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Mobile Money Reinforcing Emerging Economies through Innovation Disruption

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Abstract: ***At a time when the uncertainty of the pandemic is looming large, the need for mobile connectivity has understandably gained significant prominence. People had to communicate, if not meet. Importantly, it is a given that businesses could also not come to a standstill The wheels of the economies worldwide had to keep moving. Humans are inherently resilient; they always rise to meet the need of the hour. The importance of communication was recognized as a huge factor to improve conditions, and consequently, Mobile Technology responded magnificently to this critical issue at hand. This is a comparative study of how mobile technologies changed the dynamics of emerging economies mainly.***

Keywords: mobile economy, communication technology, GSMA, broadband connectivity, emerging markets

1. Introduction

This study will concentrate on the effects of mobile connectivity to generate economic wellness in Sub-Saharan and South Asia.

Presently, there are four known Mobile Access Technologies: *GSMA, CDMA, FDMA and TDMA* in use of which GSMA is by far the most widely used technology. Most service network providers prefer its robust features and its wide connectivity. It will be enriching to confine this analysis to the GSMA domain for the basis of this study.

Looking at the GSMA standalone numbers, statistically, there were 5.2 billion mobile users were subscribed to their respective mobile service providers in 2020, resulting in a revenue of $4.4 trillion. This scenario is rapidly evolving and overhauling the business dynamics dramatically. An approximate 500 million more subscribers will be added by 2025; from these regions alone; correspondingly increasing the combined revenues to exceed $5 trillion!GSMA (1)

The Rapidly Changing Emerging Markets

It is a no brainer that mobile connectivity has changed the lives of many in developing markets. This segment is expanding relatively faster than the saturated markets of the already developed world and will consequently make a significant difference to the emerging economies. The prospects are swiftly encompassing cultural changes propelled by digital devices and maybe even more dramatic than the effects felt in developed societies**(2) [Laura, et al, 2021]**It is observed that53% of all adults own a Smartphone that brings additional features like connecting to the various Social Media websites and enabling the use of multiple apps, importantly, the messaging, news and information apps that have all added to the mobile economics. Most people agree that mobile connectivity has added to their quality of life. Few, however, consider mobile phones as being harmful to children.

The Larger Impact of Mobile Connectivity

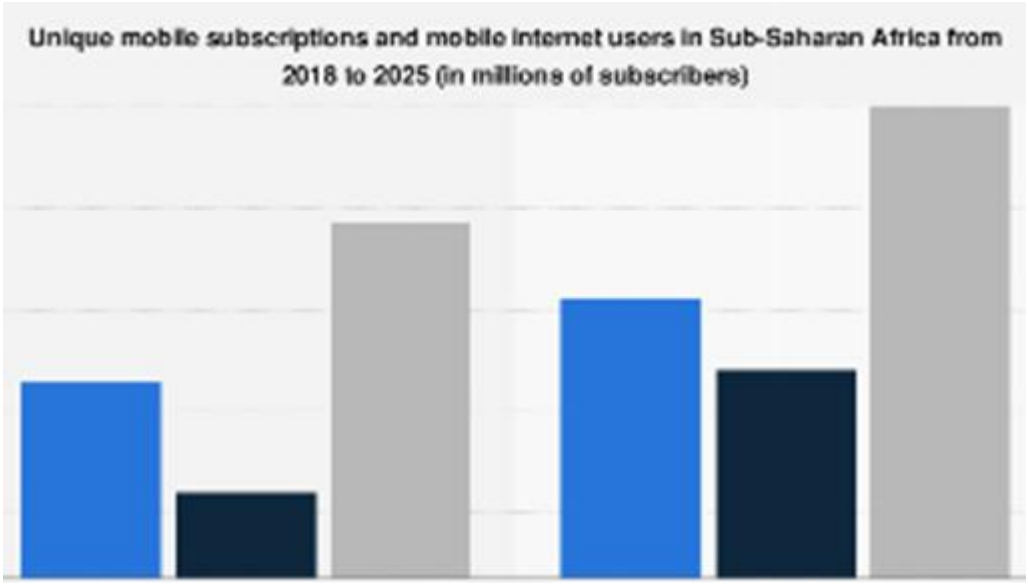
Competition and innovation are ever-evolving, resulting in benefitting consumers immensely. Apart from the obvious benefits, the entire range of mobile businesses, technology and connectivity have provided jobs to millions. It is a win-win situation for the concerned parties! With the increasing number of users, the costs involved in owning a phone or paying for the services are reducing every day. This, in turn, increases the subscriber base and the overall profitability.

