

## CASE STUDY

## Madwolf Technologies

*“Expert Outsource developed an online survey management system for a leading marketing research company. The application automated building of surveys, distribution, collection, analysis and reporting.”*

## The Client

One of our clients, a leading marketing research company, needed a robust and dynamic application to regulate and streamline the survey distribution, collection, analysis and reporting.

The client handles more than 30 types of surveys for a specific industry with more than 1000 member companies submitting their survey data. Due to the manual workload in assembling surveys and reports, a new system was required to be developed.

## The Challenge

The Client needed application to dynamically generate survey forms with a predefined set of rules. It required the survey to be distributed to the subscribing companies via email link, send email reminders to the member companies, receive mail notification on survey submission, analyze the surveys based on certain disclosure rules and report back the result to the clients.

The new system had to automatically enforce the disclosure rules (consolidated companies will be treated as one single company) and generate the required footnotes. The application had to offer a provision for the client to edit and overwrite system suggestions for data rolling. Also, the system must automatically adjust the footnotes based on manual rolling.

The new application had to include a library where all previous reports, surveys and rolled raw data can be viewed and edited.

- ◆ Creating an application to generate web based survey forms by defining predefined rules.
- ◆ The application has to accommodate and automate the data collection and report generation process to a very high degree.
- ◆ Automatic rolling of data and generation of footnotes based on the rolling result. The design of the new system had to aim at overcoming the shortcomings and errors and offers the highest possible degree of usability and process automation.

## The Solution

Expert Outsource partnered with the client and developed an application package that offered complete solution to the client.

### Survey Builder Application

A windows based application using VBA, Excel and XML was developed to generate web based survey forms. The application provided the client with tools to define survey cells and rules. Upon saving the survey, the data are stored in the database using which the online web survey form is generated.

### Email Notification Service

An email service application was developed and installed which picks the new survey assigned and mails the survey link to the companies. The email service checks for the survey submission overdue date and automatically sends out reminder mails at a set frequency to the company until the survey is received.

### Survey Web Application

The core web application, after the successful data entry process, notifies the management the status of the survey through an administrator dashboard. Upon performing the data analysis, the application automatically roll the numbers and create the required footnotes according to the management's disclosure rules. Where required, the client can also cross check whether the figures of the quarterly report match the monthly figures and if aggregates used in one report equal the sum of values in the more fine-grained report on the same type of device. Alternatively, any cross checks triggers a warning that can be overwritten by the member. The Client staff can then edit the results of this automated procedure if required. Once finalized, the client can download the result in Excel file and mail it to the member companies.

Technology used:

Survey Designer: VBA, Excel and XML.

Survey Web Application: Asp.Net, MsSQL 2005 and Microsoft Ajax

Email Notification: Windows Service

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