

Excerpt Only

Vendor Analysis: Moody's Analytics Model Validation Solutions, 2019



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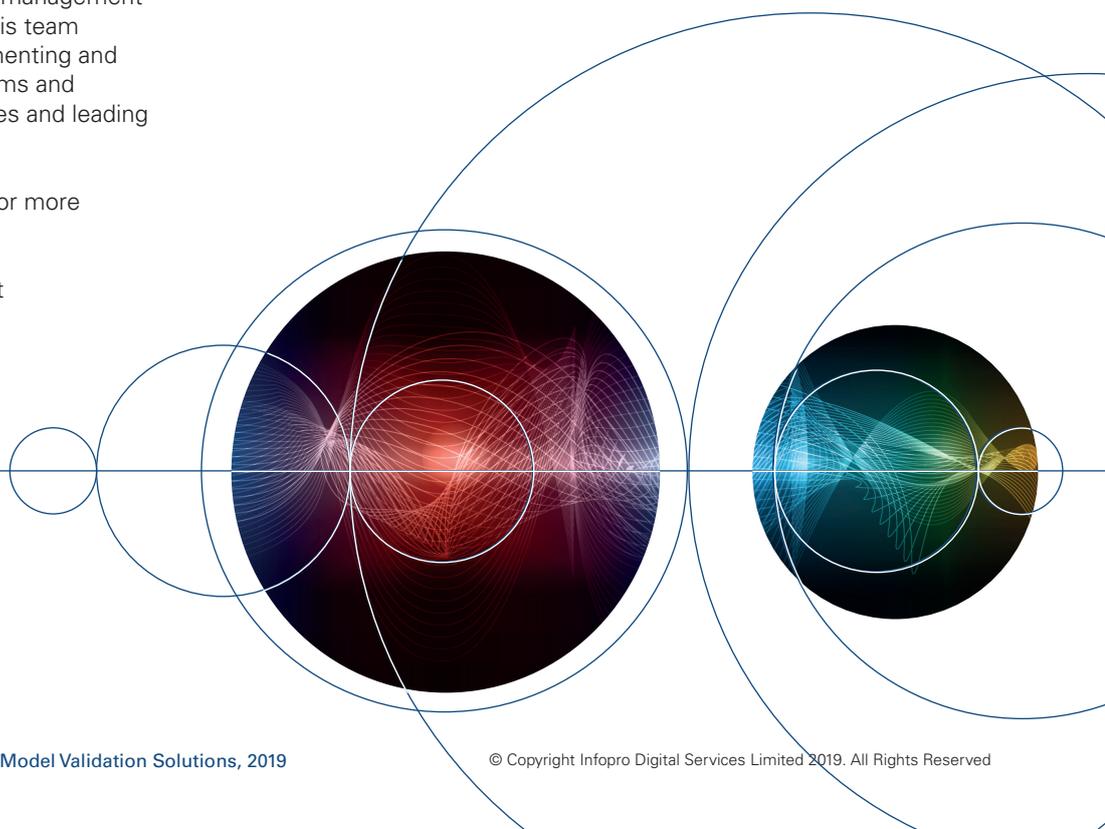
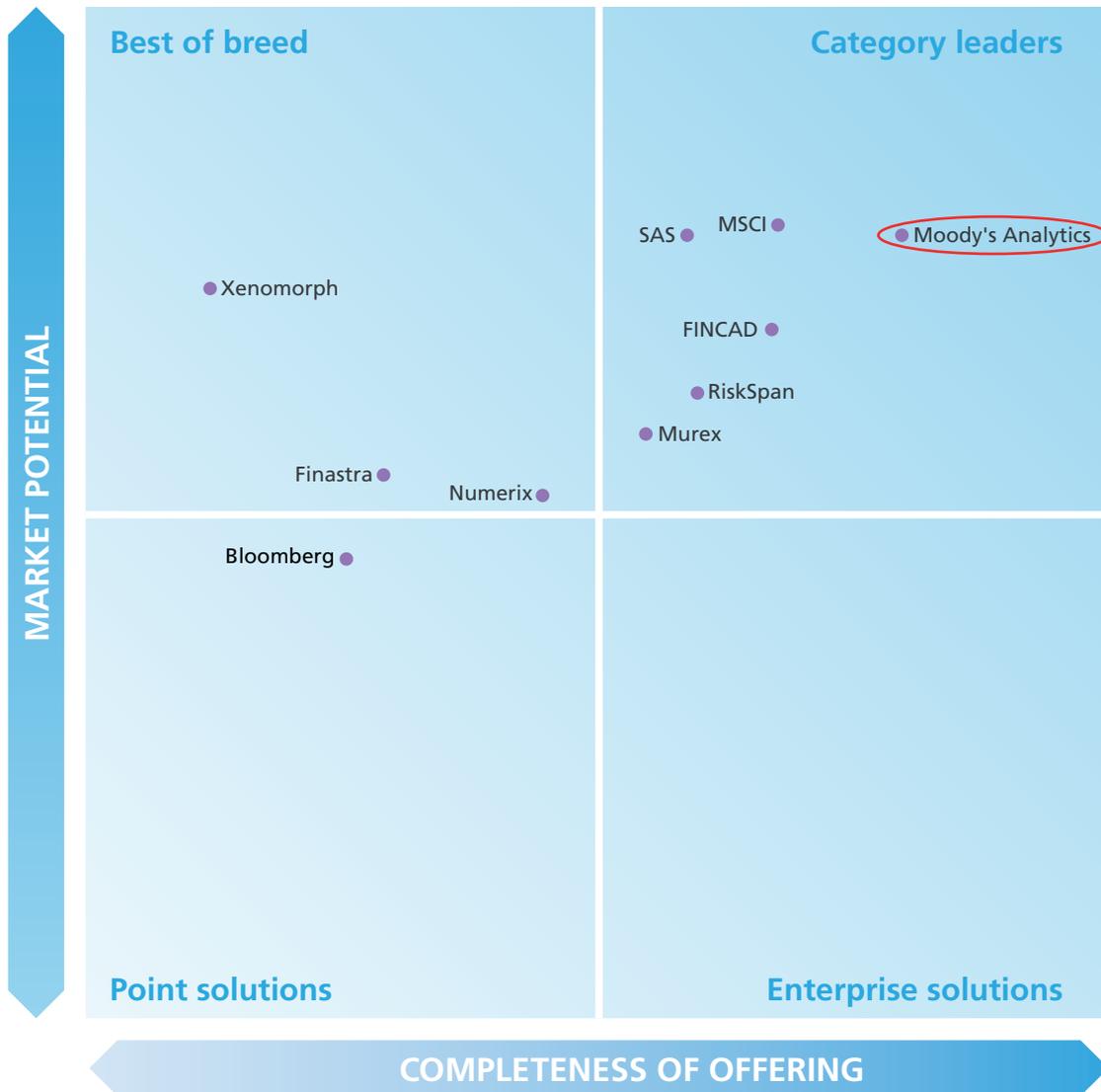


