, the National Media Commission and the National Communications Authority) handling the telecommunications and mass media, South Korea after the consolidation still has a total of five (5) institutions (namely Korea Communications Commission (KCC), Korea Communications Standards Commission (KCSC), Korea Internet Security Agency (KISA), and Korea Advance Institute of Science and Technology (KAIST)) that combine to effectively regulate the communications industry. More importantly, it emerged that investor confidence in indices like the ease of doing business and corruption perception index serves as hindrance only when there is ineffective coordination of institutions, but not merely having two regulatory institutions.

THREAT TO INDIGENOUS COMMUNICATIONS INDUSTRY

Experts were of the view that although opening up a country for entry by multinationals poses some dangers to the indigenous communication and mass media industry, the infant industry argument was not a good justification to close up a country's economy to foreign investors. It emerged that although there is the potential of political backlash to opening up a country to foreign investors, the positive outcome always far outweighs the negatives. Opening up a country's communications industry for entry by multinationals leads to technology transfer which eventually creates a large win for the country and a large win for the operator. The experts recommended that for developing countries to benefit from competition, conditions that facilitate fair competition must exist. Market discipline, instead of state discipline, was seen as better condition for fair competition, since investment decisions thrive on openness in the market. It was further recommended that local content policies were important facilitators of technology transfer. For this to happen, however,

developing countries are advised to focus on establishing educational institutions that prepare citizens for knowledge acquisition since knowledge transfer becomes practical when there is ready manpower eager to learn. Lastly, it was recommended that regardless of the market size, literacy rate, and GDP per capita levels (in terms of average revenue per user) competition keeps cost low to consumers.

PRESERVATION OF CULTURE AND PROTECTION OF NATIONAL SECURITY

The experts argued that preservation of national culture and national security considerations were not good justification to close up a country to the foreign market and deny citizens their right to information. It emerged that the argument for cultural preservation and protecting domestic security are mostly used by dictators and corrupt governments to stifle media freedom and also to evade accountability. The example of South Korea (a country with a rich culture and with vast technology as well as ongoing tensions with North Korea) points to the contrary. The Korean culture (The Hallyu Wave or Korean Wave) has received international recognition upon opening up to the outside world. Another point that became evident is the fact that when countries with a colonial past speak of preserving national culture, they mostly make culture appear static instead of it being dynamic. In most cases, the cultures they claim to protect are cultures of colonial masters or remnants of traditional and colonial cultures. For instance, it emerged during the interview that the popular music genre for which Ghana is known and which the nation has adopted as its national music (the Highlife) was an adulteration of traditional folk music with jazz and multiple guitars. The Highlife at its initial stage of development was resisted by traditional music lovers as inferior but now constitutes the nation's popular music genre. Currently, there is a resistance by the old people and even some scholars to Hiplife (a new music genre

which started in the early 90s and which is overtaking the Highlife music). The irony of the Ghanaian situation is that it is the originators of the Highlife music, who were themselves accused of destroying traditional Ghanaian music in the 1970s, are the ones opposing the new form of music (Hiplife) as non-Ghanaian.

Nonetheless, one cannot underestimate the dangers opening up pose to the local industry. Since Ghana started opening up the mass media industry to the private sector, local Ghanaian production of soap operas are gradually giving way to importation of soap operas from Latin America and Asia. Ghanaians are developing a strong taste for *telenovelas* from Latin America and Asia to the detriment of Ghanaian local productions.

On the issue of protecting national security it emerged that the excuse for closing up a country to foreign investors was not tenable since such isolation does not insulate it from security threats. This view is in line with the proposition by Bar (2000) that the policy focus that sought to safeguard admission to communications platforms in the pre-convergence era due to control of scientific objects and actions of their owners is no longer relevant. He argued that because in the freshly converged milieu, many communication platforms can be built upon interchangeable digital systems, the fundamental determinant of the platforms' architecture is no longer the ownership of the underlying facilities, but rather the ability to configure their logical architecture through software (Bar 2000). The experts shared the view that government strategy ought to highlight software applications instead of ownership structures. The argument calling for security precaution on reasons of political stability and level of social trust of a country was seen by the experts as not being a good enough reason to warrant a nation in paying much attention to the ownership structure of operators. It had been argued that much attention should be paid to the ownership structure of players of the industry. The example of the Arab Spring in Egypt, Libya and Tunisia (all closed economies)

further indicates that culture and national security considerations cannot be used to justify decisions of developing nations not to embark on outward orientation.

