



MARKETING STRATEGY COLLECTION

Naresh Malhotra, *Editor*

Market Sensing Today

Melvin Prince

Constantinos-Vasilios Priporas



BUSINESS EXPERT PRESS

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Melvin Prince and
Constantinos-Vasilios Priporas



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Abstract

The concept and framework of market sensing was introduced by George Day more than 20 years ago into the strategic marketing literature and especially the philosophy of the market-driven organization. Market sensing can be considered an expression of a company's capabilities to scan the external environment. It does this by using real time data and intelligence to understand business or uncertain changes, to meet the current and future needs of the market, increase customer value, and outperform competitors. Market sensing enables managers to resist complacency, as well as to exploit opportunities and to design appropriate competitive strategies in order to remain successful in today's uncertain, rapidly changing, and hypercompetitive market. The present volume, *Market Sensing Today*, is essential reading in the marketing discipline, given the rapidly escalating innovative developments in market sensing techniques. This book of essays by acknowledged experts in the field fills an important knowledge gap and provides a realistic basis for strategy. It is replete with real-life examples of market sensing that illustrate actionable ideas for immediate impact that will improve organizational learning and accelerate growth. This book of contemporary tested and comprehensive concepts and methods grounded in diverse and rich experience is intended to stimulate creativity and insightful approaches for educators offering courses in strategy as well as for practitioners involved in crucial strategic decision making.

Keywords

competitive analysis, competitive intelligence systems, dissemination, emotions, imagination, information, market assessment, market capabilities, market sensing, mind genomics, new technology, unstructured big data, unstructured market sensing, ZMET

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Preface

The editors, Melvin Prince and Constantinos-Vasilios Priporas, have assembled a timely collection of the latest thinking on market sensing. It is timely because the ability to glean market insights ahead of rivals is increasingly important to strategy making, while much more difficult to do because of the avalanche of data unleashed by digital technologies. Fortunately, a firm only has to make sense of its markets faster than its rivals to gain a sustainable advantage.

The theory of market sensing was first put forth more than 20 years ago, and as this volume attests, it has come a long way. My thinking has also deepened and expanded in the past 20 years, through the concepts of outside-in thinking and peripheral vision. Both these extensions are deeply rooted in the core market sensing process of sensing, sense-making, disseminating, and taking collective action.

Outside-in Strategic Thinking

The essence of this approach to strategic thinking is for management to stand in the shoes of the consumer (as well as the channel partner and competitor) and assess the firm's offerings and value proposition. This has the advantage of scanning more widely and asking why consumers don't choose us? Or how are their needs changing? The concept was recently captured by Jeff Bezos when he said, "...rather than ask what we are good at ... you ask who are our customers? What else do they need? And then you say we are going to give that to them regardless of whether we have the skills to do so ..."

An outside-in approach to strategy will not necessarily lead to a superior customer value proposition or outstanding economic profits unless it is guided by deep market insights. It is not sufficient to simply view the firm from the vantage point of the market. It takes smart investments in market intelligence and an organization-wide commitment to sensing and acting on the resulting market insights.

Within inside-out companies, market data usually reside in reports of competitors' moves, unrelated compilations of market research reports, and the occasional analysis of activity in the customer database. But data are not knowledge or insight! Valuable market insights are based on much deeper knowledge that reveals patterns and identifies opportunities. Market insights are the difference between simply observing market trends and probing further to explain and exploit those trends.

Casella Wines saw the same trends in the wine market as its rivals did. Its deep dive underneath these trends uncovered a large nonconsumption market that was turned off by the myriad of confusing choices, the haughty nature of the category, and the dense vocabulary. Its answer was the Yellow Tail brand, with a simple fruity taste, few choices, no vintages, and an endearing kangaroo symbol, which it parlayed into the most popular imported wine in the United States.

Peripheral Vision

The periphery—that *fuzzy zone* at the edges of your organization's focus—is where early signals of both threats and opportunities can first be sensed. Unfortunately, most organizations focus narrowly on their immediate environment—a complicated landscape of markets, customers, competitors, regulations, technology, and stakeholders. Although such unwavering attention can benefit short-term performance, it often comes at the expense of missing subtle signals about changes that could threaten the organization's long-term survival.

Successful peripheral vision—in monitoring other industries, remote markets, new research, and tangential data—entails much more than sensing incipient change. It is also about knowing where to look for clues, how to interpret weak signals, and how to act when the signals are still ambiguous.

Truly vigilant organizations are able to *mind* a broad periphery and *mine* the weak signals that emerge for relevance and meaning. Whereas *minding* requires divergent attention across many areas of the organization, *mining* requires a strong convergent focus on a few salient parts of the periphery, plus the capacity to act on ensuing insights ahead of rivals.

Wider scanning also increases the amount of “noise” received, broadening the gap between the amount of information received, and the organization’s capacity to absorb and interpret it. One of the most serious challenges to paying increased attention to the periphery is the overload of information that results. Unique information per person is growing at over 50 percent per year. Estimates are that around 70 percent of the new information is being created by individuals and not necessarily published; it may exist on private intranets, hard drives or even in e-mail communications—also known as the “deep web”.

This flood of information runs up against the barrier of our limited ability to process it. Humans are limited by our brain’s processing and storage capacities, estimated to be only around 200 megabytes of temporary storage. The human bottleneck can be only partly overcome through technology and collective effort. Interpretation is improving only modestly in spite of the aid of technology such as advances in data analysis tools, storage and retrieval technologies, and decision aids including visualization and artificial intelligence. Most intelligent information consumption and interpretation still requires a *human in the loop*.

Summary Thoughts

Firms shouldn’t count on insights emerging organically. Instead, insights must be actively sought, shared, and acted on with a disciplined market sensing capability. This capability is realized through a process of market sensing, sense making, and sharing, acting, and evaluation. This is a learning process aided by technology, in which continuous exercise builds new layers of insight.

George S. Day

Acknowledgments

Melvin Prince: I must convey my sincere thanks to the series editor Naresh Malhotra. Fortunately, his creative marketing imagination and intense passion for intellectual innovation inspired this timely and authoritative volume. His observations and guidance at the very outset substantially enhanced the work. We have aimed to exceed expectations of excellence expected by this illustrious series editor.

Our heartfelt appreciation must be expressed to George S. Day, the originator of the market sensing concept and its application to marketing strategy. As a prodigious author and influential marketing scholar he has graced this book with his insightful and informed preface.

Special thanks are extended to the invisible college of experts who contributed most authoritative book chapters. They are not only world-renowned first rank scholars and consultants, but are masterful writers. We salute their generosity in sharing their specialized knowledge of market sensing. Business Expert Press has been generous and most supportive. We appreciate their advice in the preparation and submission of the manuscript. Once again we have had a remarkably positive and smooth experience in the book editing and production process.

My boundless appreciation goes to my loving wife Sheila. As in the past, she has been my constant partner in pursuing this work, and an invaluable source of endless and joyous inspiration. Her counsel in framing the work, promoting the book concept, securing contributors, arranging milestones for the manuscript, and numerous other details made a huge difference in the quality of the outcome.

Constantinos-Vasilios Priporas: I would like to thank my parents Martha and Athanasios, my uncle Emeritus Professor Christos Kamenidis, my cousin Professor Irene Kamenidou for their love, encouragement, and support during my student and academic life. Also, I would like to extend my gratitude to Professor Melvin Prince for giving me the opportunity to work with him in this learning trip.

About the Editors

Melvin Prince (PhD, Columbia University) is a professor of marketing at Southern Connecticut State University. He teaches graduate courses in marketing research, consumer behavior, and advertising. Past academic appointments include teaching and research positions at Brandeis University, Fordham University, Pace, Iona College, and Quinnipiac University. Dr. Prince is also President of Prince Associates and provides analytic counsel to research companies and their clients. He spearheaded the research and development of the instant coupon machine, a breakthrough in-store promotional device. His previous industry experience includes marketing research directorships at advertising agencies, manufacturing companies, and the media. He worked in this capacity for BBDO and Marsteller agencies, National Brand Scanning, J. B. Williams and Scholastic Magazines. He is a member of the American Marketing Association, American Statistical Association, Association for Consumer Research, and the Society for Consumer Psychology, a division of the American Psychological Association. He has delivered addresses before the Advertising Research Foundation, the Association of National Advertisers, and the Market Research Council. He has written six books, including *Consumer Research for Management Decisions*. His articles have previously appeared in such journals as *Journal of Business Venturing*, *Journal of Economic Psychology*, *Business Horizons*, *Business Strategy Review*, *Journal of Advertising*, and *Journal of Advertising Research*.

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About the Book

The concept and framework of market sensing was introduced by George Day more than 20 years ago into the strategic marketing literature and especially the philosophy of the market-driven organization. Market sensing can be considered an expression of a company's capabilities to scan the external environment. It does this by using real-time data and intelligence to understand business or uncertain changes, to meet the current and future needs of the market, increase customer value, and outperform competitors.

Market sensing enables managers to resist complacency, as well as to exploit opportunities and to design appropriate competitive strategies in order to remain successful in today's uncertain, rapidly changing and hypercompetitive market. The present volume, *Market Sensing Today*, is essential reading in the marketing discipline, given the rapidly escalating innovative developments in market sensing techniques. The framework is invaluable to companies that wish to develop innovative strategies which capitalize on customers and brands as assets, grow revenue, profit, and shareholder value.

This book of essays by acknowledged experts in the field fills an important knowledge gap and provides a realistic basis for strategy. It is replete with real-life examples of market sensing that illustrate actionable ideas for immediate impact that will improve organizational learning and accelerate growth. This book of contemporary tested and comprehensive concepts and methods grounded in diverse and rich experience is intended to stimulate creativity and insightful approaches for educators offering courses in strategy as well as for practitioners involved in crucial strategic decision making.

Introduction

Uses of Market Sensing Today

The need has never been greater to optimize market sensing to generate managerial actions that efficiently and effectively use the knowledge of emerging consumer needs and competitive threats.

Market Sensing Today provides the reader with a modern overview of market sensing, its value for developing competitive strategies, understanding customer markets and generating customer insights, explanation of new technologies and techniques for market sensing, and provision of an international perspective on market sensing.

Market Sensing Today contains a rich source of ideas for developing relevant market-driven and market driving strategies. It analyzes methods and substantive approaches to market sensing—in considerable depth. It shows the reader how to reformulate traditional marketing intelligence frameworks that are slated for obsolescence. In essence, the book *Market Sensing Today* provides practitioners and scholars with integrated, in-depth knowledge of this emerging field of study, as well as authoritative answers to the following questions:

- What advantages does market sensing provide for market selection?
- How does it help decision making with respect to product differentiation?
- How can it be used to improve the choice of communication and distribution channels?
- What is the value of market sensing when managers are faced with decisions about the scale and scope of support activities?
- How can we reliably discern future areas of growth by means of market sensing?

This timely book address key issues in market sensing, and aims to advance theory, research, and practice based on latest developments in this vital field. Contributions, theoretical and empirical, range from chapters that link market sensing to value and strategy analyses, or advance new theories and research into market sensing that relates the concept's utility to such subtopics as competitive pricing, adaptive planning, joint marketing alliances, customer satisfaction, market segmentation, and product innovation.

The opening chapter by Prince and Priporas deals with the continuities of market sensing and how they can be integrated in a firm's strategy and culture in today's turbulent and fast changing global business environment.

Chapter 2 by Mutum, Nguyen, and Melewar introduces a competitive analysis framework from a market sensing perspective based on Porter's five forces model.

Chapter 3 by Lam addresses the role of competitive intelligence as a useful market sensing tool for executives to make informed and sound business decisions.

Chapter 4 by Wind and Schiavone discusses the unstructured market sensing and its implications.

Chapter 5 by Forr, Creedy, and Plummer illustrates the usefulness of ZMET, a qualitative research approach, as a strategic tool in the market sensing context by exploring a specific industry as a case.

Chapter 6 by Roy describes the role and usage of google analytics in market sensing.

Chapter 7 by Gabay, Kochman, and Moskowitz discusses how mind genomics can be a new way of market sensing, by providing illustrations from health cases

The concluding chapter by Barabba focuses on market sensing lessons learned from real world business situations.

Market Sensing Today is written for people associated with the marketing process, in one manner or another. The book is designed for educators and their students, marketing consultants and professionals, as well as managers. In sum, it appeals to individuals and organizations with an interest in guidance about means of crafting powerful and efficient programs that are specific to the market sensing process.

In essence, the ideas within *Market Sensing Today* provide practitioners and scholars with integrated, in-depth knowledge, and creative approaches to this enduring field of study, as well as authoritative answers to problems of market selection, product differentiation, communications and distribution decisions, support activities, and growth projections.

CHAPTER 1

Continuities in Market Sensing Theory

Melvin Prince^a and
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Introduction

Every business acquires capabilities that enable it to carry out the activities required to successfully move its products or services through the value chain. Some capabilities will be adequate, and others will be poor, but a few must be superior if the business is to outperform the competition.

Market sensing is one such capability. It is essentially the capability of the organization to sense changes in its market, as well as to forecast and monitor responses accurately to its marketing actions. More broadly speaking, market sensing capability refers to a firm's ability to acquire and use market information that can be obtained through formal and informal mechanisms. According to Hou,¹ market sensing capability is a company's ability to sense the needs of its customers and market developments better than its competitors. Generally, market sensing capabilities are critical in developing market focus and thus, ultimately, company performance.²

Recent years have seen the appearance of a voluminous marketing literature which bears on one or another aspect of market sensing. Increasingly market sensing is based on sophisticated approaches for assessing

business performance, market scanning, and consumer insights. This sophistication enables the original conception of market sensing to be clarified and extended.

The aim of this chapter is to explore continuities in market sensing and best practices for contemporary business information and strategic needs. As noted by one contemporary researcher:³

Sensing involves a spirit of open-minded inquiry, analyzing rivals' actions, listening to front-line workers, seeking out latent needs, scanning the periphery of markets, and encouraging experimentation. Sense making is understood as the clarifying, sorting, and simplifying of market information into coherent patterns.

