

Controlling Credit Risk: Building a Not-Yet Popular Forecasting Model Bruce Ratner, Ph.D.

The purpose of this article is to introduce a somewhat new forecasting model that theoretically and in practice outdoes the standard statistical forecasting model. I compare and contrast the ever-popular forecasting model and the not-yet popular GenIQ Model in a financial services case study.

In today's shaky, complex economy that is made up of complicated and interrelated parts, the financial institutions' focal point is protecting the business against losses. While meeting regulatory requirements, they seek to improve performance that primarily includes smart lending. The latter comes into being as a process by building forecasting models, whose predictions are stable for a short-term of the next three-to-five years. The predictions must be accurate so as to control credit risk by 1) improving lending decisions, 2) lessening charge-offs, and 3) increasing ROI.

For the most part, the statistical forecasting model is ineffective because it cannot dig down deeply into the fiscal data mine to unearth financial data complexities (i.e., it does not have data mining ability). [1] The everyday forecasting methodology cannot extract nonintuitive, complex patterns (relationships) among customer variables (e.g., demographics, and performance) *that predictively relate to controlling credit risk*.

The statistical forecasting model uses the once-regarded, major development in statistics – the *null hypothesis significance testing* (NHST) paradigm of *fitting the data* to a pre-specified model. Most recently, NHST is in a perplexing, troublesome academic hotly debate, questioning the logic of NHST itself. [2] The central and foundational part of the debate is that the underlying assumption of NHST is untenable, especially for today's big data.

In a sharply delineated contrast, the new *model-free* model paradigm is *the data defines the model*. Model-free models offer the potential of being more accurate and stable than the two-century old regression model (conceived, developed and experimented within the small-data setting of the day) without theoretical and practical burdens on the modeler. [3 (Q2 & Q3)] The latter point relates not only to the referenced questions, but the fact that model-free models have a prominent and distinctive *built-in data-mining capability*. While on the contrary, statistical forecasters are on their own when carrying out the necessary data mining from a list of homemade-programs, user-group open source programs, and third-party software. I compare and contrast the popular statistical forecasting model, and the not-yet popular, model-free GenIQ Model in a financial services case study. [4, 5]

References:

1. [Illustration of Financial Data Complexities](#)
2. [What If There Were No Significance Testing?](#)
3. [Predicting the Quality of Your Statistical Regression Models](#)
4. [Historical Notes On The Two Most Popular Prediction Models](#)
5. [What is the GenIQ Model?](#)