Improving telecom operator profits

New ways to link together the analysis of revenues and costs

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1 Executive summary

It is motherhood statement to say that profits are improved by reducing costs and by increasing revenues. However there are still new ways to look at the two sides of the "profit equation" and so enable better business decisions that affect the costs and revenues. This proposition paper explains how two seemingly diverse approaches can be linked:

- Revenue optimisation. This examines the revenues, usage trends and churn levels of customers, in order to assist with the targeting of customer segments and the adjustment of prices
- Customer and product cost and profit analysis. This identifies the costs of products & customers and how these contribute to the business profitability.

Clearly both are important. Cost insights enable profitable prices to be set (and cost reductions to be targeted). Improving revenues will also always help the business. However the two programmes are often not fully linked together:

- Improving both revenues and volumes, and reducing churn are all good steps to take, but if the product is loss making, then the effort might have been better spent on a lower volume product that has greater margins
- Knowing the fixed and variable costs of products enables the profit to be seen and *a reasonable price* to be set, but without: understanding how customers segments use this product along with other products; knowing how long before the customer churns; and how sensitive they are to the price changes, any price changes might not give an optimum improvement.

Elsewhere on the Telzed web site there are papers that describe various forms of telecom cost analysis. These have been developed to show the cost (and revenues) of:

- Products (calls, messages, broadband)
- Product bundles or tariff plans.

The costs can be analysed to show fixed and variable costs, as well as the indirect and central corporate costs. This provides basic insights to see which costs need to be recovered by each product. Additional analysis can show the cost by customer segment or dealer channel [distribution or sales outlets] to give "multi-dimensional" cost and profit views. This data and the data-trends provide a powerful foundation for decisions. With additional analysis the forward looking (future) costs can also be derived – clearly a much better basis for decisions.

Other specialists firm have developed additional solutions that focus on the customer and revenue side of the business:

- What are the customer segments?
- What are the usage profiles?
- What are the sensitivities and trends?

These insights help managers to see how to target customers and promote services to optimise *revenues*. By linkage of this analysis with the cost-analysis analytics, optimal *profits* can be created.

Telzed can link its cost and profit analysis work with any revenue-analysis specialists. Civitta Consulting of Lithuania has been identified as a leading provider of revenue optimisation and this proposition paper links the two approaches.

This provides powerful solution options for telco operators:

- They can use either Civitta or Telzed to build systems to address the need for revenue optimisation tools or the cost analysis systems. Managers can then link these with their own in-house approaches to the other side of the profit equation

- They can use either business on its own and then bring in a third party firm to address the other work areas and develop a joint approach to link the systems and analysis

- By using both Telzed and Civitta, a joint project can be developed to optimise the two approaches needed for the particular local situation.

As Civitta and Telzed are independent and have no contractual obligations, an operator can obtain unbiased help and advice. There are significant benefits for telcos from using the knowledge that different parties can provide in order to obtain the full range of services that may be needed. Experience shows that even large consulting businesses rarely have world leading expertise in all areas: an optimum approach is often built by using best practices and diverse experts, and then linking these together.

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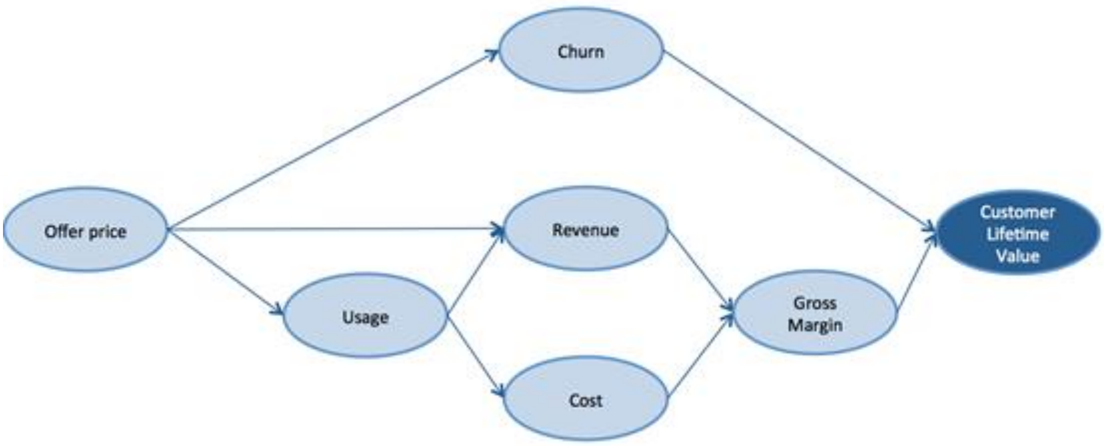
2 Linking revenue optimisation with cost analysis

2.1 Profit optimisation needs to understand Customer Lifetime Value

Long term company profit optimization is a complex process requiring an integrated cost and revenue optimization approach: pricing directly affects short term revenues and it has an influence on cost. Changes in prices may lead to higher usage of telco services and changes in related costs. At the same time, it affects customers' satisfaction and their churn level. Telco companies making decisions about the pricing and seeking optimal long term solutions should take all those dimensions into consideration. A simplified scheme to help with this decision making is provided below.