Market sensing enables business to learn about customers, competitors, and channel members, with the purpose of acting on events and trends in the market. This process is market driven and its focus is on learning about present and prospective customers and competitors, as well as external organizational resources and environmental factors that can affect a company's business. Market driven orientation is a specialized driver of market sensing. Market driving seeks to change industry segmentation, educate customers, and provide offerings that exceed their expectations. Thus, the focus of the market-driven orientation is on influencing the market, rather than simply adjusting and reacting to changing market forces. Market sensing, together with changing customer preferences, alliance formation, and local sensitivity are each elements of market driving orientation.⁴

Today, important applications of market sensing include increasingly complex issues of market selection, monitoring competition, product differentiation, determination of communication and distribution channels, new product decisions, resource allocation, determining customer value, and collecting customer feedback.

Learning is an essential part of market sensing capability. Thus, we may conceptualize market sensing as an organizational learning capability to advance strategic marketing by learning about customers, competitors, and channel members. Strategic market sensing outcomes involve acting on conditions, events, and trends in markets. Organizational learning capability is a multidimensional construct. The dimensions are learning

flows and knowledge stocks. Learning flows consist of exploration and exploitation of knowledge. Exploration flows occur when new knowledge is generated and integrated.

Exploitation flows take and transmit past organization knowledge within and between units of the organization. Knowledge stocks include all that needs to be known, or is currently known within the organization. Such knowledge embodies cognition or action that is knowledge based. Knowledge stocks exist at several levels: individual, group, and organization.⁵ Learning flows result in new knowledge and new ways of generating knowledge, and enhancing market sense making.

The first subprocess of market sensing, is sensing, itself. Sensing refers to the observation and generation of information on customers, competitors, and other channel members.⁶ This improves chances of making effective choices of communication and distribution channels. The second subprocess of market sensing is sense making. Sense making refers to the intelligent interpretation of market information in the context of past experience and knowledge. The third subprocess, response, refers to utilization of available and interpreted information in decision-making and marketing action.

Market Sensing Today

The scope of market sensing today continues to consist of organizational perspectives on market sensing, market sensing and market assessment, as well as market sensing and marketing response. However, developments in the global competitive business environment, proliferation of new products, technological changes in communications and buying behavior, and consumer value shifts have increasingly attracted the attention of marketing theorists and researchers to the area of market sensing. This is summarized in Figure 1.1 and in the exhibit *A Paradigm of Market Sensing* available in the Appendix.

Organizational Perspectives on Market Sensing

Sense making is understood as the clarifying, sorting, and simplifying of market information into coherent patterns. Foley and Fahy⁷ explored factors that explain differences among firms in their abilities to anticipate

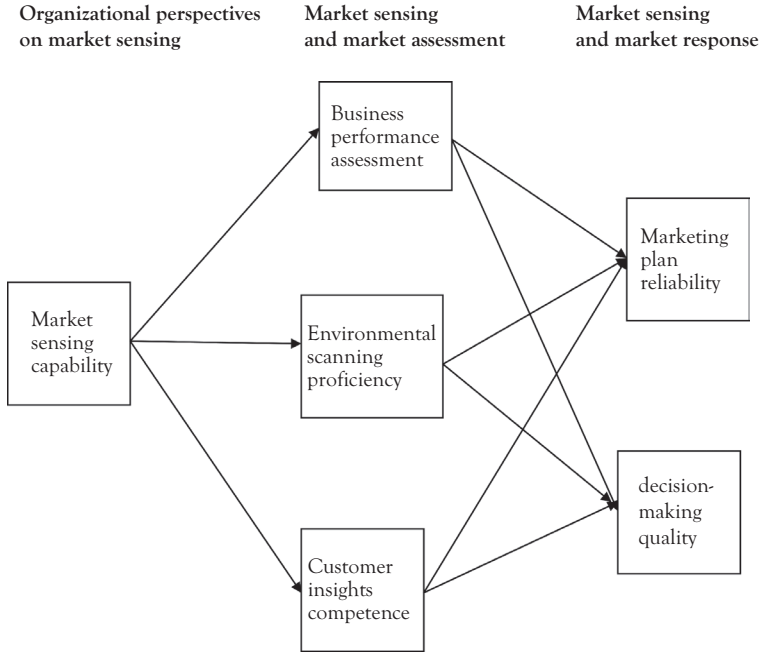


Figure 1.1 A model of market sensing and market assessment

how their markets will respond to marketing actions. These differentiating factors are (a) learning orientation, for example, commitment to learning; (b) organization system, for example, decentralization; (c) marketing information, for example, collective memory; and (d) organizational communication, for example, supportive norms and values. Learning orientation includes a commitment to learning. In order to sense the market, companies have also adopted various methodologies and procedures so that they may be able to better grasp critical information about the market.⁸ These include:

- a. Open minded inquiry;
- b. Information distribution and willingness to use the available information;
- c. Mutually informed interpretation; and
- d. Ability to access information from past memory.

Sense making activity follows from market focused learning capabilities, that is, knowledge acquisition, knowledge dissemination, integration of waves of acquired knowledge, and actively undertaking unlearning. Market focused learning involves learning about both customer needs and competitor activities. An important factor affecting market focused learning capability is a firm's entrepreneurial intensity or ability to be innovative, proactive, and take a risk-seeking posture. Companies possessing superior learning capabilities are more likely to also possess excellent marketing capabilities.⁹

Individuals in specific functional areas in departments of a firm, generate knowledge that, in principle, may be used guide decision making of others elsewhere in the firm. However, information distribution within a company may be problematic. As Day¹⁰ has stated:

Most organizations don't know what they don't know. They may have good systems for storing and locating "hard" routine accounting and sales data, but otherwise have problems finding where a certain piece of data is known within the organization or assembling all the needed pieces in one place. Once the raw data has been organized so that useful information is revealed, the challenge is getting it to those who need it. The enemy of information distribution is the organizational chimneys or silos that bottle up the information vertically within functions.

Additionally, dissemination of information may be hampered by conflict or a lack of connectedness between different departments. Departments may reject or be indifferent to information or ideas emanating from other departments.¹¹

As an example of how this process should work, one small food processing company was equipped with the internal capability to process information obtained from a continuous data flow from outside the organization. Company staffers suspended personal opinions and were guided primarily by current observations from clients and reports of market trends. As a result, they obtained clear insights into customer needs, technological innovations, competitor capabilities, and other environmental

developments. These insights were integrated and used for strategic decisions for marshaling resources, as well as for the improvement of product lines.

In the context of decision-planning process, the Time Block Activity Matrix was developed by Vassiliadis, Priporas, and Andronikidis¹² as a strategic tool for structuring decision making in tourism management. This administrative tool recognizes functional changes each day that could have a positive impact on resource allocation management (i.e., additional staff in crowded time periods or days) and customer satisfaction (i.e., improved service).

Some organizations have installed knowledge management systems across different areas of the firm. Such systems link multiple disparate databases and provide decision support tools. Additionally, companies will facilitate direct informal and formal communication of market sensed information and understanding between functional department managers via e-mails, chats, and conference calls.

Willingness to use the available information by other employees depends on the perceived reliability and usefulness of the information. That willingness also depends on user trust of information sources, which is very important. Additionally, direct informal and formal communication (e-mails, chats, and conference calls) between the originator and the user of the information helps significantly. Informal communication is more open and interactive. But formal communication is more credible and verifiable.

Market Sensing and Market Assessment

Companies use market sensing in order to understand their markets and improve marketplace performance. They need to know their competitive position and alternatives for creating and capitalizing on advantages of its offerings. Market sensing helps to determine brand equity and brand imagery profiles of market competitors. It reveals the manner by which a company's products may be differentiated from others in the category. Research on business economic performance suggests relevant market sensing variables. Data sources and mode of performance assessment need to be taken into account. Market sensing needs to be complex: information

based on both internal and external sources, and assessments that are objective as well as judgmental. Companies may be typed by their sensing approaches to business performance. For example, they may concentrate on readily available data, avoid metrics entirely, examine every kind of metric, emphasize metrics predictive of growth, or metrics that measure short-term performance.¹³

Businesses sense and scan their environments, in order to identify new opportunities and threats. Companies must adapt to environmental changes in order to survive and compete. They need to discover new market developments information and be cognizant of information decay. Information from market sensing must be captured and relayed promptly and efficiently to decision makers. A scanning model framework describes scanning activity by the scanning activity media, the scope of scanning, scanning motivation, temporal aspects, and the organizational structure responsible for scanning.¹⁴ A prime illustration of the use of market sensing for generating new marketing directions is the Best Buy case, presented later.

In searching for new ideas, Best Buy attended to experiences of employees and customers. Connectivity as a strategy emerged from listening at Best Buy. Remodeling of Best Buy stores takes into account the consumer impression of connectivity between products sold in different departments, such as television and computers. This orients consumers as they search the store for products of interest. It also brings new information about products connected to those of initial salience.

Additionally Best Buy extends its listening activities to relevant consumer conversations in social media. Higher level executives regularly engage with Best Buy customers through a blog on the store's web page. Best Buy sales employees are encouraged to obtain feedback on wants and needs of specific types of customers. Feedback data provide impressions of lifestyle patterns associated with different customer segments. This information is disseminated to purchasing officers who specialize in servicing particular customer segments. The intelligence is channeled for new service offerings and new product business model development.¹⁵

As we are seeing, businesses need market sensing capabilities to monitor customer feedback. Customer satisfaction assessment, in particular, is crucial for developing and implementing strategies for retaining customers,

turning customers into brand advocates. In addition to customer satisfaction surveys, customer satisfaction assessments include engaging in market sensing sessions with customers. Then sensing may also extend to tapping into experiences of front line sales people who are in a position to tell you how customers are responding to company's products and generate ideas for product improvements. Furthermore, they are considered to be an ideal resource for gathering information and intelligence on competitors (i.e., products, prices) through their interaction with the customers.¹⁶

Salient consumer insights concepts useful in market sensing involve need recognition, reference groups, consumer decision making, and consumer information processing.¹⁷ Industries also have characteristic modes of market sensing. As a case in point, a retail organization making store location and merchandise selection decisions may utilize an information mix of formal customer survey research and internally generated data transaction trends, and item return information.

Market Sensing and Market Response

Market planning and marketing decision making are two facets of market response from the organization's perspective. Market sensing and sense making are important determinants of each of these facets.

Market planning frequently involves market sensing, based on econometric forecasts, complemented by discussion with knowledgeable persons about the industry. Plans involve defining the market by market segmentation research. Once markets are defined, planning involving market sensing extends to determining segments of interest. The key characteristics for effective market segments are:¹⁸

- *Measurable*: Can the size, growth, and market potential be measured?
- *Substantial*: Can the particular segment be large enough to be profitable?
- *Accessible*: Can the segment be clearly identified and successfully reached?
- *Actionable*: Can effective marketing programs be formulated to serve the segment?

- *Differentiable*: Can the segments be distinguished and respond in a different way to marketing programs directed at them?
- *Stable*: Can the segments be stable over time in terms of composition or behavior?

Plans reassess current strategies, including those of competitors: Market strategy must be understood with respect to (a) selected target markets and (b) positioning of its market offerings. Michael Porter's¹⁹ framework, applied in the context of market sensing, is effective for every company to monitor the competition and it is widely practiced by every major company. Porter and Millar²⁰ highlighted the significance of utilizing *information* for competitive advantage and argued that new information flows greatly enhance an organization's ability to exploit both internal and external linkages. Firms must begin to view information as a platform for offensive actions that may be taken against them by competitors.

Market sensing is most necessary in market planning but to be effective it needs to be integrated with analytical sophistication and formalization of market planning techniques. In essence, strong reliance must be placed on analytical techniques (e.g., computer based modeling, and portfolio analysis), market analysis (market share and market segmentation analyses), and plan components (e.g., marketing strategies and tactics). Additionally, to maximize the planning value of market sensing, an organization must overcome behavioral barriers to planning. Examples of such barriers are: planning recalcitrance, politics and myopia, alienation and uncertainty, planning avoidance, and *squirm* tactics, that is, evasion of personal responsibility for planning.²¹ An example of market response to market sensing may be found in the Dick's Sporting Goods case.

After listening to customer feedback, Dick's Sporting Goods has set up a range of support services for the benefit of its customers. The company now offers a complete range of expert golf services, including custom club fitting, club repair, and grip and shaft installation for drivers, irons, and putters. In order to provide expert advice to its customers, they employ active members of Professional Golfers Association of America at its stores. These stores also feature bicycle maintenance and repair stations on the sales floor allowing bicycle mechanics to service bicycles while sales people are assisting customers. These maintenance and repair stations are

some of the effective selling tools of the company. They improve the credibility of the specialty store concept and support and reassure its customers with effective servicing of bicycles they purchase. Also, the stores offer several other support services which include stringing tennis racquets and lacrosse sticks, sharpening ice skates, and home delivery and assembly of fitness equipment.²²

Market sensing may be associated with extensive data collection and analysis efforts. Procedurally rational decisions, which optimize marketing decisions, involve access to information and its analysis. Investments in market sensing are generally motivated and legitimated by pursuit of organizational goals. Relatively complete information and knowledge of constraints through market sensing lead to more accurate perceptions of environmental conditions.²³

Market Sensing and Market Action

Initially, market sensing may not provide enough specific information for appropriate market action. Despite this situation, companies may read more into available information than can be justified in hindsight. Much of market sensing at the outset may be merely surface information about the market. Additional market sensing may be required to get beneath the surface. Information from a company's archives will sometimes provide the closure needed for effective decision making.

Information culled from market sensing may help generate insights about past marketing decisions—but result in no future strategies or actions or consequences. Alternatively, when market sensing does lead to market action, it may be overly restricted to aspects of the marketing mix for individual products, as opposed to product portfolios.

The company culture should be compatible with market sensing activity. In too many instances the company culture limits marketing creativity, based on norms that reinforce traditional marketing styles. These companies may well be poor market listeners, acting only on what they may have heard, and oblivious to other important information to which they have been exposed.

Practitioners with many years of experience such as Moskowitz, Batalvi, Rappaport, and Lieberman²⁴ assert that only very few companies

have a sensing culture. The reason is that many companies have a small group of individuals responsible for sensing, but they are often removed from this task and, when they are involved, often just provide secondary inputs. Market sensing in any organization should be an organized function and should be part of everyone's job description. Everybody should know how to do sensing and what to do with the information that is sensed.

