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*Real data,
powerful decisions*

*applied
advanced
analytics*

Analytical Marketing
for telecom operators

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The mobile industry has entered a new, more challenging phase

- Over the last few years market conditions have changed

- Growth has slowed as markets have become saturated
  - SIM penetration over 100% has become the norm, most new adds are in fact churners

- An increasing number of players fighting for the market has put pressure on ARPU
  - Most markets have at least 4 players, including at least one positioned as "low-cost"

- Overall economic situation has damaged consumer sentiment
  - This may become the "new normal", further increasing pressure on revenue

- History shows that new products and services will provide limited relief
  - Mobile broadband has become even cheaper than fixed on a number of European markets

Operators need to identify market trends earlier to shape them

- These changing market conditions are impacting how operators play in the market

- Financial results are showing the strain at even the largest players

  - Operational results have become critical now as many operators need to service their debt

- Assigning short-term financial targets is no longer enough

  - Achieving those targets today is worth little if that means mortgaging the future

- To avert threats and exploit opportunities, operators need to embrace best-practices

  - Targeted marketing actions will be a critical part of operators' toolbox

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To properly assess performance we need a proper market understanding

- We need to ask "smarter", forward-looking, questions

  - How concentrated is revenue in the base?

  - How will revenue look like next year?

  - How quickly are you adding to and churning from your top customers?

- We need continuous answers, on a comparable manner historically and across operations

- We need an objective view of both the market and the operator's actions

  - An independent auditor provides the objectiveness to provide fair assessments and break the agent-principal conundrum

- We must bring to Marketing the level of rigor you find in Financial Audit

Current metrics and systems do not provide that level of understanding

- **Lack of accurate, actionable information hampers our decisions**
  - **ARPU** becomes easily distorted with hard to measure inflation rates and often hides huge variances between customers
  - **Multi SIM,** disposable SIM and channel fraud account for more than half the gross adds in many markets render customer base numbers irrelevant
  - **Churn** is also meaningless as customers drop extra SIM cards forcing operators to waste resources chasing ghost churners
- **A standard framework is a must to provide context to this information**
  - From portfolio of operations at the top, to customer portfolio, segments at the bottom
- **We can no longer drive using the rear mirror!!!**

a³ offers operators an optimal solution to address these issues

- Our Marketing Audit solution focus on 3 key concepts

- **Visibility**, provide an independent, objective assessment of the operation
  - A 3rd party the agent-principal conflict

- **Variability,** we build the link between marketing actions and changes in value
  - We identify short- and long-term impacts

- **Volatility**, we help to identify and quantify the sources of risk
  - Operators will be able to build synthetic risk profiles for each of its operations

