

**30% of cost, 14% of revenue**

# Why operators should refrain from handset sales



The first mobile operators have already reached the tipping point where handset revenue exceeds service revenue. The only reason why the average handset revenue isn't higher than 14%<sup>1</sup> of total revenue is subsidisation: Handset *cost* averagely stands for 30% of operator OPEX.

The increase in handset sales is bad news for the EBITDA margin of operators. Even *with* a positive gross margin on handset sales, total EBITDA margin is diluted. The issue is deeper than handset subsidisation: Even when at its best, handset retail is a low margin business. Should operators avoid taking part?

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<sup>1</sup> Calculated for 106 reporting operators globally

## The analysis problem: Handset subsidisation varies

Many mobile operators actually report their handset (or mobile equipment) sales. Figure 1 shows the **mobile equipment revenue to total mobile revenue**<sup>2</sup> ratio for 106 reporting operators globally – plotted against the reported EBITDA margins.

Even though it looks as if the EBITDA margin falls with higher equipment revenue to total revenue ratio, many of the data points don't adhere well to the regression line. Why?

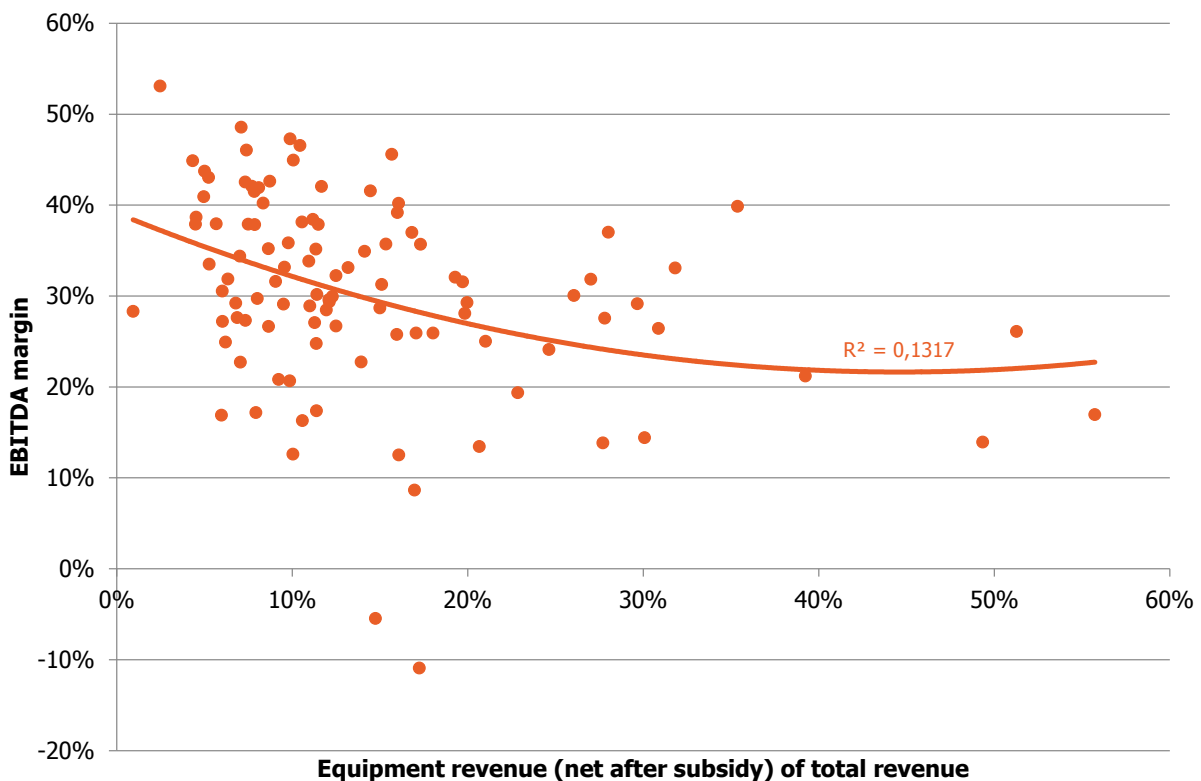


Figure 1. Equipment revenue of total revenue vs. EBITDA margin for 106 operators FY 2012

The problem is that the equipment revenue varies because of significant variations in handset subsidy between operators: A handset bought for 300 EUR might be sold for 350 EUR by one operator and by 100 EUR by another. Other sources of variation are different reporting standards (IFRS vs. national standards) and operator specific reporting applications (e.g. handset subsidy not taken on the handset revenue but on service revenue) but also revenue recognition in relation to possible handset leasing/instalment plans.