In the coming days, 60% of the world's population will be covered by 3G connectivity. In Europe, this number jumps to 90%, whereas *the US has 96% of 4G coverage.* In developing markets, 2G connectivity is the norm, but still, enjoy app services specially designed to suit them by their respective developers. Some of these include Skype, Viber and Nanu. This ensures that almost everyone stays connected to mobile networks enhancing their profitability Consumer demand had to be met and the infrastructure providing segments have also prospered as a result.

Mobile Phones and Economic Development in Sub-Saharan Africa

Despite the hazards of Covid-19, the sub-Saharan African region has benefitted immensely from the advancements in Mobile Technology. Businesses and individuals have been able to engage with one another. Life in this region has largely maintained a semblance of normalcy, most of the regular routines have gone on as usual, without experiencing the harsh restrictions, enforced by the respective authorities. Education, businesses timely medical help were facilitated by the innovative mobile systems in place.

For most people who could easily afford to buy a handset, it was a rewarding experience. The average price of handsets had reduced. However, there was a common practice of sharing Smartphones with the less fortunate, covering a wider audience than what the actual numbers reflect.



It was only a matter of time before mobile broadband coverage in Africa and the Sub Saharan region has increased substantially in the last few years to cater to the growing demand. From 2014 to 2020 there was an increase of more than 50%, which is thrice the increase, the rest of the world witnessed. This explains the vast economic improvement in this region.Mobile telephony aided by the service providers anticipated the growth potential and capitalised on it. Sub Sahara Africa became a better place to live in.

Businesses prospered, medical help improved, awareness developed and online education and communication became easier. This also helped to reduce the urban-rural differences. The covid-19 impact was better managed. The demand is enormous, and authentic researchers believe that by 2026, there will be an increase of over 76%.

Recently, four west African Countries signed a communication pact that would be mutually beneficial to each one of them With better connectivity, trade between them would be easier and their respective industries would flourish as a result. This growth was unimaginable a few years ago. Most of the credit belongs to the Mobile and related industries.

In the sub-Saharan countries that had minimal infrastructure if any at all. However, mobile telephony changed the scenario rapidly changing the economic conditions, something this region had not witnessed in the last ten years. There are 10 times more mobile phones than landlines, today - ***(ITU, 2009)*** and more than 60% of the population own mobile phones. The visible result is obvious, it has brought a new dimension to some countries in Africa's economic development

The Mobile penetration From 2012 to 2021 and the expected growth projected by 2025.

The mobile service providers increased their area of coverage and simultaneously technological applications made important functions like obtaining timely medical and banking operations simple. Newer systems like mobile money and mobile data helped this cause. Gradually, as the pandemic effects reduced, business operations began to operate, almost normally. Mobile technology and its related fields which were once an unknown quantity now obtained the approval of most people.

This encouragement led to better applications being developed, making life much easier.Residents of Timbuktu, in Mali now can call their relatives and friends in Bamako, the capital city or others in France. In Ghana, farmers use text messages to other regions, like Accra, 400 km away, to get prices of tomatoes and corn. In Niger, labourers call acquaintances in Benin to obtain knowledge of job opportunities there without incurring a $40 trip cost, **[Jenny C. Aker and Isaac M. Mbiti] (3).**

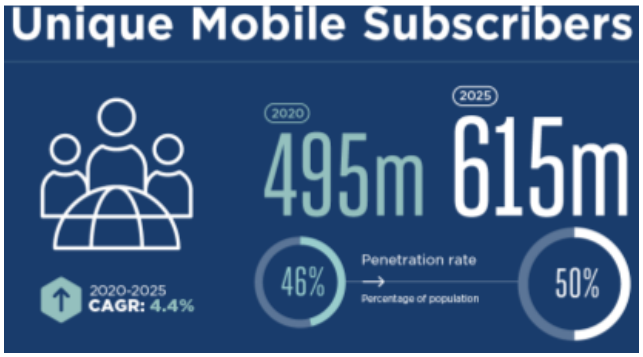
Similarly, ailing patients receive regular text messages about their daily medicine doses. Meanwhile, residents of other countries like Nigeria, Mozambique and Kenya update the rest of the world about the political situation or violent protests that occur in these regions frequently.

In the more remote regions of Africa, mobile connectivity costs have reduced dramatically, bringing more people closer and benefitting development. Mobile phones are fast changing the dynamics of economies in several parts of Africa, and these numbers are growing with every passing day. Paul Kagame, the President of Rwanda said "In 10 short years, what was once an object of luxury, the mobile phone has become a basic necessity in Africa". at the Connect Africa Summit in 2009.

