

## Responsible Gambling Model at Veikkaus

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### ABSTRACT

Veikkaus is a state-owned gambling and lottery company in Finland that has a national legalized monopoly in gaming. All the profit goes back to the Finnish society (for art, sports, science and culture) and this is done by Finnish Ministry of Education and Culture who distributes the money.

In addition to the government's expectations of Veikkaus' profit, the state has also requirements for handling the social problems of gaming such as problem gambling. Gaming business is balancing between these two factors, business goals and responsibility.

For the purposes of identifying problem gambling Veikkaus has created a responsible gaming tool, a model, using SAS® tools, which is called 'VasA', the letters coming from Finnish words 'Vastuullinen Asiakkuus', 'Responsible Customer Relations' in English.

This logistic regression model identifies the problem players from our customer data base of 1.8 million customers using the data from registered gaming data, money transfers, web behavior and customer data. The variables that were used in the model are based on the theory of the problem gambling.

Our actions for probable problem players include for example own CRM program and personalization of customer's website in our web service.

Veikkaus wanted to create our own responsible gambling tool for two reasons. At first, we wanted a tool which includes the whole customer database, meaning all our customers, not just those customers, who wanted to take part in it, as these tools normally do. The other reason was money. Doing the model by ourselves with the tools and knowledge we have, compared to the option of having to buy one, was much cheaper. We were also able to tailor it for our own business model.

During this modelling process SAS was in a big role from the gathering of the data to its construction and from modelling to creating the VasA variables to the database and to the analyses and on to reporting.

### INTRODUCTION

This paper is organized as follows. Section 1 briefly describes the Finnish gaming environment and Veikkaus' responsibility towards the society. Section 2 gives an idea about problem gambling and how to identify it universally and especially from the gaming data. Section 3 describes the responsibility model and presents the creation process of the model.

### FINNISH GAMING ENVIRONMENT

#### VEIKKAUS

Veikkaus is a Finnish lottery for Finnish players. We offer high quality gaming entertainment reliably and responsibly, producing each week over EUR 10 million of lottery profit for Finnish society. Veikkaus

contributes its total proceeds to the Finnish Ministry of Education and Culture, which distributes them further to Finnish arts, sports, science, and youth work.

For Finns, Veikkaus is not only a gaming company with long tradition but also a significant part of Finnish society. Shared joy is guaranteed to Finns through Veikkaus' beneficiaries, almost 4 000 in all.

Playing registered provides the basis for Veikkaus customer relations. Our customers can play registered by showing their Veikkaus Cards at the points of sale, at Veikkaus websites, on their mobile phones, or tablets. Registered playing is genuinely beneficial to the customers, since the prizes are paid easily and directly to their gaming accounts. Veikkaus had over 1.8 million registered customers (March 2016).

When the players register themselves as our customers, they gain access to a set of tools enabling them to follow their own gaming and game history at the web service [veikkaus.fi](http://veikkaus.fi). Another concrete customer benefit for registered customers is Veikkaus' Loyal Customer Program, which offers many customer benefits, including discounts to events, weekly Loyal Customer Draws, and VeikkausTV.

Veikkaus' Loyal Customer Program aims at making our customers committed and communicating Veikkaus' social significance.

The Loyal Customer Program includes weekly Loyal Customer Draws in which our players can enroll themselves over the Internet. During the year under review, the weekly draws numbered 52. In addition, there were twelve further draws for our Loyal Customers. The prizes drawn included Lotto bicycles, jewels by Kalevala Jewelry, and a trip to the World Basketball Championships. In all, the different draws attracted nearly 2.4 million entries during the year under review (2014). A total of some 311,000\* registered Veikkaus customers took part in the Loyal Customer Draws.

By showing their Veikkaus Cards, our customers get discount on, e.g., entrance fees to museums, sporting events, theatres, and the cinema. We aim to offer Loyal Customer benefits that are linked to Veikkaus' beneficiaries. In spring 2014 we launched a new benefit concept called "Take a friend with you", offering Veikkaus' loyal customers a chance to buy two tickets for the price of one to concerts.