GOVERNMENT INVESTMENT IN COMMUNICATIONS INFRASTRUCTURE

On the question of whether it is economically wise for governments in developing countries to invest in ICT infrastructure as a platform to attract investment in the communications sector, the popular view was in the negative. The argument that a government's investment in the communications industry comes with positive externalities that catalyze the key enablers of national economic development such as education (e-education), quality health care (e-health) and informed citizenry (e-government) is what underlies the proposition for developing countries to invest in the ITC sector. This raises the chicken and egg dilemma (which one came first). In other words, should the government invest in the communications infrastructure to reap the benefits of positive externalities, or grow the economy by investing in measures that improve per capita income, increase enrolment and create fertile conditions for private investment? It emerged during the interviews with the experts that developing countries should conduct country-specific feasibility studies of the externalities in the communications industry before taking investment decisions. It was argued that the positive and negative externalities of technology investments must be individually assessed by national governments and the sum calculated to justify investment action. The major argument was that with the exception of China, government direct investment in laying communication infrastructure has generally had poor results. The views of the experts appeared inconsistent with the proposition by Archibuli and Pietrobelli (2002) that although globalization of technology presented prospects for every nation, investment in the areas of science and technology was needed to reap its benefits. The experts,

however, agreed with Archibuli and Pietrobelli (2002) that it is more beneficial when governments encourage collaboration through Public Private Partnerships (PPP) in the sector by setting up “strategic technological agreements” instead of seeking to promote foreign direct investment into the sector. The experts advised that developing nations should focus on creating the appropriate private sector environment, while still having regulations that encourage widespread diffusion of the network and advanced services. Paying special attention to policies in the areas of spectrum allocation, copyright, education and government’s effective adoption of technology was seen as ideal. Since private investors in the communications industry assess the profitability (Average Revenue Per User (ARPU)) on investments with indicators such as literacy rate, GDP per capita, electricity consumption rate and population size, it would make economic sense for national governments, especially in developing countries, to prioritize investment in important sectors like education, electricity infrastructure development, improving microeconomic stability and creation of sound financial markets.

After extensive interviews with the experts, what became evident is that although communication convergence presents huge opportunities for national development, much is required in terms of detailed economic, legal and technical analysis by government to craft a country-specific policy response that factor in national competitive advantage to enjoy the full benefits of convergence. The argument by Grant (2010) that communication technology can have varied opportunities (positive and negative) for countries which are not adequately equipped for its impact on politics, economy and social lives of the people seem accurate. The dominant view is that there are many advantages as well as disadvantages that come with the spread of Information Communication Technology.

CHAPTER VI

CONCLUSION

The study aimed at analyzing the major recommendations in mass media and telecommunication convergence. The first was that competition as a government policy to attract investment into the communication sector can be counterproductive in less populous developing countries with low literacy rate and low GDP per capita. The second is that delays associated with reorganization of institutions and lack of political will cannot be a justification for regulatory agencies for mass media and telecommunication to be kept separate in the face of communication convergence. The data collected from experts seem to support the assertion that: there are recognizable implications for communication convergence policies on the growth of domestic communications industries, on national security and on the preservation of national culture when developing countries introduce competition as a deliberate government policy to attract investment by opening up the industry to foreign investors. These implications are, however, not significant enough to deter developing countries from allowing for greater competition in the age of mass media and telecommunications convergence to maximize benefits from the advent of technology services in the industry. The reason is that regardless of population size (significant economies of scale), literacy, and GDP per capita (income levels of subscribers), greater competition allows market discipline, instead of government discipline, to determine the profitability or otherwise of the industry. The market forces of demand and supply, where there is fair and open competition that enables symmetry of information, continue to be the best yardstick for investment. This allows investors to independently embark on market feasibility to justify investments. The advantages and disadvantages of the implication of

government communication convergence policy on developing countries in the areas of economics politics, national security, and culture are summarized in table 4 below.

Table 4. Implications When Competition Allows Entry of Multinationals

Policy Implications In Mass Media And Telecommunication Convergence In Developing Countries When Competition Allows Entry Of Multinational Communication Companies.			
Category	Advantages	Disadvantages	Remedy
Economics	<ol style="list-style-type: none"> 1. Capital injection in the communications industry by multinationals. 2. Appreciation of local currency. 	<ol style="list-style-type: none"> 1. Dollarization of local economy. 2. High inflation due to importation foreign goods. 	<ol style="list-style-type: none"> 1. Encourage multinational companies to safe in local economy by granting incentives.
Domestic Communication Industries	<ol style="list-style-type: none"> 1. Technology transfer to indigenus industries. 2. Increase efficiency and competitive levels of local companies. 	<ol style="list-style-type: none"> 1. Reduce the investment potentials of local industries since they do not have enough capital to compete with multinationals. 	<ol style="list-style-type: none"> 1. Invest in technology education to prepare citizens for knowledge acquisition. 2. Pass local content laws to require multinationals to employ local citizens.
Legal Implications when regulatory institutions are unified	<ol style="list-style-type: none"> 1. Afford the opportunity for legislative reform in the communications sector. 2. Introduction of international legal best practices in regulations. 	<ol style="list-style-type: none"> 1. Require constitutional amendments in the communications Act. 2. Create possible litigation among major stakeholders. 	<ol style="list-style-type: none"> 1. Adopt practice laws that allows for effective regulation. 2. Empower independent regulatory agencies to be able to effectively manage challenges in the sector.