Market Sensing for New Unmet Consumer Needs

Identifying and understanding unmet customer needs represents new profitable opportunities for organizations, especially for those that are the first ones to market.²⁵ However this is a complex task since in a market-driven market context, organizations may have large, diverse customer bases who decide on product or service functionality.²⁶ Additionally, company information requirements entail a deepening of cross-national market sensing capacities. Organizations conduct business across the world using multiple strategies to meet the needs of new consumers.²⁷ An example can be the consumers of the large and fast growing BRIC markets (Brazil, Russia, India, and China) where the demand for luxury brands is phenomenal and more needs must be met since the projection on economic activities and development seems to be very positive.²⁸

Contemporary market sensing operations for new unmet consumer needs, often call for an in-depth psychological understanding of market segments. Traditional modes of market sensing are very likely to mislead or simply to fail in this aspect of market sensing. Specialized information-generating tools in the hands of specialists are critical for effective marketing outcomes. Unconventional mixed methods of market sensing may be called for in such cases, as well.

Market Sensing for Gaining Resources

Identification of opportunities to enter into alliances or manage them is another application of market sensing. This is a relatively new concept in the process of gaining resources.²⁹ Potential partners bearing needed resources and competencies are sought through market sensing. Thus,

organizational sensing is focused on assessing the value of current and potential alliance partners.

Revisiting Market Sensing and Market Action

Market sensing information must first be fully understood. Then it must be disseminated and discussed by functional areas involved. Information must be further processed in the context of practical difficulties and expected returns to initial strategies. Finally, resource considerations should be fully taken into account, and objective cost-benefit considerations should precede decisions leading to market actions.

Managerial Implications

Day³⁰ points out that there is a widening gap between the accelerating complexity of the markets and the capacity of majority of the organizations to comprehend and cope with this complexity. Moreover, market sensing is a continuous effort³¹ and it is vital for every organization, regardless of the sector that operates; in order to survive and grow it needs not only to *listen to the voice of the market*³² but also to adjust to market signals to make sound decisions. Organizations must pay attention to four directions in order to optimize marketing sensing and decision making: (1) the emergencies of marketing problems (i.e., identification of emerging problems in the environment, trends, and competition); (2) connection between marketing and recommendation (i.e., proper use and utilization of information, and judgment expertise); (3) implementation of marketing programs and marketing sensing (i.e., programs proceed as they have been designed, followed by evaluation of programs); (4) organization assessment of its own market sensing process (i.e., usage of the information and the resources). By doing that, firms can increase their understanding and knowledge of the market and they will be in a position to serve better their underserved markets and their existing customers.³³ Wirtz, Tuzovic, and Kuppelwieser³⁴ looking at market sensing from the marketing perspective point out that “without market-sensing capabilities, marketing departments are less likely to develop marketing strategies and activities that generate profitable growth.”

Conclusion

Market sensing today involves an increasing range and complexity of information sources. For example, data mines are combined with attitude research, crowdsourcing, metaphor elicitation, applied neuroscience, radio frequency identification (RFID) technology, social media listening, mobile phone tracking, and web analytics. These resources were unknown when the concept of market sensing was conceived at the turn of the century. The pace of technological change affecting markets is ever increasing.

Consequently, organizing and planning for market sensing and sense making has never been more intense. Today, firms operate in a rapidly changing business environment which is ultracompetitive, unstable, and highly digital and networked where changes are triggered continuously and thus new customers are hard to secure. Furthermore, most economic sectors are in the mature or saturation phase of their life cycle. Therefore, for firms to survive, it is imperative to seek novel strategies to respond quickly to the changes and challenges. In other words, firms must have first rate market sensing capabilities. Bharadwaj and Dong³⁵ suggest that market sensing could operate as a core competence and in this manner can be the basis for differential advantage. Thus, it is critical for a company culture to support trust, and open communications, to enhance the flow of quick and efficient information sharing about customers, target markets, competitors, and the like. Without such a culture, it does not matter how much data can be gleaned.

APPENDIX

A Paradigm of Market Sensing

Organizational Perspectives on Market Sensing

- Market sensing capability
 - Organizational learning
 - Information quality
 - Information dissemination
 - Organization structure and function

Market Sensing and Market Assessment

- Business performance
 - Competitive advantage
 - Brand equity assessment
 - Product differentiation
- Environmental scanning
 - Market opportunities and threats
 - Market adaptation
 - Timeliness of market information
- Customer feedback
 - Consumer satisfaction
 - Consumer attitudes and usage

Market Sensing and Marketing Response

- Market planning
 - Market forecasts
 - Market segmentation and positioning
 - Channel selection
 - Budgetary support
- Decision making
 - Data needs
 - Marketing mix
 - New products
 - New markets

Notes

1. Hou (2008).
2. Day (1994).
3. Mason (2012, 406).
4. Van Vuren and Worgotter (2013).
5. Prieto and Revilla (2006).
6. Lindblom et al. (2008).
7. Foley and Fahy (2004).
8. Day (1994); Day (2002).
9. Weerawardena and O’Cass (2004).
10. Day (1999, 104).
11. Heusinkveld, Benders, and van den Berg (2009).
12. Vassiliadis, Priporas, and Andronikidis (2013).
13. Hult et al. (2008).
14. Fahey and King (1977).
15. Mishra (2007).
16. Lambert, Marmorstein, and Sharma (1990); Liu and Comer (2007).
17. Rouleau (2005).
18. Capon (2012); Foedermayr and Diamantopoulos (2008); Kotler and Keller (2012).
19. Porter (1985).
20. Porter and Millar (1985).
21. Piercy and Morgan (1994).
22. Dicks Sporting Goods, Inc. (2013).
23. Dean and Sharfman (1996).
24. Moskowitz et al. (2014).
25. Urban and Hauser (2004); Majava et al. (2014).
26. Majava et al. (2014).
27. Capon (2012).
28. Ward (2011).
29. Schilke and Goerzen (2010).
30. Day (2011).
31. Day (1999).
32. Barabba and Zaltman (1991).
33. Wilden and Gudergan (2014).
34. Wirtz, Tuzovic, and Kuppelwieser (2014).
35. Bharadwaj and Dong (2014).

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CHAPTER 2

Rethinking Competitive Analysis from a Market Sensing Perspective

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Know the enemy and know yourself; in a hundred battles you will never be in peril

—Sun Tzu in *The Art of War*

Introduction

Competitor analysis is central to a company's strategy. As illustrated by the quote from Sun Tzu's *The Art of War*, in order to overcome your competitors, it is essential to have an understanding of theirs as well as your own strengths and weaknesses. While developing a strategic marketing plan, managers need to match the planned activities with the external environment and the internal resources and capabilities. They have to examine all the key issues before they can develop successful marketing strategies that create a sustainable competitive advantage. Day¹

highlighted the key adaptive market sensing capabilities needed by organizations to respond to the increasing gap between their capabilities and their ability to respond to the changes. This requires information search and acquisition for competitive analysis (strategy reviews, impending decisions, etc.). The market sensing functions include competitive analysis and anticipating developments in the market environment.

Davidson² compared the process of gathering competitive data to a jigsaw puzzle where the individual pieces do not carry much value and the aim is to put as many pieces together to get an overall picture of the competitor. The jigsaw analogy illustrates the significance of having a big picture of the environment well. Traditionally, in order to analyze the competition, organizations would first define the competitive space, namely, to identify current and potential competitors. The company would then analyze the external macroenvironmental factors using frameworks, such as the PESTLE (Political, Economic, Sociocultural, Technological, Environment, and Legal) analysis,³ which would then be followed by an examination of the current stage of the product life cycle in which it is currently operating in. Based on the analysis, competitors are then described in detail, focusing on the business scope and objectives, market share, positioning strategy, financial, technological and operating capabilities, and so on.

While looking at the competitive environment, most academics examine the market structure and profitability;⁴ the intensity of competitive rivalry⁵ and the stage in the product life cycle.⁶ A number of frameworks and models have been used to identify and analyze drivers or forces that drive competition and profitability with Porter's Five Forces model emerging as the dominant framework.⁷ According to Porter, "A company strategist who understands that competition extends well beyond existing rivals, will detect wider competitive threats and be better equipped to address them." Porter's Five Forces model is not perfect and other academics⁸ have come up with extensions of the framework as well as alternative models. However, there is a lack of customer focus in all these models. Looking at the strategy development process from a market sensing perspective requires an understanding of the constantly evolving business environment and also in delivering superior customer value with

the aim of ultimately gaining customer loyalty. In this chapter, we aim to explore this crucial link to competitive strategy from the marketing standpoint more in depth.

The chapter is structured in the following manner. First of all, we re-examine the literature on competitive strategy and examine the importance of environmental scanning in creating a sustainable competitive advantage. Based on a review of the literature, we present a competitive analysis framework from a market sensing perspective. Some recommendations for future research are also provided.

Revisiting Competitive Strategy

It was Michael E. Porter who completely revolutionized the study of competitive strategy with his Harvard Business Review (HBR) article “How Competitive Forces Shape Strategy.”⁹ The Five Forces framework, which was introduced in his paper, has become one of the most important and commonly used tools to analyze the competitive forces in an industry and to guide the business strategy development of a firm. A competitor can, in this case, be referred to as an organization that (1) produces and sells technically similar products, (2) produces or sells technically dissimilar substitutes to your products, and (3) produces or sells generic products that solve or eliminate a problem.

Porter’s framework conceptualizes that five forces determine the competitive intensity and attractiveness of a market, which are essentially: the threat of new entrants; bargaining power of suppliers; bargaining power of buyers; the threat of substitutes; and competitive rivalry in the industry. Thus an industry with low entry barriers and few suppliers and buyers, many substitute products and having many competitors, has high competition and is therefore not very attractive.

Though it looks fairly simple, using this framework effectively requires an understanding and the in-depth analysis of several factors, which affect each force. For example, the degree of competitive rivalry in the industry is influenced by a number of factors; namely, the number and size of competitors in the market, the overall size of the market, customer brand loyalty, and so on. However, despite its popularity, Porter’s Five Forces model

has some weaknesses. For example, Coyne and Subramaniam¹⁰ identified three underlying assumptions of the framework, namely:

1. The industry consists of unrelated buyers, competitors, and suppliers who do not interact (kept at arm's-length) nor collude.
2. The source of value is structural advantage. In other words, erecting barriers against competitors and potential entrants is the only way to gain wealth.
3. That uncertainty is sufficiently low that you can accurately predict participants' behavior, plan for and respond to competitive behavior.

In reality, the players in an industry do often collaborate and are codependent. Consequently, Coyne and Subramaniam¹¹ presented a new model whereby they added several dimensions to Porter's framework. On one hand, they had the industry structure with the traditional arm's-length relationship along with two other additional structures, namely privileged relationships (industries characterized by alliances, networks, and economic webs) and codependent systems (characterized by companies providing each other special noneconomic treatments because of friendships, political connections, etc.) The other dimension was the basis-of-competition. Along its axis, the traditional Five Forces model assumes that structural advantages as the source for value. The new model added front-line execution (better execution of day-to-day task can best the competition) and insight or foresight (ahead of the competition). It was believed that the three industry structures together with the three basis-of-competitions would provide a better analysis of how companies create value.

Similarly, Adam Brandenburger and Barry Nalebuff¹² used game theory to develop their co-opetition Six Forces model. In order to explain the reasoning behind strategic alliances, they used the concept of complementors, which is often called the Sixth Force. They used case studies in different industries to argue that besides competition, cooperation was also necessary and desirable when doing business. While cooperation focused on market growth, competition focuses on market share.

In their extension to Porter's model, Brandenburger and Nalebuff¹³ refer to four types of players in the market, which includes customers,

suppliers, competitors, and complementors. According to them both competitors and complementors can be defined and distinguished differently based on the perspective from either a customer perspective or a supplier perspective. Furthermore, a single player can have more than one role simultaneously—in other words a player can even be both competitor and complementor at the same time. While this model provides a useful framework for companies to analyze the information they have and encourage critical thinking in order to identify gaps, there are some weaknesses as well. For example, the model is somewhat abstract and the definitions of the players are quite broad. Also, it does not provide practical recommendations for companies to build up co-opetitive relationships.¹⁴

Several limitations of Porter's framework were also pointed out by Grundy who argued that it could be further developed to "improve its analytical power and to increase its range of applications."¹⁵ While looking at the context of the health club industry, Grundy pointed out that the five forces are highly interdependent. An example where the scores can come out wrong was where the high bargaining power of buyers may be seen as a bad thing (marked unfavorable). According to him, the bargaining power of the buyers is not a separate element but has to be analyzed in relation to the other forces.

An alternative approach to competitive analysis was put forward by Carl Shapiro,¹⁶ called the theory of business strategy. His approach also involved the use of game theory, to model and analyze the competitive interaction between organizations. Shapiro¹⁷ stressed that the long-term strategic decisions should be distinguished from the short-term tactical decisions made by organizations. Some of the dimensions of strategic behaviors examined in his paper include, namely, investment in physical capital, investment in tangible assets; strategic control of information; horizontal mergers; network competition and product standardization; contracting; and other dimensions of business strategy.

Also looking at the complex relationships, Chen highlighted the limited research on what he termed as *prebattle competitive relationship* between rivals and presented a model which was based on firms rather than industry, which looks at integrated competitor analysis and

interfirm rivalry.¹⁸ Two constructs were proposed, namely, (i) market commonality: the degree of presence that a competitor manifests in the market it overlaps with the focal firm¹⁹ and (ii) resource similarity: the extent to which a given competitor possesses strategic endowments comparable, in terms of both type and amount, to those of the focal firm.²⁰ Bergen and Peteraf²¹ built on Chen's model and developed a two-stage framework by drawing on marketing theories and specifically on consumer behavior theories. Their main motivation for coming out with a new framework was what is termed as *competitive myopia* whereby managers focus too much on a few or single competitors while ignoring indirect or potential competitors. They considered the two stages as separate: that is, competitor identification followed by competitor analysis. It was noted that competitor identification was a categorization exercise which involved classifying firms based on similarities, whereas competitor analysis was considered an evaluative task and compares firms based on relevant dimensions. They defined market commonality as "the degree to which a given competitor overlaps with the focal firm in terms of customer needs served,"²² and further modified the definition resource similarity to "the extent to which as [sic] given competitor possesses strategic endowments comparable, in terms of type, to those of the focal firm."²³ Finally, they introduced another construct called resource equivalence which they defined as "the extent to which a given competitor possesses strategic endowments capable of satisfying the same customer needs as the focal firm."²⁴

One of the more recent and interesting competitive analysis frameworks was put forward by Davis and Olson²⁵ who linked Porter's Five Forces and Slater and Olson's models. They identified four external forces (i.e., suppliers, customers or markets, competition, and regulation) and one important internal force—internal culture. According to them, each force is related to each other and they have identified eleven distinct differences in the way strategic initiatives are applied by large companies as compared to startups. The 11 differences include: building on market strengths, size of market, relationship to resources, presence of constraints, visibility of and by competitors, investor expectations, shareholder or investor risk tolerance, process, portfolio management, triage, and time horizon for results.