## **OTHER OPERATORS IN FINLAND**

In Finland the gaming license has been granted to three organizations. Veikkaus operates lotto games, pools, betting games, instant games and other draw games. The other two operators in Finland are The Finnish Slot Machine Association RAY and Fintoto, which operates horse betting.

## **RESPONSIBLE GAMBLING**

For us, responsibility is the basis of all gaming, and constitutes a core part of our ideology. We believe that small stakes generate greater joy of playing. We do not distribute misleading information on the odds of winning, nor do we offer the option of playing on credit. Our players have the opportunity to impose self-bans on their gaming on the internet. Our retail outlets and the games of [www.veikkaus.fi](http://www.veikkaus.fi) are subject to the age limit of 18.

Successful operations can only be based on a wide customer base and general acceptance of gaming. We want to offer our customers a range of entertaining and responsible games, meeting our customers' expectations while ensuring that any harm related to gaming is minimized.

Responsibility actions based on Finnish law and regulations are:

- The age limit for all Veikkaus games is 18 years (Lotteries Act).
- Veikkaus Card is only available to people over 18 (Lotteries Act).
- Games are not sold on credit.
- The identity of anyone who registers as a Veikkaus' player on the Internet is verified with the Population Register Centre (Lotteries Act, Money Laundering Act).

- daily limits of EUR 100 for fast daily games such as eInstants and eBingo (irrespective of winnings).
- Live Betting is subject to a daily limit of EUR 600 (irrespective of winnings).
- Customers can only register one game account
- Money transfers to the game accounts cannot be made at night (from midnight to 6:00 a.m.).

Optional tools for gaming control in use:

- Players can close their game accounts for the rest of the day, week, month, or year (during this period, the game accounts cannot be used for playing or transferring money).
- Players can set their own personal limits in euros for a period of one day, a week, or a month.
- Players have access to a summary of their game account history showing all the games played during the past month, detailing all the losses, wins and payout percentages.
- The Gaming Habits Test, which players can use to evaluate their own gaming behavior.
- A website (in Finnish) for keeping gaming under control.

The justification of the exclusive right – preventing the detriments of gaming and fighting crime – is assured by Veikkaus' own measures to advance responsible gaming. Achieving business goals, we need to live up to our well-deserved responsible corporate image. Our objective is to attain a steady growth of the profit, securing the beneficiaries' operational prerequisites even in the future.

## PROBLEM GAMBLING

According to the Finnish National Institute for Health and Welfare 3.3 % of the Finnish population are dealing with issues problem gambling and 1.3 % have a gambling addiction. The numbers are quite high when comparing them to the rest of Europe. Many people have a friend or a relative who has a problem with gambling. Even so it is not very easy to notice that someone, even a person near you, is having difficulties with gambling. The institute has made huge piles of material about how to notice the possible gambling addiction.

There are signs problem gambling if playing

- takes too much time,
- causes guilt or anxiety,
- causes problems in relationships
- harms work or studying or taking care of things,
- takes one's mind in a way that one cannot be bothered to other issues,
- is not fun
- and so on...

However, it is not easy to identify a possible problem player. Having the gambling data might be a bit of a help. Identifying a possible gambling problem from the data is not easy either, but it might have to do with some of these issues such as

- Gambling is irregular
- Lot of variance between days and weeks
- The size of the bets has a big variance

- The amount of the played products varies a lot
- Time and money spent
- Chasing losses with new bets
- Increasing bet sizes (in Euros)
- Increasing bets (N)
- Playing during the night
- The variance in money transfers to the playing account
- and so on...

As said, there is no one way of looking at it and the problem player could have many other problems in life as well, such as alcoholism. These factors just give an idea about how complex the problem really could be.

