CAPTURING THE GAINS

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Economic and Social Upgrading in the Mobile Telecommunications Industry: The Case MTN Uganda

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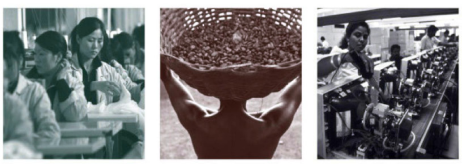

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EXECUTIVE SUMMARY

In the last two decades, there has been phenomenal growth in the telecommunications sector worldwide leaving an indelible mark in history by revolutionising lifestyles of individual, Systems, governments and entities. A number of factors have contributed to this phenomenon. Uganda has not been an exception and in some instances, has pioneered the use of mobile phone attributes to change lives. Following deregulation and liberalization in Uganda in the past two decades, the telecommunications industry has been characterised by a dynamic environment, and unprecedented innovations. This has happened at a time the sector is experiencing new technological developments, creating new opportunities.

The growth and expansion of the telecommunications has been characterised by heavy involvement of multinational companies with potential labour issues within these Global Production Networks (GPN). These companies conduct their business along established value chains that fit to form the entire industry, such as production of equipment, software development, marketing of the products and services, and distributors among others. This paper poses a number of questions in this regard:

1. What are the rights and entitlements of workers as social actors in as far as employment is concerned along the value chain?
2. Do the workers have access to better work as a result of economic upgrading in the Mobile Phone Network Operators (MNOs)?
3. Are the work conditions that is, protection and rights in line with International Labour Organization (ILO) decent work framework (employment, standards at work and rights to work, social protection and social dialogue)?
4. With technological advancement, a number of services are now offered by MNOs, such as money transfer, Short Messaging Systems (SMS) for health, business and farming purposes. What benefits have these brought to the users and what are the challenges that come with them?

The paper adopted both quantitative and qualitative techniques to collect data from representatives and stakeholders at the different nodes of the value chain. The data collection instruments included semi structured interview schedule, key informants interview schedule, documentation and a checklist. Interviews were conducted with regulators; financial Institutions; policy makers; trade union officials; money transfer stakeholders; employees of MTN Uganda, consumers and users; outlets; the franchisees, street vendors; and the Grameen AppLab project officials). This was complimented by a desk review to gather data from a variety of online resources (websites).

The papers uses the Capturing the Gains framework that is social and economic upgrading/ downgrading in Global Production Network. Upgrading is the move to higher-value-added activities in production, to improve technology, knowledge and skills, and to increase the benefits or profits deriving from participation in GPNs. MTN was selected as the MNO for the study based on the rationale that it operates in two (South Africa and Uganda) of the three countries involved in the broader study, covering South Africa, Kenya and Uganda.

The paper presents highlights of the Mobile Telecommunications Industry (MTI) in Uganda, particularly, situating it in the global perspective, in line with the Capturing the Gains (*CtG*) research agenda. It specifically looks at the case of MTN Uganda, a subsidiary of the MTN Group based in South Africa. It examines the growth and the contribution of the MTI to the Ugandan economy. It underpins the drivers of this growth, which include deregulation, liberalisation, and technology advancement in mobile phones, the growing population and strategic hinterland location. Overall, the transformation of the MTI in Uganda has brought about gains to the economy and individuals. The sector is making commendable contribution to employment, revenue and growth.

Using a qualitative approach, the paper looks at work-conditions related issues of MTN Uganda, specifically looking at the different parts of the value chain. Prominent among the approaches of the company is the practice of outsourcing labour and services to reduce costs and increase efficiency. Although limited data were available, there is a clear difference in terms of work conditions between workers of the core MTN Uganda, fixed term workers and workers in the outsourced parts of the chain like distribution of services, maintenance and the MM Network. It is concluded that conditions of work among the employees of the MTN Uganda are on average better than elsewhere in Uganda although may not meet the ILO decent work framework. However, in the effort to reduce costs, the conditions of work in the outsourced services are of a lower quality. The situation is even worse among the workers in the distribution network. It is noted that through outsourcing MTN Uganda increases efficient and cuts costs, the company keeps a blind eye to condition of work of the affected persons.

Among the developmental aspects of the company is the money transfer that has increased chances for the unbanked to participate in the banking sector and yet has challenges of regulation by both the Central Bank and the Uganda Communications Commission (UCC)[1]. The growth of the innovation is unprecedented with more innovations likely to come up in the unforeseeable future. The two regulatory agencies face a dilemma of regulating the innovation to protect consumers without stifling the innovations. Money transfer is an innovation that has revolutionalised lives but still nascent, requiring strong legislation to protect interests of stakeholders such as customers, the banks and the MNOs.

1 UCC is the regulator for The Telecommunications Industry – voice and data

MTN Uganda Ltd has provided a channel for reaching out to the under-banked and un-banked citizens of Uganda – financial inclusion, a concept that was largely foreign to the rural folk in Uganda. Mobile phone payment has presented a significant opportunity to integrate more users within Uganda's financial system at a reasonable cost especially those who are rural based. The Money transfer element has evolved into many services that can be categorised into three major groups: Money transfer, Money Payment and Money Financial Services. The banking function of MNOs presents elements of social upgrading as the service transforms the lives of people, especially in rural areas, makes profits for the MNOs, and leads to increased subscription. Furthermore, innovation in settling payments for utilities, makes remittances and provides fertile ground for both economic and social upgrading. Some utility companies have opted for MM because it affords them a cheaper avenue to collect dues from customers on a regular basis leading to closure of some due collection offices thus cutting down the operational costs. Although this has drastically cut operational costs, it comes with loss of jobs which presents a social downgrading situation.

A typical example of economic upgrading on the side of MTN Uganda Ltd and social and economic downgrading situation for the vendors and the companies that print scratch cards is where the company uses money transfer system to sell air time bypassing existing distribution channels. MTN Uganda Ltd saves by avoiding printing of new cards and paying commission to dealers and their agents. However, there is loss of employment and income. The margins of many small mobile sector enterprises (air time vendors) that thrive on the distribution of airtime comes under increasing pressure as MTN Uganda Ltd increases the sale of airtime through this virtual channel (mobile money). The companies that print the scratch cards inevitable run out of business.

The innovation where an account holder on the mobile phone can deposit cash directly into a bank account, transfer money directly to another account in the same bank, transfer money to a bank account in another bank and print a bank statement is unprecedented. The use of MM to disburse loans and collect payments by microfinance institutions lowers transaction costs and is a safer way to effect such transactions presenting upgrading elements. In particular the pension scheme money transfer system presents a potential to profoundly impact beneficiaries and reduce transaction costs of paying many persons scattered all over the country.

The emerging policy issues include: the lessons to be learnt from the success of the liberalization of the telecommunications sector; the ability of trade unions to be adoptive faced with strong MNOs; the need for trade unions to extend their activities to companies that MNOS outsource their services and the need to provide strong legislation of money transfer to protect the interests of stakeholders such as customers, banks and the MNOs.

LIST ACRONYMS AND ABBREVIATIONS

ATC	American Tower Corporation
ATMs	Automated Teller Machines
BMI	Business Monitor International
BOU	Bank of Uganda
COFTU	Central Organization of Free Trade Unions
CtG	Capturing the Gains
DFID	Department for International Development
DSTV	Digital Satellite Television
DVB-T	Digital Video Broadcast-Terrestrial
EAC	East African Community
EAP TC	East African Posts and Telecommunications Corporation
ESP	Expanding Social Protection
GDP	Gross Domestic Product
GPN	Global Production Networks
GPRS	General Packet Radio Services
GSM	Global System for Mobile Communications
GVCs	Global Value Chains
HCT	HIV Counselling and Testing
ICT	Information and Communications Technology
ILO	International Labour Organization
MFS	Money Financial Services
MM	Mobile Money
MMS	Multimedia Messaging System
MNO	Mobile Network Operator
MP	Money Payment
MT	Money transfer
MTTI	Ministry of Tourism Trade and Industry
NOTU	National Organization of Trade Unions
NSSF	National Social Security Fund
NWSC	National Water and Sewerage Corporation
PC	Personal Computer
PIP	Public Infrastructure Provider
PSP	Public Service Provider
SAGE	Social Assistance Grants for Empowerment
SIM	Subscriber Identity Module
SMS	Short Message System
TV	Television
UCC	Uganda Communications Commission
UCEU	Uganda Communication Employees Union
UGX	Uganda Shillings
UNCTAD	United Nations Conference for Trade and Development
UNICEF	United Nations Children's Fund
UPL	Uganda Post Ltd
UPTC	Uganda Posts and Telecommunications Corporation
UTL	Uganda Telecom Ltd
VSATs	Very Small Aperture Terminals
WAP	Wireless Application Protocol

1.0 INTRODUCTION

In the last two decades, there has been phenomenal growth in the telecommunications sector worldwide. The telecommunications industry has made its mark in history by revolutionising lifestyles of individual, systems, governments and entities. There are a number of factors that have in different ways contributed to the growth in the sector. Uganda has equally had its share of this progress and in some instances pioneering the use of mobile phones attributes to change lives. With the advent of deregulation and liberalization in Uganda in the past two decades, an occurrence that was embraced in much of the world economies, the telecommunications industry has been characterised by a dynamic environment, rapidly growing and manifested by unprecedented innovations. This has happened at a time the sector is experiencing new technological developments. The telecommunications companies have embraced these developments to create new opportunities. This is because in the rapidly changing industry, the availability of state-of-the art technological advancements shapes the competitiveness in the sector.

As the telecommunications sector expands, characterised by heavy involvement of multinational companies operating in a number of countries, there are labour issues within these Global Production Networks (GPN) that need to be looked at. These companies conduct their business along established value chains that fit to form the entire industry, such as production of equipment, soft ware development, marketing of the products and services, and distributors among others. This paper poses a number of questions in this regard: What are the rights and entitlements of workers as social actors in as far as employment is concerned along the value chain? Do they have access to better work as a result of economic upgrading in the Mobile Network Operators (MNOs)? Are the work conditions that is, protection and rights in line with International Labour Organization (ILO) decent work framework (employment, standards at work and rights to work, social protection and social dialogue)? With technological advancement a number of services are now offered by MNOs, such as money transfer, Short Messaging Systems (SMS) for health, business and farming purposes. What benefits have these brought to the users and what are the challenges that come with them?

The paper presents highlights of the Mobile Telecommunications Industry (MTI) in Uganda, specifically MTN Uganda. It examines the growth and the contribution of the MTI to the Ugandan economy. It underpins the drivers of this growth, which include deregulation, liberalisation, and technology advancement in mobile phones, the growing population and strategic hinterland location. Using a qualitative approach the paper looks at work-conditions related issues of MTN Uganda, specifically looking at the different parts of the value chain. Prominent among the approaches of the company is the practice of outsourcing labour and services to reduce costs and increase efficiency.

This study is structured as follows: Sections I is the introduction. Section II presents the conceptual framework used to analyse the social and economic upgrading/or downgrading, the methodology used in the study and brief background of the MTN Group and MTN Uganda. Section III delves into the trends and drivers of growth of the telecommunications sector detailing the factors that enhanced the growth, specifically technological advancement, deregulation, liberalization and direct involvement of government. Section IV presents the MTN Uganda value chain with emphasis on outsourcing as a strategy to increase efficiency and reduce costs of operations. Section V qualitatively discusses the social upgrading/ or downgrading elements to do with work security, pension and benefits, employment security, participation in trade union activities, and concludes with the employment situation in Uganda to put the discussion in perspective. Finally, section VI presents and discusses the development element of Mobile Money.

2.0 METHODOLOGY AND THE CONCEPTUAL FRAMEWORK

2.1 A summary of the Capturing the Gains Conceptual Framework

The framework for capturing the gains is the GPNs, or Global Value Chains (GVCs). In the literature, the process of exploring recent dynamics of GPNs applies two concepts: social and economic upgrading/downgrading (Barrientos, Gereffi and Rossi (2010). Gereffi (2005) identifies upgrading as a move to higher-value-added activities in production, to improve technology, knowledge and skills, and to increase the benefits or profits deriving from participation in GPNs. Although earlier work on GVCs (Gereffi 1999; Bair and Gereffi, 2001) focused on labour-intensive manufacturing, recent literature on GPNs extends to sectors such as agro-food, and services like call centres, tourism and business-process outsourcing.

Gereffi (2005) defines economic upgrading as 'the process by which economic actors – firms and workers – move from low-value to relatively high-value activities in GPNs. He divides it into four categories, each with different implications for skill development and jobs (further explained by Barrientos and Gereffi, 2010): process upgrading; product upgrading; functional upgrading; and chain upgrading.

1. Process upgrading involves changes in the production process with the objective of making it more efficient. This could involve a substitution of capital for labour and hence a reduction of skilled work. Mobile telecommunications is such a dynamic field characterised by frequent process upgrades. It is common to see one model replace the other and mobile phone manufacturers competing to outsmart each other all the time with more improved products. Some of the advances made in economic upgrading include a shift from voice transmission to introduction of data transfer such as Short Message Service (SMS), the introduction of smart phones that integrate mobile communication with Personal Computer (PC) functions such as internet and even Tele Vision link-ups.
2. Product upgrading, where more advanced product types are introduced, which often requires more skilled jobs to make an item with enhanced features. Product upgrading entails changes in the organisational process chain with the objective of making it more efficient and productive. This could include upgrading in the infrastructure such as not only relying on towers for transmission, but also on satellites and optical cables.
3. Functional upgrading involves firms changing the mix of activities performed towards higher value added tasks, for example, inclusion of finishing, packaging, logistics and transport via vertical integration, which adds novel capabilities to a firm or an economic cluster; or via specialization, which substitutes one set of activities for another. It adds and makes improvements in the number of functions performed by a firm with the aim of achieving higher value added products or services, e.g., diversification aspects

and broadening of the services scope. In all cases, new worker skill sets are required.

