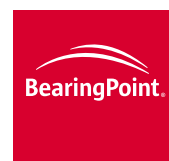


# Impact study of the arrival of a new mobile phone operator in Haiti



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In partnership with :



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# Thanks

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# Edito

## When telecoms contribute to development: the case of Haiti

Do telecoms really contribute to the economic development of developing countries? The question is not new. Even though 10 years ago, economists were thinking that only developed countries could benefit from mature telecommunications, the phenomenal success of mobiles has changed the deal. In November 2009, the number of GSM users reached 4 billion people in the World. Many studies showed that mobile phone had a positive role on the economic growth, such as the Grameen Foundation who helps to “Village Phone” Development, concept of shared mobiles, creating a new source of income for hundreds of thousands of women in Bangladesh or in Africa. Meanwhile, other studies from the UN have raised the alert this autumn on the negative side-effects of the telecom expenses on the food budget in African countries.

The AFD and Proparco have decided to fund a brand new study in 2009, conducted by BearingPoint and the Fafo Institute to bring a complete vision on the reality of the impact of telecoms in Haiti, one of the poorest country in the World. The period of analysis between 2005 and 2008 has seen the mobile phone penetration rate growing from 5% to 33% in the country. This growth is concomitant with the arrival of a new mobile phone operator, Digicel, on the Haitian market, which was till then dominated by two operators (Comcel-Voilà and Haïtel). This is also the period when the GDP growth rate rose up and reached 2,3% in 2006 then 3,2% in 2007, while the country had been posting an average of -1% of GDP growth per year since the 60’s.

In two years, the contribution of this sole operator has stood for 20% of the Haitian GDP growth (27% for the 3 operators). It should be noticed that most of the added value created by Digicel in retailing goes to the street vendors. The extra-revenue earned by these street vendors thanks to selling Digicel cards is estimated to be around USD 28 per month. This figure could seem derisory, but we should keep in mind that half of the Haitians live with less than USD 1 per day. Thus, an extra-revenue of USD 28 per month enables street-vendors to stand at least at the median income. The interview of almost 2.000 Haitian households also showed the qualitative impact of the usage of mobile phone, even if the results will need to be confirmed on a long run as the usages are still emerging in Haiti. The study also reveals that mobile phone proves to be really useful to cope with emergencies (frequently occurring in Haiti) as well as to receive money transfers from abroad.

Cruel twist of fate, this white paper is published after the January 12th earthquake which devastated the capital city of Port-au-Prince and killed over 200 000 people. This disaster placed Haiti in the center of international news and reminded the World of the situation of the least developed country in the whole Northern hemisphere. It also emphasized the difficulties encountered by a country where basic infrastructures (roads, electricity, water supply...) are failing. Telecom infrastructures (antennas, underwater cables) were not the most damaged and will contribute to the country recovery, or even help Haiti to escape from the slump it has been into for too many years. Thus telecommunications can also bring hope, even though only a massive aid from the international community will provide the country with the necessary impulse to recover from the earthquake.

Henri Tcheng, Jean-Michel Huet and Isabelle Viennois, BearingPoint.

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## Impact study of the arrival of a new mobile phone operator in Haiti

*BearingPoint - Proparco/AFD - FAFO*



**SINCE 2006, THE MOBILE PHONE MARKET HAS EXPERIENCED A VERY STRONG GROWTH: BETWEEN 2005 AND 2008, PENETRATION RATE HAS GROWN FROM 5% TO 33%.**

Since 2006, the mobile phone market has experienced a very strong growth: between 2005 and 2008, penetration rate has grown from 5% to 33%. This growth coincides with the arrival of Digicel on the Haitian market. Until then, the market was dominated by only two operators: Comcel-Voilà and Haïtel. During the same time the Haitian GDP recovered and grew by 2.6% in 2006 and 3.2% in 2007 (exclud. inflation). Over that period, the growth of the GDP per capita is higher in Haiti than the average growth in the Least Developed Countries (LDC), while, since the 60's, GDP has decreased at an average pace of 1%.

In order to precisely define the economic and social impacts of the launch of Digicel in Haiti, BearingPoint has led a study in 2009 for AFD-Proparco, in collaboration with the Fafo Institute. The study covered three main dimensions:

- Evaluate the direct impact of the arrival of Digicel on the growth of the telecommunication sector.
- Measure the impact of the arrival of Digicel on the economic activity and employment in Haiti.
- Evaluate the socio-economic effects of the penetration of mobile phones in Haiti.



# Study synthesis

The methodology of this study is based on the analysis of the effects of telecommunications on the growth of developing countries identified by a corpus of theoretical studies and a survey of 2,000 Haitian households.

**Digicel arrival on the market triggered an outstanding growth of the mobile phone sector between 2006 and 2008.**

While the first mobile phone license was attributed in 1998 to Comcel, the mobile phone penetration rate was at 5% in 2005, below the average of Least Developed Countries (LDCs).

