



"We now have a powerful tool at our disposal to predict customer needs and undertake very successful marketing actions thanks to MINEVision and SAS solutions."

Alain Glickman Porush  
Head of internal Intelligence at Mobistar

*The Power to Know®...*

## Life stage identification using call behavior



### SAS® enables successful personalized marketing

*Mobistar needed a better picture of its customers. Since 69% were pre-paid users (with a great number of non-registered customers), the company felt that it was not effectively targeting them with the right products. They needed answers, so they called upon MINEVision, Belgium's number one data mining company. Using SAS decision support solutions, MINEVision gave Mobistar powerful knowledge about non-registered users. They analyzed the call behavior of these users and turned this information into knowledge about their life stage, important for personalized, needs-based marketing. With the help of SAS® Enterprise Miner™, a difficult and complex assignment was brought to a successful conclusion.*

#### Effective marketing based on customer needs

Mobile communications provider Mobistar is the Belgian subsidiary of Orange, the international mobile activities group of France Telecom. With over 2.6 million customers, Mobistar is Belgium's second largest mobile communications operator. Like all healthy businesses, it wants to increase market share. That means keeping current customers, attracting new ones, and getting customers use Mobistar products more often. Finding new customers, however, is becoming a lot more difficult as the mobile telecom market approaches saturation. Presently, 77% of all Belgians have a cellular phone.

The Mobistar answer is to employ ever-smarter and increasingly personalized marketing. One marketing technique is needs-based, where customer needs are identified by predicting the life stage they are in. "Certain events or stages in a person's life - like going from student to professional life - trigger particular needs," says Alain Glickman Porush, Head of Internal Intelligence at Mobistar. "Our job is to pinpoint these changing priorities as quickly as possible and target customers with relevant products, such as after school pricing formulas that cater to students."

#### Life stage identification

This is where things really begin to get complicated. The majority of the Mobistar customers are pre-pay or unregistered customers. They pay a certain amount in advance and can phone until that amount is used up. The disadvantage of this formula is that these customers don't register. "We

only know the phone number of these customers and how much they call," explains Alain Glickman Porush. "We don't have a clue as to how old they are, their home address, or their occupation. We wanted to identify the life stage of these customers in order to perform needs-based marketing. This was such an important challenge that we decided to outsource it to professionals. That decision also left us free to go on with our normal operational tasks."

#### Business-driven partner with strong technical background

Mobistar searched the market for a suitable partner for this job. "It is a very sensitive project. In the telecommunications sector, marketing and the way it is done, is virtually top secret information. There is also the fact that this is a very complex case with a huge number of figures that have to be carefully selected for relevance and then accurately interpreted. This really is a job that can only be done by experts. A characteristic of needs-based marketing is that it means taking bigger risks than value-based alternatives. Making an error is simply out of the question here. That is why a firm buy-in from our management was also a strong requisite in our decision. We looked for a professional partner with an approach that demonstrated both a business-driven and a technical orientation. A partner that could discuss the case with both our management and our technical staff. After a rigorous selection process, we chose to partner with MINEVision, a part of the Concentra Group HostIT company. MINEVision is the Belgian market leader in data mining."



**“After carefully selecting accurate, relevant, and comparable data, SAS® Enterprise Miner™ helped us turn raw data into useful knowledge.”**

**Alain Glickman Porush,  
Head of Internal  
Intelligence at Mobistar.**

### **A complete data mining solution**

The first phase of the project consisted of determining Mobistar's needs. Based on these specifications, MINEVision advised Mobistar on what software tools could best support them. Alain Glickman Porush again: “Their advice was to use SAS products, and they presented very convincing arguments. SAS is the market leader and offers the most complete decision support solutions, particularly in the area of data mining. MINEVision also has an ongoing cooperation agreement with SAS. This means that they have a lot of relevant experience with the SAS software. It also means that there is a continuous exchange of data mining competencies and critical information with SAS. We saw this as our guarantee that only ideally suited data mining solutions would be used.”

### **Call behavior analysis**

The biggest job in this project was the extraction of the source data from the customer database. A great deal of effort went into checking that the data was accurate, relevant, and comparable. MINEVision used Base SAS to define the different variables for the data mining model. A typical example of the way they thought things out is persons that only use their phone after 16.00 h on Mondays, Tuesdays, Thursdays and Fridays, and after 12.00 h on Wednesdays, may very well be students. “We thought of other specific

patterns in calling behavior and MINEVision translated this reasoning in usable variables,” recalls Alain Glickman Porush. The most significant variables were identified with SAS/STAT®. Mobistar specifically requested the use of decision trees to help them better understand why certain decisions were made. “This was quite complex, since we were talking about a large number of market segments. Separate models had to be drawn up for each group. SAS *stat* gave us excellent results.” After identifying variables and selecting and preparing the data, SAS® Enterprise Miner™ was used to process this data into useful knowledge. The software enabled MINEVision to reveal trends in calling behavior, explaining outcomes, and predicting when customers would pass into a different life stage and change their calling behavior. MINEVision was able to make accurate predictions for each segment Mobistar identified. They post-processed that data to exclude errors with SAS/OR®. Each individual can, for instance, appear in only one segment.

### **Professional project management**

Alain Glickman Porush is very enthusiastic about the results of this project, and with the way it was run. “MINEVision led the project very professionally. There were regular meetings with our marketing people as well as our internal intelligence department to obtain an optimal

balance between marketing needs and technical possibilities. An evaluation was built-in after every project phase to get our feedback.” Once the data was extracted, the major work was done. The analysis itself only took four weeks. It was driven by Mobistar's Marketing and Customer Services department and supported by MINEVision experts. “I never once felt insecure about the project. I was always confident that it was in good hands. The MINEVision specialists knew the SAS tools by heart, knew how best to use them. And the final results of the project were presented in html format, which is very user friendly and proved to be the best presentation form for non-technical people.”

### **Targeted marketing with a high success rate**

“We now have a substantially better understanding of our customer database. The decision whether the predictive power of the knowledge we generated is good enough for targeted marketing actions depends on the size of the market segments used. Obviously the students segment is a lot smaller than the youngsters segment, and the error rate is bigger in the former. How we choose to use this information in the future will be determined by how big of a risk we are willing to take in making errors. For example, a letter meant for students about to begin working life should obviously not be sent to a twelve years old school boy. But one thing is certain, this life stage identification through call behavior is certain to prove to be a very powerful tool that will help us increase income”, concludes a highly satisfied Alain Glickman Porush.



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