- Our team can partner with operators to deliver a solution with minimal impact on CAPEX or headcount
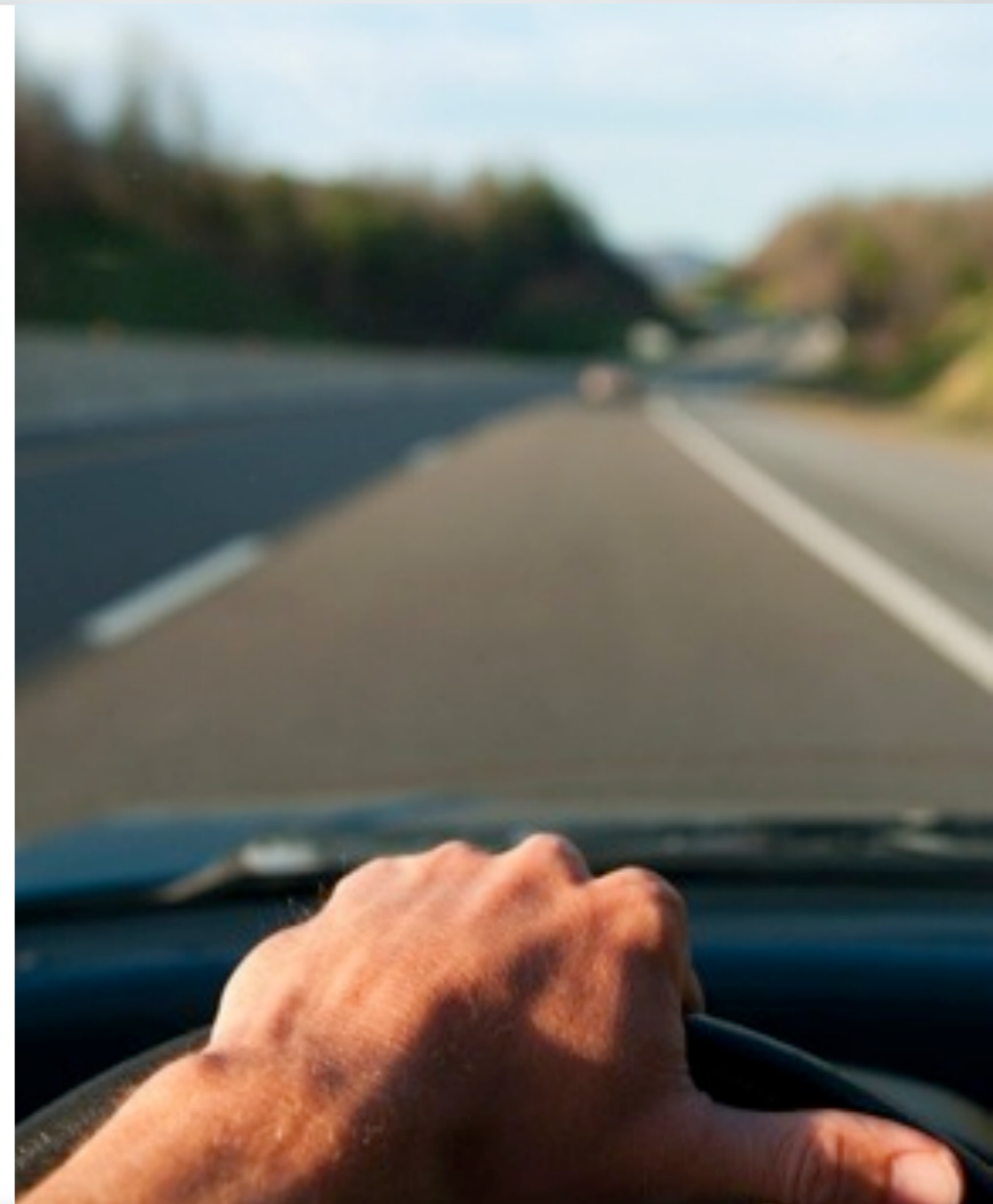
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Visibility
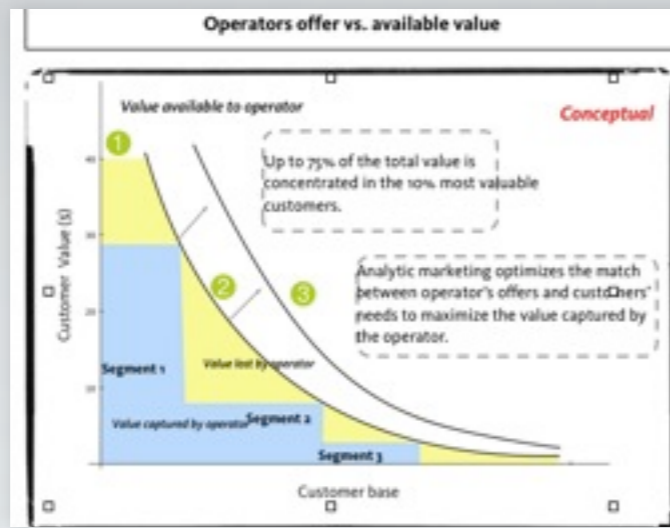## Where is my value?

Variability
How is it evolving?

Volatility
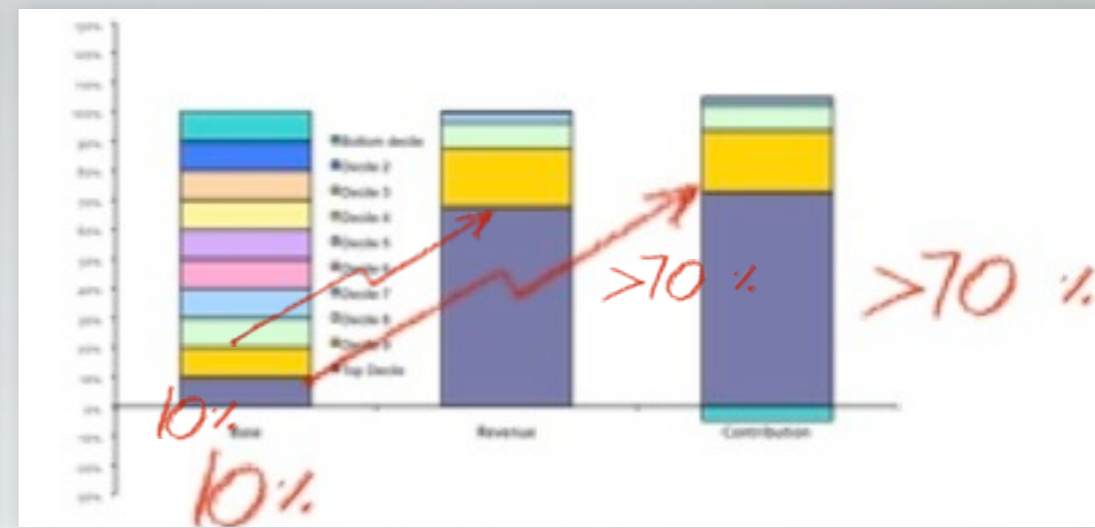## What are the risks?