4. Chain upgrading involves shifting to more technologically advanced production chains, moving into new industries or product markets, which often utilize different marketing channels, and manufacturing technologies. When a textile firm shifts from traditional fabrics like denim for apparel, to strong light weight materials that can be used in the medical, defence or aircraft industries, it will have upgraded its chain and may require a different set of workers and/or new worker skill sets.

It is important to identify in each economic upgrading type the change and requirements of capital and, labour. It is likely that there will be need for new machinery, technology and, new skills.

Sen (1999; 2000) defines social upgrading as the process of improving the rights and entitlements of workers as social actors, which involves enhancing the quality of their employment. This may consist of access to better work, which might result from economic upgrading; involve enhancing working conditions, protection and rights. Social upgrading is framed by the ILO decent work framework, which is made of four pillars: employment; standards and rights at work; social protection; and social dialogue. The rationale behind it is promotion of work under conditions of freedom, equity, security and human dignity. It seeks to protect workers' rights and provision of adequate remuneration and social coverage (ILO, 1999).

Elliot and Freeman (2003) and Barrientos and Smith (2007) further categorise the concept of social upgrading into two components: measurable standards and enabling rights. Measurable standards in this context are those aspects of worker well-being that are more easily observed and quantifiable such as wage level, social protection and working hours. On the other hand, enabling rights of workers are less easily quantified aspects and include; freedom of association and the right to collective bargaining, non-discrimination, voice and empowerment.

A key issue that comes up is the relationship between the two concepts in the process of studying the dynamics of GPNs. Does economic upgrading lead to social upgrading? Under what circumstances will economic upgrading lead to social upgrading, if it does at all? These questions arise because the assumption that economic upgrading leads to social upgrading is not necessarily true. The dynamics of these two concepts in studying GPNs is the central issue of CtG.

2.2 Methodology

We purposely selected MTN as the MNO for the study based on the rationale that it operates in two (South Africa and Uganda) of three countries involved in the broader study, covering South Africa, Kenya and Uganda. Different techniques envisioned to elicit data from different sources were used and these include desk review and interviews. Interviews were conducted with various individuals instrumental on the subject matter[2]: (regulators – Uganda Communications Commission, National Information Technology Authority and Bank of Uganda; Financial Institutions – Stanbic Bank; Policy Makers - the Ministry of Information and Communication Technology; Trade Union officials –Uganda Communications Employers Union; mobile money stakeholders; employees of MTN Uganda, consumers and users; MTN Uganda; the franchisees, street vendors; and the Grameen AppLab project officials). This was complimented by a desk review to gather data from a variety of online resources (websites). The study adopted both quantitative and qualitative techniques to collect data. The respondents include representatives and stakeholders at the different nodes of the value chain. Owing to the nature of the study, the data collection instruments included semi structured interview schedule, key informants interview schedule, documentation and a checklist. The study largely used the economic and social upgrading /or downgrading framework to collect and analyze the data.

2.3 The MTN Group and MTN Uganda

The MTN Group, launched in 1994 in South Africa, is a multinational telecommunications group, offering voice and data communications products and services to individuals and businesses[3]. The Group operates Global System for Mobile Communications (GSM) licenses in 21 countries and internet service provider businesses in 13 countries, spanning three regions: South and East Africa (SEA), West and Central Africa (WECA), and the Middle East and North Africa (MENA). At the end of December 2011, the MTN Group had a total of 164.5million subscribers (Table 1). The MTN Group has 34,558 employees who represent 55 nationalities. The MTN Group is based in Johannesburg, South Africa, where it is listed on the Johannesburg Stock Exchange Limited under the share code “MTN”. It is the largest primary listing on the exchange.

In terms of revenue and investment, the MTN Group is one of the leading telecommunications group at the global scale. In 2010, MTN invested R246 million (US$31.8million) on employee development to build capacity as the Group expands. MTN predominantly uses independently owned outlets to distribute its products and services, but also has own branded stores. The rapid growth and expansion of the MTN group has been accompanied by phenomenal growth in revenues. In 2010, its revenues reached R114.7billion (US$14.8billion). During the same period the Group invested R195billion (US$2.5billion) in developing its network infrastructure, that increased the total number of their global Base Transceiver Stations[4] (BTS) to 36,750. MTN also made investments in fibre optic cables as well as growing access to broadband capacity on undersea cables.

2 Detailed list is in the Appendix Table A1
3 http://www.mtn.com/MTNGROUP
4 BTS or cell site is a piece of equipment that facilitates wireless communication between user equipment (UE) and a network.

Table 1: Trends and growth in subscription for the MTN Group ('000) – 2008 - 2011

Region and Country	Dec-08	Dec-09	Dec-10	Dec-11
South and East Africa				
South Africa	17,169	16,067	18,841	22,033
Uganda	3,523	5,222	6,463	7,629
Botswana	969	1,202	1,414	1,584
Rwanda	1,159	1,854	2,547	2,889
Swaziland	519	642	726	767
Zambia	693	1,165	1,900	2,704
Sub-total	**24,032**	**26,152**	**31,891**	**37,606**
West and Central Africa				
Nigeria	23,077	30,827	38,669	41,641
Ghana	6,428	8,001	8,721	10,156
Côte d'Ivoire	3,562	4,424	5,381	6,305
Cameroon	3,574	4,364	4,792	5,800
Guinea Conakry	970	1,273	1,761	1,987
Benin	1,010	1,564	2,144	2,399
Congo Brazzaville	823	1,274	1,666	1,672
Liberia	486	719	746	1,006
Guinea Bissau	343	413	568	591
Sub-total	**40,274**	**52,859**	**64,448**	**71,557**
Middle East and North Africa				
Iran	16,039	23,260	29,743	34,681
Syria	3,539	4,249	4,898	5,716
Sudan	2,647	3,773	3,475	6,013
Yemen	1,859	2,343	2,856	3,880
Afghanistan	2,104	3,186	4,045	4,768
Cyprus	158	205	241	280
Sub-total	**26,346**	**37,014**	**45,258**	**55,338**
Total MTN	**90,653**	**116,025**	**141,597**	**164,501**

Source: http://www.mtn.com/MTNGROUP/Pages/CompanyProfile.aspx

MTN Uganda is a subsidiary of the MTN Group whose operations are in the following countries: Afghanistan, Benin, Botswana, Cameroon, Cote d'Ivoire, Cyprus, Ghana, Guinea Bissau, Guinea Republic, Iran, Liberia, Nigeria, Republic of Congo (Congo-Brazzaville), Rwanda, South Africa, Sudan, Swaziland, Syria, Uganda, Yemen and Zambia.[5] MTN was launched in Uganda in 1998, and today it is the leading telecommunications company in the country, servicing over 7.5million subscribers. It covers over 95 percent of the local population, providing services in over 150 towns and villages and their immediate environments.[6]

5 www.mtn.com.
6 http://www.mtn.co.ug/

3.0 TRENDS AND DRIVERS OF GROWTH OF THE TELECOMMUNICATIONS SECTOR IN UGANDA

3.1 Drivers of the telecommunications sector in Uganda

The telecommunications sector in Uganda has experienced tremendous growth in the past two decades to the extent that a lot of innovations have come up to address many development problems. The introduction of major reforms over the past two decades facilitated a more open and competitive telecommunications market. An analytical examination of the drivers of this growth shows that technology exploits explain quite a lot of this success. During the 1990s the telecommunications sector underwent a number of reforms that strategically changed the functioning of the sectoral constituents. The liberalization phase indeed saw a number of new comers which generated competition and innovation. At the same time, the Government of Uganda become proactive in enhancing the reforms by particularly getting involved in infrastructural development especially to reach hard to reach areas. Finally, the initiation of a robust regulatory regime enhanced the entire process. The following section presents and discusses these factors in details.

3.1.1 Technological advancement

New technologies have influenced mobile phone services considerably in Uganda like elsewhere in the world to the extent that land lines that dominated the past have almost become obsolete. Prior to the technological advancements in the telephone industry, telecommunication networks were based on analogue technology which was characterized by a number of inflexible components, for example technology for billing the voice minutes. With the age of digitalization of networks in the 1990s by operators, there were additional services such as simple forwarding of phone calls, calling line identification that allowed increased flexibility in billing. The added functions became the foundation for much of the customer-focused functions in the telecommunications services industry that attracted many users.

A major breakthrough in the cellular digital telephony is the GSM, a standard that characterized the Uganda telephone operators "revolution". This has increased the number of companies that offer wireless phone services and similarly the number of mobile phone users. Mobile phone technology has the advantage of voice transmission through air waves, compared to landlines that need the extension of poles before access. In the past, land lines installation was extremely expensive and difficult as both the company and the customer had to make considerable investment. The new technology reversed this especially on the side of the customers.

Initially, as Econ One Research (2002) argues, policymakers throughout the industry reform programme anticipated that fixed-line services would be employed to meet a significant portion of the rollout obligations. This did not happen as expected, given that the GSM technology ideally suited the demographics of large parts of Uganda, which are predominantly rural and where it is difficult to extend fixed-line technologies like poles and wires. The rural population is in some cases dispersed rather than consistently concentrated in isolated pockets. GSM technology therefore offers the superior value proposition for rapid rural expansion. Placing a mast on a hill in a given radius is sufficient to connect an area. Therefore, the constituents of the technology used in mobile phone technology partly explain the rapid expansion in the use of the mobile phones.

With time and advancement in technology, prices of mobile phones considerably reduced from an average of US$ 200 to just US$ 20 which meant access and affordability was guaranteed. Many people in the rural areas who were practically cut off from use of phones during the era of land lines can now afford and access a phone in the least time possible leading to "proliferation of mobile phone ownership". Furthermore the progressive fall in prices for mobile phone calls coupled with the increase in the number of low-usage mobile phone users, meant that the average revenue per user (ARPU) was reduced significantly. During the same time there was migration of 2G (second generation) application platforms – SMS and Wireless Application Protocol (WAP) portals – to GPRS-based (General Packet Radio Services). This was made possible due to the availability of the Multimedia Messaging System (MMS) and kiosk-style portals, that are tailor made and target consumer geared applications (Econ One Research 2002).

In the recent past, the innovation that allows a customer to use two sim cards in one mobile phone has further increased the use of mobile phones in Uganda.

3.1.2 Liberalisation reforms and growth in the sector

The telecommunications sector as a whole, including mobile telecommunications, has undergone an unprecedented and dramatic transformation over the last two decades. This started with the liberalisation and privatisation era following the Economic Recovery Programme in the late 1980s. Historically, the telecommunications sector was run by the then East African Posts and Telecommunications Corporation (EAP&TC) under the East African Community (EAC) with the international services provided by East African External Telecommunications Company. With the collapse of the EAC in 1977, Uganda established the Uganda Posts and Telecommunications Corporation (UPTC), which was operated by decree from 1977, until the UPTC Act of 1983. Since it was the only company, UPTC operated as a *de facto* monopoly provider of both telecommunications and postal services in Uganda until 1993. Furthermore, it was the sole regulator acting under the direction of government. Such arrangements bred inefficiencies in the provision of poor services since the company could not regulate itself effectively. The government kept funding a "*bottom less pit*" and therefore some radical steps had to be taken to overcome the inadequacies, gross inefficiencies and poor services.

In 1996, the Government of Uganda outlined the telecommunications goals and numerical targets of quality and growth[7]. The Uganda Communications Act of 1997 was formulated specifically to: enhance the national coverage of communications services and products; expand the existing variety of communications services available in Uganda to include modern and innovative postal and telecommunications services; reduce government direct role as an operator in the sector; encourage the participation of private investors in the development of the sector; encourage and enable competition in the sector through regulation and licensing competitive operators to achieve rapid network expansion; reduce and if possible eliminate direct and indirect subsidies paid by government to the communications sector; and establish and administer a fund for rural communications development (UCC, 2004).

As part of the reform, the Government of Uganda adopted a four-part strategy to facilitate the rapid expansion of the telecommunications sector: UPTC was split into 3 entities, namely Uganda Post Ltd (UPL), Uganda Telecom Ltd (UTL) and Post Bank. An independent regulatory agency, the UCC was established in August 1998. Competition was introduced in the industry by licensing the first mobile operator, Celtel (1993), and the second National Telecom Operator, MTN Uganda Limited, in April 1998. The incumbent telecommunications company, UTL was privatized, where 51 per cent shares were sold to a consortium of Telecel, Orascom and Detecon in June 2000, thereby reducing government control and direct role in the sector. This ushered in Uganda an era of stiff competition in the telecommunications sector which partly explains the unprecedented growth characterized by innovations that account for the economic and social upgrading in the sector.

The UCC was established by the Uganda Communications Act 1997 (Cap 106 Laws of Uganda), with the mandate to license, monitor, inspect, regulate and ensure general improvement and equitable distribution of communications services. This development has witnessed great positive changes in the sector, leading to attraction of foreign direct investment (MTTI, 2010). A number of mobile telephone service operators joined the market to provide mobile communication services (Uganda Telecommunications Sector Report, 2005). By December 2008, four providers namely, MTN, UTL, ZAIN (now Airtel) and WARID provided communication technologies in Uganda. By 2009, seven mobile telephone service operators (providers) existed, namely, Uganda Telecom Limited (UTL), Mobile Telephone Network (MTN), ZAIN, WARID Telecom, and ORANGE Uganda Limited, SMILE and I-Telecom (UCC, 2009). The consequence of these developments is competition and innovation to capture and maintain markets, culminating into efficiency, reduction in rates and expansion of services.