Figure 1: Simplified long term optimization scheme – making price decisions



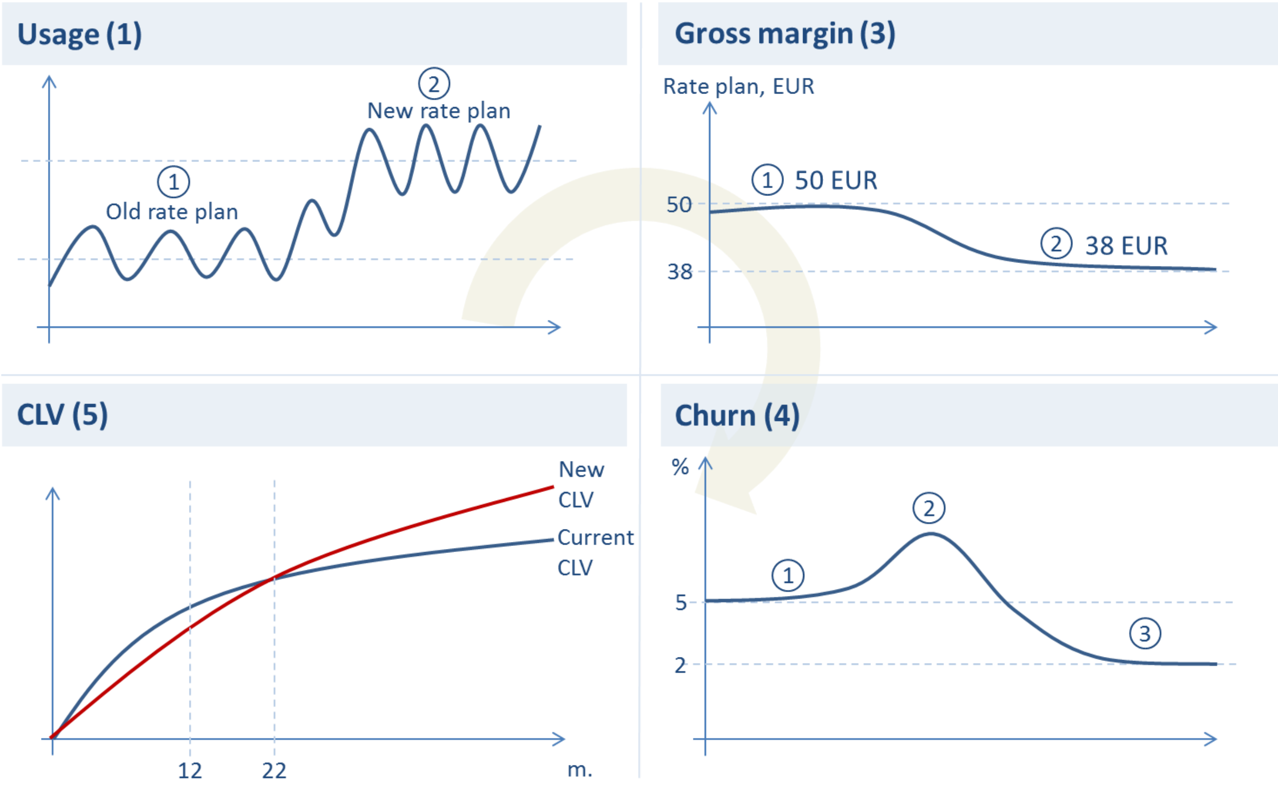
The Customer Lifetime Value (CLV) in the figure requires an understanding of the contributing factors.

Integrated revenue optimization and cost analysis process answers five main questions:

1. How will the new price offer influence consumer usage?
2. What impact will the new consumer usage have on cost?
3. What will be the impact on customer's profitability?
4. How will the new offer impact customer's churn levels?
5. How will the offer change the CLV?

Using advanced mathematical and machine learning tools all these five questions can be answered. An example is provided below in Figure 2.