The first step is to identify the key metrics that are truly relevant to value capture. The customers can be then classified according to their actual usage and recharge patterns, providing the operation with a more actionable approach.

Our methodology provides different levels of aggregation to address the needs of different constituencies, but always using a common bottom-up approach that considers customer segments as a portfolio of assets. At each point (marketing, strategy, CxO, board) there is a shared criteria: **value**.
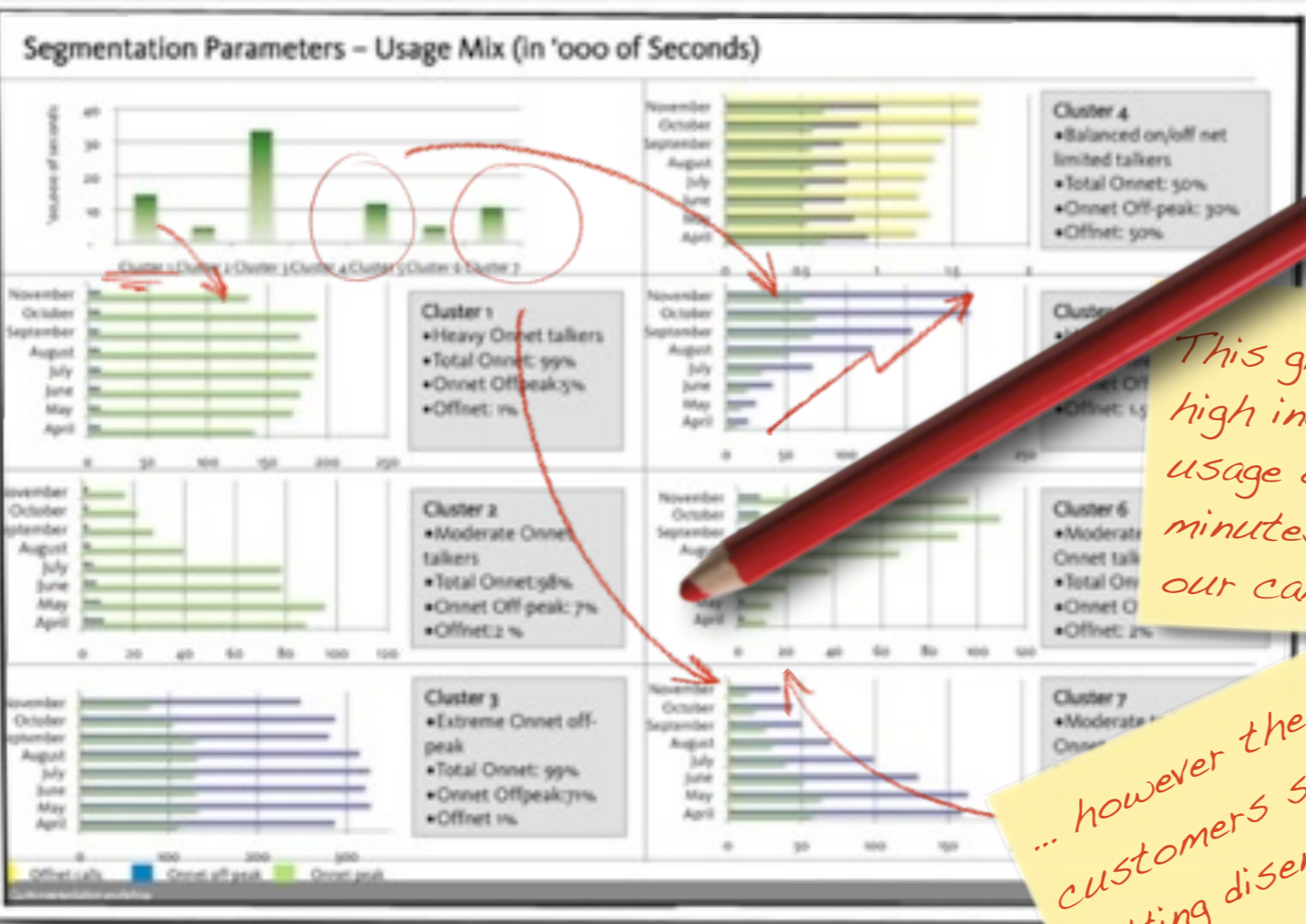
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Operators offer vs. available value

Conceptual

Value available to operator

Up to 75% of the total value is concentrated in the 10% most valuable customers.

Analytic marketing optimizes the match between operator's offers and customers' needs to maximize the value captured by the operator.