Need for a New Competitive Analysis Framework

Despite all the limitations, Porter's Five Forces model still remains a popular tool with managers. Porter later updated the framework to make it more relevant for strategy today.²⁶ He highlighted that besides existing firms in the industry (the direct competitors), firms need to think about the extended rivalry among the customers, suppliers, substitutes, and potential new entrants. Porter also touched upon the role of government policies in changing the relative strength of the forces. However, looking at competitive analysis from a market sensing perspective, we argue that certain recent developments requires us to re-evaluate and rethink the traditional Five Forces model in more detail. More importantly, we consider whether there is a need to put the consumer at the center of the model. The trend toward customer orientation and importance of delivering superior customer value to customers as a source of competitive advantage has been clearly established.²⁷ The rise of demanding consumers has led to transformations in organizations and is seen as skewing the traditional relationships.

The significance of two main factors, namely, the unprecedented growth of Internet and Communication Technologies (ICT) and the role of brands and branding are forcing companies to rethink their strategies. It is extremely important for companies to identify their own competitive advantages (and of course weaknesses) relative to competitors. Companies need to be flexible and understand that competition can now arise from nowhere and build in backup strategies to respond quickly to these developments. A new conceptual seven forces framework is presented in Figure 2.1.

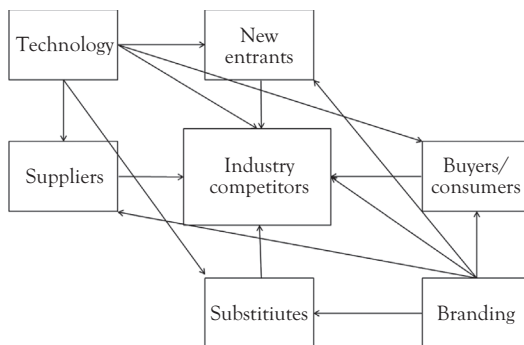


Figure 2.1 *Seven Forces model*

Unprecedented Growth of Information Communications Technology (ICT)

The growth of ICT and digitalization have completely reshaped the way we do business, where transactions are seen as the core elements. McKenna²⁸ wrote about how “the 1990’s will belong to the Customer” and the catalytic agent for this was technology which was transforming customer choice, which in turn was transforming the market place. It has been more than two decades since McKenna’s article was published but many companies are still a long way from practicing knowledge and experience-based marketing.

Porter²⁹ argued that technology and innovation should be seen as factors and not as a force. According to him, they are not part of the underlying industry structure and “not by themselves enough to make an industry structurally attractive (or unattractive).” However, we think that this may lead to an underestimation of the power of technology change which is fast evolving and has indeed become the game changer in varied industries from education³⁰ to the oil industry.³¹ Aspray and Ceruzzi³² mention that as soon as companies became aware of the potential of commercialized Internet, some of them totally abandoned traditional business models and adopted an e-commerce approach. They go on to describe the new business models that evolved as a result of the Internet and adjustments made by established companies and discussed some of the problems associated with it including copyright issues as well as dot-com busts. Day³³ also pointed out that marketers are being challenged by the forces of increasing *proliferation and complexity* in the marketplace, induced by the growth of the internet. Companies who are able to use the existing technologies and predict suitable technologies that can change the way things are done, are the ones who are going to ultimately win in the industry. These market driven organizations stand out from their competitors, in that they are able to constantly act and respond to and even accurately predict events and trends in the market.³⁴ Examples include Google who used the *Freemium* model to dominate online search and AirAsia, who adopted innovative technology to become the leading budget airline in Asia.

Disintermediation

One of the key developments has been the disintermediation between producers and consumers, the increasing popularity of social media, and the emergence of digital opinion leaders including bloggers³⁵ and prosumers—the consumers who actively produce goods and services.³⁶ As a result, competition can come from totally unexpected and unpredictable directions and forms. Related to this concept is the growing interest in *crowdsourcing* wherein the collective intelligence of the public is employed by promoting participation and contribution from them.³⁷

Mocker et al.³⁸ looks at this situation differently. According to them, digitization allows companies to keep increasing their value-adding complexity in their offerings while keeping processes simple. They used examples to show that companies created value from product complexity while maintaining simple processes to outperform competitors. They did highlight the fact that “digitization is not an automatic solution for mastering complexity.” However, for companies to find their so called *complexity sweet spot* might not be that easy. One way technology that companies are trying to achieve a competitive advantage is by sharing software free-of-charge.³⁹ For example, Microsoft introduced their free Internet Explorer browser to compete against Netscape. This strategy has been followed by other tech firms including Google with their free video sharing site (YouTube), free blogging platform (Blogger), and Android operating system.

The growth of ICT and digitization has also led to a shift in supply chain and power from the manufacturers, service providers, and retailers to consumers. This is due to the fact that consumers now have high quality comparative information—with online recommendations and price comparisons, literally available at their fingertips. For example, online reviews are changing the way in which consumers make purchase decisions.⁴⁰ Consumers are now increasingly relying on the opinion of other consumers online to make informed decisions besides finding. Electronic word-of-mouth (eWOM) especially via social media has become the most popular source of this information and has been identified as influencing product and service purchases.⁴¹ In fact, online reviews were identified

as one of the most important factors to influence consumers' final purchase decision.⁴²

The Need for Speed, Better Customer Experience, and Trust

The recent developments in ICT have allowed interactions and relationships between organizations and consumers to be established and consummated more quickly and conveniently (any time and any place). Interactions are to be analyzed by suppliers more comprehensively and much faster. This development has allowed suppliers to optimize their pricing, targeting, distribution channels, and communications more effectively, and has also facilitated the identification of valuable customers for retention and development, but also those of less valuable or loss-making customers—the so called *nontargeted*⁴³ or *bad* consumers, who might then be constrained as to what they can buy or how much they can use a product, or even have their product canceled or relationship terminated. The competitive battle between companies has focused partly on speed and this has put real pressure on them to organize all their data online to make quick decisions. Many companies now offer instant business decisions (effectively near real-time) and this means that the analytics carried out on the rapidly growing volume of data from an increasing number of sources (with social media being the latest addition).

All customers expect better levels of service and improved experiences. This applies not only to the initial interaction, but also to problem management. Companies are keen to avoid being criticized in public about failures in their processes, and therefore aim to avoid what is known as *double jeopardy*, in which the customer is initially treated badly, and the recovery process to restore the situation for the customer also goes wrong.⁴⁴ This can lead to some customers getting very good treatment and others, very bad service.

Behind some of the problems customers face in dealing with large companies is the decline in trust. The widely accepted Edelman Trust Barometer⁴⁵ shows how rapid the decline has been in the trust of leaders (whether business or government). Only 18 percent expect business

leaders to tell the truth, while only 13 percent expect it from government officials. Interestingly, people trust institutions more than their leaders, with around 50 percent trusting businesses in general, implying that they trust the people in the business to do what is right by them. Banks and financial services are the least trusted sectors. Trust in banks is now 11 percent points lower than it was in 2008. This is caused by poor performance and perception of unethical behavior. About 59 percent of respondents said that the cause of the many financial scandals was corruption, corporate culture, or poor leadership. One of the implications of this is that consumers feel that they also have the right to misbehave in dealing with entrusted institutions. In developing an effective competitive strategy, organizations are thus finding themselves necessary to consider the role of trust in buyer-seller relationships and interactions.

The Expanding Data Set and Big data

The data set used by companies is ever expanding, with new items and sources of data appearing constantly and time and complexity and depth of data increasing. Social media data has proved to be a very valuable source of data—for managing both value and risk. As digital interactions shift from computers to mobile telephones, the depth and complexity of data increases (the mobile really is always on). Further, the mobile provides better information on networks of friends (and accomplices) for advice and recommendations. Meanwhile, the rise of marketing automation—a version of workflow management for marketing—improves a company's ability for insight to be integrated into marketing processes.

Most new sources of data have value and each can lead to information asymmetry and opportunities for both companies and customers to exploit it to their advantage. Each new item of data that appears provides a challenge for suppliers, who also have to assess whether it is an opportunity to gain competitive advantage, or one that should be shared to reduce the disadvantage of the whole supplier community. The ever-increasing volume of data available has led to the term *big data* being applied to the situation. This has led in some cases to a focus on acquiring more and more data and organizing it, rather than deploying it to achieve better business outcomes.

Within their own companies, the rise of much more advanced measurement techniques allows managers to identify which members of their staff are treating customers well and otherwise, and social media analysis allows them to find out more quickly what customers are experiencing. Voice analytics allows the same in contact centers. Where a poor customer service is concerned, it helps identify where the service and customer experience can be improved, what needs customers articulate the most, and where they need help with more or clearer information.

However, the relentless pressure from regulators (and commentators, analysts and customers) to *treat customers fairly* may mean that some customers receive much better treatment than they *deserve*, resulting in much greater exposure for companies. Many companies are still struggling with integrating classic data sets with the new digital data sets. As if these challenges were not enough, three other forces make things much more difficult for companies (and sometimes for customers).⁴⁶ They are:

1. Data protection legislation means that there will be increased transparency of data collection and storage processes, and increased pressure on suppliers to dispose of data.
2. Human-rights related legislation or regulation is reducing the extent to which suppliers can discriminate between customers on the grounds of real objective differences in the level of risk, for example, on gender or exclusion grounds. This discrimination might occur in recruiting customers, or in dealing with customers after recruitment (even if it is virtually certain as far as the supplier is concerned that they are fraudulent).
3. A rising level of cybercrime attacks (made easier by increased uses of digital devices in accessing finances and in paying) may lead to rising levels of leakage of value from the system, making it easier for fraudsters and in some cases, making things very difficult for customers, as well as for the companies (e.g., identity theft).

Those companies that are ahead are those who are able to identify increasing number of ways to make more profit out of the targeted customers by managing them better than the competition, and that makes them more robust in the face of risk from other customers. Furthermore,

companies should aim to secure proficiency of key adaptive marketing capabilities which are mutually reinforcing as this will automatically grant sustainable first-mover advantage to them.⁴⁷ For example, AirAsia, one of the World's leading low cost airline companies, has achieved a clear competitive advantage with improving customer experience over their older and more established competitors. They were able to do this by their use of pioneering technology and innovations. That is, they were the first airline in Asia to implement ticket less travel and the first Asian airline to start online ticketing in 2002. They have also successfully used social media marketing campaigns in order to engage with and satisfy their customers.⁴⁸ From a short-haul low-fare carrier, AirAsia has gone on to become one of the biggest airline companies in the Asian region. With a business strategy centered on cost leadership,⁴⁹ they now actively compete with other industry players even on long haul flights after establishing AirAsia X as a separate affiliate company. They now fly to over 88 destinations in 22 countries.⁵⁰

Importance of Brands and Branding

The main role of a brand is to identify the source or producer of a product, and allow consumers to assign the responsibility for its ability and performance to that source or producer. Branding is extremely important as it can be a critical source of competitive advantage. It has been clearly identified as a marketing strategy. Furthermore, the close relationship between branding and loyalty has been identified in a number of studies.⁵¹ Grewal et al.⁵² put forward that retail store image would impact perceived value, and this in turn would influence customer loyalty. It goes without saying that a loyal online customer base is of crucial importance.⁵³

Coyne⁵⁴ rightly pointed out that a competitive advantage is durable if competitors cannot imitate it easily. Using Perrier as an example, they identified branding as the source of competitive advantage. While looking at global corporate brands, Malewar and Walkar⁵⁵ showed that successful brands are those which are able to successfully translate their corporate core value propositions into the new regions when they have entered. According to Abimbola,⁵⁶ a brand name represents "a strong communication link between the firm and the market." Thus, by linking

their reputation with a brand, firms can communicate their ability to offer superior value more effectively to their customers.

Though a number of studies have focused on brands and effects of brands in influencing consumer behavior and attitudes, there is no consistent or even a universally accepted meaning of the term branding.⁵⁷ An important concept in branding is brand image, which refers to “the cluster of attributes and associations that consumers connect to the brand name.”⁵⁸ De Chematony⁵⁹ emphasized that brand reputation is a more powerful concept, though the concept of brand image was not negated. In other words, brands reflect the reputation of the brand name. Carrying out a strategic brand analysis is essential in order to gain information essential in managing the organization’s brand management activities, including brand image, values, and positioning. Brand analysis involves collecting information on the brand positioning in the mind of consumers, including strengths and weaknesses. It has been shown that consumers choose one brand over another brand because of differences in the brands’ global qualities.⁶⁰ It is therefore essential for companies to identify their own as well as their competitors’ unique selling proposition which are unique attributes and unique promises of value offered solely by their organization and their product offerings.⁶¹ Apple is one company which stands head and shoulders above the rest in this regard. It is precisely the reason why they have hundreds if not thousands of customers queuing up outside their stores whenever they launch a new iPhone. Some even start queuing up a few days in advance. This is something which you will not find happening with their other competitors.

Looking at how the growth of ICT links (the previous factor) with branding, we find that it has changed the way consumers engage with brands drastically. Edelman points out that consumer engagement does not end after the consumer makes a purchase but remains engaged with the brand even after the purchase via social media. He further predicts that finding out *what the customer says*⁶² as they navigate the consumer decision journey, will influence product development or service programs. Therefore, when analyzing a competitive strategy, it is not enough to simply take a *snapshot* of the current situation, but also identify and investigate further the ongoing interactions with the brand in order to develop a more systematic approach of how maintaining longitudinal customer

satisfaction can be achieved. In that way, the customer life time value is enhanced, giving the firm a more long-term competitive advantage.