Figure 1: RiskTech Quadrant® for model validation solutions, 2019



Source: Chartis Research

Quadrant Dynamics

General Quadrant Takeaways

Providing model validation as a solution is a complex undertaking. Although the landscape is growing, the number of vendors that provide model validation as a discrete solution is still fairly limited. Befitting the introductory nature of Chartis' report *Model Validation Solutions, 2019: Overview and Market Landscape*, the functionality we scored was broad in scope. Certain functional aspects (such as workflow, for which several vendors received relatively low scores) can

be considered part of model governance, and were reflected in the scoring to highlight how validation functionality is integrated into more comprehensive, interconnected solutions.

All category leaders received medium to high scores for core aspects of their solutions, such as 'data input', which includes assessments of data validation, data provision and analytics. While category leaders generally scored relatively well across all functional categories, there tended to be one category in which they performed less well, and this varied by vendor. This emphasizes the challenges facing vendors in providing broad model

validation functionality, although few individual areas – except perhaps workflow – stood out as especially problematic.

Vendor positioning in context – completeness of offering

Moody’s Analytics achieved high scores across the completeness of offering categories, highlighting the comprehensiveness of its solution. The company specializes in credit and market risk validation, with solutions tailored to meet multiple regulatory demands. Its strength as a source of macroeconomic data in particular – which powers stress testing, scenario generation and benchmarking – contributed to its high score in model analytics.