All this means that it is very difficult to compare reported equipment revenue figures between operators – and that **no conclusions should be made based on Figure 1.**

<sup>2</sup> For a few operators, integrated equipment revenue (incl. fixed), typically paired with integrated EBITDA, had to be used

About one third of the operators in Figure 1 additionally report the **cost of equipment sold**, however, which allows us to calculate the **gross margin** operators make on their mobile equipment sales<sup>3</sup>. This is displayed in Figure 2.

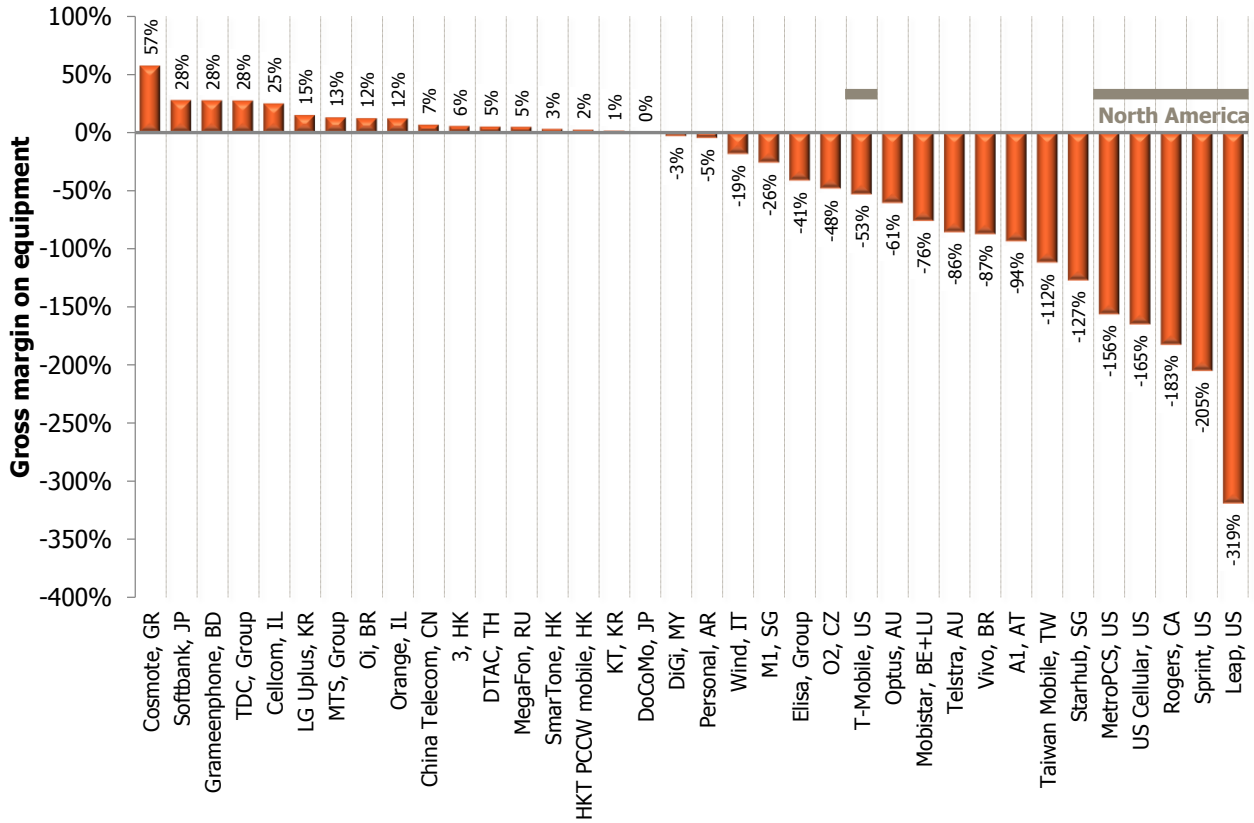


Figure 2. Gross margin on equipment for reporting operators FY 2012<sup>4</sup>

Figure 2 is not a pretty sight: The unweighted average gross margin on equipment for these operators is a **negative 45%**. The variation is high, especially downwards. Note that 5 out of the 6 North American operators are in the absolute bottom with margins in between -159% and -319% which very well demonstrates how dependent the service business of North American operators is on recurring handset subsidies.

When gross margins are positive, like in Japan, Hong Kong and Korea, they are often quite low. Retail and logistics costs that operators have when selling and distributing equipment will likely neutralise any such gross margin.

