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DEJAN KRSTEVSKI*
GJORGJI MANCHESKI**

TELECOM COST OPTIMIZATION: HOW TO SUBSIDIZE HANDSET SUBSIDIE

Abstract

The increasingly contentious issue of smartphone subsidies is rapidly ascending to the top of CFO agendas, not only because they present a means of tapping much-anticipated yet unrealized data revenues, but more worryingly because widespread use of such incentives is exerting pressure on the bottom lines of telecoms. For telecom operators chasing growth in mature markets, equipment installment plans, SIM-only offer, sharing subsidy cost with third parties is a way to reduce subsidy budgets, expand the customer base, reduce churn, increase sales and, importantly, increase earnings. While there's a lot of good in this for carriers and customers, there's also a significant amount of risk which, if not mitigated, can have a devastating impact on company bottom line. Hence, in a broader sense, the objective of this article is to suggest some steps towards reducing handset subsidies and measures to mitigate the possible risk.

Key words: Handset Subsidy, Equipment Installment Plans (EIPs), Sim-Only, Handset Financing

JEL classification: M2, G34

Introduction

The telecom industry was founded on significantly subsidized handsets. One definition of the practice, using the term subsidy is the follow-

* Ph.D., Ass. Prof. Faculty of Economics – Prilep, University "St. Kliment Ohridski" - Bitola, Macedonia, e-mail: dejan.krstevski@eccfp.edu.mk

** Ph.D., Prof. Faculty of Economics – Prilep, University "St. Kliment Ohridski" - Bitola, Macedonia, e-mail: gmanceski@t-home.mk

ing: "a handset subsidy is the monetary value, i.e. the difference between the purchase price and the sale price of the handset, given to a customer during the subscription process". [1] As noted, under some models, operators offer a lower initial price for a handset in exchange for a binding contract period during which they aim to recover the difference, with the sale price, via monthly fees. Essentially, subsidies are one of the pillars on which the ecosystem was built. They have served the industry well as it developed, helping operators to offer attractive handsets to consumers at affordable prices and gain critical market share. However, as device innovation has accelerated, the same subsidy model has begun to work against operators in terms of their bottom lines. Mainly, financial analysts look to see if operators are disciplining or reducing their use of handset subsidies and associate this with higher margins.[2] As the wireless industry moves toward a different economic model of no-contract plans, companies are exploring the use of financial partners to offload the risk of handset costs. Many customers didn't really understand the true cost of the device as a result, and the model also meant customers who held onto a device beyond the standard upgrade cycle were paying the carrier far more than the cost of the device. As such, the switch to installment plans is a good thing for consumers, because it introduces transparency over the relative costs of service and hardware. It's also good for the carriers, because they can slowly reduce the costs of subsidizing handsets while being more competitive on service pricing.

Another way to reduce handset subsidy is the introduction of SIM-only offer. The SIM-only concept was pioneered by discount MVNOs in northern Europe and is now being embraced enthusiastically by mobile operators. It holds two key attractions for operators, according to the latest research. First, it enables them to accelerate the migration from prepaid to postpaid price plans. And second, it significantly reduces subscriber-acquisition and -retention costs. SIM-only customers keep their existing phones, so operators do not need to resort to costly device subsidies. With the impending credit crunch in many developed markets, SIM-only services are extremely attractive to users who are prepared to

[1] Kim, H., Byun, S., & Park, M., 2004. "Mobile Handset Subsidy Policy in Korea: Historical Analysis And Evaluation", Telecommunications Policy, 28, pp. 23–42.

[2] Battersby, L., 2012. "Mobile phone costs rise as price war ends" by Lucy Battersby, The Sydney Morning Herald, 2012, Accessed December 29, 2015. http://m.smh.com.au/business/mobile-phone-costs-rise-as-price-war-ends 20120730-238rp.html

keep their old phone in return for lower subscription and usage fees. Some operators have started handing out "free" SIM cards as part of a special promotion. Even though the vast majority of these cards remain unused, it is a relatively low-cost and effective way for an operator to market its service and can generate a good return on investment with even an extremely modest take-up.

What are the other possibilities to decrease handset subsidy: Simply, share it! Operators might share subsidy costs by establishing new alliances and creating new business models together with third parties. Alternatively, operators can also opt to reduce their SAC by increasing the knowledge of customer / handset base. Mainly, understand the evolution and its consumption dynamics, measure the CLV per handset / customer, support the decision making-prices for sales, procurement and marketing purposes will answer the questions how to maximize customer and handset analytical information to support business decisions, which are the important business metrics to consider and how to use these metrics to effectively anticipate and change handset subsidy.