After Digicel Haïti was launched, the mobile phone market sharply grew while other factors of market growth remained the same.

Therefore, by the end of 2006, while Digicel was officially launched in May, penetration rate had risen to 21%, above the LDCs average. At the end of 2008, the rate reached 33%.

Furthermore, the expansion of mobile phone was not limited to urban areas (network development allowed to cover 95% of the population in 2008).

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Digicel impact on the mobile phone market growth is linked to economic, technologic and marketing factors:

- The introduction of an attractive billing strategy (billing by the second vs by the minute, billing of only outgoing calls, subsidies for mobile phone).
- Elaboration of a wide GSM network from year one allowing Digicel to provide coverage to populations who previously did not have access outside of big cities (in 2008, Digicel covered nearly 95% of the Haitian population).
- Introduction of marketing innovations, which contributed to reinforce the attractiveness of mobile offer (package for SMS offer, solar charger to compensate for the difficult access to electricity).

**The development of Digicel significantly impacted the Haitian growth (20% of the GDP growth between 2006 and 2008) by driving growth of retailing and other local activities.**

Digicel's contribution to GDP growth has been evaluated by taking into account the added value of Digicel activities, the impact on the retail sector and its main suppliers.

In 2006 and 2007, the added value of Digicel amounted to USD 150 million, standing for 14% of the Haitian GDP growth.

Digicel sales generated around USD 32 million of added value to distribution, which represented nearly 7% of the retail sector growth in Haiti (the retail sector benefited the most of the Haitian growth in 2006 and 2007) and 3% of the Haitian GDP growth.

Regarding suppliers, Digicel activity led to an added value of USD 50 million amongst which USD 35 million to local suppliers (support services and other operators, profiting from interconnection sales), which represented approx. 3% of the Haitian GDP growth.

Beyond the direct impact on added value, Digicel launch had a positive effect on the local economy through local investments, job creation and taxes.

From the global amount of investments necessary to Digicel's launch (USD 260 million), USD 140 million were invested in local economy (network infrastructures, advertising, real estate).

Digicel activity provided jobs to nearly 63,000 persons (1000 directly employed and approx. 60,000 street vendors). Despite being part-time jobs, the sale of Digicel products provided an average income of USD 28 per month to street vendors.

Lastly, with USD 28 million in taxes in 2007, Digicel was the first tax-payer in the country.

According to the results of the analysis led by BearingPoint and Fafo, Digicel launch impacted positively the Haitian GDP growth by 20% in 2006/2007 vs 2005. This is coherent with the conclusions of two others studies led in developing countries and LDCs: applying the conclusions of Waverman, Meschi & Fuss, Digicel contributed to 1.1 growth point between 2005 and 2007 or 20% of the 5.6 growth points observed on the same period; while, the World Bank findings lead to conclude that the contribution of Digicel reached 1.5 growth point of the GDP (27% of the 5.6 growth points over the period).

Positive impacts of mobile phone on the households' average income could not be precisely estimated and some recent impacts could not be evaluated (e.g.: money transfers or more efficient agricultural markets).

**However, positive impacts of mobile phone penetration on living conditions are still difficult to evaluate.**

Some studies are starting to show that the positive impact of mobile phone on households' revenues is limited (for example Chowdhury (2006), Donner (2004, 2005) in Rwanda, Souter and Al (2005) in South Africa and India). The Haitian case study confirms these findings.

Even though mobile phone usage can reduce the vulnerability in case of emergency (which is frequent in Haiti due to climate instability) and facilitate money transfers from abroad, its direct impact on the rise of household revenues and the reduction of poverty cannot be proven:

- 70% of phone calls are to friends and family, 20% to public services and only 10% to revenue-generating activities.
- Few Haitians make money off their phone by lending it to others (such as for the Grameen phones in Bangladesh).
- Even if the entry of Digicel allowed the extension of mobile phone usage, its access is still linked to households' revenues (lack of revenues is the first reason why households do not own a mobile phone).

For some categories, expansion of mobile phone could even have negative impacts. More than 50% of the poorest households owning a mobile phone have to reduce other expenditures to use their phone. Even if this study could not quantify these reductions, it generally shows that they usually deal with goods of prime necessity (food and clothes).

Nevertheless, this study demonstrates that mobile phone expansion is a strong growth driver, including countries with major development issues. Therefore, it contributes to show that investing in telecommunications (mobile phone or Internet) are innovative means to encourage the development of LDCs. ■

#### International organisations:

- World Bank : <http://www.worldbank.org/>
- United Nations Conference on Trade and Development : <http://www.unctad.org/>
- International Telecommunication Union (ITU) : <http://www.itu.int>
- Organisation for Economic Co-operation and Development: <http://www.oecd.org/>
- United Nations Development Programme: <http://www.undp.org/>. ■

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Fafo is an independent and multidisciplinary research foundation focusing on social welfare and trade policy, labor and living conditions, public health, migration and integration, and transnational security and development issues. Fafo works within both a domestic Norwegian and larger international context.

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