7 Improving the average call completion rate from 35 per cent to 65 per cent; improving the percentage of fault recovery rate to 60 per cent in 24 hours and 95 per cent in 72 hours; providing automated telephone services to all districts and county headquarters; establishing a national network which is at least 75 per cent digital and support new intelligent services; installing pay phones and public call offices and other appropriate telecommunications services in rural areas; increasing the number of telephone lines to at least 300,000 by the year 2002; reducing the connection wait-time to a maximum of two weeks for new applications in urban areas; and introducing a national numbering plan that promotes growth of new services and is fair to competitors

3.1.3 Regulation

The reform regime stemming from the Policy of 1996 resulted in the enactment of the Uganda Communications Act (Laws of Uganda, Cap 106) in August 1997 to put the requisite legislative framework in place. According to the Act, services were classified under Major and Minor license services. The major license services include local, long distance or international telephone services, trunk capacity resale, rural telecommunications, store and forwarding messaging, cellular or mobile services. These provisions have significantly shaped the resultant structure of telecommunications market in Uganda.

Initially, MTN Uganda Limited and UTL were granted a five-year duopoly (exclusivity) policy (1996-2005). During this time there was limited competition. The exclusivity/duopoly policy framework focused on the provision of infrastructure under minimum competition. During the period of limited competition in the national telecommunications operators' licenses, the provision of certain services were restricted to major licensees and holders of licenses granted prior to the exclusivity for the respective services (UTL and MTN). Limited competition was thus a key strategy pillar in attracting private sector investment at a time when the market size was assumed to be small. The duopoly policy ended in July, 2005, having registered significant milestones. These included investments worth US$350 million attracted since 2001; a tele-density of 6.5 percent; and 75 percent of geographical area covered by fixed and or mobile telephone. Furthermore, 80 percent of the sub-counties in the country had a point of presence of telecommunications services; 8.7 percent of the population owned a fixed or mobile phone; and more than 290,000 people were employed in the sector (UCC, 2010)[8].

However, when the policy expired in 2006, Uganda opened the sector up to full competition. Since then, Uganda has adopted a new licensing regime, which is technology neutral[9]. This has witnessed competitive behaviour in the sector, resulting in phenomenal growth, especially with regard to operators, subscription and related services. This period also saw the creation of the Ministry of Information and Communications Technology (ICT) in June 2006. The Ministry of ICT formulates guidelines that give service providers the freedom to decide which technology to use in providing services. This technology-neutral licensing regime is characterised by two main categories of licences: Public Service Provider (PSP) and Public Infrastructure Provider (PIP). The PIP is the licence required to establish and operate infrastructure facilities in Uganda, used to provide services to the public or for resale to a third party. The PSP is issued to persons that offer voice telephony services (operated like public switched telephony services, whether fixed or mobile) and data services. This includes internet access services or internet service providers. The range of choice and freedom for investors has furthered the development in the sector.

8 There is no empirical study by UCC to establish the correct employment figure. This is a working estimate.

9 MNOs are free to use technology of their choice provided it does not have negative effects to consumers. This is meant to encourage innovation and not to stifle use of emerging technologies.

The regulatory regime led to the enactment of the necessary laws that would govern the sector with the main aim of increasing efficiency, increasing outreach and guiding the liberalised sector. The institutional build up to regulate the sector ensured that all aspects of the sector had responsible institutions to address the growth of the sector in a healthy way. The initial duopoly created actually challenged the beneficiaries to cover the entire country which the UPTC monopoly had failed to do in decades. It is therefore imperative to acknowledge the role the regulatory regime played in nurturing the nascent sector to what it is now.

During the early days of liberalization, it was realised that there was a tendency for MNOs to concentrate services in towns and major trading centres neglecting the rural areas. Although government had divested its interests in the telecommunications sector, due to un even distribution of services, it still continued involving itself strategically. In response to the initial uneven distribution of services the government put together the Uganda Rural Communications Fund that was raised by charging 1 per cent on calls made in order to extend services to remote rural areas. To achieve this goal, the government contracted and tasked MTN Uganda Limited, a national operator to install fixed pay phones in places, largely rural and underprivileged where calls could be made. This effort yielded very positive results as other operators realised that the rural community was viable for business. There was rapid uptake of telephone services in rural areas dispelling the initial thinking that rural areas are not viable. This created a pull to rural areas as operators installed masts to ensure they had network to tap into this virgin market. This led to the extension of services to cover rural areas to the extent that by 2012 almost all Uganda was networked.

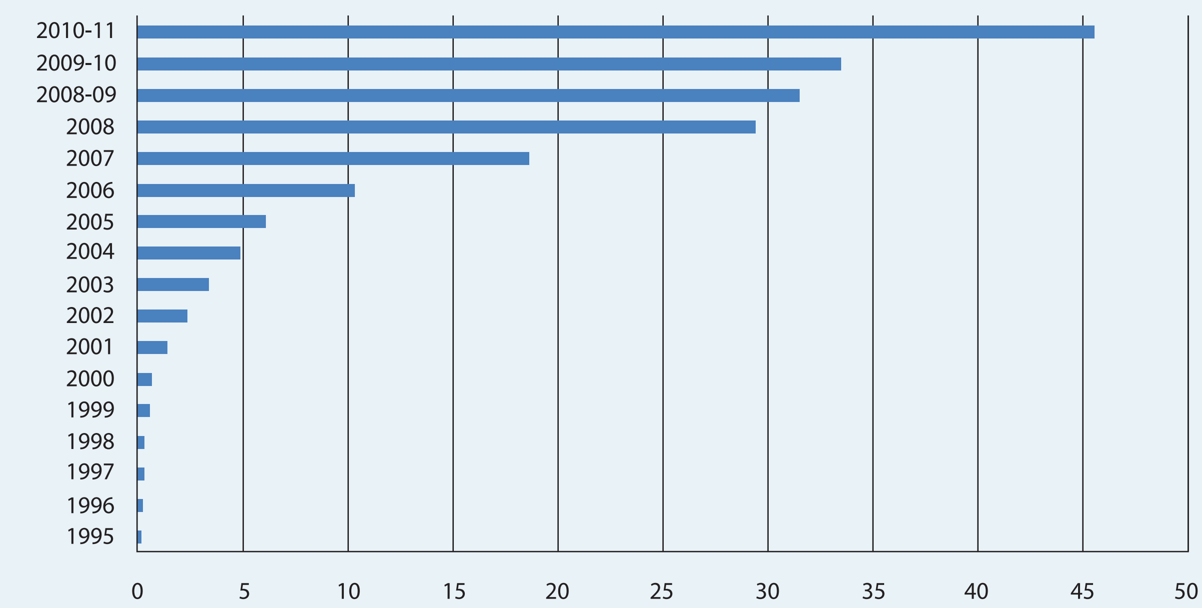
3.1.4 Other factors

Apart from the reforms in the sector, there are other factors that in various ways contributed to the growth in the telecommunications sector: although Uganda is landlocked, it is a strategic hinterland extending to Democratic Republic of Congo, South Sudan, Rwanda and Burundi. This attracts investments that target these countries. Uganda's population is growing at over three per cent per annum, resulting in about 33 million people. Investors view this as a potential market for high subscription. Currently, subscription stands at about one-third of the population. Uganda is a member of the East African Community (EAC) that consists of: Kenya, Rwanda, Burundi, Tanzania and Uganda. This process started in 2000 and plans are in advanced stages to establish political and economic integration. This brings together over 120 million people with a large market, further increasing opportunities for doing business in the region.

3.2 Penetration of mobile telecommunications

Uganda's telecommunications infrastructure before 1996 was among the least developed, not only in Africa, but also in global terms (Byarugaba, 2010). It had a teledensity of only 0.21 per hundred citizens, compared to the African teledensity average of 25 per hundred citizens (Shirley, et.al 2002: 8, 11). However, the sector experienced a dramatic and unprecedented transformation following liberalisation, to the extent that by 2004 Uganda's teledensity had risen to 4.8 per hundred, and 30 per hundred citizens by the beginning of 2010 (UCC, 2010). This figure has now risen to over 45 in 2010 as demonstrated in Figure 1. The BMI (2012) report forecasts and projects the teledensity to increase to 82 in 2014. It is observed that the rapid growth in teledensity started in 1998 the time when mobile phones had come on the scene and there was competition following liberalization. Although this trend is quite impressive, the MNOs are still working hard to expand further in order to dominate the market and as such further increasing the teledensity. This process has been followed by economic upgrading where new technologies are acquired and new systems are put in place to attract and retain customers.

Figure 1: The growth and trends in Uganda's teledensity (1995-2011)

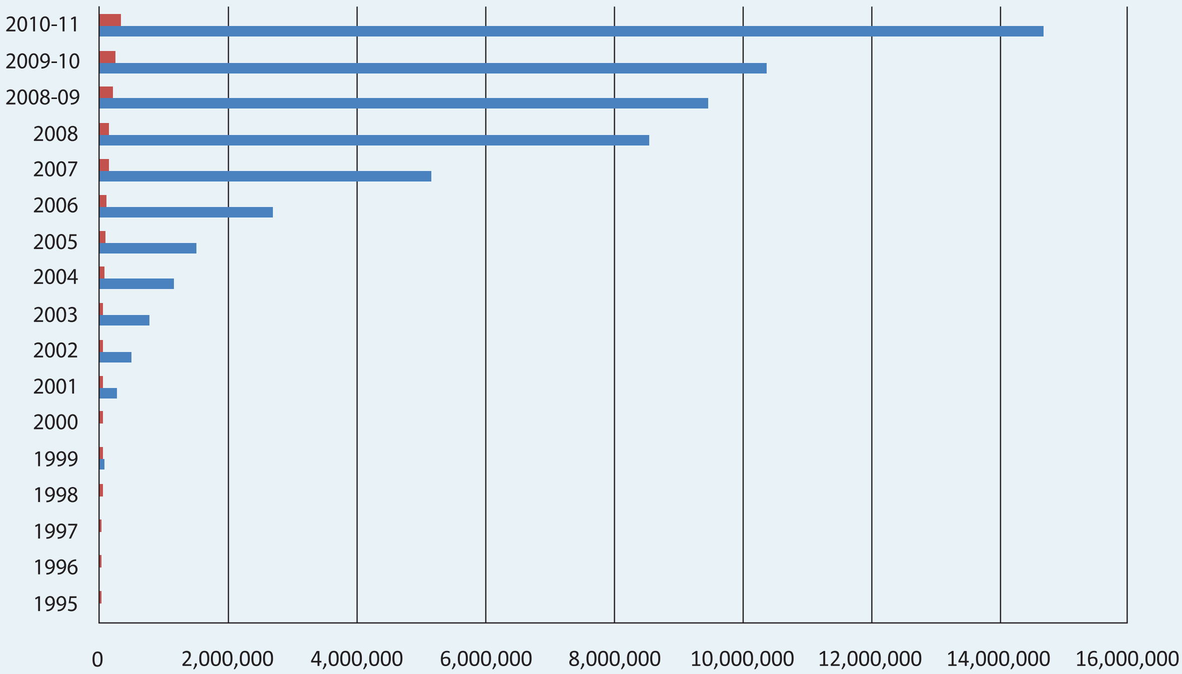


	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2008-09	2009-10	2010-11
Teledensity	0.21	0.24	0.29	0.32	0.6	0.7	1.43	2.35	3.39	4.86	6.14	10.34	18.65	29.47	31.6	33.5	45.6

Source: UCC *and* Business Monitor International

At present, Uganda has close to 15million mobile phone subscribers, spread across five networks, (namely MTN, Orange, UTL, Warid and Airtel) as illustrated in Figure 2. Although it is likely, as Aker and Mbiti (2010) report, that individuals hold more than one phone from the different operators, usage is still high for Uganda compared to Sudan, Mali, Mozambique and Democratic Republic of Congo (BMI, 2010). Note that this number has grown from a very small figure of less than 2,000 subscribers and only one Telecommunications Company in 1995. It is plausible to argue that with an estimated population of 33 million people; close to half the population have a phone. BMI (2012) estimates that at the current growth rate subscription will grow to 32million in 2014. The percentage area covered by mobile phone networks has increased to over 95 percent nationwide. When compared with fixed lines, the performance of the latter is rather weak, with fixed line subscribers standing at merely 342,624 in 2011 having increased from less than 40,000 lines in 1995. The rather lower growth in fixed line subscription is explained by the exploits that mobile phones have made as a result of technological advancements. The growth in the overall tele-density is therefore primarily a result of the expansion in use of mobile phones and not fixed phones. Note that the rapid growth in telephony is closely related to the time when the sector was liberalized and competition was encouraged just before and immediately after the year 2000.