Hence, in a broader sense, the objective of this article is to suggest some steps towards reducing handset subsidies and measures to mitigate the possible risk. The plan for the article is as follows. In section 1 we first present a conceptual framework of equipment installment plans (EIPs). Afterwards, we discuss the need to reinforce the 3G/4G SIM-only model to cut down the costs that carriers pay to subsidize the handset devices for customers. In section 3 we discuss how to reduce handset subsidy by sharing cost with third parties and other alternative approaches. Finally, we conclude and debate contributions of our study.

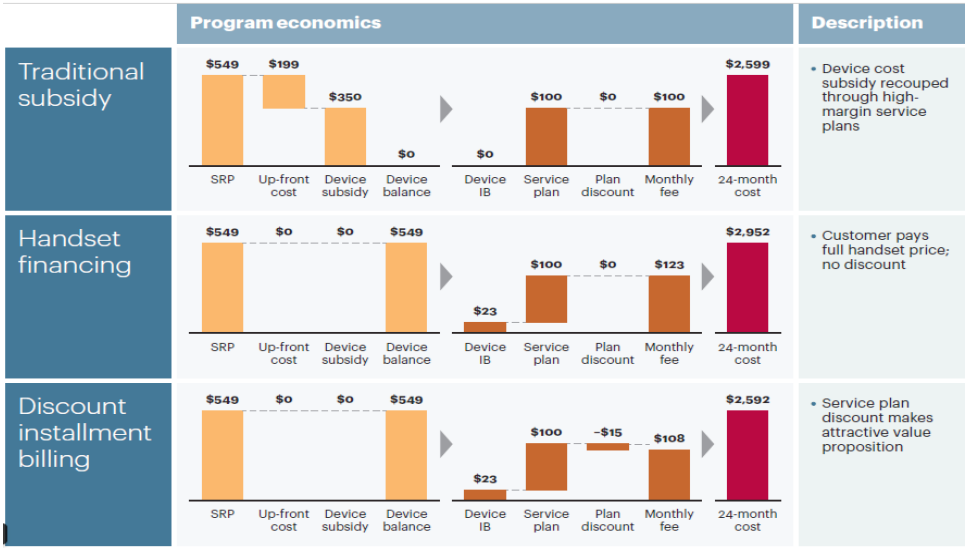
1. EQUIPMENT INSTALLMENT PLANTS – HANDSET FINANCING AND DISCOUNT INSTALLMENT

Some national wireless carriers are turning to a new business model to attract customers. This same model will also cut down the costs carriers pay to subsidize the handset devices for customers. The model, known as equipment installment plans (EIPs), is gaining ground as sales of smartphones continue to grow. Under EIPs, consumers would pay an upfront fee

or in many cases without paying anything at the time of purchase for the phone, and then steadily pay off the phone's cost over the next few months. These new, more affordable installment plans offer customers an easier way to pay, compared to traditional lump-sum payments. Because of this, customers are more likely to sign up for the latest mobile devices. The plans also help carriers remain competitive with other carriers' offerings, which is crucial in an increasingly commoditized industry. This is contrary to the more traditional model of getting a subsidized device in exchange for a two-year service contract. EIPs separate the cost of the phone from that of the service, allowing customers to upgrade their devices without having to wait for their two-year service contract to expire. At the same time, many of these EIPs provide customers with reduced service pricing per month, accounting for the portion of the service contact that would have gone to subsidizing the device. If customers choose to pay off their devices in full, they get the permanent benefit of reduced service pricing without the monthly installment charges on their phones. By financing the cost of expensive smartphone devices over time, however, carriers are deploying significant amounts of working capital to cover the upfront costs of the device sold through the EIPs. And with smartphone sales continuing to grow carriers are employing billions of euros to finance these EIPs. To offset the cash flow impact from EIPs, some carriers have turned to accounts receivables factoring and may consider handset installment sales receivables securitizations in order to provide an alternative form of corporate financing and liquidity. Accounts receivables factoring and handset installment sales receivables securitizations have been used by players in the telecommunications industry; however, they are a new concept for some carriers. One step ahead in equipment installment plans could be a discount installment billing. In short, discount installment billing is the way to make handset financing an attractive customer value proposition. For equivalent or lower cost, the customer gains transparency and simplicity. There are no hidden fees and no device-specific plans. Customers understand, and pay for, true cost of the device. And, as explained below, they can gain better access to new technology through early upgrade programs. Meanwhile, for the operator, discount installment billing lowers subsidy budgets, in earnings improvements, while maintaining or improving the customer value proposition. The disadvantage, however, is that it reduces the monthly service revenues per consumer as it shows exhibit 1. That discount on the monthly service plan will lower ARPU. It may

increase overall absolute revenues, if enough new customers are attracted to switch, but that increase depends on successful execution of the strategy.[3] For example, T-Mobile USA has shrewdly used an EIP strategy to help them achieve the fastest subscriber growth rate of late, among the big four carriers. That's one reason why their competitors have introduced similar plans. There are also some financial benefits for using EIPs.