Socio-cultural Preservations	<ol style="list-style-type: none"> 1. Offers opportunity for the projection of local culture at the international level. 2. Help eliminate negative culture that hinders national development. 3. Help in the transmission of local culture through social platforms like YouTube, Face book, and Twitter. 	<ol style="list-style-type: none"> 1. Cause negative cultural adulteration (dilution of national culture) 2. Expose the youth to 	<ol style="list-style-type: none"> 1. Invest in the promotion of national art and culture. 2. implement local content policy that allows national culture to be part of corporate culture
National Security	<ol style="list-style-type: none"> 1. Improve security by the use of modern technology and effective telephony for policing. 2. Help in security hotspotting by the use of GPS. 	<ol style="list-style-type: none"> 1. Create the opportunity for the dissemination of hate speech that can spark ethnic and religious wars (through Facebook, YouTube and Twitter). 2. Increase the incidence of cybercrime in the country. 	<ol style="list-style-type: none"> 1. Train and resource security agencies to be proactive in eliminating harmful content on the internet. 2. Empower the security agencies to be able to fight cybercrime.
Political	<ol style="list-style-type: none"> 1. Improve government/citizens relations through e-governance. 2. Reduce the cost of political campaigning. 	<ol style="list-style-type: none"> 1. Increase citizens pressure on governments. 2. Allow for the use of online technology to defame political opponents and create electoral violence. 	<ol style="list-style-type: none"> 1. Require mass media managers and internet service provider to embark on self censorship of information that can create electoral violence.
Government information systems	<ol style="list-style-type: none"> 1. Help in the dissemination of government information. 2. Promote fast interaction between citizens and their government. 	<ol style="list-style-type: none"> 1. Open source social network platforms like Facebook and YouTube can be used to create distortion of information. 2. Increase the pressure on government to respond to allegations. 	<ol style="list-style-type: none"> 1. Governments must cultivate the habit of providing accurate and timely information to prevent information distortion.

The second conclusion is that it is not a wise economic decision for developing countries to invest in the laying of communication infrastructure as a platform to attract investments into the communications industry. Even though there are many positive externalities (e-education, e-health, e-commerce, and e-government) in investing in communication infrastructure, government investment in infrastructure mostly does not yield many positive results. This is so because such investments make governments appear as business entities instead of policy makers and regulators. The best option based on the interview with experts is that developing countries should concentrate on growing the economy (creating sound financial system), improving literacy rates and removing bottlenecks in the communications industry by creating conditions for effective regulations of the industry by well resourced and empowered independent regulators. The reason is that private investors would automatically invest in an industry when it offers good returns and the regulatory and financial environment is conducive. The last option that can increase investment attraction in the industry is when governments make a deliberate policy to become adopters and users of technology. Since government constitutes the biggest spender in developing economies, a policy to allow government agencies to use communications technology would increase the market potentials of the industry to justify private investment.

The third conclusion is that regardless of the advantages having one regulatory institution for mass media and telecommunication brings, as the borders between traditional mass media and telecommunications become blurred, communication convergence should not necessarily lead to the consolidation of regulatory agencies for mass media and telecommunication. It emerged during investigation that effective coordination, instead of simple consolidation of regulatory intuitions, is what is needed to promote easy deployment of technology-based convergent services. It came out that unlike South Korea (where the