## THE RESPONSIBILITY MODEL AND ITS' CREATION PROCESS

### BACKGROUND OF THE MODEL

Registered gaming enables us to develop measures to advance responsible gaming and to prevent gambling problems. Mathematical model is based on customer database, with the intention of promoting responsible gaming. The Responsible Customer Relations Model (VasA) aims to ensure, e.g., that marketing measures are not targeted at customers whose gaming behavior displays features generally indicating that their gaming might be taking a risky turn.

The first version of the model was done in 2011 by university student whose master's thesis studied the subject of problem gambling and how to identify these problems from the gaming behavior data. The model was implemented and studied for few years and after that it came obvious that we needed to update the model as the business environment had had few changes such as new products on the market and opening the website at night time so that it was possible to gamble 24/7.

During 2014 the background variables of the VasA model were reconsidered, taking into account the changes that had taken place in the product range and the gaming environment. The model was updated and, in the course of the year, we tested the effect of messages with responsibility-related contents on the customers' gaming behavior.

Since the beginning of 2015 the VasA model has been an established part of Veikkaus governance system, and the effects of the model are reported regularly to the company management.

### STEPS OF THE MODEL CREATION

The creation of the model was in these steps:

1. Problem gambling questionnaire for our customers.
2. Gathering and creation of the response data.
3. Creation of the problem data variables from gaming and behavior data (gaming, money transfers, website behavior, etc.).
4. Merging the response to the gaming and behavior data.
5. The modelling (various models, testing, validating, etc.).

6. Implementation of the model to the customer data base as its own variable (problem gambling probability for each customer).

## **MODELLING AND THE VARIABLES OF THE MODEL**

Obviously the parameters of the model cannot be published here, but there are 5-7 parameters that follow the theory of the identification of the problem players from gaming data.

However, what we wanted to avoid was that people with bigger playing budgets do not automatically go to the risky class. Thus, all the variables were basically related to the customer's own average playing behavior, not others'.

What we did was that all the data from customers' twelve weeks gaming and money transfer data prior to the test was summarized on to weekly basis by customer. From these weekly parameters descriptive statistics (N, sum, mean, median, maximum, variance and so on) were calculated for each customer. Approximately one hundred model parameters were calculated based on the theory of the problem gambling and the data available.

Approximately 3.500 customers were used in the modelling so the sample size was quite large.

From the beginning it was clear that the logistic regression would be used in creating and updating the model as it is easy to understand and we had previous experience from using it. It also provides nicely the probability of the problem gambling for each customer as the way we wanted. The method is also widely used in other business areas such as media companies and banking.

Total of six models were created with different methods of variable selections. Differences between the models were minimal, so the simplest and most understandable model was chosen with the most influential variables.

As a result we got a model which has been working nearly two years now. However it is not easy to say why someone is classified as a problem player as there is no prototype of problem player or a one specific reason why the customer belongs to the problem players' group or not. It is the interaction of the parameters that counts.

It is very vital to notify that no model is ever perfect. You just have to adjust it from time to time especially on a very sensitive matter like this. However, at the moment it seems that we are on a right path.

## **SAS IN THE PROCESS**

The SAS had a huge role in the process. All the steps from 2 to 6 were done with SAS tools. It started with SAS Enterprise Guide (steps 2 to 4) and continued with the SAS Enterprise Miner (step 5) and ended with SAS Data Integration Studio (step 6).

After the model was implemented, it has been a relevant part of our CRM programs which are done with SAS Customer Intelligence Studio. It also plays a role in our website personalization for each customer.

The key with such a successful model creation project in technical sense has been the good interaction between SAS products. From every step there has been a good link to the next product, so the streamlining of such work could not be much better.

## **CONCLUSION**

The VasA model has been in use nearly five years now. It has become a solid part of our business processes and people are following the VasA-figures on monthly reports and analyses. The group of

likely problem players' is closely monitored during the year and different analyses about this group compared to the rest of the customer base are taking place constantly.

## CONTACT INFORMATION

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He has been using SAS software over 20 years starting from the University of Jyväskylä where he studied statistics as his major, marketing, economics and mathematics being his minors.

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