Let's now analyse the operators in Figure 2 further.

<sup>3</sup> For Elisa, A1, Wind, Starhub and KT, the gross margin shown is the integrated (incl. fixed) equipment gross margin since mobile isn't reported. For Vivo, the gross margin is between the mobile equipment revenue and the integrated equipment cost since like-for-like isn't reported.

<sup>4</sup> If fiscal year ends after December 2012, the 6 or 9 month period up to December 2012 has been used

**A higher share of cost in equipment dilutes EBITDA margin**

Figure 3 shows the relation between the **equipment cost of total OPEX ratio**<sup>5</sup> and the EBITDA margin for the operators that report cost of equipment sold.

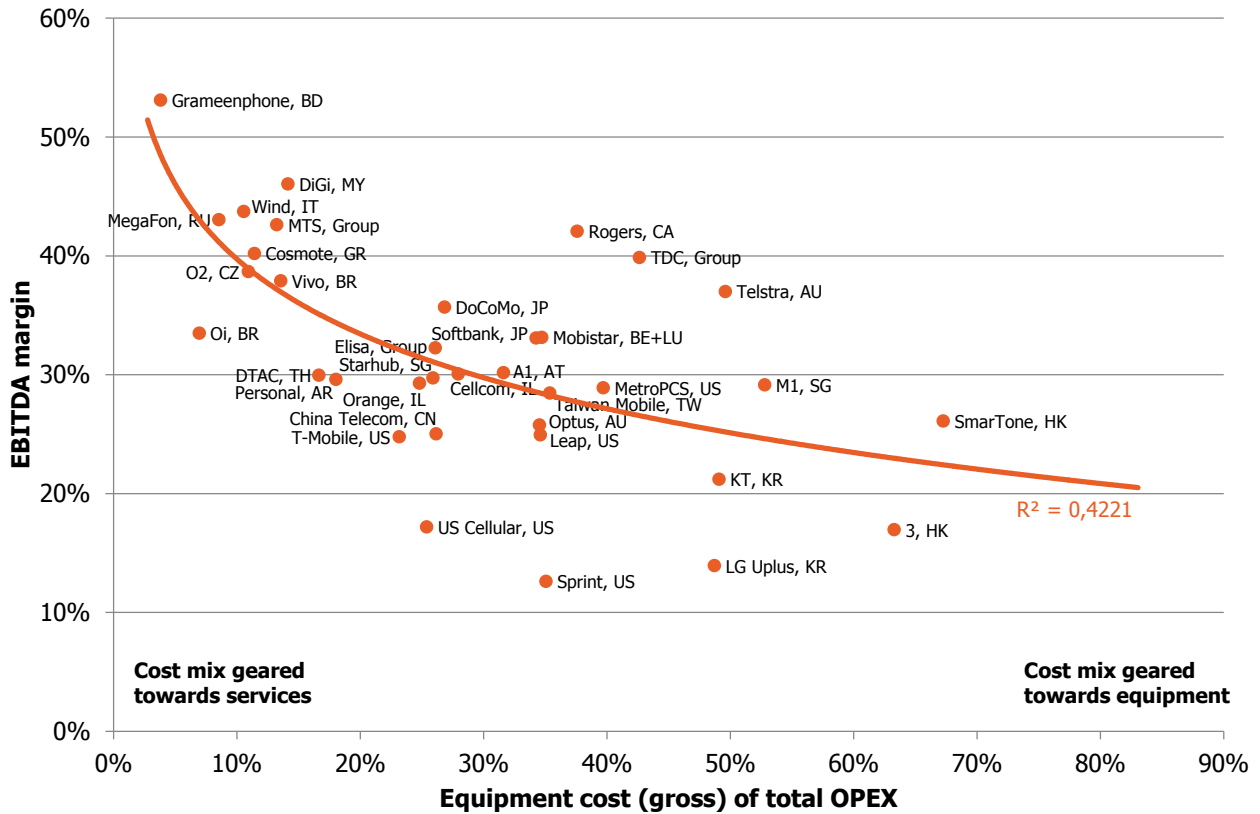


Figure 3. Equipment cost of total OPEX vs. EBITDA margin for reporting operators FY 2012

Even though the number of operators is now down to 36, the adherence to the (best-fit) regression line is now much better, even though not perfect. It's fair to conclude that, with few exceptions, **a large share of total cost in equipment affects the EBITDA margin negatively**. Note that it is just the cost *mix* that is varied along the horizontal axis, not the cost level.