Due to the massive growth of ICT and social media, consumers are now more knowledgeable and they are constantly looking for quality products at affordable prices. The entry of new competitors to the market may completely negate the uniqueness of the organization's offerings. Thus, this should provide an incentive for organizations to innovate consistently and continuously.

In order to be successful, branding requires an in-depth understanding of what the organization is all about:

1. The mission and vision of the organization. These are often philosophical and qualitative in nature but are essential as they underpin the role and contributions of the organization.
2. To define the specific benefits provided to consumers and needs satisfied. Organizations need to be aware that due to obvious reasons that cannot complete in all segments and need to clearly identify their target markets. As mentioned in the introduction, they need to focus their strategies to meet the needs and wants of customers and focus their business activities which most closely meet their capabilities.
3. To clarify between their *brand positioning*, which is concerned with what the brand actually does and with what it competes; and *brand personality*, which describes its physical, emotional, and personality characteristics.⁶³

It is critical for firms in a competitive environment to examine consumer perceptions toward the brand. One way this can be achieved is by drawing up perceptual maps⁶⁴ and the product attributes model.⁶⁵ Taking into account the consumer perceptions of their offerings, such analysis would enable companies to develop sustainable competitive advantage.

Managerial Implications

Any competitive analysis would need to consider the key competitors currently active in the market besides any potential new entrants. Today, these competitors can appear from anywhere. From a marketing

perspective, all the relevant information, which should be used in competitor analysis should include the identification of business scope and objectives, target segments, and positioning strategy as well as special competitive advantages. This requires a detailed analysis of the market and competitive environment in which the company operates.. Successful market driven companies are those which are able to collect the right information, analyze the data generated with an open-mind, and then disseminate the information, which will enable them to better anticipate events and trends in the market.

Interactions on social media coupled with mass media have had a huge impact in the way consumers perceive brands. It is thus essential for companies to monitor these online interactions and their impact on consumer perceptions. This should not be a one-time event, but rather an ongoing process, as consumers' tastes are constantly evolving. Market sensing is a continuous and ongoing learning process.⁶⁶ Social media, in particular, has increased the firm's ability to anticipate the competitor's moves more comprehensively. According to Canhoto,⁶⁷ competitive intelligence arising from social media can be compared to a game of chess or war, where the battlefield is the market place. Canhoto⁶⁸ identifies several implications related to the market sensing of social media that are simple and perfectly legal to develop competitive intelligence: (1) *LinkedIn* can be utilized to spot where professional talent is moving, so if a particular company is hiring people with certain skills, such as programming or editorial skills, it can be anticipated that the firm is planning to advance these aspects. (2) *Foursquare* or other geo-tagged posts (location based posts) can give an idea about whether a specific place is becoming a hotspot, so if key staff members are traveling to certain locations, this might be a sign of something occurring. (3) *Online presence* of employees and suppliers will contain information about what they might be working on, for example, with clues about their projects, workshops, work patterns, and so on, so the ability to put those clues together will generate a picture of the strategy of the competitive firm. (4) *Other market information* such as company communication and behavioral marketing data from the competition may also provide information about the direction where they are headed. Monitoring blog posts directed toward loyal customers or pricing strategies can alert

changes in market dynamics and give the firm a head start in their preparation for a counter competitive strategy.⁶⁹

Firms are now moving toward corporate branding, where brand management is centered on the corporate branding rather than individual image of the product. Hence, the corporate branding and various levels of branding should be given equal attention in the competition analysis. Corporate brands can, in many ways, be viewed as a person, hence the term brand personality.⁷⁰ For corporate brands wanting to develop a personality that is congruent with that of their customers, must consider both their internal and external brand attributes, so that an aligned brand strategy and personality materializes. A brand personality can be developed through the personality traits linked to the brand,⁷¹ such as friendliness and likeability,⁷² and can ensure differentiation in the company's profile and also in product categories where intrinsic cues are very similar.⁷³ When consumers strongly identify with a brand personality, more time and money will be spent upon it. With regular interaction, increased purchases and long lasting consumer-brand relationships are evident (e.g., Carlson et al.⁷⁴).

Conclusion

This chapter highlights the need to re-examine the popular Five Forces model of competitive analysis and look at it from a marketing perspective. It also highlights the growing bargaining power of consumers, which may skew the traditional model. For example, boundaries between prosumers and traditional producers are becoming blurred. This growing bargaining power of consumers is due to the rise of two main developments, namely, the fast evolving ICT and digitization including the growth of social media and the power of brands and branding. There is a need to see these as two separate forces and not as mere components of the traditional five forces. We have put forward a Seven Forces model, which highlights the significance of two main factors, namely, technology and branding, which has an influence on all the other five traditional forces. Social media is especially interesting to follow as it provides a source of competitive intelligence. Regardless of the context, important questions, as identified by Porter's competitive strategy analysis, include key elements that need to be investigated further: (1) the competitor's future goals (what

drives them toward competitive advantage?), (2) the competitor's current strategy (what is their business and how do they do business?), (3) the competitor's capabilities (what are their strengths and weaknesses?), and (4) assumptions (how do they view their company and the industry?). Monitoring this information more systematically allows the assessment of whether the competition is satisfied with its position or whether they are planning to move toward something else. This is critical information that will tell something about the focal company's own proactive or reactive strategies to counter strike.

Moving forward, we recommend that academics and practitioners alike further examine the influence of technology (disruptive innovation, sustaining innovation, etc.) and branding elements (brand image, reputation, identity, personality, etc.) individually as this is outside the scope of the current study. A comprehensive framework integrating these subdimensions would be more meaningful to develop a competitive framework that allows for the actual measurement and implementation of such strategies. Additionally, we note that the study on branding typically focuses on the customer's perception of a product. However, as highlighted in the previous section, firms are now moving toward corporate branding rather than focusing on individual product brand image. Future application of our framework will also need to be extended to other products or market segments and to be tested using real data in order to verify its reliability and validity. We hope that more research is done in this crucial area of market sensing.

Notes

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CHAPTER 3

Market Sensing and Competitive Intelligence Systems

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Introduction

Market sensing is central to the implementation of the marketing concept. This process involves scanning, interpreting, and responding to information pertaining to multiple stakeholders, including but not limited to customers and competitors.¹ This chapter is focused on competitive intelligence as an important part of organizational market sensing. Firms can have different approaches to competitive intelligence, from an ad hoc basis to a comprehensive system.² Unfortunately, marketers often confuse competitive intelligence with market research. Furthermore, in a study of Chief Executive Officers and Chief Information Officers in 17 industries, only 8 percent of the firms reported as being effective in their competitive intelligence effort, while almost 40 percent of the firms perceive their competitive intelligence effort as only fair.³ This chapter addresses the following questions (1) what is a competitive intelligence system and (2) how do firms improve their competitive intelligence systems?

Competitive Intelligence

Before investigating how firms can effectively improve their competitive intelligence systems, it is essential to briefly review what competitive

intelligence is, its role in the market sensing process, categorizations of competitive intelligence, and what constitutes a competitive intelligence system.

What Is Competitive Intelligence

While competitive intelligence can be viewed as a strategic tool to improve the firms' competitiveness, it can also be conceptualized as a process through which competitive information from various sources is collected, interpreted, and disseminated.⁴ There are many definitions of competitive intelligence. In a recent study, competitive intelligence is defined as "the process by which organizations gather information on competitors and the competitive environment, ideally using this in their decision-making and planning processes with the goal of adjusting activities to improve performance."⁵ The objective of competitive intelligence is not only to help firms make sense of what their competitors do but also to take initiatives to preempt their competition.

Competitive Intelligence and Market Sensing

A firm's market sensing capability includes four major components: learning orientation, organization system, market information, and organization communication.⁶ Competitive intelligence not only represents an important component of market information capability but also has a mutually influential relationship with the other components of the firm's market sensing capability.

There is some research which suggests that the ultimate goal of marketing strategy should be meeting and anticipating customers' needs through rigorous market research rather than trying to beat the competition.⁷ However, it is also important to note that customers' evaluation of the firm's offerings is often relative to its competitors. Therefore, in the market sensing process, competitor-oriented learning should be balanced with customer-oriented learning.⁸ The need to develop and constantly improve the firm's competitive intelligence to learn from the competition and predict competitors' action is especially pressing in technologically turbulent or stalemated industries.

Competitive intelligence, as either an activity or a process, is dictated by the firm's learning orientation and embedded in the organization system and communication. If the firm is not committed to learning, competitive intelligence might be ignored altogether. If the firm is narrow minded, collected competitive intelligence might neither be used nor disseminated. If there is no shared vision, interpretation of competitive intelligence might vary among senior managers, potentially leading to more harm than benefits. In fact, diverse competitive intelligence quality can dilute the performance impact of competitive intelligence at both the individual salesperson and the business unit levels.⁹ However, the information gained from competitive intelligence can be translated into important insights that might lead to strategic and tactical changes in the firm's strategy, including its structure and communication. In fact, this feedback loop is an important component of organizational market sensing.

Categorizations of Competitive Intelligence

There are at least four ways to categorize competitive intelligence. First, according to Fleisher and Blenkhorn¹⁰ there are two types of intelligence: personal and technical. Personal intelligence involves making personal contact with a variety of sources to collect competitive intelligence, while technical intelligence refers to the use of information technology tools such as the Internet, intranets, and softwares to obtain competitive intelligence.¹¹

Second, competitive intelligence can be divided into active versus defensive. McGonagle and Vella¹² define *active* competitive intelligence processes as those aimed at collecting raw data about competitors as well as analyzing that data to provide finished intelligence whereas *defensive* competitive intelligence processes as those aimed at protecting the firm's competitive sensitive information that competitors will or can capture. However, it should be noted that both active and defensive intelligence can help a firm to develop, maintain, and improve its competitive advantage. Much of the existing literature is focused on active intelligence processes.

Third, competitive intelligence can be tactical or strategic. Whereas tactical competitive intelligence includes detailed information about competitors' marketing mix (e.g., products, services, and prices) that is

useful for lower-level managers and front-line employees, strategic competitive intelligence involves identification of competitors' capabilities and constitutes an important information input into senior managers' decision making.¹³

Finally, competitive intelligence can flow through both formal and informal channels of communications. Formal competitive intelligence is managed and controlled by firms whereas informal competitive intelligence refers to information that travels through informal network ties among individuals who are employed by the firm and connections between internal and external stakeholders. While traditional marketing research that applies organizational design theories emphasizes formal channels, research that applies social network theories places more emphasis on informal channels of competitive intelligence. Prior research has demonstrated that informal competitive intelligence can be quite powerful in driving salesperson performance.¹⁴

The previous four categorizations of competitive intelligence are not mutually exclusive. Rather, they are nested within each other. This categorization has some important implications. First, a thorough evaluation of a competitive intelligence, therefore, should examine all of these components. Second, depending on external factors (e.g., competitive intensity and industry characteristics) and the availability of internal resources (e.g., size of the firm and market power), firms can place emphasis on certain aspects of the competitive intelligence at one time point and others at another. Therefore, differences in contextual factors must be taken into account in comparing the effectiveness of competitive intelligence systems.¹⁵

Competitive Intelligence Systems

Not all firms have a formal competitive intelligence system. In fact, competitive intelligence can be collected in an ad hoc fashion.¹⁶ Even when a competitive intelligence system exists, there are many models and frameworks of what constitute such a system. In this chapter, I adopt Gilad and Gilad's¹⁷ definition, which states that a competitive intelligence system consists of five functions: collection, evaluation, storage, analysis, and dissemination. As is true for many strategic processes and tools, competitive intelligence planning to define the scope and needs of the system would

normally, although not necessarily, occur before the actual implementation of the system. Improving the effectiveness of a competitive intelligence system, therefore, involves two interrelated tasks (1) improving the effectiveness of each stage, and (2) improving the linkage among the stages. Table 3.1 summarizes the key evaluation criteria of each of these functions and also the competitive intelligence system as a whole.

Collection

Competitive intelligence collection refers to the actual data-gathering process that takes place after competitive intelligence planning. This process includes the identification of all potential sources of competitive intelligence, conducting research and gathering the right data, and putting the data in an ordered form.¹⁸ Although many early models of competitive intelligence do not mention the need-identification phase, later models include an additional step of determination of both senior management's and the organization's key intelligence needs and even taking the initiative to collect intelligence in a more proactive manner.¹⁹ In market sensing terminology, this step is a major component of the market scanning phase.

Evaluation

The purpose of evaluation is to measure the usefulness of the data and the source.²⁰ In terms of data usefulness, prior research on competitive intelligence quality suggests that the quality of competitive intelligence consists of at least four dimensions: accuracy, relevance, clarity, and timeliness.²¹ In terms of source usefulness, evaluation should focus on relevance, reliability, depth of coverage, uniqueness, and the availability of alternate sources. Gilad and Gilad²² contend that the determination of the source usefulness can ensure optimal coverage of the established targets and the proper use of available resources.

Storage and Analysis

A storage system allows firms to organize collected data so that it is easy for later retrieval, manipulation, and analysis. Storage systems can be in

Table 3.1 Competitive intelligence system: evaluation and improvement

Stage	Evaluation criteria	Improvement opportunity
Collection	Motivation to collect intelligence Quality of information sources Collection procedure	Definition of the company's requirements before collection Managerial recognition of employee's competitive intelligence contribution Employees' desire for upward mobility Social network engineering
Evaluation	Data usefulness Relevance Accuracy Timeliness Clarity	Identification of intelligence users and their needs Tracking actual use of competitive intelligence Periodic update of data
	Source usefulness Relevance Reliability Depth of coverage Uniqueness Availability of alternate sources.	Periodic evaluation of information sources Combination of primary and secondary data Investment in information sources
Storage and analysis	Storage Retrieving Access Manipulation	Lowering the costs of data entry Lowering the costs of the storage system Allowing for easy access and retrieval Empowering users to access and analyze data Integration with the firm's business intelligence system
Dissemination	Frequency Formality	Interfunctional relationship Mutual trust Interfunctional distance Joint customer visits Organizational commitment
System-wide	Actors The system	Creating networks of knowledge sharing Training both users and system managers Keeping track of costs Periodic evaluation of the entire process Enhancing the proactiveness of the system

the form of paper files, computer systems, humans, or a combination of all. A storage system can be centralized or decentralized.²³ A prevalent problem is the phenomenon of competitive intelligence hoarding, wherein individuals collect and store competitive intelligence without sharing. For example, at the individual level, salespeople in a competitive environment may withhold useful information about competitors so as to outdo counterparts in terms of sales performance. At the cross-functional level, interfunctional information exchange is mediated by trust in the information senders.²⁴

The analysis process involves analyzing collected data to identify patterns, relationships, or anomalies in them.²⁵ More specifically, it encompasses (1) data analyses, and (2) transformation of data into actionable information. It is at this stage that sense making takes place, as without analyses and transformation, the information collected will not result in behavioral change, one of the key objectives of organizational learning.²⁶ Together, evaluation and analysis correspond to the sense-making or the interpretation phase of the market sensing process.