With the increase in the use of mobiles, the costs of owning a mobile decreased and services became more affordable. Everyone was online, growing awareness among people in backward areas to understand the world at large. The prospects are encouraging indeed, going ahead.

Consequently, new digital solutions found their way in assisting small and large business organizations and economic conditions improved. Through all this, it became apparent that it was the mobile industry that was responsible for enabling a newer, safer and better life for all. With this encouragement, mobile operators spread their wings to reach people in the remotest of regions. Governments too received adequate mobile and technological support to overcome the crisis-like situation that the Pandemic had created.

An article in *The Economist* **(2008**) similarly reported:: "A device that was a yuppie toy not so long ago hasnow become a potent force for economic development in theworld's poorest countries."



The Significant Changes in Africa

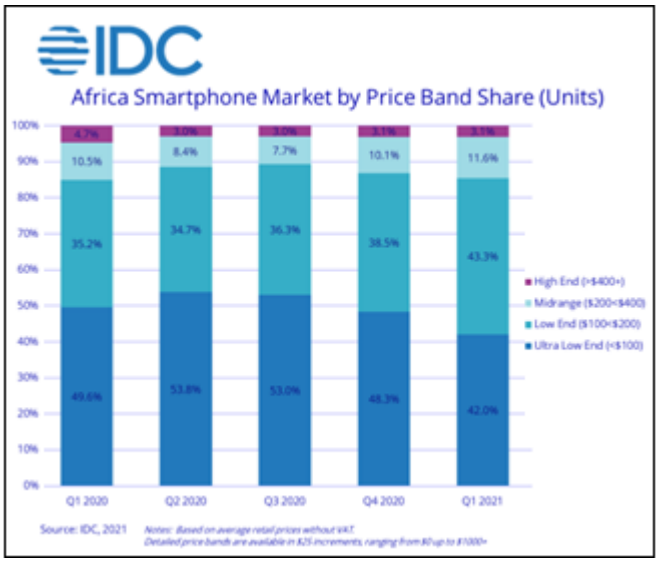
In 1999, just 10% of the population had access to mobile phones, but, by 2008, this percentage increased to 60%*.and. by 2012, most villages had mobile coverage and will continue to expand to almost all of Africa in 2021.

Some countries in North Africa, which are closer to Europe, have almost 93% mobile coverage, and now more than 60% of the Sub-Saharan regions were also covered. The use of mobile equipment is directly proportionate to the number of people in Africa but other important factors are equally relevant, including ***using a spatially disaggregated dataset of mobile phone coverage and geographic characteristics.-[Buys, Dasgupta, Thomas, and Wheeler], (2009) [4].***

East African Countries

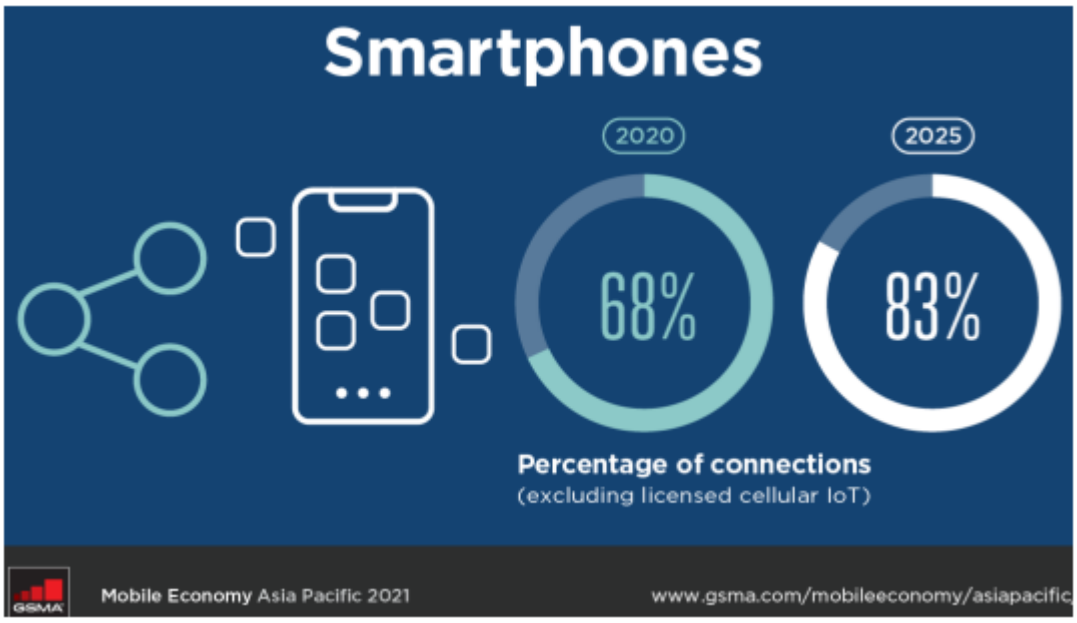
There was a dearth of poor telephone landline infrastructure in most of the East African countries, people had to wait for over 100 days for a landline connection, apart from paying bribes, which was partially responsible for a greater dependence on mobile phones, resulting in 93% of the population acquiring mobiles, albeit the cheaper ones.