Exhibit 1. *Discount installment billing eliminates traditional subsidies while reducing the monthly service fee (illustrative for $549 device)*



Notes: SRP is suggested retail price; device IB is device with installment billing
Source: Chaudhury, R., and Rooke, J., 2014. Wrestling the Subsidy Challenge in Telecom. A.T. Kearney Paper, pp. 3.

Why equipment installment plans? First, with the new plan configurations they no longer have to subsidize the phone and regain their costs through their higher price plans improving their bottom line. Second, they can change up the verbiage of their marketing to induce more interest because there is now a plan which now looks cheaper, along with low upfront costs to the customer. They get to put the new cost of the "Equipment Charge/Fee" in the fine print that no one looks at as well as move the

[3] Chaudhury, R., and Rooke, J., 2014. Wrestling the Subsidy Challenge in Telecom. A.T. Kearney Paper, pp. 3-4.

discount up and down to receive higher margins. Third, companies now get to push their insurance plans harder because in order for customers to "upgrade early" the device has to be in good condition. Fourth, and final point, companies are now more than likely going to get the device from the customer where they are going to be able to make money on the secondary market of refurbished devices.

What are the risks behind the equipment installment plans? Customers who are used to subsidized phones under contract may have a hard time sorting out which of the various plans is best for them. Many end up choosing leased or financed handsets because of the low monthly cost without truly understanding what they've committed to do. With the high price of handsets, many carriers now have more value tied up in assets associated with bad debt than in outstanding service fees. While this shift has made asset recovery more urgent than ever, bundling equipment and service collections is extremely challenging and costly for carriers and collections agencies. Fraud has always been a major concern for carriers, but with the rise in leased and financed handsets, it's becoming easier than ever to commit. All it takes is placing an initial payment for multiple devices on a credit card, cancelling the card and selling the phones online for people to use with a different carrier's service. When customers don't return leased handsets or financed handsets that weren't paid for in full, not only do you lose out on the ability to resell the devices, you also lose out on hard cash.[4]

Smartphone and feature phone equipment installment plans now account for well over half of postpaid device activations in the US, putting customers more in control of their service experience and allowing carriers to better match costs to value opportunities in the market. The latest report from Strategy Analytics' Wireless Operator Strategies (WOS) service, recommends more operators adopt de-coupled business models as a means of better targeting preferences across diverse customer segments by increasing device choice and upgrade opportunities. EIPs and leases accounted for 54% of postpaid device activations in Q1 2015 in the US, with further momentum seen in Q2 results at AT&T, Verizon Wireless and T-Mobile US (Sprint will announce results August 4 and is expected to

[4] Kosh K., 2015. Mobile Handset Financing and Leasing: Best Practices for Mitigating Carrier Risk. On Process Technology, White Paper: Finance Handset. Accessed December 29, 2015. http://www.onprocess.com/whitepapers/white-paper-mobile-handset-financing-and-leasing

continue its growth trend in leasing uptake). With the majority of operators booking the full value of EIP payments when the device is sold, to coincide with the cost of goods sold, there are EBITDA gains over the subsidy business model. For example, Sunrise Switzerland recorded 13% growth in its postpaid EBITDA contribution between Q1 2014 and Q1 2015 after its switch to EIPs. While offering greater flexibility to postpaid device purchasing, EIPs can be extended into prepaid and SIM-only channels, where operator device sales options have either been limited or non-existent. France and Brazil have enjoyed success with this approach. [5]

2. REINFORCE THE 3G/4G SIM-ONLY MODEL

Despite the fact that most technology seems to go down in price, smartphones are an area where customers have steadily been paying more and more, both on the devices and on the contracts that go with them. It doesn't help that there's often a confusing range of contracts and buying options out there, making the decision on what's best for customers even harder. In fact, there are two main methods of buying a smartphone. First, customers can buy one on contract, where they're locked in for a set amount of time and are paying off their handset at the same time as paying for the service they use. Secondly, they can buy a phone outright and then choose to go with a SIM-only contract. The SIM-only model represents "no obligation" phone deal that comes with an agreed monthly fee, but does not include a subsidized handset. Within a SIM-only model the mobile carrier supplies their customers with just one piece of hardware, a SIM card, which includes an agreed amount network usage in exchange of set monthly payment to be made by the customer. Network usage within a SIM-only model can be measured in minutes, text, data or any combination of these. The duration of a SIM-only contract can vary depending on the deal selected by the customer. SIM only contracts differ from mobile phone contracts in that they do not include any hardware other than a SIM card. In terms of network usage SIM only is typically more cost effective than other mobile device contracts because unlike these other contracts a SIM only deal does not offset the cost of a mobile device over the contract period. Short contract length is one of the key features of SIM only which are made

