



## PAYMENTS & PREDICTIVE ANALYTICS



Besides the still very true "Cash is King" you can easily add "Data is King". And obviously true in payment processing just as in any other business.

Payment processors have always had access to very large data sets "after the fact". Creating insight into past processing (even if it happened a few seconds ago) has been part of any reasonably well structured processing platform.

In our opinion much more relevant for e-commerce merchants today is to use that data to increase revenues and reduce "negatives" like fraud and chargebacks.

**This is where "predictive analytics" come into play.**



According to Wikipedia the definition of predictive analytics is as follows:

"Predictive analytics encompasses a variety of statistical techniques from modeling, machine learning, and data mining that analyze current and historical facts to make predictions about future, or otherwise unknown, events.

In business, predictive models exploit patterns found in historical and

transactional data to identify risks and opportunities. Models capture relationships among many factors to allow assessment of risk or potential associated with a particular set of conditions, guiding decision making for candidate transactions.”

Especially the part about “identifying risks and opportunities” is relevant for payment processing. And we as a company have (and still do) committed substantial resources to develop not just the analytical methods, but also predictive payment flow models to do exactly that “identify risks and opportunities”.

As a first step you would need to analyze a merchants’ current traffic and payment flow.

We take as much data as we can (e.g. transaction card type, brand, card level, issuing bank BIN, affiliate ID’s, and dozens and dozens more) and identify payment flow patterns. We try to identify as many behavioral dependencies as possible. Behavioral Dependency Analytics (BDA) is widely used to determine which specific outcome depends on which variables. For instance you might as a merchant have a high fraud ratio. As a hard number or percentage this will only be an indication of how big the problem is. But it does not give you any insight into the real origin of the problem.

It might well be that a large number of fraud cases come from pre-paid cards, from a certain country at specific times of the week or day. And hardly any fraud from cards issued by bank XYZ.

Having this insight is already very helpful. The next step would be to re-create this data into a model and to start changing parameters and see what happens.



This is the predictive analytics part. To continue with the abovementioned example, the first step would be to tighten fraud filters for the traffic generating the fraud. Or stop buying traffic from the affiliate that is sending you this traffic. At the same time you might want to loosen the fraud filters on the “good” traffic and buy more from that specific affiliate.

The advantages are obvious and immediately clear. You decrease fraud and increase your return on your affiliate traffic budget.

You could also use predictive analytics to go one step further. Imagine you are an e-commerce retailer without a fraud problem. Zero fraud, wouldn’t that be great. Sure, banks and acquirers will love you. At the same time it might also mean you are being too conservative in your media buying and as a result losing market opportunities.

Also in this case predictive analytics and modelling could be very helpful to make a reasonable prediction about future payment flows, conversions and revenues.

You might want to start buying traffic from other sources, be a bit more aggressive in your marketing, and increase the number of resellers for instance. The improvement to your bottom line might easily offset the slight increase in “negatives” such as fraud and chargebacks. All within responsible limits of course.

Once the parameters are set in the model in the way that fits your business performance and future needs best, real life processing starts.

From that moment there is a constant loop of measuring real time performance against set key performance indicators, using the real data in our predictive analytics model and make changes in the parameters as required. And on and on and on.

Behavioral Dependencies Analytics and the subsequent Predictive Analytics and Modelling on the basis of payment flow create clear benefits for e-commerce retailers. And it's not just talk either. We do it and it works.

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