It can be observed that due to this regions economic status, more than 85% of all mobiles sold are in the Ultra Low-End and Low-End price categories. (Between $100-$200).



Gradually, economic development resulted in most parts of East Africa. Despite the inability of individuals to buy mobiles, the economic conditions were changing quickly, the number of mobiles increased and with time, the costs decreased and efficiency increased simultaneously, helping the cause of economic growth. Most of the markets prospered as people came closer with better connectivity. Most manufacturers followed suit to develop better supply chains for every process. More people got employment and this region developed faster and prospered more than what was witnessed in the preceding years in these backward regions of Africa.

It is clear as daylight, the huge difference in how mobile and internet technologies have played a key role in developments and have increased the quality of life of many in this region.



From these statistics, the existing growth rate is already established in the Sub-Saharan region, and with the future projections, the whole region will present a much more economically healthier society.

These numbers, vividly demonstrate the overall impact of the entire 'Mobile and Broadband Industries' in the Sub-Saharan regions.

Economic Developments in the South AsiaPacific Region

Summary

At the outset, it is important to mention that Greater China, Hongkong and Taiwan are not included in this study.

Some countries in the South Asia Pacific Region have seen significant new developments. The adoption of 5G connectivity in India, Indonesia and Malaysia, will result in the newer development of 5G applications and will also bring about handsets specially designed to enable the 5G services. The number of subscribers to 5G, will outnumber the 2G and 3G consumer base by the end of 2025. However, 4G services will still be the most widely used and accepted.

Other not so developed countries in Southeast Asia and South Asia will concentrate more on 4G services. Presently, there are 52%, and 54% in these regions respectively, and by 2025 these numbers will propel to 71% and 76% correspondingly.

As a result, the mobile industry will continue to uplift the economies of this region. Stistaicaly, this amounts to $750 billion of value or 51% of the combined GDP of South Asia Pacific, and by 2025 to $860 billion! Additionally, the 5G mobile services will not only bring greater productivity and consumer experience but will play a significant role in adding to the existing consumer base.

By the end of 2020, almost 60% of the entire population were subscribers of mobile connections (1.6 billion connections). With the pandemic increasing, several vulnerable people, particularly women, will play a major role in accounting for a much larger subscriber base by 333 million, increasing the percentage of connected women subscribers to 52% as against the prevailing rate of 42%.

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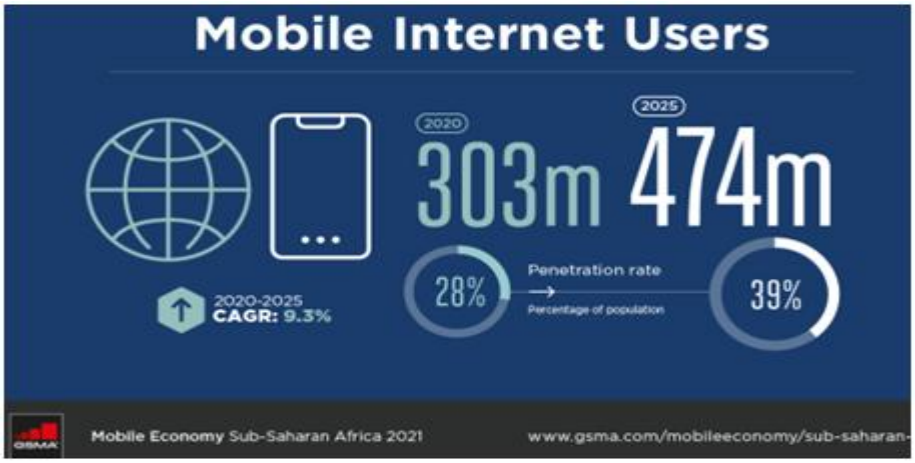

With the advent of financial services that are readily available through mobile access, a large number of related advantages have ensued. Long-distance remittances, mobile banking facilitation and texting have made life simpler and efficient, resulting in better productivity; mobiles are the preferred choice for most money transactions without involving cash**. (Karjaluoto, 2002). [6].**

Recognition

The United Nations hailed the huge part that the mobile industry played in combating the Climate Change factor. This is incidentally the first industry that took the lead in the UN's ***Race to Zero Campaign***which in essenceencouraging businesses, financial institutions, countries and cities to promote the need for zero carbon emissions, and enlightens the emerging economies to follow by example.