Figure 2: The growth in MNOs telephone subscription (1995-2011)



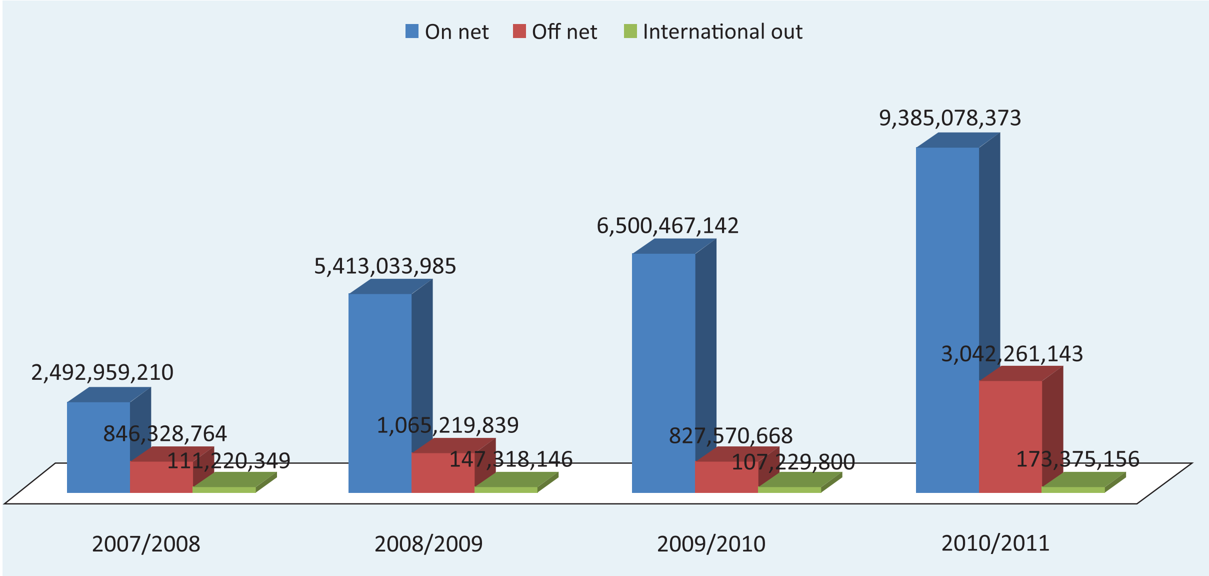
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2008-09	2009-10	2010-11
Fixed	38,97	45,14	49,27	56,19	58,26	58,30	56,14	59,47	65,79	82,49	100,7	129,8	165,7	168,4	213,8	265,8	342,6
Mobile	1,747	3,000	5,000	12,00	72,00	100	276,0	505,6	777,5	1,165	1,525	2,697	5,163	8,554	9,464	10,37	14,67

Source: UCC and Business Monitor International

A total of 3.1 billion minutes were billed in the six months that ended December 2009, compared to 1.07 billion minutes that were billed in the period of six months that ended in December 2007. Out of these, 2.67 billion were on-net minutes, while 419 million minutes were off-net

(UCC, 2010)[10]. The traffic is largely dominated by voice. This is explained by the discounted in-network tariffs, partly responsible for multiple-SIM ownership strategies adopted by many subscribers (Ndiwalana *et al*., 2010). Following a drop in the tariffs and growth in subscription the sector recorded a total of 12.6 billion billed minutes during 2010/2011 compared to 7.4 billion billed minutes during 2009/2010 (UCC, 2012). Overall, it is observed that minutes billed have been increasing over time, most of which are on-net. Details can be viewed in Figure 3.

Figure 3: The minutes billed during 2007/08 to 2010/11



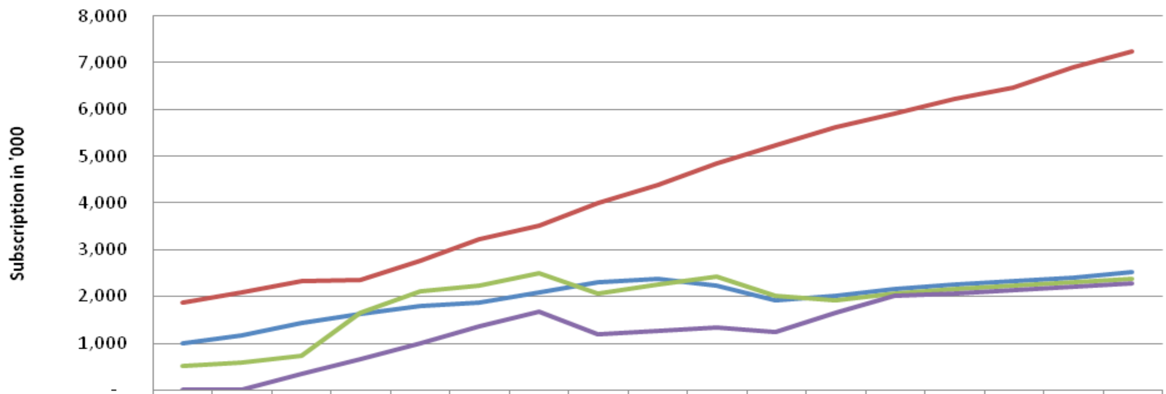
Data source: UCC (2012)

3.3 Market share among the MNOs

MTN Uganda Ltd is the MNO in that holds the largest customer subscription as illustrated in Figure 4. The company took advantage of the initial national operator status before such a license was extended to all MNOs to increase its subscription. Although UTL could have capitalised on this opportunity to increase its subscription since it was one of the two companies that could have exploited this opportunity to its advantage, it did not adopt the GSM technology that MTN Uganda did. MTN Uganda's subscription has grown from less than 2 million in 1996 to over 7.2 million and is poised to increase further as forecasted by BMI (2012). Airtel which is the second in customer subscription has had challenges largely, the frequent change in management and ownership (from celtel to Zain and now Airtel) that has partly contributed to being less competitive than MTN Uganda. The most impressive growth in subscription among MNOs in Uganda has been noted in Warid Uganda that started operations in 2007. The company has increased subscription to over 2 million, close to what Airtel and UTL hold.

10 On Net calls are calls placed from a AT&T U-verse home phone to another AT&T U-verse Voice customer. Off Net calls are any other calls placed to another digital voice service, to a traditional landline, or to a wireless phone.

Figure 4: Growth in subscription of customers among the MNOs -2007-2011

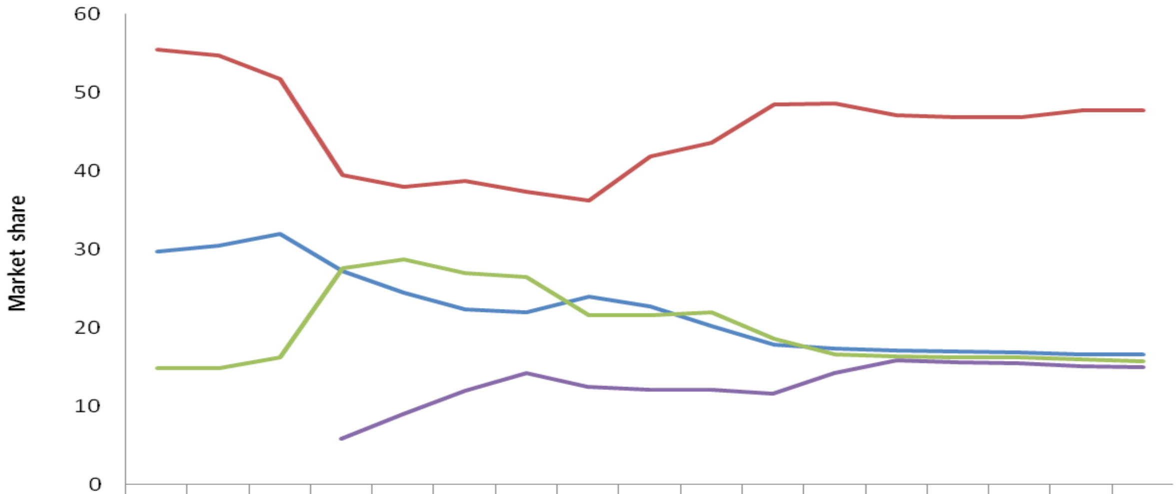


	Jun 2007	Sep 2007	Dec 2007	Mar 2008	Jun 2008	Sep 2008	Dec 2008	Mar 2009	Jun 2009	Sep 2009	Dec 2009	Mar 2010	Jun 2010	Sep 2010	Dec 2010	Mar 2011	Jun 2011
Airtel	1,000	1,170	1,435	1,635	1,791	1,865	2,078	2,312	2,377	2,243	1,925	2,010	2,150	2,250	2,325	2,409	2,525
MTN	1,869	2,094	2,324	2,362	2,776	3,228	3,523	3,987	4,382	4,843	5,222	5,615	5,919	6,215	6,463	6,908	7,241
UTL	500	567	725	1,653	2,100	2,241	2,500	2,065	2,262	2,435	2,000	1,910	2,050	2,150	2,231	2,301	2,378
Warid	-	-	350	650	1,000	1,350	1,667	1,198	1,265	1,345	1,250	1,650	2,005	2,070	2,145	2,203	2,284

Data source: Business Monitor International.

The dynamics of market shares among MNOs in Uganda demonstrates a very competitive atmosphere which in a way benefits the customers as each company tries to attract and maintain a large clientele. MTN Uganda had the largest share of the market to the extent that in 2007 this was over 50 per cent. However with entry of Warid into the market, MTN Uganda's proportion declined to less than 40 per cent and just slightly above one-third of the market share in the following year - 2008. This decline in the proportion of subscription is partly explained by the growth in market share for UTL, which increased from 16 percent in mid-2007 to a quarter of the total market share by mid-2009. Even then, MTN Uganda remained in the lead in the market share. Note that the decline in the proportion of subscribers did not reduce the absolute numbers of customers that MTN Uganda had as Figure 5 demonstrates. Warid Uganda a new entrant into the telecommunications market at this point upset the balance of power. The company continued to increase its proportion until 2010 when it stabilised at 15 percent. It is noticed that MTN Uganda recovered and started to increase its share in 2009, although the other two companies- UTL and Airtel (then Zain) progressively reduced on the proportion of customers up to date. Notable is the decline in the market share by Airtel. The competition in the market by operators reveals a rather healthy state of affairs, which enhances better consumer services and innovation among operators.

Figure 5: Trends in market share by MNOs - 2007 - 2011



	Jun 2007	Sep 2007	Dec 2007	Mar 2008	Jun 2008	Sep 2008	Dec 2008	Mar 2009	Jun 2009	Sep 2009	Dec 2009	Mar 2010	Jun 2010	Sep 2010	Dec 2010	Mar 2011	Jun 2011
Airtel	29.7	30.5	32	27.3	24.5	22.4	22	24	22.7	20.2	17.9	17.4	17.1	17	16.8	16.6	16.6
MTN	55.5	54.7	51.8	39.4	37.9	38.7	37.3	36.2	41.9	43.6	48.5	48.6	47.1	46.9	46.8	47.7	47.7
UTL	14.8	14.8	16.2	27.6	28.7	26.9	26.5	21.5	21.6	21.9	18.6	16.5	16.3	16.2	16.2	15.9	15.7
Warid				5.8	8.9	12	14.3	12.5	12.1	12.1	11.6	14.3	15.9	15.6	15.5	15.2	15

Data source: Business Monitor International.

There are plausible explanations that underpin these trends. Initially it was only MTN and UTL that had licences to operate nationally and this duopoly gave them a platform to recruit throughout the country, while Celtel (now Airtel) was restricted. When the duopoly arrangements came to the end in 2005, other operators started installing their infrastructure throughout the country, thus increasing their subscription at the expensive of MTN, especially. Furthermore, new entrants like Warid employed protracted promotion practices that attracted subscription. New subscribers were offered new phones at a value lower than the market rate, loaded with airtime, for example, phones would cost as little as US$ 20 with air time of US$ 40. The call rates per minute were also strategically made lower than what MTN Uganda and other operators offered. Once in a while, promotions that would enable subscribers to call for a whole day or week for less than US$2 attracted new subscribers, leading many to abandon the national giant, MTN Uganda. Operators like UTL and Airtel extended attractive products to the corporate world. Uganda Revenue Authority employees, for example, were given UTL lines to make ‘free’ calls to both fellow staff and non-staff, provided they are subscribers of UTL. Although MTN Uganda has started to implement some of these promotions, they have come in a little too late as many customers have shifted to other networks. Warid and Orange particularly attracted the elite, following their excellent internet services compared to the other operators.

This competitive atmosphere is health and comes with economic and social upgrading elements. The price wars that have characterised the telecommunications market and continuous promotions that benefit the clients are typical examples of the competition. Therefore it is arguable that economic upgrading has taken place.