Customer Value ($)

Segment 1

Value lost by operator

Value captured by operator Segment 2

Segment 3

Customer base

Analytical marketing benefits

1 Identify pockets of potential value.

2 Fine-tune the operator's offer to match customers' profiles.

3 Reshape the value curve to match Omantel's goals.

>70 %   >70 %

10%

10%

Averaged measures are no longer able to accurately describe markets

Segmentation Parameters – Usage Mix (in 'ooo of Seconds)

Cluster 4
•Balanced on/off net limited talkers
•Total Onnet: 50%
•Onnet Off-peak: 30%
•Offnet: 50%

Cluster 1
•Heavy Onnet talkers
•Total Onnet: 99%
•Onnet Off peak 5%
•Offnet: 1%

Cluster 2
•Moderate Onnet talkers
•Total Onnet 98%
•Onnet Off peak: 7%
•Offnet:2 %

Cluster 6
•Moderate Onnet talkers
•Total Onnet:
•Offnet: 2%

Cluster 3
•Extreme Onnet off-peak
•Total Onnet: 99%
•Onnet Offpeak:71%
•Offnet 1%

Cluster 7
•Moderate Onnet

This group shows a high increase on the usage of our cheapest minutes, responding to our campaigns...

... however these customers seem to be getting disenchanted the offers. Why?

Targeting an average customer does not capture most of the value available

Averages also hide large differences in value

We have found the top 10% of the base generating over 70% of value

Usage and recharge patterns provide a natural way to classify customers

Usage segmentation requires no additional data about clients but can be further enriched with them

