



# Market Presence Is Critical In Identifying Credit Fraud

Verifraud

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**V**erifraud's study on the underlying characteristics of 700 credit fraud attempts (*Business Credit*, January 2005) showed just how sophisticated and dangerous credit fraud has become. The results of our study showed that nearly 60 percent of the frauds were incorporated, 55 percent had bank balances of at least five figures, and 60 percent were operating from normal commercial locations. Furthermore, analysis of the age since incorporation and bank accounts showed that nearly 70 percent of the incorporated frauds had been registered for more than one year, while 60 percent of the bank accounts had been in existence for at least a year. Combine this with the fact that most of the frauds had favorable credit reports and one can see how incredibly vulnerable underwriters are today. Clearly, more sophisticated solutions are needed.

Since our research confirmed that fraudulent companies are often indistinguishable from legitimate firms on the surface, it signaled a need for more sophisticated solutions based upon non-traditional approaches. The study led us to attempt to identify a quantitative means of separating legitimate and fraudulent companies using resources that are more difficult to manipulate. Pointing the way to a solution was the fact that we have historically noticed major differences between legitimate and fraudulent companies when it comes to the extent that they are actually transacting business. Specifically, we have repeatedly found that legitimate companies tend to leave operational footprints in a way that fraudulent companies do not. This makes sense in that businesses are not sustained by credit reports, incorporations, or bank accounts, but rather are dependent on business, employee, and customer relationships which can be measured using advanced technology. Though fraudulent companies may be able to reverse engineer and manipulate the resources used by credit professionals, they are not actually out transacting normal business and leaving footprints in a way that legitimate companies are. Therefore, the second phase of our project involved developing a tool for measuring this market presence, followed by a

systematic comparison of the results for legitimate and fraudulent companies.

The development phase of R&D consisted of identifying the optimal mix of data sources that correspond to operational activity for a company; at increasing revenue levels, companies should leave more operational footprints, on average. For example, one would expect a group of \$10 million (sales) companies in a given industry to leave more operational footprints than a group of \$1 million companies. What we found in identifying an optimal mix of 16 data sources (themselves data aggregators) was that even in increments as small as \$1 million, each size grouping in our sample did show a greater market presence score than the next smallest one. We repeated the experiment numerous times across multiple industries and found this to be true even when using a relatively small sample size. These results are very exciting as they confirm that there is a general correlation between the size of a legitimate company's operations and the measurable footprints that they leave. By taking several distinguishable data elements for a company, we then averaged the results into a Market Presence Indicator (MPI) score. Table 1.1 shows the average MPI score for groups of legitimate companies ranging from \$1 million to \$6 million in sales. Note the steady increase in MPI scores for each group of companies.

Next, we scored a sampling of fraudulent companies using the MPI tool and compared these scores to the results for similarly-sized legitimate companies. Since fraudulent companies are not actually out

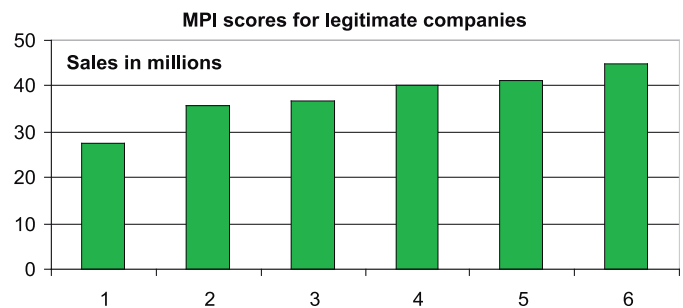


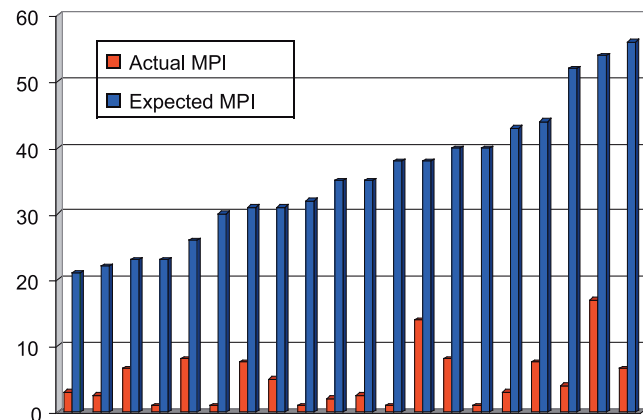
Table 1.1



transacting business in a way that legitimate companies are, one would expect them to have measurably lower MPI scores. Again, the results were extremely promising as we found an enormous difference in MPI scores for the two groups. Table 1.2 shows the MPI scores for a subset of 20 randomly selected frauds sorted by claimed revenue. The table also shows the expected MPI score based upon these revenue claims. [The first bar represents the MPI score for the fraudulent company while the second bar shows the average MPI for similarly sized legitimate companies.] Clearly, the lack of actual market presence for fraudulent companies is both measurable and significant. The bottom line is that perpetrators may be extremely skilled at manipulating traditional credit resources but they are not able to manipulate broader, independent measures of operating activity such as those included in the MPI. In fact, even the most sophisticated frauds in the sample had Market Presence Indicator scores that were 65 percent below normal, while the overwhelming majority of frauds had MPI scores below 10. Conversely, we see very few legitimate companies of the same size with MPI scores below 10.

The promise of such a tool is that, even in an automated credit scoring environment, a company can more accurately filter high-risk applicants for further review based upon these results. In fact, our research shows that by segmenting out the lowest 5 percent of MPI scores, a company can typically capture the overwhelming majority of all fraudulent applicants. Furthermore, the tool sheds considerable light on the true extent of an applicant's operations and, in conjunction with other tools, can clearly identify high-risk activities during a

**MPI scores for fraudulent companies**



**Table 1.2**

more in depth investigation. Obviously, such a tool has value in terms of improving both the efficiency and effectiveness of fraud screening efforts.

Certainly, the Verifraud Market Presence Indicator tool represents only a single approach to quantifying market presence and other options may become available. The point is not that a certain approach is superior, but rather that a serious commitment to innovation and R&D can yield tremendous results. With credit fraud comprising 15 - 20 percent of overall bad debt in some industries, and with sophistication continually increasing, we see the market presence concept as a promising development in the evolution of fraud-risk management. ■