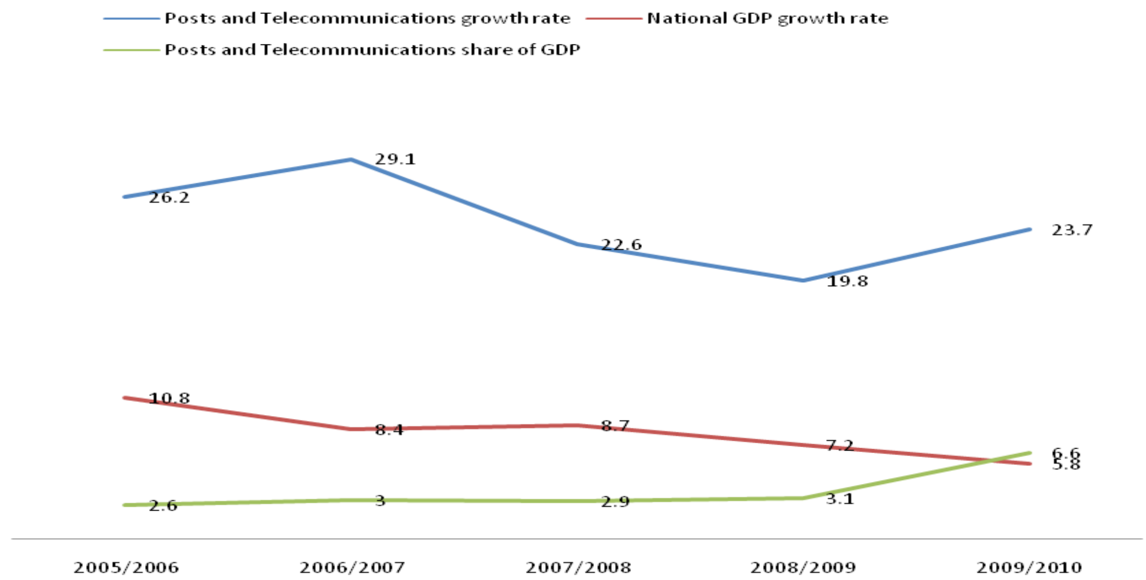
3.4 Contribution to the economy

The Ugandan economy has experienced tremendous growth averaging 6 percent over the last two decades. The services sector has been increasing its contribution and makes a commendable contribution of about 50 percent to the national GDP. Putting the telecommunications sector in perspective demonstrates that it is making a reasonable contribution to the national GDP. Figure 6 illustrates that the post and telecommunications sector has maintained a growth rate between 20 percent and 29 percent. Although as early as 2005 Uganda's overall GDP growth rate was high at 10 percent, it declined to 5.8 percent in 2009/10 and is way below that of the posts and telecommunications sector. Furthermore, the contribution of the post and telecommunications sector to national GDP has also steadily increased growing from 2.6 per cent in 2006 to 6 per cent in 2010[11]. Given the huge current investments in the sector, it is projected to increase in the medium and long term. This growth in contribution to National GDP is attributed to increasing sectoral contribution to employment and attraction of foreign direct investment and taxes. Arguably, the trends underline the growing importance of the sector to national growth and development in Uganda.

In 2009, for example, the total turnover in Uganda's communications sector was US$600 million, while the total investment stood at US$240 million. It should be noted that between 1999 and 2000 the total investment was only US$15m, while it rose to US$180m in 2004-2008 (UCC, 2010). The UCC (2011) market report estimates that US$270 million was invested during the 2009/2010 financial year. Much of this investment was in the roll out of the mobile broadband solutions and other internet related infrastructure. Figure 7 gives the details of the investment trends in the posts and telecommunications sector which depicts an initial surge in 2007 and subsequently a decline although substantial investments are made.

11 The figures for post and telecommunications sector contribution to National GDP are in calendar years and not financial years.

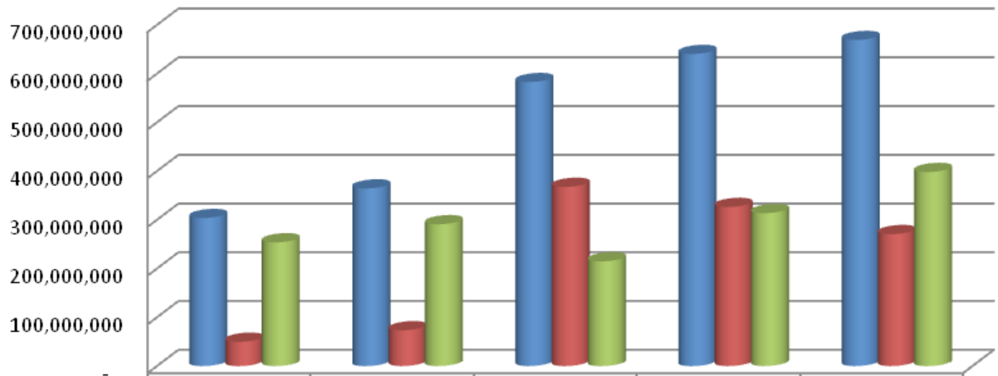
Figure 6: The trends in growth and contribution of the Posts and Telecommunications sector



Data source: UCC, 2012

The investments have been made possible partly because of the steadily increasing revenues that doubled between 2005 and 2009 from US$303 million to US$700 million.

Figure 7: Industry Revenue and Investment Expenditure (US$)



	2005	2006	2007	2008	2009
Revenues	303,735,325	364,530,942	582,781,898	640,490,217	669,030,885
Expenditure	49,859,493	73,499,693	367,809,156	326,563,198	270,751,740
Difference	253,875,832	291,031,249	214,972,742	313,927,019	398,279,145

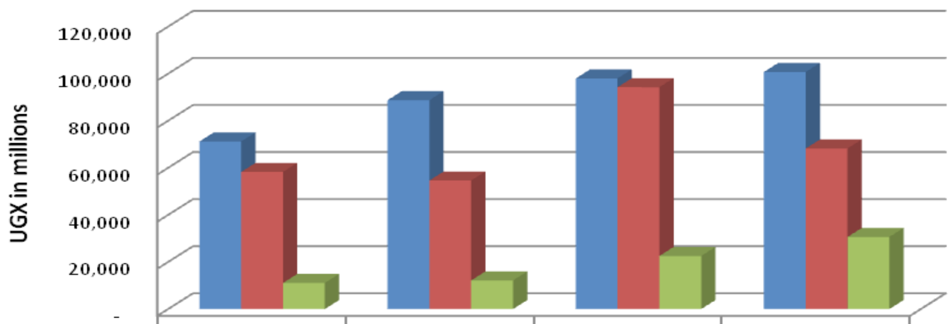
Data source: UCC, 2012

With the exception of 2007 and 2008 when over 50 percent of the revenue was invested, the rest of the years have less than half the proportion of revenues invested. It is also noted that after 2007 there is a tendency to increase investment expenditure as compare to before that period spelling out the expansion approach the sector is pursuing.

With regard to contribution to tax revenue, it is evidently clear that the telecommunications sector is a major tax base in Uganda. According to UCC (2012) in financial year 2010/11, UGX 200billion was collected in form of VAT, Excise and PAYE from the six telecommunications service providers. This shows an increase in revenue from the sector from UGX 140billion in financial year 2007/2008. Details are in Figure 8. The Mobile phone market within the telecommunications sector accounts for the largest proportion of the tax revenue remitted followed by the fixed line segment (UCC, 2010). This is attributed to competition among MNOs engaged in handset market with each retailing own brand at low cost handsets to attract new customers. In addition the entry of new operators has boosted the wholesale infrastructure market as the new comers pursue infrastructure leasing approach to market entry. The proceeds from these transactions account for substantial revenue collected and remitted.

The growth in revenue and investment of the sector has boosted employment. The number of people both directly and indirectly employed in the sector is estimated to be 300,000[12]. They are mainly employed as network engineers, sales personnel, air time vendors, among others. Overall, posts and telecommunications contributed 3.4 percent to Uganda's GDP (UCC, 2010).

Figure 8: Annual Telecommunications Tax revenue in UGX millions[13]



	2007/2008	2008/2009	2009/2010	2010/2011
Excise	71,204	88,775	98,001	100,750
VAT	58,275	54,628	94,278	68,245
PAYE	11,101	12,176	22,562	30,643

Data source: UCC, 2012)

12 Although the preference is for disaggregated figures of employment by each operator, these data have not been compiled by UCC, the regulator.

13 The exchange rate was estimated at UGX 2500 per US $1, as of when?

4.0 THE MTN UGANDA LIMITED VALUE CHAIN AND OUTSOURCING

4.1 Introduction

Outsourcing is emerging as a major driver of cost efficiency in the telecommunications sector that needs a variety of services to run. In Uganda, MNOs and specifically MTN Uganda has been quick to pursue outsourcing arrangements to reduce costs and increase efficiency. Outsourcing is this context is the transfer of processes, people, applications and infrastructure between the client and the provider. The conditions of workers and terms within the MTN Uganda and the outsourced companies are significantly different, in favour of the former. In adhering to international labour standards, the conditions of work in MTN Uganda are relatively good. This is contrasted with conditions in the outsourced part of the chain, where conditions are of inferior quality. Outsourced activities include: management of masts, management of power at stations, selling of mobile phones and accessories, printing of prepaid airtime cards, among others. It is clear that at the lower end of the distribution chain of some products, particularly the sale of phones, calling cards, there are social downgrading issues. Outsourcing is strategically used to reduce the costs of human resources that would go into salaries and other benefits for the company.

4.2 Marketing of MTN Uganda Limited products

MTN Uganda operates franchisees, distributors, agents and salespersons in the distribution chain of the telecom products, especially in the marketing of phones and air time. Regional franchises are awarded to independent distribution agents; and an active resale market developed for the franchise rights, with a primary agent selling to local distribution agents. The main franchisee for MTN is Simba Telecommunications Limited (Nsubuga, 2012). There are independent phone shops that are small commercial enterprises run by individuals and not affiliated to large operators. They are simply importers and suppliers of mobile phones and accessories. The service of phone provision is often an add-on to a core business, such as a grocery store. There is a proliferation of even smaller commercial enterprises, an equivalent of street vendors. These are individuals with a phone (or several phones from different operators) offering telephone services and selling air time. They are strategically located in active peri-urban and urban areas.

4.2.1 MTN outlet shops

Significant differences do exist regarding salaries and benefits given to the core MTN Uganda employees, workers in the MTN out let shops, those at the call pay phones, those in franchises like Simba telecommunications and other outsources services[14]. For example, workers in the MTN Uganda out let shops (independently owned) earn a basic salary of UGX 400,000 (US$160)

14 It was not possible to establish the exact salary figures for these companies especially MTN Uganda for unknown reasons.

a month, allowances of up to UGX 150,000 (US$60) and a commission on case sales above a given threshold. They work without contracts at all and can be hired and fired any time. They are only trained regarding the tasks they perform and there after no more training. There is no formal way to express dissatisfaction; rather, they are given opportunity in meeting to air out grievances. In effect there is no formal way to address grievances through collective action avenues. They do not have medical insurance in case of sickness. There is no pension scheme or remittances made to National Social Security Fund; rather a small undetermined gratitude is given to them at the end of the calendar year.

4.2.2 Street side air time sellers

These comprise the largest group at the bottom of the value chain. They are strategically located on streets and corners to sell airtime to clients from all MNOs. They like to operate in densely populated areas and streets where heavy traffic exists with occasional traffic jams. During a typical day, they sell air time worth UGX 100,000/ (US$40) and get a discount from the MTN Uganda outlet shops of 0.04 percent which translates into UGX 4,000 (US$1.6). Their profits are between UGX 5,000 and 10,000 per day (US$2 to 4). They operate from 6.00 am to 6.00 pm daily exposed to accidents and pollution in the cities. Although the MNOs including MTN Uganda have paid licences for them to operate, occasionally the Kampala City Council Authority law enforcers harass and chase them from areas where they operate. During rainy seasons it is difficult to sell air time cards.

4.2.3 Fixed pay phone attendants

MTN Uganda has a network of public fixed pay phones strategically located in busy places and along streets. The company manages the public pay phones through attendants who manage these facilities selling what is called easy load airtime. They work directly for MTN Uganda and make a daily profit of UGX 10,000 (US$2 to 4). In spite of this they are not formally employees of the company aside the fact that they manage the public fixed pay phone. They do no earn a salary but depend on the daily profits on air time sold.

4.3 Outsourcing of Towers

American Tower Corporation (ATC) and MTN Group Limited have entered into an agreement to establish a new joint venture tower company in Uganda called ATC Uganda, which will acquire all of the existing tower sites from MTN Uganda which currently number approximately 1,000, priced at $175 million. It is proposed that ATC Uganda will be managed and controlled by a holding company of which American Tower will hold a 51 percent stake and MTN Group will hold a 49 percent stake. Under these arrangements American Tower will pay approximately $89 million for its stake in the new holding company and MTN Uganda will be the anchor tenant, on commercial terms, on each of the towers being purchased. It is planned that ATC Uganda will build approximately 280 tower sites for MTN Uganda over the next three years, as well as pursue opportunities to build tower sites for other wireless operators in Uganda. This arrangement realised before mid-2012, which made ATC Uganda the largest owner and operator of tower sites in Uganda. In a global perspective MTN owns approximately 33,000 towers across its 22 operations in Africa and the Middle East (www.mtn.co.ug).

5.0 SOCIAL UPGRADING AND/OR DOWNGRADING ELEMENTS[15]

5.1 The context of employment dynamics in Uganda

Unemployment presents one of the principal challenges in Uganda. The scarcity of job opportunities has led to extremely high competition in the labour market and the emergence of a rising number of unutilized and unproductive work-force particularly among young people graduating from tertiary institutions (Republic of Uganda, 2011). The Urban Labour Force Survey 2010 (UBOS, 2010a) demonstrates that Kampala the capital city and the surrounding urban towns of Wakiso and Mukono had about 13.3 percent (122,600 persons) of the working age population, lacking work. In addition over 202,000 persons in the same areas are underutilized. The Uganda labour market is faced with notable mismatch between tertiary institutions graduates and growth in employment. According to the Employment Policy (Republic of Uganda, 2011) only 20.7 percent (2.8 million) of the total workforce (13.4 million) is employed for wages of which 14 percent are permanent employees and 86 percent are temporary.

According to the Uganda National Household Survey of UBOS (2010b) about 34 percent of the employees in the private sector earned less than UGX 50,000 (US$ 20) per month. Furthermore only 10 per cent of the private sector employees earn more than UGX 300, 000 (US$ 120) per month. This sort of employment situation gives rise to very uneven remuneration structures that leave employees vulnerable to influential multi-national corporations as it promotes and encourages all sorts of unequal power in bargaining on the side of employees. Widespread unemployment in the country makes it difficult for those employed to demand for better conditions when they stand the risk of being dismissed and replaced immediately (Nkojjo David 2012). This is even made worse by the weak and divided trade unions that lack funds to muscle the strength to attract and ably champion the rights of employees. The dynamics of labour company relations are discussed in light of these existing circumstances.