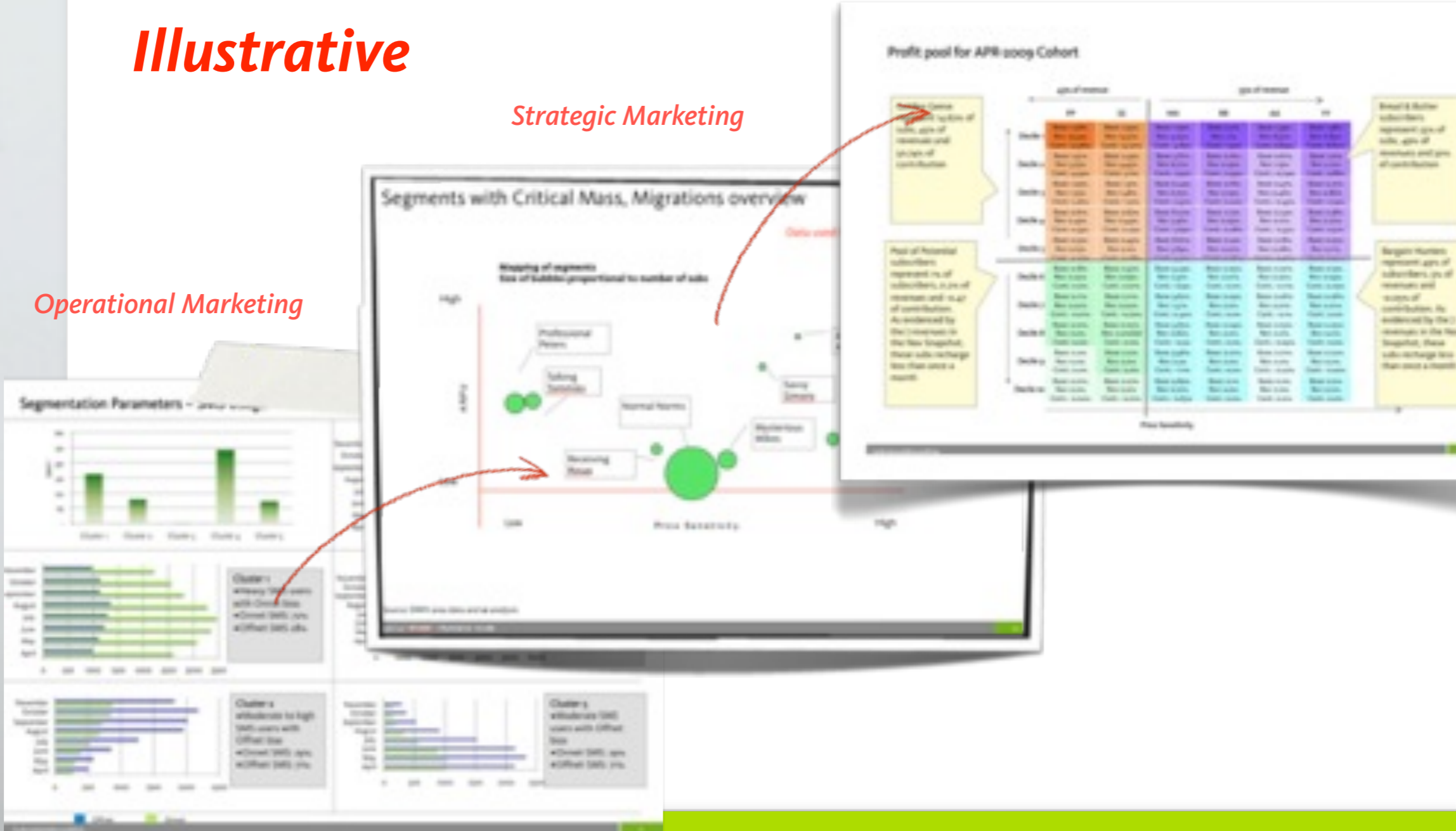# Segmented behaviors provide an accurate description of the base
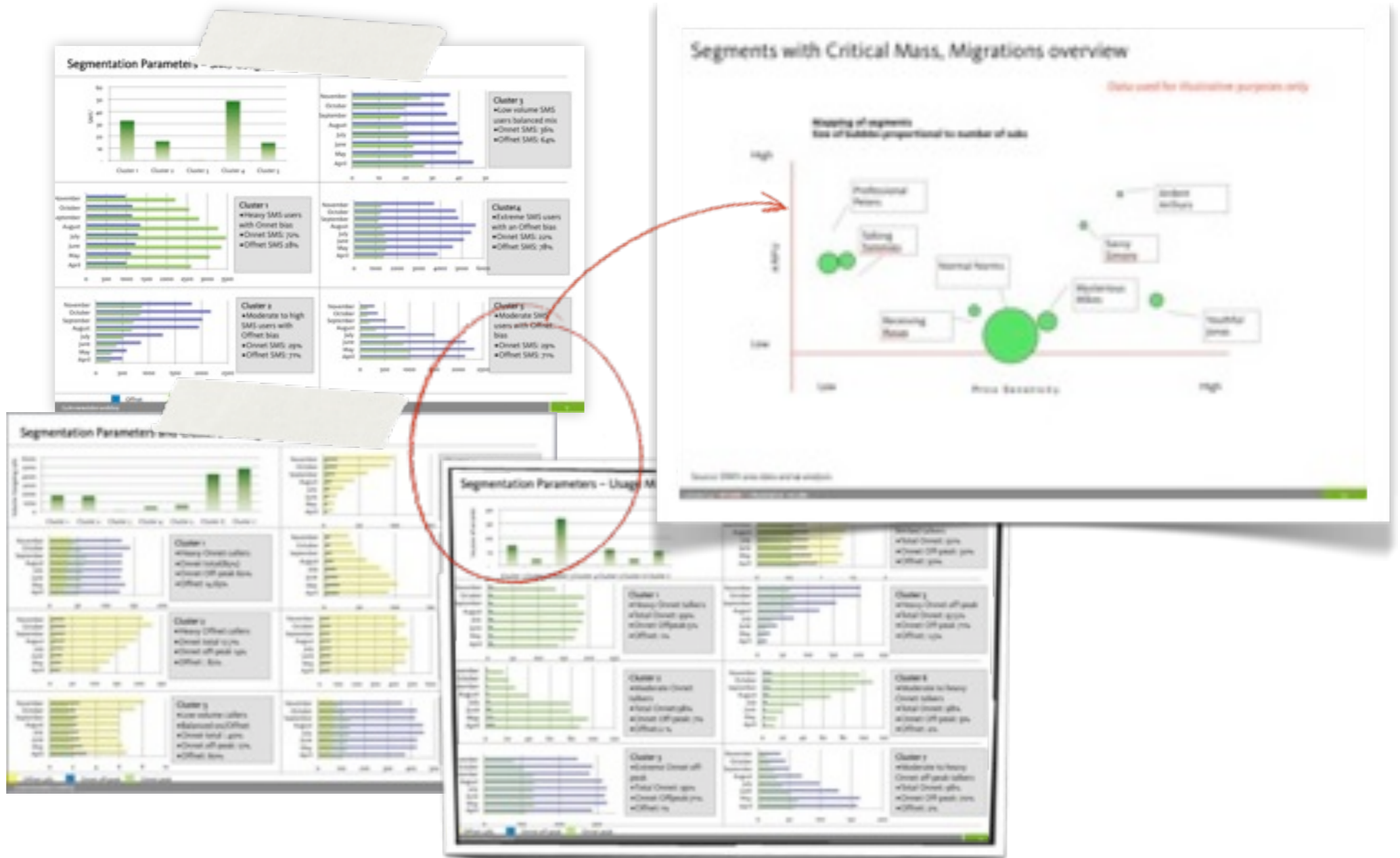
And portfolios identify the different revenue streams associated to them

Illustrative

CxO Level

Strategic Marketing

Operational Marketing

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Visibility
Where is my value?

Variability
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Volatility
What are the risks?

Customer value is not a static concept. Customers change their usage and recharge patterns, and therefore the value they generate, in response to the different actions taken by us and also by our competitors. The changes (in usage intensity, internal migration and churn) can be tracked over time for an operator and can be also compared across operations.

Provided with enough data, we can also establish the link between marketing actions with impact on changes on usage pattern, and those with impact on value creation in order to provide additional guidance.

Following the evolution of segments and portfolios becomes critical…

Portfolio Migrations
Key indicators point to a portfolio improving in quality, with the highest replacement rate in the best portfolio.