Dissemination

Day²⁷ contends that, “all the market sensing in the world will be for naught if people in the organization cannot access market knowledge when they need it.” Dissemination process has two key dimensions—frequency and formality.²⁸ Dissemination frequency refers to the number of dissemination events between a sender and a receiver during a given period of time. These events can occur through either formal or informal channels.

Competitive intelligence dissemination across functional boundaries is determined by several factors, such as organizational commitment of the receivers and senders and interfunctional relationship quality and length.²⁹ Dissemination relies on both technology and people, through either formal or informal channels. In recent years, firms have been shifting toward more indirect dissemination of competitive intelligence, such as e-mails, brief reports and analyses, intranet, and online discussion, rather than direct dissemination through, for example, face-to-face meetings and presentations.³⁰ Dissemination of competitive intelligence is a

necessary step of market sensing, which is precursor to shared interpretation and potentially, organizational action.

Improving the Effectiveness of Competitive Intelligence Systems

Effectiveness of a Competitive Intelligence System

Research in management information system suggests that the evaluation of the effectiveness of a system can be based on both the goal-centered and the system-resource views.³¹ In the goal-centered approach, the effectiveness of a system is a function of how well the objectives of the system are being achieved. In the system-resource approach, effectiveness is evaluated in terms of resource viability in reaching a normative state, or standards of what is considered *good practice*. The latter approach recognizes that systems fulfill other functions that go beyond the official objectives.

The effectiveness of a competitive system can be viewed as the return on investment in competitive intelligence activities and operationalized as benefits divided by costs. While the costs of competitive intelligence are relatively easy to calculate, the benefits are not.³² This approach to effectiveness seems to be in line with the goal-centered approach.

In terms of costs, Lackman, Saban, and Lanasa's³³ benchmarking study indicate that the financial resources allocated to the intelligence analysis function vary significantly among the firms that participate in their study, from a high of \$651,000 to a low of \$350,000 per year. A recent benchmarking study reports that firms can spend more than \$2 million on competitive intelligence.³⁴ Costs and effectiveness are not positively correlated, however, because some firms are simply more capable of extracting more useful insights from information acquired with lower budgets. With the increased need for data blending from a variety of data sources, one would expect competitive intelligence budgets to increase.

Herring³⁵ proposes that firms should evaluate the benefits of competitive intelligence based on five key areas; namely, time savings, cost savings, cost avoidance of planned expenses, revenue increase, and value added to the firm performance. More recent models³⁶ add several other measures to these five factors, including employee metrics (e.g., employee

retention), marketing and sales metrics (e.g., market share changes, leads generation, and customer retention), and innovation (e.g., new products developed). These newer models obviously combine the system-resource approach with the goal-centered viewpoint.

As mentioned earlier, improving the effectiveness of competitive systems require both a stage-based and a process approach. The separation of the entire process into distinct stages is purely for the purpose of providing a detailed examination of each stage.

Improving the Effectiveness of Specific Stages

Improving collection

Competitive intelligence collection relies on individuals and their networks. Therefore, improving competitive intelligence collection should target not only individuals but also competitive intelligence network as a whole. As an example, a key to success at Proctor & Gamble is to make competitive intelligence everyone's business.³⁷

At the individual level, competitive intelligence collection relies primarily on boundary spanners such as sales managers and salespeople.³⁸ For example, although Lexis-Nexis does not have a central competitive intelligence unit, it relies heavily on more than 1,000 sales and marketing staff to pick up and pass along competitor-related data.³⁹ As such, improving the effectiveness of this phase should start with an understanding of boundary spanners' motivation to engage in such behavior. To do so, firms should particularly pay attention to managerial recognition and boundary spanner's desire for upward mobility.⁴⁰ Managerial recognition refers to a set of rules and policies for commending and thanking boundary spanners for their contributions to competitive intelligence activities. The desire for upward mobility, or promotion, exerts a direct effect on boundary spanners' effort to engage in intelligence activities. In addition, tying a portion of boundary spanner's financial compensation to gathering customer information is recommended. Finally, to improve competitive intelligence collection at the network level as a whole, managers should focus on both formal and informal networks of competitive intelligence.

Improving usefulness of data and data sources

A variety of competitive intelligence sources exist, but not all of them are useful. The usefulness of an information source also depends on the goals and objectives of the firm and users of competitive intelligence, hence the importance of the identification of key intelligence topics of different users.⁴¹ In addition to periodic evaluation of the quality of collected data and data sources, firms should pay particular attention to the satisfaction levels of competitive intelligence users. If competitive intelligence is relevant and timely, but users find it hard to believe, comprehend, and interpret, then it is also for naught. Furthermore, firms often blend primary (e.g., survey) data with secondary (e.g., published) data because secondary data provides a historical account of the subject of interest whereas primary data allows for an up-to-date, user-oriented account and cross verification of secondary data.

Improving storage and analysis

Storing competitive intelligence includes archiving or storing, retrieving, accessing, and manipulating of large amounts of data, in a variety of forms (e.g., textual, numerical, etc.). According to Gilad and Gilad,⁴² an effective storage and analysis system has the following characteristics: (1) a clearly-defined scope of the system, (2) the capacity to allow for efficient input, storage, update, and retrieval of various forms of data (e.g., raw data, abstracts of raw data, processed data, and more advanced reports), and (3) cost effectiveness (e.g., data entry cost, data cleaning cost, and opportunity cost).

The effectiveness of a storage and analysis system determines the effectiveness of competitive intelligence dissemination, because as such the former dictates the quality of insights to be disseminated in the latter phase. A recent study found that it is crucial that data is produced in a timely manner. As such, firms should get rid of *data intermediary* and empower users to directly extract and analyze data.⁴³ Although a storage and analysis system can be decentralized, such a system should be integrated with the business intelligence process of the firm as a whole.⁴⁴ Importantly, the effectiveness of a storage and analysis system includes both personal and technical aspects of the competitive intelligence system.

Improving dissemination

The effectiveness of the dissemination of competitive intelligence relies on what, when, and how competitive intelligence reaches users. For example, a study involving 788 nonmarketing managers in high-tech equipment manufacturing companies suggests that competitive intelligence dissemination frequency is related to interfunctional distance, joint customer visits, senders' positional power, receivers' organizational commitment, and trust in a sender.⁴⁵ Furthermore, competitive intelligence dissemination formality is driven by interfunctional distance, receivers' trust in senders, and the rate at which an organization changes its structure, rules, personnel, and procedures. As a consequence, improving competitive intelligence dissemination should focus on these important factors. Research by Moorman, Despandé, and Zaltman⁴⁶ also found that trust figures predominantly in market research use. Although technology facilitates competitive intelligence dissemination, human factors such as trust are the key drivers of effective dissemination.⁴⁷

Improving the Overall Process

A process approach to competitive intelligence systems requires *closing the loop*. That is, competitive learning should lead to change of behavior.⁴⁸ Along this line, Sullivan⁴⁹ contends that firms should switch from a results-oriented measurement system to an action-oriented measurement system that focuses on an integrated and aligned set of measures that allows management to monitor progress and improve performance in real time. In the context of competitive intelligence, one of the goals in improving the effectiveness overall process is to make sure the competitive intelligence collected can be purposefully translated into tactical and strategic actions.

Managers as network engineers

An important component of the competitive intelligence system is the informal network. Unlike the formal network, information in the informal network is not constrained by the formal structure of the organization.

There exists ample empirical evidence that informal network ties are useful in many organizational processes, including knowledge sharing, and competitive intelligence processes.⁵⁰ Therefore, managers can and should act as a network engineer that creates, disrupts, and sustains competitive intelligence flows.⁵¹

Training

The problems of an existing competitive intelligence system can be related to training. As summarized by Prescott,⁵² one of the key lessons of achieving an effective competitive system is that, “in organizations, an intelligence-driven culture is built one person at a time, through intelligence skill enhancement, human network development, and mechanisms that facilitate the flow of information.”

Training applies to both new and existing employees. New employees are normally not trained in how to use competitive intelligence. Existing employees need to be retrained because of operational changes, promotion, or a job transfer.⁵³ Specifically, Tuohy⁵⁴ suggests that to improve the effectiveness and efficiency of the existing competitive intelligence system, companies need to train their internal customers (e.g., salespeople) and internal information network members. Tuohy⁵⁵ also posits that such training programs should deal with each group separately simply because each group has to deal with a different problem. Through training, companies can enhance the awareness of what sources of competitive intelligence is available, how to best use them, who the competitive intelligence function wants to track, and what the competitive intelligence function needs to know about them.

Managerial Implications

More often than not, a competitive intelligence system can exist either informally or formally. Therefore, managers who attempt to improve their competitive intelligence systems as part of the market sensing process are faced with a daunting task. However, the discussion thus far informs managers of the critical issues pertaining to competitive intelligence and competitive intelligence systems.

Four additional issues warrant mentioning here. First, a competitive intelligence system should be evaluated not only on the firm's activities but also on counter-intelligence activities. For example, many firms have policies on how to safeguard sensitive or proprietary information from the competition. In addition, sharing knowledge resulting from market sensing should be balanced with prudent counter-intelligence measures. Second, an evaluation of the effectiveness of the system should take into account of its short-term and long-term impact, using both qualitative and quantitative criteria.⁵⁶ Unfortunately, although several metrics of competitive intelligence effectiveness exist, it is often difficult to quantify and measure them because competitive intelligence is both a process of gathering information and a product resulting from analyzing such information.⁵⁷ Building a culture that is open to continuous learning is the key to addressing this issue, because only in such a culture will each employee serve as an avid market sensor that keeps the firm constantly informed of the competition.

Third, managers should be aware that the effectiveness of their competitive intelligence systems is a product of both individual and organizational factors⁵⁸ and thus are only as good as the system inputs. Finally, an implicit message from this chapter is that improving competitive intelligence systems depends on a balance between comprehensiveness and specificity. On the one hand, managers should have an understanding of the contextual factors surrounding the firm and its competition. This understanding allows managers to be efficiently focused on the crucial components of their competitive intelligence systems. On the other hand, managers should not lose sight of the big picture of the entire competitive intelligence system to ensure that its components work well together and dovetail with other market information processes, such as customer-focused assessments. As Day⁵⁹ succinctly puts it, "both the customer and competitor focus, in isolation, will eventually become a misleading mental model, narrowing the scan of the market."

Conclusion

Competitive intelligence represents a useful market sensing tool for executives to make informed business decisions, both at the tactical and

strategic level.⁶⁰ This chapter has covered some key issues related to competitive intelligence systems and its effectiveness. Much of the discussion on competitive intelligence systems is primarily based on the traditional stage-based model of competitive intelligence. More recently, this model has been criticized as having many limitations, the most critical of which is being too reactive and tactical.⁶¹ In light of this, there has been a movement toward an emphasis on the proactive aspect of competitive intelligence systems. This shift from a reactive system to a sense-and-respond approach underlines the notion of vigilant market learning in market sensing.⁶² Regardless of the approach, ethical standards should always be observed when collecting such data.

Notes

1. Day and Wensley (1988); Foley and Fahy (2004); Slater and Narver (1995).
2. Cartwright, Boughton, and Miller (1995); Lackman, Saban, and Lanasa (2000).
3. Vedder et al. (1999).
4. Lackman, Saban, and Lanasa (2000).
5. Wright, Eid, and Fleisher (2009, 942).
6. Foley and Fahy (2004).
7. Ohmae (1998).
8. Day and Wensley (1988).
9. Ahearne et al. (2013).
10. Fleisher and Blenkhorn (2003).
11. Fleisher and Blenkhorn (2003).
12. McGonagle and Vella (2002).
13. Francis and Herring (1999); Gieskes (2000).
14. Ahearne et al. (2013).
15. Blenkhorn and Fleisher (2007).
16. Cartwright, Boughton, and Miller (1995).
17. Gilad and Gilad (1988).
18. Bose (2008).
19. Francis and Herring (1999); Herring (1999).
20. Gilad and Gilad (1998).
21. Maltz and Kohli (1996).
22. Gilad and Gilad (1998).
23. Gilad and Gilad (1998).
24. Maltz and Kohli (1996).

25. Bose (2008).
26. Slater and Narver (1995).
27. Day (1999, 101).
28. Maltz and Kohli (1996).
29. Maltz and Kohli (1996).
30. Marin and Poulter (2004).
31. Shah, Dirks, and Chervany (2006).
32. Kalinowski and Maag (2012).
33. Lackman, Saban, and Lanasa (2000).
34. Rothberg and Erickson (2012).
35. Herring (1996).
36. Blenkhorn and Fleisher (2007); Kalinowski and Maag (2012); McGonagle and Vella (2002).
37. Brooks (2013).
38. Evans and Schlacter (1985).
39. Gieskes (2000).
40. Le Bon and Merunka (2006).
41. Herring (1999).
42. Gilad and Gilad (1998).
43. Rossi (2015).
44. Gilad and Gilad (1998).
45. Maltz and Kohli (1996).
46. Moorman, Despondé, and Zaltman (1993).
47. Gieskes (2000).
48. Huber 1991; Slater and Narver (1995).
49. Sullivan (1997).
50. Ahearne et al. (2013).
51. Flaherty et al. (2012).
52. Prescott (2001, 5).
53. Tuohy (1991).
54. Tuohy (1991).
55. Tuohy (1991).
56. Smith, Wright, and Pickton (2010).
57. Gainor and Bouthillier (2012).
58. Fleisher and Wright (2010).
59. Day (2002, 249).
60. Priporas, Gatsoris, and Zacharis (2005).
61. McGonagle (2007).
62. Day (2011).

