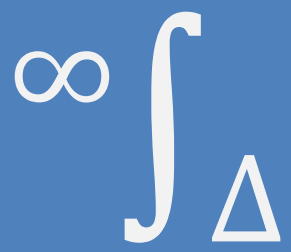


Understanding the Future

Daniel Research Group

Understanding the Future

A Practical Guide to Designing and Developing Context Specific Segmented Forecasts and Models for Technology Markets

The Nature of Technology Markets

August 2012

Chapter 1 - The Nature of Technology Markets

The ability to provide consistently useful and accurate forecasts that allow clients to identify and exploit market opportunities has a direct and lasting impact on client loyalty. Achieving a high level of performance requires understanding the challenges inherent in developing technology market forecasts and segmented models, and in adopting design principles and operational methodologies that address and overcome these obstacles. These challenges stem from the unique nature of technology markets. While not all technology markets exhibit each of these characteristics, most markets exhibit some of them.

Rapid Evolution and Disruptive Events **-** Rapid evolution and disruptive events are two of the most visible market characteristic, and clearly of high importance. These two paths to innovation lead to technology insertion that simultaneously satisfies exiting needs and creates new wants. This often happens in ways that significantly alter existing fundamental commercial or consumer economic relationships or processes.

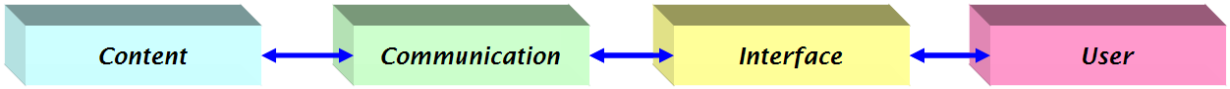
The implication of altered relationships is reflected through the single most important question a forecaster can ask: "***Is the process that created the past the same process that will create the future?***" Often the answer is "no" and accordingly requires the use of more nuanced and sophisticated forecast approaches.

Competitive Advantages Are Fleeting **-** The transitory nature of competitive advantages manifests itself in the extraordinary velocity of the technology vendor life cycle compared to other industries. It had been estimated that up to 90% of new technological product and services fail. Even large enterprises that attain virtual monopolistic status within their markets cannot sustain that position for any substantial length of time and rapidly are absorbed by new competitors or disappeared entirely.

Until recently this high rate of entry and exit, which manifested itself in comparatively few supplies or buyers in many niche markets, limited the level of granularity one could apply to supply side forecasts as well as the supporting primary research. However, recent developments have stimulated an increase in demand side forecast granularity. While historically demand side models were characterized by relatively few buying entities, the current migration of life management activities to technology enabled solutions (such as social networks and unified communications) now require the use of traditional large scale commercial and consumer primary research methodologies.

Increasing Complexity and Inter-dependence **-** Technology markets exhibit an evolutionary trend towards increased complexity. We see evidence of technology products and services being aggregate into complex offerings. These aggregated offerings are in turn dependent on enabling or prerequisite technologies, either in a supportive or collaborative relationship. Understanding these aggregations and dependencies is essential in defining exactly what market to model and forecast. Consider the following topological model of convergent technology:

Chart 1 - Topological Convergence



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Additionally, there are other forces influencing technology markets including economic trends and conditions, political and cultural influences and global demographic shifts. Taking these factors cumulatively, what at first appears as simple and straightforward may turn out to be quite complex and multifaceted. These characteristics impart a velocity of change to the technology market that requires an adaptive approach to modeling.

The Taxonomy Trap **-** Attempts to create models encapsulating the current topology of the market in a fixed taxonomy structure, and requiring the use of modeling techniques and methods dependent on that structure will fail for two reasons. First, the market will often rapidly make the underlying taxonomy structures obsolete. Secondly, a rigid methodology forces the Knowledge Analysts to alter the way they think about the market and to conform to its' limits and constraints; which ultimately inhibits the Knowledge Analysts' ability to impart informed intelligence to the model.

A structured, yet modular, approach to the design and development of a technology market forecast is recommended. One that accommodates both the **relevant market characteristics** and the **client context**, while adapting to the **Knowledge Analyst** worldview is the best practice.

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Daniel Research Group offers consulting and market research services to clients whose products and services are technology based or enabled. The primary focus is on providing results, solutions, consulting and training to clients that have strategic and tactical decisions that require Forecast, Segmentation, Market Share, and other market modeling requirements These engagements are supported with the full range of traditional market research data gathering and analysis services, including quantitative and qualitative surveys, focus groups, demographic and firmographic data acquisition and analysis, as well as input from technology and industry experts. While our emphasis is on delivering data and actionable recommendations, we often design and develop custom models and modeling tools for client use as well as providing training in these areas.

Stephen J. Daniel - President

Mr. Daniel's three decades in the Information Technology Industry has given him a unique blend of Market and Technology experience coupled with a deep understanding of Market Research Methodology. His primary strength is in understanding the decision making context within which the results of his research will be applied. This is manifested by his ability to design and execute studies that precisely meet client objectives on schedule at reasonable costs.

After receiving his BS in Finance in 1970 from Northeastern University, Mr. Daniel earned an MBA in Quantitative Analysis from New York University in 1974. He is a member of the American Statistical Association, The Market Research Association of America, the American Marketing Association and the Qualitative Research Association of America.

Daniel Research Group is a market research firm specializing in the design, development and application of market models and forecasts for clients in the technology sector including supplier, investors, and other market research firms. For more information contact Steve@DanielRG.com or visit www.DanielResearchGroup.com.