Valuation of telecom investments in sub-Saharan Africa

Aude Schoentgen Ph.D\textsuperscript{a,b,\*}, Laurent Gille Ph.D\textsuperscript{b}

\textsuperscript{a}Independent consultant (Economic research & consulting), Paris, France
\textsuperscript{b}Telecom ParisTech, Université Paris Saclay, I3/CNRS, France

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\textbf{ABSTRACT}

Telecom Multinational Enterprises have largely invested in Africa over 2000–2015, either by bidding for new licences or by acquiring local operators. Deal prices do not appear as always coherent with the local country and market contexts and they show some large disparities among them. Moreover, there is still scant knowledge in the economic and international business literature regarding the case of Africa as a host continent for international telecom investments. The main issue of this paper is to investigate what have been the determinants of these deal amounts and to what extent these determinants explain dispersion of these amounts.

1. Introduction

1.1. Africa as a new territory of investment for international telecom operators

Foreign investments inflows to Africa have strongly increased in the past decade. The telecommunication sector - whether it is through privatization or through license acquisition – was not spared by this phenomenon. International telecommunication operators have been the main stakeholders of this trend. Most of them come from Middle East and Europe, where telecom markets have come to saturation in terms of subscribers base: All Western Europe and Middle East countries are above 100\% mobile penetration rate (computed as the ratio of active SIM cards to number of inhabitants). Moreover, Western Europe is declining in terms of revenues: Its total mobile market has come from 154.9Bn\texteuro\, in 2007 to 145Bn\texteuro\, in 2011.\textsuperscript{1} Finding growth drivers on their own (mature and competitive) markets has indeed become quite complex and will necessitate to develop data communication offers (Internet of Things, cloud-based applications, etc.). This is why these international operators have been looking for new sources of growth and chosen - among other strategies - to invest in emerging economies and heavily rely on them for growth. Chart 1 shows the low penetration of mobile and Internet services in Africa compared to other regions of the world. For instance, Deutsche Telekom (Germany) has invested in Latin America and Asia, Telefonica (Spain) and América Móvil (Mexico) in Latin America, Telia Sonera (Sweden) in Eastern Europe and Asia. This enables them to exploit their own skills and know-how in less mature markets and to take the opportunity to develop new services responding to local usages.

This new strategy of international operators has deeply transformed the African mobile landscape. Today, the African mobile telecom sector is made - to a large extent - by these operators from Europe, Middle East and South Asia, which have chosen to invest on the continent, attracted by the growth of the sector. Neither American operators, nor Chinese ones – the biggest in the world – have shown any interest in African markets so far.

\textsuperscript{\*} Corresponding author. Independent Consultant (Economic Research & Consulting), Paris, France.
\textsuperscript{\textregistered} E-mail address: audeschoentgen@gmail.com (A. Schoentgen).
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This research focuses on two types of external growths for a Telecom Multinational Enterprise (T-MNE) to enter an African market: acquiring a license in the country and acquiring a local operator through a Merger and Acquisition (M&A), including privatization. If the T-MNE buys its ‘entry ticket’ to the country by bidding for a license, it will have to build its network then. This is called a ‘greenfield’ operation. In the case of the T-MNE acquiring an existing operator (that already holds this ‘entry ticket’), either the target already owns its proper network or its network is hardly developed and the investor will have to develop it.

The attractiveness of African telecommunications comes from the underdevelopment of the sector in the early 2000s, when fixed telephony’s penetration was around 1%. During the decade 2000–2009, mobile telecommunications have strongly developed and are now the main technology used to communicate, despite the low-income local customer base. In several years, Africa has been connected via mobile networks and has become a mass market of low-income consumers. A lot of incumbent operators have been privatized and African telecommunication markets have been liberalized. Some operators have made Africa their core strategy.

Their investments have recently reached high amounts of money, particularly when investments are made in North Africa. In 2010, Orange (France) acquired 40% of Meditel (Morocco) for 640 m€ and VimpelCom (Russia) acquired 51.7% of Orascom Telecom (Egypt) for 5bn€. Regarding licenses, Etisalat acquired the third license in Egypt for 2.3bn€ in 2006 and Orascom got a 2G license in Algeria in 2001 for 579 m€.

In sub-Saharan Africa, the biggest deal was closed in 2010, when Bharti Airtel (India) acquired African assets of Zain (Kuwait) for 8bn€. Previously in 2009, Vodafone acquired 70% of Ghana Telecom for 572 m€ and Orange acquired 51% of Telkom Kenya for 390 m€.

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**Chart 1.** Mobile and Internet penetration by region, 2014. (Bubbles represent relative populations’ size).

Sources: GSMA Intelligence, World Bank

**Table 1**

Examples of 3G licenses awarded in sub-Saharan Africa.

<table>
<thead>
<tr>
<th>Country</th>
<th>Award date</th>
<th>Number of licenses awarded</th>
<th>Total license fees (million US$)</th>
<th>License fees/capita (US$)</th>
<th>License fees/subscriber (US$)</th>
<th>License fees to GDP ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nigeria</td>
<td>2007</td>
<td>4a</td>
<td>600 (150 each)</td>
<td>4.1</td>
<td>14.4</td>
<td>0.36%</td>
</tr>
<tr>
<td>Ghana</td>
<td>2009</td>
<td>3b</td>
<td>450 (150 each)</td>
<td>19.3</td>
<td>29.9</td>
<td>5.5%</td>
</tr>
<tr>
<td>Kenya</td>
<td>2009</td>
<td>3c</td>
<td>30 (10 each)</td>
<td>0.8</td>
<td>1.5</td>
<td>0.17%</td>
</tr>
</tbody>
</table>

*a Celtel, Globacom, MTN, Alhadi (license then sold to Etisalat in 2010).
b Millicom Tigo, MTN, Vodafone.
c Airtel, Telekom Kenya (Orange), Vodafone.

Sources: WCIS, World Bank
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