[5] Kendall P., 2015. Global Momentum for Equipment Instalment Plans as Verizon/AT&T See Further Growth Strategy Analytics' Wireless Operator Strategies (WOS) service report, pp. 8–10.

possible due to the absence of a mobile device. In this program, customers bring their existing phones and receive a discount on their subscription fee. This SIM only plan is a great choice if customers want to keep their phones but get a 4G data SIM. By getting a 4G data SIM customer will benefit from faster internet speeds - perfect for streaming music, watching videos, playing games and uploading photos to Facebook and Twitter. In our opinion, this method helps a lot to lower SAC. Wireless operators can embrace this model in the future when the limit of using smart devices reaches the expected levels.

Why SIM-only plans? Decisions for SIM-only are driven by price. Mainly, customers are focusing on lower prices (monthly access fee) and higher data inclusions (data allocation). Moreover SIM-only customers love their current handset and are looking to save. Current trends indicate that students love SIM-only plans with 1 in 3 students signing up to one or similar. The total market customer's demands show that more than 50% of consumers on postpaid today are considering SIM-only in the future, suggesting a likely shift in the market structure. Globally there is a shifting trend towards SIM-only removing subsidies to make handset cost more transparent. Also, 50% of iPhone customers will hand down their phone to family or friends. Furthermore, globally there were over 50% solely handsets sold – same SIM-only opportunities.

What are the risks behind the **S**IM-only offer? The decision to reduce handset subsidies should be advanced with carefulness by operators, as there is a trade-off between the clear benefit of reduced subsidies and the associated risk of losing control over how customers purchase handsets and use data services. Also, operators should consider carefully the extent to which they want to push towards a model characterized by the lack of handset subsidies to avoid becoming disintermediated from the mobile content and advertising value chains, potentially losing profitable new revenue streams. Furthermore, the key advantage for operators that have control over handsets is the ability to offer a differentiated end-to-end customer experience and to secure their position within the non-voice value chains. The risk associated with SIM-only tariffs is that operators are reduced to big pipes that add no value. However, the move towards a reduction in handset subsidization comes at a cost: an increased risk of higher churn due to the shorter lock-in period and lack of control of the devices connected can potentially lead to revenue loss, as customers equipped with old handsets may not be able to make the most of new

digital services. Lastly, the loss of control over handset distribution causes operators to lose the opportunity to determine the customer experience.

The present Western Europe SIM-only market circumstances show that SIM-only mobile plans are being paid cheaper, according to the newest edition of Telecom paper's EU Mobile Benchmark report on mobile prices. The comparison of the total cost of SIM-only plans per month, including connection fees and promotions, on offer in 16 countries in the third quarter of 2015 shows a general downward trend in prices in the past six months. Looking at one of the more common plans on offer, for over 1,000 minutes and more than 2 GB data per month, the median price fell in eight of the 16 countries surveyed, with especially strong drops in Italy and Germany. Compared to Q3 2014, prices for the same plan were also down in nine of the 16 countries. According to Telecompaper, competition on the Sim-only market is intensifying, as more operators move away from handset subsidies and customers turn to other channels to buy their smartphones. The migration to (near) unlimited plans is also driving the commodification of mobile services and putting pressure on prices. The research shows the volume of communication included in mobile bundles is still increasing. In Q3 2015, 41 percent of all SIM-only plans included more than 1,000 minutes, up from 37 percent in Q1 2015, while the share of plans with more than 2GB increased over the same period from 37 percent to 42 percent. That growth was strongest in Italy, where only 22 percent of SIM-only plans included more than 2GB in Q1 2015 but six months later that had grown to 83 percent. In the Scandinavian countries most plans included more than 2GB in Q3 2015, while Greece, Portugal and the Netherlands had the smallest shares of plans with over 2GB per month. Of the 16 countries surveyed, Denmark, Norway and Sweden showed the cheapest SIM-only prices, both in terms of median TCO and lowest TCO, while France, Italy and Spain were also relatively cheap. Greece and Switzerland were the most expensive countries, followed by Portugal.[6]