5.2 MTN and social up/downgrading

5.1.2 Employment structure

The MTN Uganda Limited company is structured in such a way that: the head office has five main offices; two main network switching centres; six service centres, two regional service centres and two regional network switching centres. This structure is supported by 175 outlets (outsourced) that distribute the company's products. In total, 1,229 workers are directly employed by the company and 1,050 workers by the outlets. Table 2 gives further

15 It was difficult getting hard data from MTN Uganda Ltd. This section is based on interviews with two Senior Managers for Consumer Marketing – Flavia Nabasa and Jennifer Ecum and the Senior Human Resources Officer – Mr. Simeon Kakembo, when?. Efforts to get hard data and hold interviews with the staff were later denied by the company's management owing to the challenges they were having with the Mobile Money platform at that time.

details by gender and occupational category. The majority of the workers are in the category of intermediate skilled administrative.

Table 2: The major occupational categories in the company in 2010

Occupational Category	Male	Female	Total
Executive and managerial	45	13	58
Professional	83	38	121
Highly skilled technical	274	153	427
Intermediate skilled administrative	572	51	623
Total employment	**974**	**255**	**1229**

Source: MTN Uganda Ltd

Out of the total 1,229 employees, 716 workers are on a full time basis and 507 are on a temporary or fixed-term contract. The number of full time workers increased from 312 in 2000 to 514 in 2007 and then 716 in 2,010. On the other hand the fixed term contract workers increased from only 18 workers in 2000 to 325 in 2007 before reaching 507 in 2010. In addition to this structure of labour, the company heavily relies on consultants on a regular basis and outsources some of the services. The trend demonstrates that the long term strategy of the company as it expands is to employ more temporary staff than permanent staff. This can be explained partly by the starting structure of salary for the two categories of employees (Kakembo, 2012). The starting basic salary for an entry level permanent employee is an average of UGX 1,248,000/= (US$ 500) and that of an entry level fixed term contract worker is an average of UGX 750,000/= (US$ 300). This strategy inevitably lowers labour costs and at the same time perpetuates social downgrading.

5.1.3 Health and safety

MTN Uganda has work environment policy called Environment, Health and Safety Policy that defines how employees should operate and relate with both human and physical resources. In case of any eventuality, there are provisions and procedures that should be followed in which the employees are guaranteed. For example, those working in operations have guidelines with regard to protection gears, personal protection, equipment like helmets, shoes, tools among others. The workers at the MTN Uganda headquarter work in an exclusively health and safe environment. The offices are air conditioned and there are no signs of congestion with regard to office space. There are no visible signs of exposure to accidents during work in the working environment. The offices are well guarded by professional security firms reducing possible armed robberies. The office blocks are fitted with lifts and sufficient escape options in case of fire or any other danger. The offices and the surrounding areas are fitted with surveillance cameras to detect any attempts by intruders to inflict harm to both humans and property.

While this is the case, conditions of workers in some of the outsourced parts of the value chain are appalling, dehumanising and despicable. Those involved in the selling of air time (the main product of the company) along the streets operate in poor environments exposed to pollution and bad weather. The maintenance of the towers outsourced is done by companies that employ poorly paid staff who are exposed to robbers especially at night. There is no security of employment as most of these do it on a casual basis. The rosy picture exhibited by conditions of core employees of the company masks a lot of poor conditions for the non-core and outsourced workers.

5.1.4 Pension funds and social benefits

Regarding social benefits and pension funds, MTN Uganda Limited offers are lucrative although not permanent and pensionable as the case is in government service. These benefits include the mandatory National Social Security Fund (NSSF), a provident fund, health insurance, tuition for relevant skills development, social benefits, transport and other schemes. Employees make the mandatory contribution of 5 percent from their monthly salaries to NSSF in addition to the 10 percent contribution from the MTN Uganda Limited. This money is only accessed by the beneficiary at retirement as stipulated in the national social security policy. In addition, the company introduced a private provident fund for its employees. Under this scheme, the core company employees and the company make contributions to the fund which is accessed by beneficiaries upon leaving the company. Initially, employees contributed 3 percent and the company 5 percent of their gross monthly salary. However employees, resolved to increase their contribution to 5 percent and the company did likewise to 6 percent. That implies that whereas employees contribute 10 percent of their monthly gross salary to the two pension schemes, the company contributes 16 percent. Provident funds are not common in Uganda and therefore this is a commendable practice by the company. The private pension fund is administered and run by a company called Alexander Forbes Limited. They have invested the money in Stock markets and banks, particularly Stanbic Bank. Note that the pension schemes are for those who are full time employees of the company and not in the outsourced services discussed in section 4.0.

MTN Uganda Limited runs a medical insurance scheme with Jubilee Insurance Company Limited for its employees. MTN Uganda Limited contributes to health insurance of the immediate family comprising the spouse, and four biological children. The employee receives UGX 1million (US$400), the spouse UGX 0.8 million (US$320) and each child UGX 0.4 million (US$160), as insurance contribution. This component consists of any treatment that is in the category of outpatient in designated health units. When the beneficiary is hospitalized (inpatient), MTN Uganda Limited makes a separate contribution of a maximum of UGX 2million (US$800), so that any additional cost arising from hospitalization by a beneficiary or dependent is born by the family. Note that this money is not an insurance premium paid to the insurance company but a contribution towards inpatient treatment. Dental treatment is a separate treatment which is allowed once a year for all the mentioned beneficiaries and also paid directly. In addition to these, there is insurance for maternity including delivery. In all these cases when the beneficiary exceeds the thresholds the liability is born by the employee. It is noted that unlike most schemes in many companies that discriminate among employees depending on their positions, the MTN Uganda insurance scheme is uniform for all categories of employees with an exception of senior managers who are entitled to medication outside the country in case it is required. This category is for the top managers and the Chief Executive Officer.

There are other special schemes for employees who belong to senior middle and upper management levels and these include: housing; travel overseas; membership to clubs; and education. Under the scheme, beneficiaries are entitled to a two year cycle during which they can chose to benefit from three among the four categories. The scheme offers a maximum of UGX 2million (US$800) per month, implying that for the two years it is a total of UGX 24million (US$9,600). The beneficiary spends his/her money and makes a claim which is paid together with the monthly salary and is therefore subject to tax deductions. In case the beneficiary does not claim the money the benefit is forfeited.

Similar to previous observations, the company turns a blind eye to the fixed term employees whose numbers are increasing in relation to full time employees. The fixed term employees and those in the outsourced parts of the chain have no pension funds and social benefits. They only earn an honorarium and casual wages, respectively.

5.1.5 Career path opportunities

MTN Uganda Limited recruits young and quite intelligent cadres to manage the various aspects of the company. Initially, (during the late 1990s and early 2000s) there were programmes regarding training of staff who wished to pursue further studies while working. At this time employees were given 100 percent tuition sponsorship and they had to study while working. In this regard the employee had to be a part time student, an evening student at a tertiary institution or studied by correspondence. What is importance is that the company sponsored the tuition. This has however changed and scholarships have been put on the halt. At present only in rear cases when the training sought by the employee benefits the company, is when 50 percent of the tuition is paid for by the company. It is noted that employees who opt to study while away from their employment forfeit their jobs. Therefore the company provided career opportunities for the employees but in a restricted environment although this seems to be diminishing. The beneficiaries of such a scheme are full time employees and not fixed term contract employees further illustrating the strategic employment policy of the company.

5.1.6 Employment security

MTN Uganda Limited as a company has a very strategic employment and labour approach to the extent that to analyze employment security, it is imperative to understand how labour is recruited, sourced and deployed. There are two groups of labour that the company uses broadly categorized as core and temporary. The first category is the core team of permanent employees who perform what can be referred to as clerical work and overseeing of technical work. For its core type of employees, MTN Uganda Limited recruits on a permanent basis, therefore there is a reasonable degree of job security. However, there is a strategic thinking with proposals to review this and instead offer employees renewable contracts. The temporary category consists of short term contract staff who have totally different terms and do not have the benefits prior discussed in section 5.1.2– fixed terms workers . They work with the company for a period of 6- 12 months. They earn extremely low wages (UGX 0.5m or US$200) and are recruited through employment companies which earn a commission and pay them the difference.

In addition to these two broad categories are consultants and outsourced labour categories engaged by the company on a case by case basis as need arises. The consultants are contracted for a period of about one year and specifically to train the MTN Uganda Limited core staff with a view to pass on knowledge and skills. Again this category earns an honorarium, with no other employment benefits. Consultants are mainly in the areas of software development and operation of new and more sophisticated equipment. The outsourced category of labour is hired through companies to handle specialised tasks among others the following: maintenance of batteries, generators, electricity, air conditions for equipment, access road (to masts), and tower. The activities of outsourced services are supervised and monitored by a handful of fulltime core staff of MTN Uganda Ltd. Like the other categories, these are not entitled to any other benefits apart from the consultancy fees.

It thus emerges that salaries and benefits in the outsourced companies are inferior to those in MTN Uganda Limited. The employment strategy thus relies on outsourcing where MTN Uganda Limited has no legal responsibility and is not legally liable for a range of labour issues. Although it is argued that outsourcing increases efficiency and cuts costs, it is a strategy for the company to escape the fulfilment of various obligations of employers as required by labour laws. Apparently the core employees enjoy a range of employment benefits unparalleled in similar companies on the job market in Uganda.

5.1.7 Freedom to unionize employees

Under Uganda's laws, the Uganda Communication Employees Union (UCEU) is the union registered to cover all employees in the communication and information technology sector. This includes all workers in the Telecommunication, Postal, Information Technology and Data Transmission sub sectors both in the Public and Private domains. To that effect, UCEU is the right Union for all workers in MTN Uganda Limited. Apparently among all the MNOs only UTL has membership in the UECU largely because it was unbundled from the original UPTC which already belonged to a union. Employees of MTN Uganda Limited are not members of UCEU although there is no outright policy to deny them membership.

The Uganda Communication Employees Union (UCEU) is a workers' organization, registered as a Labour Union No. 8 under the labour Union Act 2006 and the 1995 constitution of the Republic of Uganda, Article 29(1). It aims at pursuing, promoting and maintaining workers' rights, improving working terms and conditions of employment with motivating remunerations. Furthermore, it advocates for a safe and healthy working environment that minimizes occupational hazards and to encourage productivity and quality service for effective competitiveness in communication industry. The main objectives of UCEU include the following: Securing complete association, unity, organization, and mobilization within the union for all employees in the communication sector in Uganda; acting as the normal collective bargaining agency, to protect and promote the interests of its members both collectively and individually; advocating for increased wages, salaries and other benefits. Finally, offers legal advice and information on matters affecting employment issues to members.

As a company MTN Uganda Ltd is extremely sensitive to collective bargaining to the extent that all efforts to form or belong to a union by its employees are discouraged. MTN Uganda encourages its employees to form associations that do not have powers to challenge any unfair employer activities. UECU attempts to recruit MTN employees into their union have been futile. According to the general secretary of UECU[16], MTN Uganda management gave its employees a condition of forfeiting the 10 percent contribution by the company to the provident fund if they joined a trade union. Of course the employees were not willing to lose this golden opportunity for a trade union that does not have the capacity to effectively defend them against a very powerful multinational in any dispute. There is no collective legal engagement between the company and the employees on disputes and employees have no basis and right to strike. Striking is illegal and leads to immediate dismissal. This is partly because without membership to a trade union there is no framework to organise, collectively bargain and therefore strike. In a similar way workers at the other nodes of the value chain; specifically the outlet shops, the franchises are not in any union at all. In fact their conditions are worse compared to the mother company in regard to the ability to freely associate.
In summary the employment policy is strategically tailored to have a small proportion of the workforce with averagely enviable work conditions by Uganda standard while the rest are not the direct responsibility of the MTN Uganda Limited Company since no binding legal responsibilities exist. Table 3 gives a summary of the discussion.

16 Mr. David Nkojjo

Table 3: Summary of Social Upgrading/downgrading issues

	Full time worker	Fixed/ temporary worker	Consultant	Outsourced	Comment
Number of workers	Proportionally decreasing over time	Proportionally increasing over time	Case by case	Depends on Number of outsourced services	The strategy is to reduce reliance on full time employees to reduce associated labour costs and responsibilities
Wages/salary	High and above Uganda's average	Low salaries	Earns honorarium which is high	Most of the money is retained by the outsourcing company and not the workers	Compensation is in favour of MTN Uganda full time worker and poor among the temporary and outsourced workers
Health and Safety	Excellent provisions are in place	Depends on the deployment venue	Depends on venue of deployment	In most cases deplorable, appalling, dehumanizing and despicable	The picture exhibited by conditions in the environments of core workers masks poor conditions for most of the outsourced workers
Pension funds and social benefits	Benefits include: NSSF, provident fund, health insurance, tuition, social benefits, transport and special benefits for executives	None	None	None	The company turns a blind eye to fixed term workers who are proportionally increasing
Career Opportunities	Although scholarships were initially granted to workers, they are on a decline	None	None	None	Only benefits a few full time employees in areas strategic to the company needs
Employment security	Have long term renewable contracts	Have fixed term 6-12 months non-renewable contracts	No job security but only as need arises	No job guarantee and depends on conditions in the outsourced company	Only MTN Uganda employees have their jobs guaranteed
Freedom to unionize	Workers are not members of the UCEU as membership can lead to loss of provident fund and ultimately the job	Not Unionized	Not unionized	Not Unionized	Deliberate efforts and actions have been employed to discourage full time workers joining unions

6.0 THE MTN UGANDA LIMITED MOBILE MONEY

6.1 Introduction

Mobile Money can loosely be referred to as electronic or virtual money held by individuals electronically. UNCTAD (2012) defines Mobile Money (MM) as money stored using the Subscriber Identity Module (SIM) in a mobile phone as an identifier. Data from the GSM Association reveals that about 130 mobile money deployments were in operation as of February 2012, spanning all developing regions.[17] Notably, Africa is in the lead with 60 such systems with the East African Community (EAC) at the frontier of which Uganda is one of the major players (Duncombe and Boateng, 2009; Porteous, 2006; and Donner and Tellez , 2008). MM has demonstrated enormous ground breaking possibilities to make financial services more inclusive especially to the unbanked populations. Unlike conventional banking and financial services, MNOs have heavily invested to create networks that reach further and deeper into historically marginalised rural areas (Mas and Kumar, 2008). In this section we present and discuss the dynamics of MM in Uganda with emphasis on MTN Uganda Ltd, a MNO that has made ground breaking innovation in MM. Particularly emphasis is put on the developmental aspects of the innovation.