One of the most significant stories of the economic development in South Asia is correlated to mobile connectivity. With the adoption of prepaid cards and cheaper handsets, voice calls and texting have become a routine in these regions. With the popularity of mobilesin the developing world, more people have mobiles, than bank accounts. **(Porteous, 2006).[5].**

Many banking operations have been facilitated by Mobile service providers and have enabled banking procedures to make it a better experience for their customers, including offering rewards and other bonuses, like free messaging among others. **(info dev, 2006). [7].** Customers who could not afford banking costs have been offered "bankless banking' **(Ivatury& Mas, 2008). [8**]. Mobile banking is a key ingredient in developing economies. Unfortunately, there is no fixed norm, these vary from country to country, additionally, the different currencies and exchange rates involved had added an extra burden to this domain. Thankfully, effective mobile technology helped the cause.

There are other variable regulations, in each country that have been suitably addressed by mobile service and banking providers by offering alternate solutions. **(Mortimer Schutts, 2007). [9].** However, most banking and financial institutions have entered into mutually benefitting partnerships with mobile service providers, increasing the customer's experience, resulting in an increase in the number of transactions and a healthier economy.

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The Poverty Factor in South Asia and the Advantages of Mobility

Not very long ago, South Asia accounted for a mere 3% of the world's GDP and a majority of its population lived under $1.25 per day Mobile development changed the scenario rapidly. Businesses flourished with the advancement of mobile communication and its services. The divide between the wealthy and poor narrowed considerably as awareness

grew with making mobile services available for all at economic prices.

Mobile phones have provided invaluable information and better economic developments in most south Asian countries. (*This research was facilitated by analyzing the macro and individual databases).* Apart from the economic point of view, gender inequality was reduced, ensuring a more stable life for women. They gained confidence, and their inputs resulted in adding more productiveness to their respective economies.

Unlimited Advantages

Baro, (1991)[10] found that the impact of mobile phones in developing countries was twice as large as in developed countries. A study of the relationship between mobiles phones and the GDP per person in 120 countries, **f**ound that for every 10% increase in mobile use, there was a corresponding increase of 0.59% in GDP in developing countries.

Many countries must thank the mobile industry for its economic and fundamental growth. In terms of wealth alone, this region had generated 5.3% of the world's GDP until 2018. These numbers have changed since then and are expected to increase dramatically by 2025. With the advancements in mobile technologies, businesses have flourished and so have all the mobile-related sectors. It is difficult to fathom the extent of its effect in the coming years.

2. Methodology

This research is confined to primarily the relatively backward countries of Africa, mainly the Sub-Saharan regions as there has always been a lack of economic development and it was most noticeable, and how the mobile technologies improved the conditions considerably by developing the related mobile and internet infrastructure and making it readily available to the remotest areas as well.

Finally, this study proceeded to analyze the effects in the semi-developed regions of South Asia and finally to relatively better-developed countries. in the South Pacific regions,

3. Conclusion

As the age-old saying goes "Every Dark Cloud Has a Silver Lining" In the underdeveloped countries, it was the Covid-19 Pandemic which was the 'Dark Clouds' that had made life even more difficult than it already was, the 'SilverLining' came in the form of Innovative Mobile Technologies that enhanced the communication to an extent, that these regions were slowly narrowing the economic gap with the rest of the world.

Mobile connectivity and newer technologies have been major contributing factors to the economic growth of several developing countries. It is almost indispensable in today's age and time! The best is yet to come, but, it is safe to assume that much brighter days are ahead!

It is interesting to note that 63% of all businesses worldwide are conducted online from the time Covid-19 set in, depicting the importance of broadband services. It will not be long before Sub-Saharan Africa and the emerging markets of South Asia Pacific will follow suit.

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Wessam is a veteran C-suite professional with a particular focus on innovation disruption and Ecosystem design. Her name shaped as internationally recognized thought leader and trusted advisor in developing technology modern strategies and breaking through innovation marketspace. Her passion with strategy and innovation enabled her to develop a strong track record as an innovation catalyst for Fintech, Mobile money, Innovation Disruption Strategies within MNOs ,banks, governments and academic institutions as France telecom, Etisalat Holding and Smart government UAE. She is a founder and CEO of Addengreens international corporate which developed the first Innovation Disruptors Academy attached with a specialized innovation center for the new digital age of innovative financial services and technological sphere.