merger between regulatory agencies did not create a significant difficulty), most developing countries like Ghana would experience legal (national constitutional), political and administrative difficulties when attempts are made to unify regulatory bodies even as the borders between mass media and telecommunications become blurred. From the analysis, it appears that while South Korea has boldly embraced communications convergence by the adoption of enabling policies to facilitate its spread, Ghana operates on the watch-and-see approach by monitoring global trends and enacting laws to promote investments. It also appears that the lack of clear policy direction by the two major political parties in Ghana seem to affect the country's resolve to benefit fully from communications convergence. For instance, a national communications policy which was started in October 1998 (COMPOL '98') and completed in October 2000 awaiting cabinet approval was shelved after the defeat of the initiating government. The policy was reviewed into the Ghana Information and Communication Technology for Accelerated Development (ICT4AD) after four years. The legal backing of the Ghana Investment Fund for Telecommunications (Electronic Communications Act 775) came into force after eight (8) years. A similar situation nearly repeated itself in the Ghana/Vodafone sale in 2008 after the defeat of the party/government that offloaded Ghana's interest to Vodafone UK. The absence of a true and non-partisan national development plan by Ghana in the communications sector is a major drawback to efforts at maximizing benefits from the industry. The unity of purpose exhibited by the Korean political figures (the pragmatic flexibility) in the communications sector needs emulation by the Ghanaian political elites if Ghana is to attain the stage of attracting massive investments in the communications sector.

LIMITATIONS OF THE STUDY

This Study comes with major limitations: first, even though I intended to (1) examine the truth of the claim that Communication Convergence increases competition by allowing new entrants there was no available data to make a reasonable conclusion; (2) investigate how true is the claim that Communication Convergence promotes private investment in communication infrastructure, the available literature was not sufficient to ascertain the veracity of the claim; (3) examine how accurate is the claim that conducive convergence policies translate into lower prices for consumers, there were no available data at the Korea Communications Commission to enable me to verify such analysis, and study how accurate is the statement that competition due to convergence leads to reduced tariffs and increased service coverage, there were no data for investigation. The second major limitation was that there was no available country data to allow for quantitative analysis of my research question on the impact of competition. One of my major hypotheses was that competition as a government policy to attract investment into the communication sector can be counterproductive in developing countries. The aim was to test whether competition as a national policy to draw investment in the mass media and telecommunication sector can be generalized for all countries regardless of the level of development. I sought to measure this quantitatively by developing an investment projection for the telecom and mass media sectors using the dependent variable (profit margin or price level) against the number of operators (independent variable). The cost of the projection will include components that embody the industry such as network infrastructure, devices, and content/applications. The dependent variable would include factors such as GDP per capital, population rate (urban and rural), literacy rate, land size (Area KM^2), topology (main land or island), electricity consumption per capita, number of PC owners as a percentage of the population, and Average Revenue Per User (ARPU). The significant level will determine whether less populous countries with low

literacy rate and low GDP per capita can benefit from convergence by introducing competition as a policy. Secondary data from the internet would be accessed to run the regression using the SPSS software. This was however not possible because there were no available real data to allow for such levels of academic discussion. The third limitation was the literature review. Although there were many books dedicated to the issue of convergence, most of the writing on this topic did not look at the negative implication of communication convergence on developing countries.

The final limitation of this study was the language barrier. Due to the fact that most of the official documents about communications convergence in South Korea were not in the English language, analysis of the Korean situation encountered some difficulties.

RECOMMENDATIONS

It is recommended that a detailed version of the study be undertaken. Such a study must involve more security experts to ascertain the security implication of communication convergence on national security. Future studies must focus on and assess the threats social network platforms like Facebook, YouTube and Twitter can pose to national cohesion in multiethnic developing countries, especially in countries where democratic elements like freedom of speech and expression are not well entrenched.

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APPENDIX

LIST OF INTERVIEWEES

Experts	
Name	Position
Professor Yoo, Jung Ho	Lecturer, Economist and Lawyer, KDI School Of Public Policy and Management, South Korea
Professor Stanley Sakai	Lecturer, Investment Consultant, and ITC Policy Expert, KDI School of Public Policy and Management, South Korea.
Professor Emeritus Hongik Chung	Chairman of the Board of Directors, Korea Culture and Tourism Institute, and Lecturer, Graduate School of Public Administration, Seoul National University, South Korea.
Mr. Ko, Chang Hyu	Deputy Director (International Cooperation), Korea Communications Commission (KCC), South Korea.
Mr. Koo, Jin-Wook	Deputy Manager (Strategy and Planning Division), Korea Communications and Standards Commission (KCSC), South Korea.
Mr. George Sarpong	Executive Secretary, National Media Commission (NMC), Republic of Ghana.
Mr. Benjamin Kwame Boateng	Lawyer and Security Analyst, Republic of Ghana.
Mr. Thomas Broni	Investment Banker, Prudential Bank Limited, Republic of Ghana.

Mr. Yar Ishaq Alhassan	Director, Legal and Local Administration, Ministry of Local Government and Rural Development, Republic of Ghana.
Ms. Rhoda Gavor	Assistant Director, Policy Planning, Monitoring and Evaluation, Ministry of Communication, Republic of Ghana.