3. REDUCE HANDSET SUBSIDY BY SHARING COST WITH THIRD PARTIES AND OTHER ALTERNATIVES

Telecoms could leverage their subsidy costs by establishing new alliances and creating new innovative business models together with third

[6] Telecompaper, 2015, EU Mobile Benchmark 2015 Q3, Accessed December 29, 2015 http://www.telecompaper.com/research/publications

parties. Facebook, Twitter, E-bay, Amazon, Aliexpress, newspapers and game producers might be willing to establish that kind of partnerships. This way, they are not just going to advertise a product, but they will reach number of several consumers and have chance to attract different type of customers' attention linked to their know-how area. Game producers might be a good choice for them while the game company advertise of their best-selling game ready to be played, they can work for operators at the same time by giving a place for the carriers' devices/products or doing initial advertising for the company and its products. Twitter and Facebook shortcuts pre-installed on feature phones by vendors or operators are an evident example. OTT providers such as WhatsApp and WeChat share in the revenue boom when smartphone penetration increases. Henceforth, operators can explore the option of sharing the cost of handset subsidies with these application providers. Alternatively, operators can also opt to reduce their SAC by requesting the customers to trade-in their old handsets to qualify for a new subsidized smartphone. In this way, operators can recover a portion of their handset costs by refurbishing and selling devices to the secondary market (such as developing markets) or by selling them for spare parts. For example, some operators offer its customers cash discount on the new handset when they recycle in their old ones during subscription renewal or new purchase. The amount of cash discount given depends on the value of the trade-in device. [7]

Alternatively, operators can also opt to reduce their SAC by increasing the knowledge of customer / handset base. Mainly, understand the evolution and its consumption dynamics, measure the CLV per handset / customer, support the decision making-prices for sales, procurement and marketing purposes will answer the questions how to maximize customer and handset analytical information to support business decisions, which are the important business metrics to consider and how to use these metrics to effectively anticipate and change handset subsidy.

Telco's could proactively offer discounts on subscription fees for each additional month if customer is willing to wait for renewal. Several operators offer competitively priced refurbishing services that allow customers to extend the lifetime of their mobile phones, even smartphones. In Western countries, most of the handset subsidies are incurred during

[7] BMI Research, 2014, Operators Need To Take A Closer Look At Handset Subsidies, Accessed December 29, 2015 http://www.bmiresearch.com/news-and-views/operators-need-to-take-a-closer-look-at-handset-subsidies

renewals or upgrades rather than new customer acquisition. Consequently, increasing the length of time customers hold on to existing plans can increase the lifetime value of handset subsidies investment. [8] In many countries, the minimum contract period is between one or two years on average, which tends to give telecoms enough time to recover the cost of handset subsidies. The problem comes when customers cut short their contract in favor of a new contract or terminate it. This kind of a risk is possible to be managed via reverse subsidies. Reverse subsidies is a concept whereby an initial subsidy is not given selling price of the handset, but rather, discounted from the monthly data plans of the consumers. This does not reduce default risk but increases stickiness through the monthly discount it generates. Reverse subsidies are now being offered by a growing number of operators. Furthermore, incentives need to be provided to customers to delay device upgrading, which doubled its smartphone upgrade fee for those moving up to the new model before the end of their contracts.

Conclusion

Telco companies are more and more feeling the burden of device subsidies on their bottom lines and are consequently looking for workable solutions that alleviate the pressure without negatively impacting their competitiveness. Despite the fact that subsidy costs are still under control in some telco markets due to a still limited share of postpaid subscribers, this is a call to action for operators to re-examine and rethink subsidy strategies as a matter of priority; to start educating the market before they find themselves sacrificing EBITDA. We expect that in the next two years, the majority of postpaid subscribers in mature markets worldwide will move to different equipment installment plans. Early adopters will therefore benefit from subscriber churn away from their slower moving competitors. Because of this market evolution, an equipment installment plan is going to be an essential strategy for any operator. In recent years there has been a surge in sales of SIM-only propositions. Well-designed SIM-only propositions can help operators achieve cost reductions as a result of lower handset subsidies and lower sales commissions. However, lack of contract commitment means the customer can leave at relatively short notice, with

[8] Arlorio A., 2013. Smartphone subsidies and telco profitability. Delta Partners, Business Paper, Accessed August 29, 2016. https://www.digitalnewsasia.com/mobility/smartphone-subsidies-and-telco-profitability

higher churn a consequence. The key to success, then, is not the existence of the strategy but how well it is designed and executed. The winners will be those companies that offer customers a genuinely improved value proposition while mitigating the revenue risks.

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