6.2 Trends in the mobile money growth in Uganda

According to BoU (2012) MM in Uganda had grown tremendously by December 2011. During the same period there were 2.9 million registered mobile customers who held virtual money accounts. Although BoU (2012) argues that virtual money accounts are still relatively small in comparison to the total deposits of the banking system (about 0.5 percent) and currency in circulation (2 percent), given the current growth this is likely to increase and expand greatly. This will especially happen if the MNOs broaden the range of transactions that can be effected through mobile banking and if the banks in partnership with MNOs can enable customers to use mobile phones to access other services from the banks.

According to BMI (2012) BoU had recorded UGX1 trillion (US$400m) which went through the MM transfer service in 2010. During the same period MTN Uganda Ltd recorded transfers through its network of UGX 550bn (about US$220m) which is 52 per cent of all the total cash that was transferred in 2010. At the beginning of August 2009, MTN had signed up 140,000 users to its MM service since the official launch in March 2009. However this number had grown to 890,000 users to its MM service, equivalent to around 16 per cent of the operator's total subscriber base by 2010. It is observed that the majority of transactions over the MTN Uganda Money system belong to the unbanked informal sector. MTN Uganda projected the users of the service to have increased to over 2 million by the end of 2010 and 3.5 million by the 2012.

17 See http://www.wirelessintelligence.com/mobile-money.

6.3 Importance of mobile banking

MTN Uganda Ltd has provided a channel for reaching out to the under-banked and un-banked citizens of Uganda with a view of providing them with appropriate, adequate, affordable, and timely financial services. This is referred to as financial Inclusion a concept that was largely foreign to the rural folk in Uganda (Sonko, 2010). Ndiwalana and Popov (2009) argue that, mobile phone payments present a significant opportunity to integrate more users within Uganda's financial system at a reasonable cost. Uganda has an extremely small population that participates in the banking system. Many are effectively excluded from the commercial banking system since they live too far from bank branches or do not have sufficient funds to meet the minimum deposit requirements to open a bank account, to access basic payment and store of value services. With the advent of mobile banking, many especially rural people are now included in the financial sector. A press release of MTN Uganda Limited (www.mtn.co.ug) dated May 10, 2010 notes that about 60 percent of the transfer recipients are located in rural areas. This has implication for financial inclusion in Uganda because the bulk of the un-banked Ugandans are located in rural areas

6.4 Mobile Money Business Models in Uganda

The MM services in Uganda are largely partnerships between MNOs like MTN, WARID, UTL, Airtel and commercial banks that act as guarantors for the safety of the money. Although the models slightly differ among the MNOs, they offer the same service and use similar platforms. The MNOs and commercial bank partnership works in such a way that the former employs a network of agents to interface with the clients who are facilitated to purchase, with cash, virtual money from agents. In this case the model enables the client to store virtual money electronically, in their virtual account created and can be transferred to another MM customer. The virtual money is then used for purposes such as paying utility bills and school fees and can be withdrawn by the customer in cash at a later date from an agent. Therefore, the products currently offered can be categorized as transaction services and storage of value.

According to Bank of Uganda[18] (BOU), the MNO in the partnership, contracts a network of agents and operates the telecommunications infrastructure for effecting transactions and stores virtual money. On the other hand, the commercial bank hold an account[19] in which all the agents of the network hold balances which are debited/credited when an agent sells/buys MM for cash. In this way the money is safe from any leakage as it is system based and this ensures that the outstanding stock of virtual money, held by all MM customers, cannot exceed the value of the funds in the settlement account, which is the aggregate of the balances of all the agents in the network. It is noted that the MNOs and any third party does not have access

18 This is the Central Bank
19 Termed variously as a settlement account or escrow account

to these accounts. It is the bank in which accounts are held that is principally liable for the funds in the settlement account.

6.4.1 Key actors in the MTN Uganda MM ecosystem

The MTN Uganda MM platform is run by a number of key actors as characterised in Jenkins (2008) who include:

1. MTN Uganda (the MNO) that provides the mobile infrastructure (platform) and customer-base already using its communication services. MTN Uganda benefits from MM by increasing and maintaining the number of customers, reducing the cost of airtime distribution and generating extra revenue.
2. Stanbic Bank which has the infrastructure that enables the exchange of money between different parties. The bank also provides oversight and regulatory compliance with the Bank of Uganda regulations and policy. It benefits by increasing the amount of deposits held as agents join the MM system opening accounts and depositing money.
3. The regulatory institutions which include the Bank of Uganda and the UCC which have national development interests to protect and want more participation of people in the formal financial and communication services.
4. An army of agents (network) that facilitates cash-in (converting cash into MM) and cash-out (issuing cash on demand) to enable convertibility between MM and cash. MTN Uganda Ltd has an extensive agent network (over 20,000[20]) involved in MM country wide. The agents earn commission on various transactions carried out by MM users. The requirements for registration as an agent to operate an MM service outlet include:- (i) certificate of registration/incorporation; (ii) copies of memorandum and articles of association; (iii) completed agent agreement; (iv) list of outlets; (v) deposit of at least UGX. 1,000,000 (US$ 500) per outlet in a Stanibic Bank; and (vi) maintenance of a cash float of UGX 1,000,000 (US$ 500) per outlet. For agents this is a source of employment and they make small margins on transactions conducted.
5. Merchants and retailers, who accept MM payments in exchange for products and services. These increase demand for MM by providing more avenues through which users can spend their MM. The resultant effect is reduction in the need to handle cash.
6. Businesses that utilize MM as a means to deliver their services, mainly utility companies.
7. The hardware and software providers who include mobile phone makers, network equipment, vendors as well as application providers. They benefit from the increased sale of end user devices like mobile phones, equipment to handle increased network capacity and fees or subscriptions respectively.

8. MM users who are subscribers of MTN Uganda Ltd. They derive benefits by getting

20 www.mtn.co.ug as of July 26th 2013

cheaper and more efficient means of transferring or paying money to other people or businesses within the network.

6.5 Mobile Money-Services

The banking function of MNOs presents elements of social upgrading as the service transforms the lives of people, especially in rural areas, makes profits for the MNOs, and leads to increased subscription. Innovation in settling payments for utilities, making remittances and others provides fertile ground for both economic and social upgrading. MM has evolved into many services that can be categorised into three major groups: Money transfer (MT), Money Payment (MP) and Money Financial Services (MFS). MT is where money is transferred from one user to another, and does not accompany exchange of goods or services, which is also known as Person-to-Person transfers (UNCTAD, 2012), done both domestically and internationally. The MP is where money is exchanged between two users with an accompanying exchange of goods or services. Finally, the Money Financial Services (MFS) is where MM is linked to a bank account to provide the user with a whole range of transactions (savings and credits) that they would ordinarily access at a bank branch. Table 4 illustrates the three categories and what MTN Uganda is currently offering on the market for its customers.

6.5.1 M-Transfer

The MTN Uganda Ltd domestic m-transfer still dominate amongst the MM services, mainly occurring between urban and rural areas, as folks in urban areas remit money to the rural areas to support their extended families. This is a clear example of MM replacing the traditional informal methods like sending money with someone or by bus or taxi. There is a growing use of MM to solicit and collect money from contributors using this platform. Churches[21] conduct fundraising using MM for their development projects.

21 One particular church (Christian Life Ministries) had a campaign to raise money to establish a radio station in Karamoja sub-region to act as an agent of change to transform the region and they used MM platform to collect contributions from the public and well-wishers. Karamoja is one region in Uganda that has been characterised by backwardness, conflict, cattle rustling with almost no government services reaching the grass-roots. The campaign was made to raise funds to establish a radio station and also purchase affordable radios for free distribution. Mobile phone numbers were given to the public to transfer contributions. Other churches use the platform to solicit for contributions from partners, church goers and well-wishers to raise money for church activities. The Highway Evangelical International Church uses the MM platform to collect church offering, tithes and other project commitments from its members. The Church of Uganda currently renovating its Cathedral at Namirembe (National Headquarters) is raising money using the MM platform.

Table 4: Categories of different MM services offered by MTN Uganda

Category	Service	Status
M-transfers	1. Domestic money transfers 2. Churches and NGOs (contributions) 3. International MM from Western Union international transfers.	Operational
M-payments	1. Buy airtime (on-network) 2. Pay post-paid phone bills 3. Educational institutions (school fees) 4. Utility providers (monthly bills for electricity, water, sewage, Pay TV) 5. Businesses (customer to business i.e. payments) 6. Bulk payments (business to customer i.e. salaries; cash payment to the elderly)	Operational
M- financial services	1. Micro loans and repayments 2. Payment of the old age and vulnerable persons	Operational

Source: www.mtn.co.ug and interviews

NGOs readily use MM to solicit for contributions as well. There have been cases of contributions to meet health bills or assistance to unfortunate persons using MM. This is done when awareness is created either through TV or Radio and sympathisers are requested to make contributions to the cause.

The Western Union Company and MTN Group launched a MM transfer service in Uganda, which enables over 3million MTN customers to send and receive money across borders using their mobile phones. The partnership is a MM functionality that allows subscribers in Uganda to send and receive money to and from countries where Western union operates using their mobile phone. They have the option to upload the money into their MM account or withdraw it at an authorised MM agent. This enables MTN money transfer customers to access the 450,000 Western Union agent locations in 200 countries and territories[22].

6.5.2 M-Payments

MTN Uganda Ltd has broadened MM services to include a range of m-payments that span from government to private entities. MTN Uganda started out by targeting entities that receive recurrent payments from diverse customers like utility companies (e.g., National Water and Sewerage Corporation (NWSC) and Pay Television like Digital Satellite Television (DSTV) and Star Times, and those that make bulk payments (Old age remittance and school fees). It is interesting to note that some utility companies have chosen to meet the cost for their customers remitting dues via MM because it affords them a cheaper avenue to collect dues from customers on a regular basis. This has actually led to closure of some due collection offices thus cutting down the operational costs. As an example at the extreme, the NWSC has scrapped some of its cash collection centres and resorted to using banks and MM as the way for users to pay their dues.[23] As a consequence these companies have drastically cut

22 www.mtn.co.ug press release
23 http://www.nwsc.co.ug/index03.php?id=69

operational costs[24] although; this comes with loss of jobs which presents a social downgrading situation.

NWSC is an autonomous public corporation wholly owned by the Government of Uganda. Its mandate is to operate and provide water and sewerage services in areas entrusted to it. It is fully operational in 22 main towns including large Urban Centres within Uganda. MTN Uganda Ltd and the NWSC entered into arrangements for e-mobile water utility payments service that enables about 300,000[25] customers of the national water utility company to pay their bills using MTN MM. The service is convenient and eliminates delays in updating customer accounts as well as the need to physically move to pay one's bill or checking the account balance. As a consequence customers have found making payment simplified to the extent that they keep their accounts up-to-date and therefore do not get disconnected as the case was in the past. NWSC plans to produce scratch cards of different denominations that customer can buy and activate via mobile phone as another way to pay their bills.

Star times TV uses the MTN Uganda MM platform to bring convenience to its over 65,000 customers across its area of operation that extends to the areas of Kampala, Entebbe, Wakiso, Kayunga, Luweero, Nakasongola, Mityana, Mpigi, Lugazi, Mukono Jinja and Masaka. These towns cover much of central Uganda and the company is expanding to reach the entire country. Star Times is a Technology company that was established in 1988 in China. It is a pioneer and key player in digital television solution in China and Africa. The company has over 7 million subscribers; currently operating in 8 African Countries: Nigeria, Tanzania, Kenya, Rwanda, Uganda, Guinea, Central African Republic and Burundi. Star Times decoder operates based on the Digital Video Broadcast-Terrestrial (DVB-T) standard which requires no dish.

MTN Uganda Ltd is cultivating merchants for m-payments, mainly targeting large entities with multiple outlets like supermarkets such as Uchumi. Unfortunately the majority of businesses that are largely in the informal sector cannot qualify for m-payments under such arrangements because they are required to open a corporate account implying that they should be legally registered with a range of documents and a permanent physical address. So far the informal sector largely relies on money transfers instead. Nevertheless, with continuous innovation by Grameen Application Laboratory in collaboration with MTN Uganda Ltd, M-payment will reach this group as well.

This innovation has actually benefited MTN Uganda Ltd more than any other individual entity. This is through the sale of airtime or credit directly to consumers without using agents thus cutting operational costs. This avenue to sell airtime is helping them to make significant savings

24 NWSC had not conducted a study to estimate the savings made, but argued that costs had been reduced in terms of salaries, office rent, phone bills, paper and stationery among others.