INTERVIEW GUIDE AND SYNOPSIS

Mr. Choi See Joong, Chairman, Korea Communications Commission (KCC)

1. What informed South Korea to consolidate Korean Broadcasting Commission and Ministry of Information and Communications as one body?
 - Was it to promote competition?
 - was it to attract foreign investment into the communications sector?
 - Was it trade promotion?
2. Did South Korea increase investment into the communications sector after KCC's formation?
 - In what areas (infrastructure, device, or application)?
 - what was the percentage of increase
3. How did South Korea manage administrative and political issues in the consolidation?
 - what were the difficulties
 - good opportunities
 - How was opposition managed?
4. How does KCC manage the Mass media and telecommunication sectors?
 - media content
 - pricing structure
 - USF
5. how does KCC get policies enforced in the sector

6. how Does KCC balance competition and free speech with national security
-issues of ownership structure
7. What are the main lessons KCC has learnt after three years of convergence?
8. General comments

INTERVIEW GUIDE AND SYNOPSIS

Professor Stanley Sakai, KDI School of Public Policy and Management

1. Is the government's role very important in communication convergence?
2. What specific role should the government play in mass media and telecommunication convergence?
3. Is it necessary for the government to invest in communication infrastructure as a means of attracting investment?
4. What areas of policy should developing countries pay attention to in mass media and telecommunication convergence?
5. Would it be economically attractive for developing nations with low GDP per capita and less population to introduce competition as a means of attracting investment into the communications sector?
6. General Advise

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INTERVIEW GUIDE AND SYNOPSIS – CULTURAL POLICY EXPERT

1. Should tradition and culture of a people determine their communication policy?
2. Has the opening up of the Korean broadcasting network to international investors affected Korean culture and tradition?
3. How?
4. What should governments do to preserve the culture and tradition in their countries in the face of mass media and telecommunication convergence?
5. General Advise

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POLICY IMPLICATIONS OF MASS MEDIA AND TELECOMMUNICATION CONVERGENCE IN DEVELOPING COUNTRIES

Interview Guide

1. Information on the number of registered mass media outlets in Ghana.
 - The number of registered newspapers
 - (a) government owned -
 - (b) by private companies -
 - The number of registered radio stations
 - (a) government owned -
 - (b) by private companies -
2. The number of registered television stations
 - (a) government owned -
 - (b) private companies -
3. What are some of the major challenges faced by the NMC as a result of Mass media and telecommunications convergence?
4. Does Ghana have a specific policy that facilitates mass media and telecommunication convergence? Yes
 - (a) If yes what is the policy?
.....
...
 - (b) How does the policy function to facilitate communication convergence?
.....
...
5. What factors are driving mass media and telecommunications convergence in Ghana?
 - (a) Demand push as a result of consumer choice
 - (b) Deliberate government policy
 - (c) Private sector marketing strategy
6. Do you agree with the view that the best way for developing countries to benefit from communication convergence is to unify regulatory agencies for mass media and telecommunications?

7. Does Ghana have any plan of merging the regulatory institutions for telecommunications and mass media as a means of allowing for easy deployment of multiple play services?

Yes No

.....

...

8. What would be some of the implications if government decides to merge the regulatory institutions for telecommunications and mass media?

(a) Economic

(b) Constitutional

(c) Political

9. How does the NMC manage challenges that emanate from Mass media and telecommunication convergence?

- media content

- pricing structure

- USF

10. What would be the effective way for government to attract investment into the communications sector in Ghana?

(a) Government direct investment in laying communications infrastructure

(b) Government decision of growing the economy to create environment for foreign investment

(c) Removing the bottlenecks in investment attractions through effective regulations

(d) (a) & (b)

(e) All the above

11. Do you agree with the view that the best way for developing countries to benefit from communication convergence is to allow for greater competition in the industry?

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12. Would there be significant implications when if government allow entry of multinationals in the communication industry?

13. What would be some of the implications if government allows entry of multinationals in the communication industry?

- Economic
- Political
- Socio-cultural
- National security defense

14. How does Ghana manage competition in the communications sector with the desire to bridge the digital divide between the urban and rural communities?

15. Would be economically prudent for a less populous developing country with low GDP per capita and low literacy rate to introduce competitions as a policy to attract investments into the communications sector?

16. General Advise:

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.....
.....

17. Name: Mr. George Sarpong

18. Age: 30-35 36-40 41-45 45-50 51-55 56-60 61
and above

19. Gender: Male Female

20. Marital Status: Married Single

21. Education Qualification: _____

22. Professional Background: _____

23. Nationality: _____