Figure 2: Modelling example: the data and analysis of each factor are linked



The example above describes a scenario where the operator is considering giving a better rate (price) plan to a particular customer – for example providing a bigger package of services for the same monthly fee. First of all, based on past experience and observations, the model predicts changes in usage: a customer is expected to use more of the services (minutes, SMS, data). This will impact profitability. Profitability is estimated based on the cost model and cost drivers built in the system. A good understanding of costs and cost drivers is essential in order to estimate the effects correctly. In the above example, gross margin is expected to decrease from 50 Eur to 38 Eur. Third, one needs to take into account the impact on churn. The customer is expected to be more loyal when offered a better rate plan. Churn impact is calculated by analyzing past behaviour of different customer segments and proactive campaigns performed with different customers. In the example above – in the long/medium run the model predicts churn to decrease from 5% to 2% per month, however in the short run we might see churn jump above 5% due to the “wakening of a sleeping dog” effect. Proactive campaigns on customers might have a negative short run impact before reaching long run equilibrium state.

After answers to all those questions are gathered, robust pricing and long term profit optimization decisions could be made for each customer segment. The analysis presented above suggests that operator’s decision to move a customer to a better rate plan is justified and will result in increase in CLV. The strategy will pay-off in 22 months – in the beginning decline in churn will not be big enough to compensate loss in short term profits (the customer’s profitability decreased from 50 Eur/month to 38 Eur/month), however in the long run this customer is expected to provide us more profits when offered a better rate plan.

The model developed by Civitta analyzes combinations of many different rate plans and suggests optimal actions for each customer.

2.2 Examples of the new thinking

Revenue and customer optimisations work can deliver insights on:

- Customer preferences: what are the desired products by segments
- Define customer segments
- Identify price sensitivity (price elasticity)
- Define market trends.

This enables price-plan decisions and helps with marketing campaigns and to target the right services, to the right customers at the right prices. Classical economics would consider the marginal cost of service and price elasticities to optimise profits. However business managers know that common or fixed business costs must also be included in the pricing programme: if all products only cover the marginal costs then the overall company will be loss making.

Additional inputs are needed – understandings of the marginal (variable) costs as well as the common (invariant) costs of both the products and the wider business – *something* has to pay for them. Adding in cost insights can help the revenue optimisation plans include the issues of the costs – products can be evaluated not only for covering the marginal cost but also for a contribution to the common and fixed cost of the business.

Unit costs of products also enable price bundles (tariff plans) to be evaluated. The cost side of the analysis has to include the profile of usage of the basic products that combine to define the full tariff plan or the full usage of products by a customer segment.

If product plan A grows by 20%, is this better than a similar growth of plan B? Plan B might have lower total revenue and lower prices, but if the margin is twice as good, this could be a better target for promotions.

There are not only direct costs associated with promotion campaigns, such as payrolls, discounts, but also indirect ones caused by giving an offer to customers who individually have lower churn probability than others within the segment, so customer lifetime value of these customers could actually be lowered. To avoid this, the probability of customers accepting offers after a promotional call, is also evaluated.

Few managers expect one tool to solve all product strategies – the real business decisions have to consider local markets, competitor's price strategies, market sizes, marketing plans etc. and decisions must include judgments on the future trends. Even combined consulting projects and linked analysis tools does not replace the work of pricing managers. However having more information can help the managers make *better* decisions – ones that increase business value and not "simply" increase revenues. If key performance measures are related to profit margins, and managers' rewards are tied to these, then these measures will influence current decisions. Therefore the measures of what has happened in the last six months can provide a positive influence on the next period. This requires additional changes in a business – altered processes and new evaluations of managers. The benefits are of course clear, and it avoids a company failure, despite all managers meeting their targets. This is something that has been observed; low targets were set based on short run marginal costs, but nothing contributed to the large central network costs.

2.3 Next steps

We recommend that all telcos consider the following:

- Examine the current revenue and price monitoring systems and evaluate if they are fit for the forthcoming competitive market changes – in particular the movements to complex tariff bundles, fragmented customer segments and more elusive profits as competitor pressures increase
- Examine the profit analysis data – is this sufficient to make decisions? This should cover both decisions on existing products, but also new product bundles. Also is there enough “information building blocks” to help with new products’ business plans? Experience shows that the direct (new) costs of a new service can usually be defined, but additional inputs from the unit-costs from using existing network systems, billing systems, help desk etc., build up a better business case for evaluation
- Seek advice from experts on revenue optimisation to evaluate where additional inputs can improve
- Look at combining cost and revenue analysis – it is likely that existing approaches can be enhanced.

Telzed and Civitta are available to assist with discussions and to help enact the changes.