



ZS Associates use the NAG Library for data analysis when guiding hundreds of millions of dollars of marketing expenditure

[ZS Associates](#) are a leading consulting firm that help hundreds of clients, in over 70 countries, measurably improve the effectiveness of their sales and marketing efforts. For over seven years, they have been using numerical routines from the [NAG Library](#) to support their Market Research practice, focusing on the NAG Libraries random number generation, statistics, and interpolation chapters.

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Matthew Woodard
Product Development

The Challenge

ZS Associates have clients with hundreds of millions of dollars of marketing expenditure at stake. A vital element of their business process is to accurately target their marketing campaigns and assess their effectiveness. Software, with underlying accurate numerics, is key to this process. ZS Associates, being an organisation born from the principles of mathematical models, employ an in-house development team to create cutting edge software applications enabling fast and accurate analysis and reporting.

The information produced by the ZS Associates software applications enable their marketing consultants to understand and measure the advantages and disadvantages of alternative customer clustering and other segmentation techniques, which in turn help to improve sales effectiveness and set appropriate target priorities for planning. This enables ZS Associates to advise clients when making tactical and strategic choices for market segmentation, sales forces size and other market configurations in multiple geographies.

The Solution

Knowing that NAG have been the world experts at mathematical and statistical algorithm provision for over 4 decades, ZS Associates turned to NAG as the solution to their software's numeric capabilities. By including NAG's reliable and robust statistical routines, ZS Associates are confident that they provide a rigorous analysis of marketing campaigns and research. The application development task was made easier by making use of the NAG Library's highly detailed documentation and example code, allowing the team to focus their technical abilities on other important areas of their work.

The high quality of the routines means that ZS Associates can efficiently analyze the large amounts of information that is produced from numerous surveys and other data gathering activities. The embedded NAG routines underpin their applications and power analysis and results, day in and day out.

"I find that the NAG Library works very well for us", says Matthew Woodard a Group Product Development Lead with ZS Associates. "With very large amounts of data to analyze, the speed of the core analysis routines is critical to our success. The statistical routines in the [NAG C Library](#) have substantially exceeded original expectations, allowing us focus effort on the other parts of our application."

The NAG Library can be called from many programming environments and includes routines that are tuned for parallel and multicore computing. Chapters are continuously refreshed through constant contact with academic institutions for advances in numerical techniques.