Outward* Migration	11%	18%	14%	3%
Inward** Migration	10%	8%	96%	25%
Survival Rate*	81%	53%	44%	51%
Newly Active**	1%	9%	0%	18%
Inactive*	5%	8%	22%	52%
Rate of replacement	3.31	0.86	2.04	1.1

*Outward migration, survival rate and inactive expressed as % of original portfolio
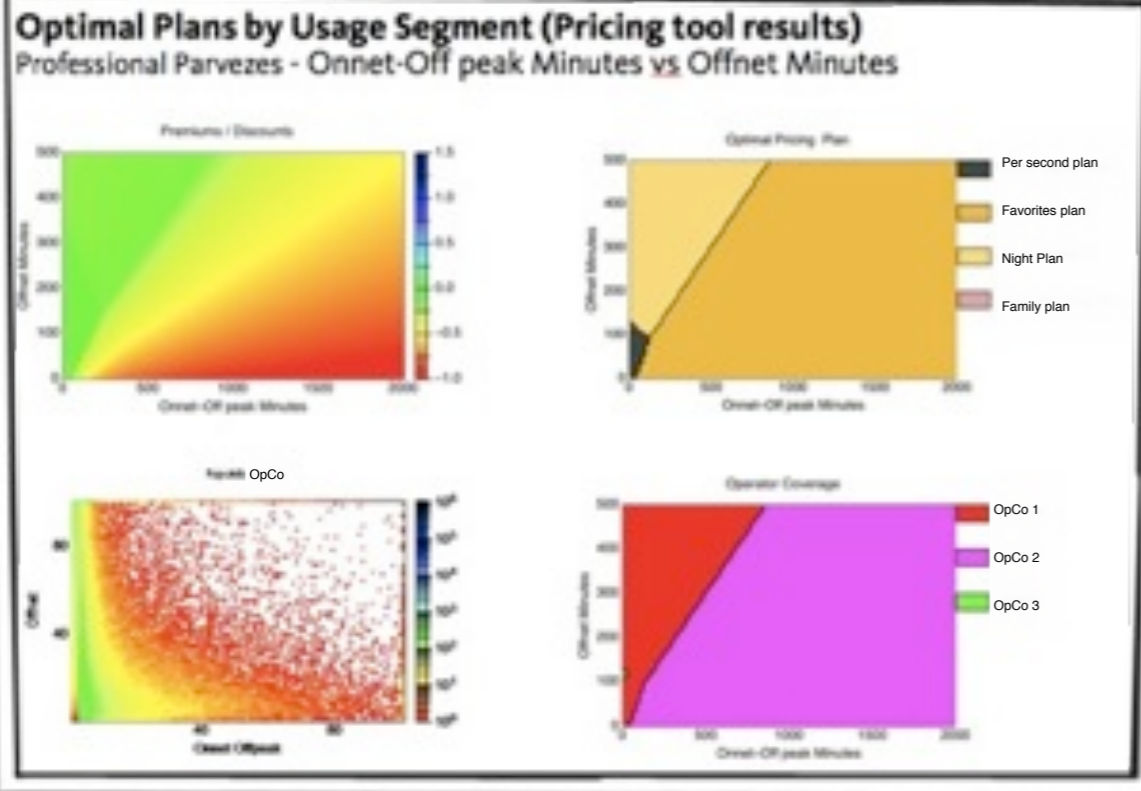** Inward migration and newly Active expressed as % of destination portfolio
Rate of replacement = (Total Inward Migration + newly active) / (Total outward migration + Inactive)

- Managing the customers using a portfolio approach provides with an effective way to understand the customer base dynamics at a high-level
  - Our classification looks at value and price-sensitivity (using usage mix as a proxy) as the classification factors
- We identify three "flows"
- **Migrations**, the customer changes either the intensity or mix of consumption
- **Churn,** customers stop using the service
- **Acquisition**, very often the changes in revenue are caused by changes in tariffs
- All these factors can be combined to assess the quality of the acquisition efforts and the channel policies

to understand how marketing actions impact usage patterns and revenue

Optimal Plans by Usage Segment (Pricing tool results)
Professional Parvezes - Onnet-Off peak Minutes vs Offnet Minutes

- The changes in top- and bottom- line can be tracked to different factors

- **Number of users**, the first factor is to identify the number of actual users
  - This is different from the number of SIM cards!

- **Usage intensity**, **product mix**, often hard to untangle
  - A typical case is the substitution of phone calls by SMS

- **Tariffs**, very often the changes in revenue are caused by changes in tariffs
  - Of course changes in usage may be caused by changes in tariffs

- Only a detailed analysis of the usage-based segments allows to identify the impact of the different root-causes and provide guidance on the best course of action

and how competition impacts the acquisition and retention efforts

- Across-the-base churn rates and gross adds tell an incomplete story

- We provide a more nuanced picture to help the operator focus its efforts in the most critical areas

- This also provides a better predictor of future revenue evolution

Visibility
Where is my value?

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What are the risks?