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CHAPTER 4

Market Sensing and Sense Making Using Unstructured Big Data

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Introduction

Social media, mobile devices, and other technological advances have fundamentally changed the behavior of the empowered and skeptical consumer and the nature of marketing and consumer research, and as a result, the nature of our approaches to market sensing. The always-connected, always-commenting consumer has created more market information than ever before and continuously creates market data in real time. This market data is broader, deeper, more timely, and less biased than any other source. Unguided in nature, unstructured consumer content posted on social media sites, review sites, news sites, blogs, and forums enables the researcher to conduct both large scale market sensing through unstructured big data analytics over time, as well as gain real time understanding of emerging consumer needs, early indication of changing trends, and competitive intelligence.

Early work in the emerging area of social intelligence has been exciting and frightening to researchers. Results have been characterized by brilliant insights at best to misleading or inconclusive insights at worst. More exabytes of Unstructured Consumer data are created every day and while unstructured data contains rich, deep, continuous, and contextual market

information, it is by nature more than 90 percent noise¹ and most of the signal is difficult to extract. The challenges of extracting information from unstructured big data (digital ethnography or text mining) to make it usable for market sensing is literally as big as the data itself. As the first section of this chapter will explain, advances in digital ethnography can address the challenge of making sense of the exponentially growing volume of real time data of the consumers' conversations. Yet the challenge is, can these data and the advances in unstructured data analytics that allow us to evaluate them, provide us real time market sensing. And can this continuous form of vigilant market learning enhance deep insights with an advance warning system to anticipate market changes and unmet needs. The premise of this chapter is that the answer is *Yes!* Unstructured data analytics, on external social and online sources and internal unstructured customer data, when done right and with the proper analytics, is very valuable, as seen in Figure 4.1.

Unstructured Data Analytics from, social media, open internet, and internal unstructured customer and employee data can provide unique accurate, valid insights into questions such as:

- What are consumers' evolving and unmet needs?
- What are consumers' perceptions, preferences and behavior toward my brand and its competitors?
- What are the key current and evolving threats to my business?
- What are the key short and long term opportunities?

Additional Unstructured data analytics can provide a broad Peripheral Vision of markets, threats, and opportunities from what Day describes as "the 'fuzzy zone' at the edge of the organizations focus where early opportunities of both threats and opportunities can first be sensed."²

The chapter addresses four key questions:

1. What are the key challenges facing digital ethnography and how can they be resolved?
2. What market sensing insights can digital ethnography provide, and have they actually been delivered?—Insights and lessons from five live cases.

The value in unstructured big data is enormous and necessary for predictive analytics

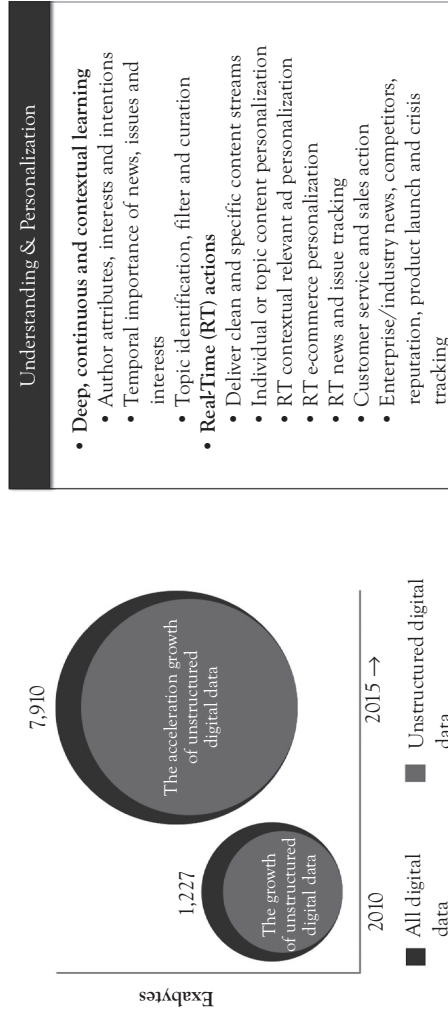


Figure 4.1 Unstructured data growth and opportunities

Source: Gartner, Booz-Allen. www.boozallen.com/media/file/data_FSpdf

3. What are some of the practical implications of real time unstructured data analytics?
4. How can digital ethnography capabilities be integrated into a comprehensive market sensing system, and what should management do to benefit from it?

Unstructured Data Analytics and Its Challenges

The challenge of big data was clearly articulated by George Day who stated, “It is timely because the ability to glean market insights ahead of rivals is increasingly important to strategy-making, while much more difficult to do because of the avalanche of data unleashed by digital technologies.”³ When focusing on unstructured data, there are five key challenges to overcome for reliability and validity in extracting actionable insights from large-scale unstructured data, as suggested in Figure 4.2.

1. *Volume or Velocity*: Unstructured data is very big and growing exponentially. Eric Schmidt of Google is quoted as saying, “Every two days now we create as much information as we did from the dawn of civilization up until 2003,” and “The real issue is user-generated content.” In 2015 according to Booz Allen there will be 7,910 exabytes of data created, out of which 90 percent, will be unstructured, and 68 percent of all unstructured data will be created by consumers consisting of tweets, blogs, comments, posts, and images. In addition, every enterprise has large amounts of internal Unstructured big data, call center audio and text notes, open-ended survey results, customer e-mail, chat forums. Both datasets have tremendous value if they can be analyzed accurately, consolidated and correlated with structured data to provide comprehensive deep and real time market sensing.
2. *Noise*: Includes irrelevant mentions, spam, and even intentional deception. Advanced Technology is key to removing noise and decoding the contextual signals hidden in the volume of unstructured big data. Keeping up with the velocity at which unstructured data is created, answering the number of questions we want to ask of it, and getting answers in real time so we can act, complicates the big computer challenge exponentially. While parallel processing, big

The value in unstructured data extends well beyond simple patterns, but it's both difficult and expensive to extract

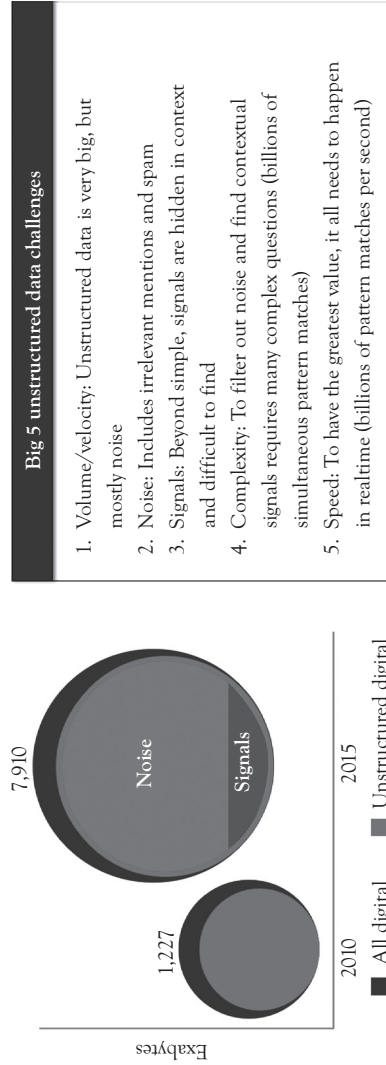


Figure 4.2 Unstructured data challenges

Source: Gartner, Booz-Allen.

math and algorithms behind the technology are the domain of data scientists, there is fundamental, often overlooked, need to first clean unstructured big data since it mostly consists of noise.

3. *Signals:* Beyond simple keywords, much of the signals in unstructured consumer generated data are hidden in context and difficult to find. The value of unstructured big data for market sensing includes the knowledge we can know, that we could not know before, or could not afford to study; segments we can organically identify that were always there but beyond our sensing, or that we could not get fast enough to act in time. Unstructured Big Data analytics with advanced, state-of-the-art technology and deep experience presents a new window into consumer attitudes, interests, emotions, perceptions, preferences, intentions, and behavior that create, drive, and disrupt markets.

We can now tap consumer information that was previously unavailable to marketers since consumers publicly share their interests and beliefs openly with each other we have the mindset to leverage the proper technology and methodologies to understand these signals.⁴ We need, however, to recognize the limitations and inherent biases of traditional survey methods and focus group interviews and embrace the value of consumer conversations on the social media and the benefit of very larger sample sizes and even the full universe of data in the millions, and specific segments in the tens of thousands. While marketing research has been doing the best with the limitations of past methods and the fundamental biases of non-respondents and leading questions, the new world of digital ethnography allows us to gain new insights listening to hundreds of millions of organic conversations in their natural habitat created every day of the week without the traditional biases of marketing and consumer research.

4. *Complexity:* The key to filtering out noise and finding contextual signals in Unstructured big data is applying many more, and much more complex, algorithms to the data to clean, discover, and classify the information hidden in the noise. Simple keyword matches or short Boolean strings are not very effective in reducing noise or finding contextual signals. Complex blocks of regular expressions— assembled into specific noise reduction and signal discovery and

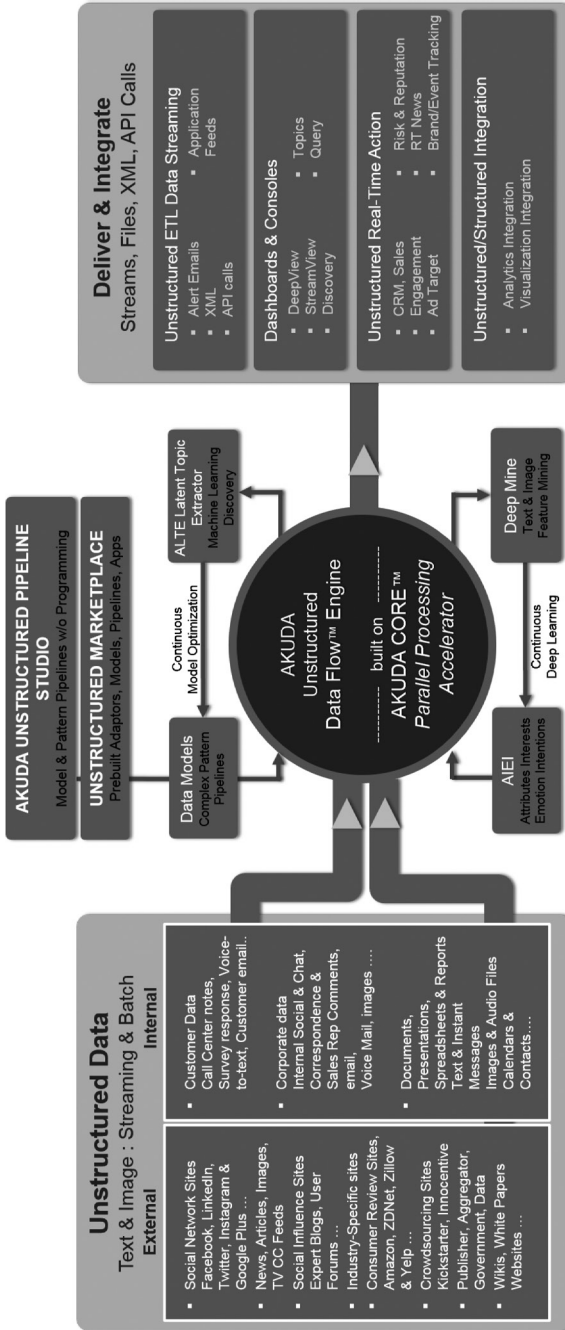
classification models joined into parallel processing pipelines—have improved unstructured analytic significantly. This enables us to rapidly construct model pipelines that can literally analyze multiple fire-hose feeds of billions of posts per day for billions of patterns within. Complexity of algorithms at scale is called Big Compute and it is required to extract quality information and the most value from Unstructured Big Data.

5. *Speed*: To have the greatest value, information extraction needs to happen in real time. While deep learning from unstructured data provides marketers valuable discoveries, insights, and tracking, the greatest value in all consumer data is in understanding what consumers want at the moment they want it and, using predictive analytics, before they want it. Always connected technology has fundamentally changed the consumer, has changed the requirements for market sensing and changed forever how we market. Time is compressed; *now* means *this minute* and not *today*. Opportunities can come in a flash, often pivot quickly and frequently, and can expire just as quickly. Market sensing has the most difficulty with the new now of real time, which is really real time! The challenge is in the math of the volume and speed of the unstructured data, multiplied by the number and complexity of the algorithms we need to run against each piece, divided by the speed we want our answers in time to act. Billions of pattern matches per second are required to analyze unstructured data and deliver for action in the same second.

Insightful Market Sensing Using Unstructured Data Analytics

To illustrate the value of digital ethnography as a methodology for market sensing, we present five case studies developed by ListenLogic analysts who provide Sense Making for its clients, powered by AKUDA's unique Unstructured Data Flow technology. The underlying methodology is outlined in Figure 4.3.

The following five cases offer a range of applications to various dimensions of market sensing.



Concept & Contextual > Regular Expressions > Complex Models > Complex Model Pipelines > Massively Parallel Multi-dimensional Filter Networks > Structured Data

Figure 4.3 AKUDA unstructured data flow detail

Case 1. Sense Making: Relevant Signals Without Noise and Market Assessment and Response Segments

Objective: Case 1 is a B2B division of a large multinational that sells electrical tape. Company wanted to see if Social could be used to identify conversations about their products from the professional user community to provide insights on a range of questions including path to purchase, pricing, competition, and loyalty. Insights were to be used to design engagement strategies and guide content development and placement for specific customer segments.

Challenge: Company could not find target professional users among the large amount of irrelevant or consumer *tape* and *electrical tape* noise, including 13 other distinct items in their product line.

Approach: AKUDA developed models to eliminate noise of consumer and irrelevant conversations (1.5M) and channel relevant professional conversation streams for analysis. ListenLogic Analysts used data for segment, channel, influencer, and insight discovery.

Results: A specific professional online community within a large overall number of relevant conversations about electrical products or tape was identified, in which four significant professional personas and numerous community influencers were discovered. Additionally, a community presence was found for other brands in the form of sponsorship and direct interaction with community members. The average 52,000 conversations per month found was the largest group of professionals the company had ever studied. Company designed strategies to directly engage with community members for further insight into path-to-purchase, and to reinforce brand presence through content placement. Company addressed unique unmet needs of the female-based persona group discovered by enhancing women-centric Social campaign efforts and fostered innovation through incorporating these unmet needs via existing product innovation and strategy. Figure 4.4 summarizes the key results of this study.