Since we are relating margin to equipment *cost*, not equipment revenue, **handset subsidy does not play any role in Figure 3**: The margin dilution driven by an increased equipment component in the cost mix is therefore not a subsidisation issue; it is a consequence of an increased impact of low margin retail.

Still, operators are moving to the right in Figure 3 – why?

<sup>5</sup> For Elisa, A1, Vivo, Starhub and KT, the integrated equipment cost and OPEX/EBITDA is used since mobile isn't reported. For Wind, the integrated equipment cost is used, but mobile OPEX/EBITDA.

## Why would anyone voluntarily dilute margin?

The simple answer is **top line focus**: Some operators allow handset sales to grow as it can compensate for price erosion in services. Revenue is simply prioritised over margin.

To balance this categorical statement, Figure 3 suggests that the cost mix is more geared towards equipment in the more developed and competitive country markets: Markets to the right tend to be more mature and competitive than markets to the left in Figure 3. Operators would just have to follow.

This is also too simplistic, though: Operators within one and the same market can have very different approaches to handset sales. Let's return to Figure 2 for an example: T-Mobile US works with a -53% gross margin on equipment sales whereas the other reporting US operators have -156% to -319%. Consequently, T-Mobile has less of its cost (23%) in equipment, see Table 1.

US operator	Equipment revenue (net after subsidy) of total revenue	Equipment cost (gross) of total OPEX
<b>T-Mobile</b>	11%	<b>23%</b>
<b>US Cellular</b>	8%	<b>25%</b>
<b>MetroPCS</b>	11%	<b>28%</b>
<b>Sprint</b>	10%	<b>31%</b>
<b>Leap (Cricket)</b>	6%	<b>35%</b>
<b>Verizon</b>	16%	Not reported
<b>AT&amp;T</b>	11%	Not reported

Table 1. Comparison of equipment revenue and equipment cost of US operators, FY 2012

## What can be done?

One way for T-Mobile to keep handset costs down, is the **BYOD** (bring your own device) program which in particular targets iPhone customers. Even though T-Mobile isn't (yet, see below) allowed to sell iPhones in the US, they had 1,8 million iPhones on their network in December. Of these, 900.000 are contract customers gained through the BYOD program. Customers have originally bought these iPhones via other US carriers (almost exclusively AT&T) but been attracted by the **lower services price** of T-Mobile. Due to higher handset subsidy, other US operators have to keep service prices up.

During a major event yesterday (26 March), T-Mobile unveiled its "un-carrier" strategy, eventually abandoning handset subsidy in each and every segment, replacing it with lower services prices and a possibility to pay handsets on instalment plans. As the last of the large US carriers, T-Mobile will also sell iPhones, starting 12 April.

Also in general, there seems to be a growing awareness of what handset sales do for the business results of mobile operators. Figure 4 summarises a few.



Figure 4. Sampled operator quotes, end of year 2012 result presentations

Some of the operators in Figure 4 will likely turn their focus away from the top line and stop regarding subsidised handsets as "investments". A few operators have already terminated handset subsidisation in selected segments: Telefónica in Spain, TDC in Denmark, Bite in Lithuania, all the French operators and T-Mobile in US. Like TDC says in Figure 4, there's still no profit in handset sales even after removing subsidy. As a second step, some might then **reconsider the necessity in doing handset sales** and revert it back to retailers of electronic goods. Maybe the shops can even be sold off?

Other operators will insist on the necessity to **sell handsets to control the full customer experience**. This is still a valid point and a risk to consider for any operator before selling its retail channels.

What is *not* a solution is to treat equipment sales as a business exceptional. AT&T, Verizon and a few Asian operators have started to communicate "EBITDA service margin", dividing the EBITDA *not* with total revenue, but with the service revenue, thereby hiding the negative margin impact increased equipment sales have. This handling could be deemed OK if equipment sales were a "one off". As seen in this analysis, this is far from the truth, though: It is already more than half of the total sales for some operators. And for the average operator, equipment costs are 30% of OPEX.

## Conclusion

Equipment sales dilute the margin of mobile operators – something many operators also say. The typical motivation has been that it secures future service revenues. It has also helped many operators to defend the top line during a period of service price erosion. But with falling industry margins, a few operators have questioned the belief that equipment sales will pay off in future. The issue is deeper than handset subsidisation: Even with a positive gross margin, total EBITDA margin is diluted.

So it's time to answer the question: Why equipment retail? An energy supplier doesn't sell refrigerators – even though they consume electricity.

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