We provide operators with a portfolio approach to managing the different customer segments, each of them brings different opportunities that we should exploit and face different threats that need to be mitigated.

Working with operator's team we can develop sensitivity analysis for a number of risk factors for each operation and quantify the impact on revenue for different situations. These analysis can be used to build synthetic risk profiles to provide comparison across operations and highlight the areas of concern.

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Revenue is not evenly distributed across any dimension of interest

- As we discussed value can be concentrated on a small number of customers
  - Not only that, revenue can be concentrated on few products or even on specific usage and recharge patterns

- From a risk management perspective that means that risk is heavily concentrated
  - They could be "actively" targeted by a competitor measuring the incoming traffic
  - But they could be also passively "targeted" by a new tariff plan, even one of ours, that hits the sweet spot

- In order to to be able to build a proper financial assessment we need to be able to understand the quality of the different revenue streams

Datamining alone does not provide operators with a meaningful picture

During a recent due diligence assignment for a leading ME bank we were able to show the benefits of our bottom-up approach.

Our mission was to provide our customer with an in-depth understanding of the commercial situation of the target, and also to provide further guidance on additional investment.

During the course of our work we found a number of highly-relevant issues:

- Revenue was highly concentrated on few subscribers, over 85% of the revenue originated on the top decile, and two-thirds of the customer base just using the service as a backup

- All high-value subscribers had been acquired before 2009, raising serious doubts about the marketing forecasts

- Revenue highly dependent on 3 main cities, putting the national network plans under question. Furthermore these cities were targeted by new entrants with a better technology

- To protect our revenue and profitability we need to understand how the different pockets of value contribute to the total picture.

- That means linking factors like geography/mobility, tenure, product mix and others to the actual contribution

  - We map geographic dispersion of calls for one of our customers in an emerging market, this way they understand what is the potential disruption of a new fixed wireless operator

  - For other operators the relevant factor is identifying the multi-SIM customers and which SIM is the main one

- Risk-assessment must be enriched by a more in depth analysis of the available data

  - From a financial control perspective it is critical to asses the risk associated with different the revenue streams

  - This exercise can be greatly facilitated by *a³* team and our tools

that can be used to build a more effective risk-management

Coun...	S...	Co...	Subscrib...	Population of the Coun...	Mobile penetrat...	Market sh...	Reve...	AR...	CA...
C...	1...	🟩	1,400,000	10,329,208	25%	54%	132	8	0%
C...	1...	🟩	2,200,000	71,712,867	15%	20%	149	6	12%
G...	2...	🟧	3,500,000	24,233,431	65%	22%	224	5	10%
M...	0...	🟥	50,000	1,286,340	60%	6%	2	3	15%
R...	2...	🟥	500,000	11,370,425	32%	14%	19	3	22%
S...	1...	🟧	2,300,000	13,711,597	60%	28%	150	5	2%
T...	2...	🟧	4,500,000	43,739,000	50%	21%	266	5	0.0...

TreeTable

- The customer base of an operation can be seen as a portfolio of revenue generating assets, in the same way we can also consider the different operations as part of a broader portfolio

- Working together with the operator we can build risk profiles for each operation reflecting the specific threats and opportunities of each market

- Operators can use them to build a broader picture of risk and revenue

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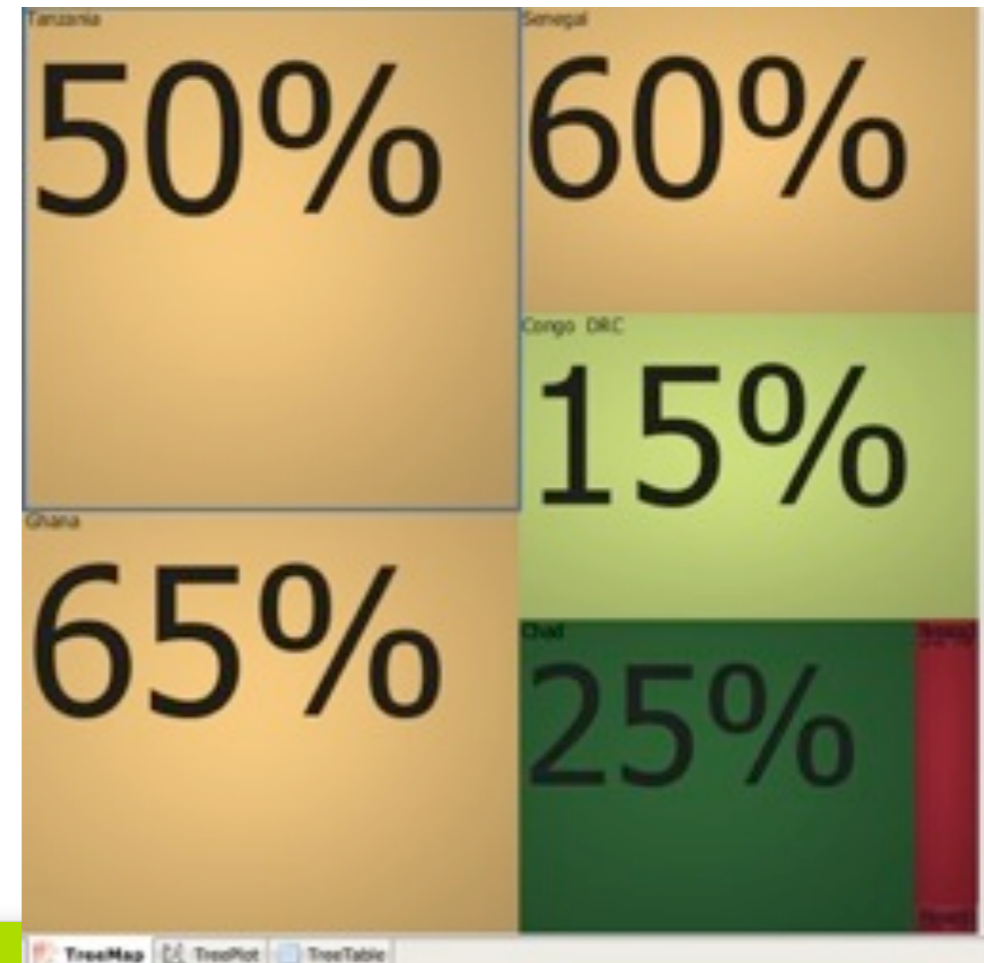
Real data, powerful decisions