Moody’s Analytics also received a high score for workflow, largely because it offers tailored approaches that can adapt to institution type and regulatory requirements. The vendor’s validation process is a mix of qualitative and quantitative techniques with a reporting and disclosure function. Model ratings are given to different parts of the validation process and remedial actions recommended, with results presented as customised interactive reports. The vendor’s remedial process is consistent with Chartis’ view of model validation as a continuous process, while its cloud-based modeling platform automates aspects of validation for real-time monitoring. Its predictable consequence tests, stability tests and scenario tests also contributed to the overall sophistication of its validation technique. Finally, the development of proxy models as a validation technique to highlight inaccuracies in native models helps to illustrate the sophistication of the solution, and contributed to the high score Moody’s Analytics received for model analytics.

Table 1 shows Chartis’ rankings for the vendor’s coverage against each of the completeness of offering criteria.

Vendor positioning in context – market potential

The high market potential score given to Moody’s Analytics is based largely on the size and satisfaction of its client base. Its high market penetration score reflected how it has leveraged its established model development presence in the areas of credit and market risk to support internal institutional validation as well as validation of its own models. The vendor caters to a variety of institution sizes and types, and can customize its solution accordingly.

Table 1: Completeness of offering – Moody’s Analytics (model validation solutions, 2019)

Completeness of offering criterion	Coverage
Data input	High
Model analytics/pricing	High
Results	High
Post-processing/reporting	High
Suitability	High
Workflow	High
Predictive capability = model sensitivity	High

Source: Chartis Research

Table 2: Market potential – Moody’s Analytics (model validation solutions, 2019)

Market potential criterion	Coverage
Customer satisfaction	High
Market penetration	High
Growth strategy	High
Financials	High

Source: Chartis Research

Moody’s Analytics also received a high score for growth strategy as it continues to develop validation techniques that are designed to offer functionality beyond servicing regulatory demand. In line with its ongoing expertise in macroeconomic forecasting, Moody’s Analytics has invested in specialized personnel, with international teams that include a number of economists. Finally, the vendor’s breadth of functionality informed its ‘comprehensive’ categorization, which Chartis has identified as fundamental to market potential.

Table 2 shows Chartis’ rankings for the vendor’s coverage against each of the market potential criteria.

3. Vendor context

Overview of relevant solutions/capabilities

Table 3 gives an overview of Moody’s Analytics and its model validation solution.

In today’s highly regulated financial environment, independent model validation is an integral component of model risk management. Poorly designed and functioning models can undermine otherwise solid financial reporting, underwriting performance, expected loss calculations, capital allocation, and strategic decision making. Regulatory guidance has placed more scrutiny on model validation and model risk management practices, fostering a company-wide view of models, the modeling process, and model governance practices.

The model validation and monitoring services offered by Moody’s Analytics are designed to deliver services for internally developed and third-party quantitative risk models. Validation is applied during the model development phase and ongoing monitoring phase. The vendor evaluates whether the chosen model delivers sound results and meets the requirements for which it was

designed, while helping users improve their governance process.

Moody’s Analytics aims to accommodate a range of user needs and portfolio classes and sizes, and its services are designed to match specific model complexities and model risk management programs (see Figure 2).

Main capabilities and key features

The model validation services that Moody’s Analytics provides for commercial credit risk cover the major concepts of model risk management, including validation, development/enhancement, governance and monitoring (see Figure 3). Users can employ a variety of capabilities, including data validation, model analytics and pricing, remediation, regulatory reporting and documentation, suitability assessments, and workflow, as well as predictive sensitivity testing, design and data review, theory and conceptual analysis, capabilities assessment, assumptions and limitations appraisal, calibration, benchmarking, workflow examination and risk reporting. For

Table 3: Moody’s Analytics – company information

Company	Moody’s Analytics
Headquarters	New York, New York, US
Other offices	San Francisco, West Chester, Toronto, Brussels, Paris, London, Singapore, Hong Kong, Tokyo
Description	Moody’s Analytics provides financial intelligence and analytical tools supported by risk expertise, information resources, and the application of new technology. Its solutions, made up of research, data, software and professional services, are assembled with the aim of delivering a seamless customer experience.
Solution	<p>Moody’s Analytics solution provides validation services for proprietary and third-party risk models. It contains the following:</p> <ul style="list-style-type: none"> • Moody’s Analytics Applicability Analysis solution. • Moody’s Analytics CAP* Solution for model life cycle and monitoring. • Moody’s Analytics custom validation services.

Source: Moody’s Analytics
 *Moody’s Analytics CAP is a trademark of Moody’s Analytics.