25 Not all the clients are MM subscribers, besides MTN Uganda competes with other MNOs for the same clientele

through bypassing the traditional distribution system of scratch-cards. MTN Uganda Ltd thus saves by avoiding printing of new cards and paying commission to dealers and their agents.[26] This implies that the margins of many small mobile sector enterprises (air time vendors) that thrive on the distribution of airtime could come under increasing pressure as MTN Uganda Ltd increases the sale of airtime through this virtual channel (mobile money). This is a typical example of economic upgrading on the side of MTN Uganda Ltd and presents a social and economic downgrading situation for the vendors and the companies that print scratch cards as there is loss of employment and income.

6.5.3 M-Financial Services

In Uganda, it is now possible for MM users to withdraw money from some Automated Teller Machines (ATMs) instead of visiting a MM agent. Although this approach guarantees more liquidity, it unfortunately only works in urban settings where ATMs are common. MTN Uganda Ltd is preparing to operationalise this innovation. With M-Financial Services an account holder on the mobile phone (which contains the MM) will be linked to a bank account, allowing the user to move money between the two accounts. In this way an account holder on the mobile phone will deposit cash directly into a bank account, transfer money directly to another account in the same bank, transfer money to a bank account in another bank and print a bank statement. Finance Trust[27] Micro-Finance Institution (MFIs) is using mobile money as a lower cost and safer way to disburse loans and collect payments.

In 2010 the Government of Uganda approved the implementation of a programme called Expanding Social Protection (ESP)[28]. An aspect of the ESP called a social transfer project - the Social Assistance Grants for Empowerment (SAGE) was implemented in 14 districts. SAGE is led by the Ministry of Gender Labour and Social Development. It reports to a multi-institutional Steering committee comprising the ministries of Finance, Local Government, Health, Education, the Office of the Prime Minister, the National Planning Authority and development partners.

During its initial five years, the programme is supported by international partners, in particular DFID, Irish Aid and UNICEF. Overall funding of £39 million[29] was agreed upon for the programme. The aim of the SAGE as a pilot was to tackle chronic poverty in Uganda and to test a range of implementation modalities for efficient and cost effective delivery in order to scale it up. The SAGE was planned to reach about 600,000 people in about 95,000 households over a period of four years (April 2011 – Feb 2015) which is approximately 15 percent of households in the targeted districts. The methodology identified two groups of beneficiaries: vulnerable

26 Kabir Kumar and Toru Mino (2011). “Five business case insights on mobile money,” http://technology.cgap.org/2011/04/14/five-business-case-insights-on-mobile-money

27 www.financetrust.co.ug. This is a microfinance organization reaching out mainly to women

28 This is a programme of the Ministry of Gender Labour and Social Development

29 Currently the SAGE programme is funded by donors. It will be evaluated in the third year of existence to establish its impact So far only baseline studies have been conducted making it difficult to establish the impact.

families and the old age: The latter group comprised of persons above 65 years who nationally constitute 3.2 percent of the population and are represented in around 14 percent of the households. The initial size of the monthly grant was UGX 23,000 (about US$10 in 2011) per beneficiary. It was envisaged that this money would be necessary to increase the income of the average household in the lowest decile.

A financial service provider was contracted to transfer the cash to beneficiaries using electronic transfer system and that was the MM platform managed by MTN Uganda Ltd. This was the first service of its kind on the continent. It was realized that among the beneficiaries, there were those with phones and those without phones. In this financial service those with phones have their money sent to their phones at the end of every month. All they need to do is to look for MM agent to receive their money. Beneficiaries without mobile phones were given SIM cards and their money is sent directly to the cards. They in turn insert their SIM cards into the Yellow Easy Talk Machines (Payphones) and receive money from MTN Uganda MM agents stationed in those particular locations.

It is important to mention that this project is just at its inception and therefore it has not been evaluated. Nevertheless, it has the potential to profoundly impact the beneficiaries and reduce transaction costs of paying many persons scattered all over the country. In a country where it is common to hear corruption and financial scandals, this has extensively eliminated the embezzlement of funds meant for the elderly and vulnerable. It has also demonstrated that with the help of electronic advancements the entire population can be reached and therefore interventions are possible. Paying into a pension plan is an important part of financial planning especially for the old. However, in developing countries where social safety nets are less developed, and in some cases do not exist, this practice is rare. MM can greatly reduce the transaction costs in low income pension schemes making them more viable and extremely useful. It is possible to extend the practice to all categories of persons using MM especially if funds are available. Actually MM can be used as a tool for governments or the informal sector to channel funds into pensions schemes. This can allow people at the base of the pyramid to have an income to fall back on in times of need especially during old age.

Sustainability remains a challenge as the funds distributed are from development partners and so far there are no indications as to what alternative sources will be used during the scaling up and rolling out phase of the programme.

6.6 Regulation of the MM by the Bank of Uganda

MM transactions form an innovation that presents a number of regulatory challenges in pursuit of development. This is because MM involves a jurisdiction previously a preserve of distinct, separate and independent regulators (telecommunications and financial banking sectors). Whereas the central bank is expected to regulate the financial sector in the interest of consumers, the telecommunications regulators have the corresponding role in the communications sector. MM is characterised by unprecedented dynamism with disparate, changing technologies and business models as stakeholders explore emerging opportunities with the potential to change the financial landscape. This is the case when there is limited policy experience to draw from to develop relevant laws and regulations, Uganda being one of the pioneers. This compounds the challenge of effectively regulating and protecting consumers, without stifling innovation. It is imperative for the two regulators to collaborate.

It is incumbent on financial regulators to promote financial inclusion[30] and mitigate risks to customers. Prudential regulation thus targets to protect the interests of mobile banking customers and the integrity of the payments system, without stifling innovation which has the potential to enhance efficiency and broaden financial access. BoU faces challenges of the rapid pace of technological innovation, implying that regulations made are likely to become outdated in a short period, irrelevant or even counterproductive. This is made worse by the fact that mobile phone operators that are central stakeholders in mobile banking are not licensed financial institutions subject to regulation by a bank regulator – the central bank. On the contrary they are regulated by a communications regulator (UCC), whose priority is to regulate voice and data transfer in order to prevent abuse of market power. Prudential regulation is thus not a priority. As a consequence, effective regulation of mobile banking requires a joint partnership between the BoU and UCC, defining clear mandates covering their respective responsibilities. Since operational risks are information technology based, bank regulators are not well placed to regulate the operational risk of mobile banking. Therefore regulating operational risk is for the communications regulator to take responsibility and to coordinate regulation with the bank supervisor to ensure that the prudential priorities of the latter are met.

The BoU has not developed a comprehensive regulatory framework for MM in Uganda. Based on a quick analysis and risk assessment, the BoU has so far limited its regulatory role to the approval of banks' participation in partnerships with mobile phone operators to offer mobile banking. This was after reviewing the proposed business model and associated risk assessment. The fact that the commercial banks guarantee the safety of the money and the MNOs provide the platform for transactions to be made increases the degree of safety.

30 By growth of mobile banking services both in terms of quantity of transactions and numbers of customers and through innovation to provide new types of financial services to customers

A number of consumers at various levels expressed ignorance of whom to approach if and when they have complaints related to mobile money. Regulation should pay attention to consumer-related issues which the partnership between MTN Uganda and Stanbic Bank need to adhere to quality of service, service centres, confidentiality and ability to retrieve personal data regarding personal transactions and measures to handle fraud and loss of mobile phones.

6.6.1 The risks involved in mobile banking

The prudential risks arising from the mobile money services currently provided in Uganda (and most other countries) are relatively small (Bank of Uganda, 2011 and 2012) . This is because of two salient features of mobile money services. First, the services offered to MM customers are currently restricted to basic transactions and store of services. Second, there is no intermediation by the MM operators of the cash paid by customers for electronic money. The main risks emanating from mobile money are the following:

Liquidity issues always arise when an agent does not have sufficient cash on hand to effect transactions with customers, such as meeting a demand for a withdrawal of cash from a virtual account. This means the customer has to look for another agent to effect the withdrawal transaction.

There is a risk of outright loss to customers' virtual money although this is small. The model operates in such a way that the mobile phone operator holds the equivalent of all the virtual money issued in a settlement account at its partner commercial bank. Given this when the mobile phone operator ceases to exist for some reason, customers can still recover their money from the settlement account at the partner commercial bank. However, customers are still exposed to losses of their virtual money in case the partner commercial bank holding the settlement account ceases to exist or goes bankrupt which is a similar case to the risk ordinary creditors of the commercial bank face.

There have occurred operational risks when the information technology fails, hacked into, or malfunctioned. When the information technology system breaks down, customers are not able to access their virtual money to effect transactions. This is perhaps the most frustrating part of the innovation as customers remain helpless. There is increased vulnerability to errors being made in effecting transactions (debiting and crediting) customers' virtual accounts. In 2011 MTN Uganda Ltd experienced the worst nightmare when its system was hacked into leading to the loss of an estimated 7millions of dollars[31]. The company quickly responded by halting the service to rectify the situation (for a few months) which gave opportunity to other competitors like WARID to launch Warid pesa and UTL to Launch M-sente to consolidate their presence in the virtual money market. While MTN Uganda lost money, clients did not

31 www.mtn.co.ug

have access to the service and their virtual money for a prolonged period of time. This is a clear demonstration of how customers are protected and have a guarantee of safety of their savings although they do not have the ability to effect transactions. When such incidences take place, the public is negatively affected and these are possible areas for legislation and regulation.

CONCLUSION AND POLICY IMPLICATIONS

Over the last two decades, the telecommunications sector in Uganda has undergone a major transformation, evolving from a largely monopolistic sector under UPTC to a competitive, productive and increasingly innovative sector with a lot of social and economic ramifications. The explosive growth of the MTI in the last two decades is underpinned by a number of drivers that include deregulation, liberalisation, advancements in mobile phone technology, the growing population and Uganda's strategic hinterland location.

It is clear that the MNOs are owned by multi-national telecommunications companies with strong global value chains, which spread continentally to other African countries, Arab countries, Asia and Europe. MTN Uganda Ltd is a subsidiary of the MTN Group whose operations are in 21 countries in Africa, Middle East and Asia. The companies are thus not owned by Ugandans but typical Multi-National Companies.

MTN Uganda Ltd employment strategy is profoundly based on a thin staff supported by outsourcing of labour and services for much of the value chain in an effort to reduce costs and increase efficiency. The core employees are given the best environment and working conditions. It is evident that conditions of work among the employees of the MTN Uganda Ltd are on average better than elsewhere in Uganda although may not meet the ILO decent work framework. On the other hand, the conditions of work in the outsourced services are of a lower quality. The situation is even worse among the workers in the distribution networks. Therefore through outsourcing, MTN Uganda Ltd increases efficient and cuts costs, however the company keeps a blind eye to condition of work to the affected persons.

MTN Uganda Ltd is extremely reluctant to have its employees join and participate in trade union activities, specifically Uganda Communications Employers Union. It was established that MTN Uganda Ltd employees do not belong to any trade union. The existence of abundant labour in Uganda with very poor remuneration by most employers renders efforts to unionise members even more difficult. However, with regard to conditions of work, MTN Uganda Ltd employees are among best by local standards. The employees have better wages and good working conditions, there is sufficient work security, are entitled to a handsome pension fund, have relative employment security and health insurance.

Regarding MM, it is an innovation that has revolutionalised lives but still nascent, requiring strong legislation to protect interests of stakeholders such as customers, the banks and the MNOs. MM services a banking function of the MNOS, presents a strong element of social upgrading as it transforms the lives of people especially those who in the past have been left out of the banking system. The existing services under MM services include: money transfers, so far the commonest; money payments for services; and money financial services.

Overall the transformation of the MTI in Uganda and specifically MTN Uganda Ltd has brought about gains to the economy and individuals and thus making a commendable contribution to employment, revenue and growth. Therefore the following are the emerging policy implications:

1. The liberalization of the telecommunications sector is truly a success story. The drivers of this success could be used as lessons to spur similar success in other sectors.
2. Trade unions may not wield power over the MNOs as the later leverages the process of liberalization to weaken any intended strategies of workers. Instead trade unions should adopt strategies that tackle labour issues around specific issues like the current pension reforms.
3. Trade union activities should not be limited to MNOs core workers who are even better remunerated but should endeavour to reach workers in the outsourced companies.
4. Money transfer is an innovation that has revolutionalised lives but still nascent, requiring strong legislation to protect interests of stakeholders such as customers, the banks and the MNOs

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APPENDIX: TABLE A1 LIST OF KEY RESPONDENTS

Flavia Nabasa	Senior Managers for Consumer Marketing	MTN Uganda Ltd
Jennifer Ecum	Senior Managers for Consumer Marketing	MTN Uganda Ltd
Simeon Kakembo	Senior Human Resources Officer	MTN Uganda Ltd
Wajega Charles	Manager Services Operations	MTN Uganda Ltd
Themba Khumalo	Operations Executive	MTN Group Limited
David Nkojjo		Uganda Communications Employees Union
Isaac Kalembe	Public Relations Officer/ spokesperson	Uganda Communications Commission
Mutebi Robert		Uganda Communications Commission
Kirya Geoffrey David	Principal Information Scientist/ spokesperson	Ministry of Information and Communications Technology
Nsubuga Audrian		Simba Telecom
Dr. Fredrick Kitogo	Commisioner	National Information Technology Authority
Sharon Ampairwe	Public Relations Officer/ spokesperson	National Information Technology Authority
Richard	Desk Officer	National Information Technology Authority
Ali Ndiwalana	Consultant	Grameen AppLab

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