Visibility
Where is my value?

Knowing our customer base

✓ Segments built around actual usage and recharge patterns and validated with sociodemographic
✓ Impact of competitive pricing on our customer base
✓ Identifying who are the truly valuable customers
✓ Organize marketing activities around value creation and not around SIM cards

Variability
How is it evolving?

Identifying the trends

✓ Measure the variation on number of (actual) customers on each segmented pattern broken down by churn, adds and migration
✓ Measure the changes in usage/recharge for each of the segments
✓ Quantify the impact of pricing decisions on revenue
✓ Map all these changes with marketing actions

Volatility
What are the risks?

Anticipating the risks

✓ Map revenue from the different value pockets with the churn/adds measured on them
✓ Link revenue to the different parameters (mobility, call length…)
✓ Model the risk scenarios

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Real data, powerful decisions

Our solution will help Operators to

1. ...achieve the level of visibility required to maintain its edge against its competitors

2. ...understand how the marketing actions are impacting the customer base and shape its usage

3. ...develop the scenarios to understand the risk threatening the revenue streams and protect them

4. ...streamline spectrum of products and packages optimizing profitability by customer segment

a³'s team shares operators focus on value creation and can provide solutions specifically targeted to its needs

a³ provides a recurring service that allows operators to maintain an unrivaled visibility of the operations with minimal

a³ offers operators a tested solution to improve operations management

The benefits for our customers can be summarized in 5 main areas

❶ **Financial**, our solution requires no up-front investment in either hardware nor software, nor integration/consulting

- In our experience deploying a Business Intelligence solution can easily become a multi-million dollar project

❷ **Time-to market**, our solution will be ready to provide results from day 1, with minimal delays and no development time

- We minimize the learning curve by providing our deliverables in formats already familiar to operators, customizing and fine-tuning them is a matter of weeks, as opposed to months or even years

❸ **Headcount**, our solution provides and "end-to-end" answer to operators' needs. Operators do not need to set-up a specialists team to provide the insights and support the marketing team

- As most companies discover, a BI solution is not ready to operate without a significant human team behind it.
- With out platform operators do not require to bring additional specialists, reducing the need for expensive expats

❹ **Low-risk**, opting for our Value-Driven Analytical Service does not involve a large upfront investment, with our pay-as-you-go model operators have a risk-free solution

❺ **Actionability**, *a3* prides itself on providing insights that can be quickly translated into marketing actions. One example is our churn predictive models where operators get a weekly "hit list" of valuable subscribers at risk to engage them in below the line retention actions

Our Customers

Our Experience

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- **a³** *addresses mostly operators in emerging markets, where the challenging market environment makes the need for better management practices, particularly in marketing, even greater*
  - *We have built a solution tailored to the specific need of these markets*
  - *We provide with the -demand ability to reap the benefits of exploiting "big-data" to even the smallest operators*

- **a³** *offers a low-risk, high-value, "pay-as-you-go" solution targeting the operators' core issues:*
  - *Reporting and tracking of customers, minutes and revenue across operations*
  - *Prepaid churn detection, flagging "at risk" customers to maximize retention success*
  - *Pricing analysis, identifying threats and opportunities in the market*
  - *Channel management, adjusting incentives and reducing friction within the channel*

- *All our tools are designed to provide actionable insights to your team and to empower them to achieve their full potential*

- *Our goal is to improve your ROI of your marketing budget through a more targeted approach*