Case 2: Market Sensing Involving Organic Measurement of Relevance to Legacy Segments

Objective: A large Consumer Products company wanted a fresh approach to their well-established market. Peripheral Vision Market Sensing using

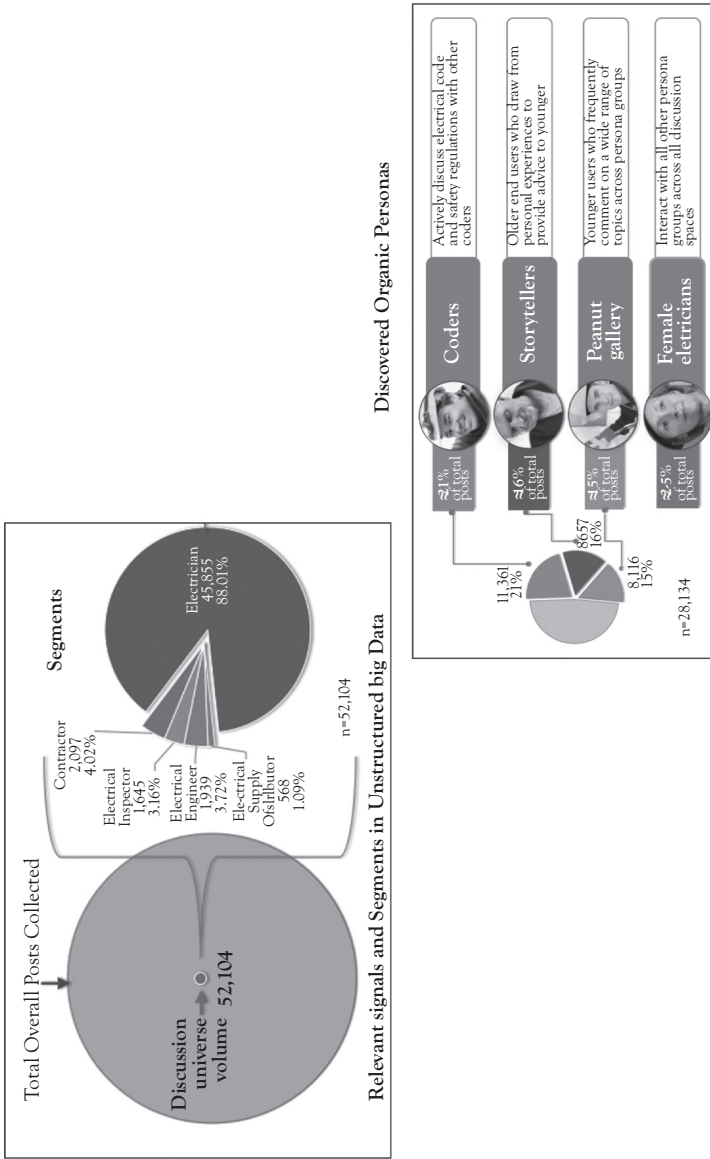


Figure 4.4 Discovering relevant signals and segments in noise

large scale consumer posts was used to discover new segments as well as assess relevance of pre-defined segments. Mature company dedicates significant budget to ongoing market research by traditional means.

Challenge: Very large volume of irrelevant and non-related conversation attached to common keywords associated with their product space.

Approach: Deep Baseline study. AKUDA developed models to eliminate irrelevant conversations (millions a month) and channel relevant conversation streams for analysis. ListenLogic Analysts used data for segment, channel, influencer, and insight discovery.

Results: Discovery and evaluation of five segments, including *Antihistimoms—Frantic seekers of effective remedies for their children's symptoms*. Identifying and validating the primacy of *Sneeze Company* as number one organic segment (and symptom) driving the market. New understanding of how little organic conversation occurs around legacy *Dander* segment. While *Sneeze Company* was the biggest segment, the real discovery was around the behavior of the Antihistamoms—not the biggest voice, but a group that is the primary purchaser for the other segments (i.e., moms are the ones buying allergy meds for the family, which includes many members of the *Sneeze Company* and other segments, so targeting this segment is in a sense addressing most of the whole). Based on the study, the company focused its efforts on one segment instead of four. Figure 4.5 summarizes the key findings of this study.

Case 3: Market Sensing Unmet Consumer Needs Through Expanding the Path to Purchase, Establishing Baseline, and Measuring Effectiveness of Campaign

Objective: Provide a deep dive into new therapeutic area of Low T to inform on Patient Journey (path to purchase) to design messaging and campaigns for product launch.

Challenge: There is a very large amount of mostly irrelevant *Testosterone* discussions (jokes, slang, and spam). Therapeutic category and products are very new.

Approach: Base line study of space, Patient journey development, lexicon development for online marketing. AKUDA developed complex models to eliminate irrelevant conversations (millions a month) and

Organic segment discovery and relevance

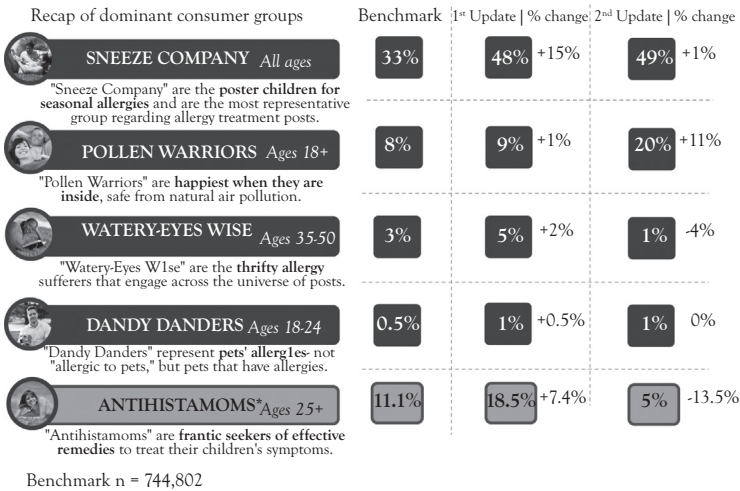


Figure 4.5 Organic segment discovery and relevance

channel relevant conversation streams for analysis. ListenLogic Analysts used data for segment, channel, influencer, and insight discovery.

Results: By isolating over 400,000 relevant conversations we discovered predominant organic conversations occurring around symptoms and not the therapeutic area. These insights were used for marketing messaging and channel plan during launch.

Note: The Company did study the prediagnosis stage (also known as the symptomatic stage), but this population was small, identified as having few, very specific symptoms, directly related to Low-T (like low free-testosterone levels from blood tests or based on an HCP's qualitative assessment of reported symptoms and subsequent prognosis with a Low-T treatment). What the company did not know was the large presence of the PRE-SYMPTOMATIC stage (i.e., the guy that goes online to talk about his depression and how it's starting to affect his sex life, not aware that these could be symptoms of Low-T).

There were over a 100 symptoms characterized as *pre-symptomatic* of Low-T, each of which fell into a classification of being mental (e.g., depression), physical (e.g., loss of muscle mass), or sexually-based-physical (e.g. erectile dysfunction). Working with the client, we developed a large set of inclusion criteria based on the presence of these symptoms within certain

class requirements. We leveraged AKUDA technology and designed a modeling scheme to execute this and capture relevant conversations from people who are pre-symptomatic of the Low-T journey—a segment that had previously been virtually impossible to capture. In summary, we created an entirely new, relevant patient journey stage for the entire therapeutic area, not previously recognized in the industry, and it tripled the target audience for the company.

Efforts were made by the company to target the large segment of pre-symptomatic consumers. The results from the follow-up that took place two years later showed the majority of conversations occurring online at any given time about Low-T were in the initial and managing treatment stages (75 percent at a treatment stage) compared to the pilot that showed less than 30 percent of all conversations occurred at a treatment stage. The key results of this study are summarized in Figure 4.6.

Case 4: Market Sensing and Response Emotions Across Segment and Patient Journey

Objective: Provide a deeper understanding of cancer patients of a specific type and their emotions as they progress along their journey from recently diagnosed through treatment to remission or progression of disease to shape messaging and engagement.

Challenge: Many long and deep cancer discussions are full of emotion but often vague as to specific cancer or stage of therapy. Emotion is contextual and difficult to discover and track in significant number with acceptable accuracy.

Approach: Specific study of patient journey and emotions along journey. AKUDA developed models to identify specific cancer and stage from conversations (millions a month) and channel relevant conversation streams for analysis. ListenLogic Analysts developed accurate, cancer specific, emotional classification models and validate across stages. ListenLogic Analysts used data for segment, channel, influencer, and insight discovery.

Results: Company learned that the emotions found in the first stage (diagnosis) of the cancer journey coincided with existing content and messaging, however the emotions mapped across the middle stages of the journey (initial treatment and regression) were unexpected and did

Purchase path discovery, baseline, & campaign effectiveness

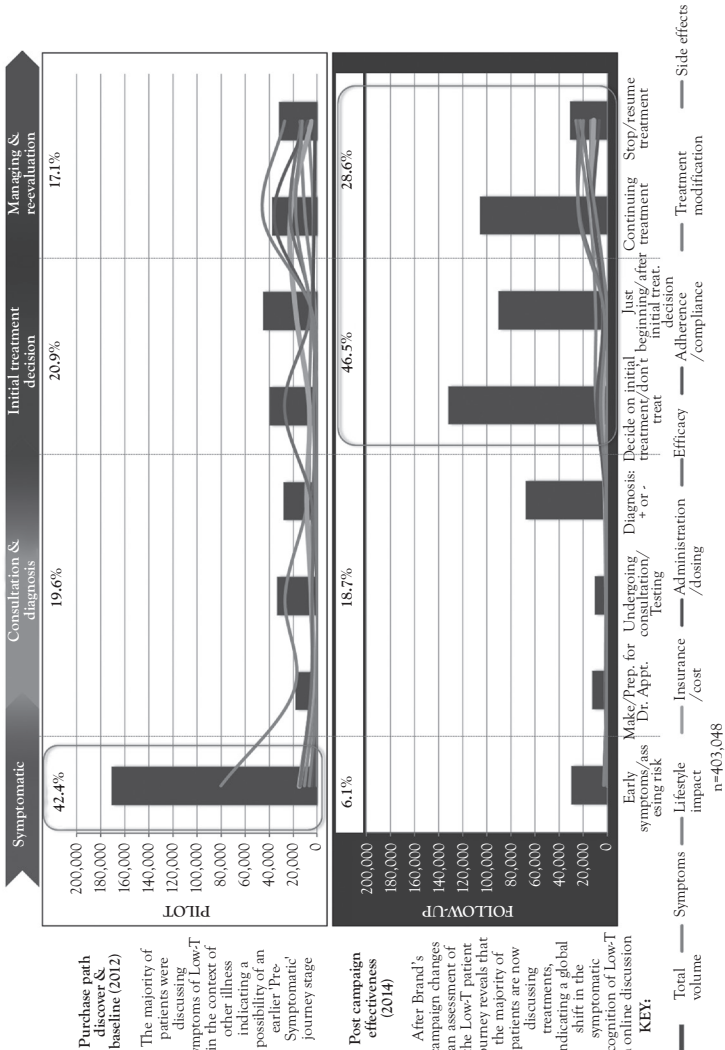


Figure 4.6 Purchase path discovery, baseline, and campaign effectiveness

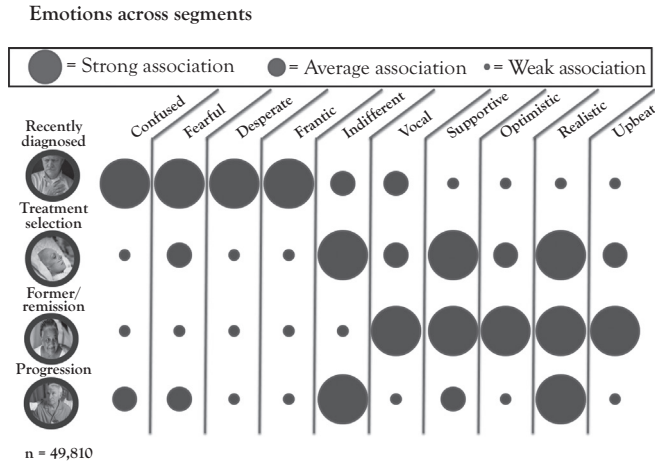


Figure 4.7 Emotions across segments

not coincide with the existing strategies that focused on those segments. Based on our findings, content and messaging for those segments was revamped to reflect the emotional insights from our analysis. The key results of this study are presented in Figure 4.7.

Case 5: Outside-in Market Sensing: Challenging the Status Quo—Survey Versus Unguided Organic Social

As reported by Day, the importance of outside in strategic thinking challenges the bias perspective defined by the corporate culture and history. “The essence of this approach to strategic thinking is for management to stand in the shoes of the consumer (as well as the channel partner and competitor) and assess the firm’s offerings and value proposition.”⁵

Objective: Obtain a clean signal from social to identify and track over 50 very specific issues company has been tracking for decades through extensive legacy methods of open and closed-ended surveys. Correlate results with survey results to identify gaps and validate or challenge survey results using unguided social listening.

Challenge: Online insurance conversations are extremely high volume (tens of millions a month) and noisy, spammy. Brands’ extensive advertising, sports sponsorship, and online content marketing add significantly to noise.

Approach: AKUDA developed models to eliminate noise of consumer and irrelevant conversations (10+M/Mo) and models to identify specific conversation streams for analysis. ListenLogic Analysts used data for extensive study and continuous tracking of customer.

Results: Legacy survey questions may be driving the analytics indicating:

A 4× greater emphasis on pricing than exists organically online

A 7× greater emphasis on Premium Increases than exists organically online

Organic Unstructured Social Discovery indicated consumers are:

4× more likely to talk about claims online

10× more likely to talk about switching companies online

10× more likely to discuss competitive products online

Next steps—Survey design changes are being tested to include new open-end claims related questions. Client is extending the analysis to include all its Internal Unstructured Data from call center voice and text, open-ended questionnaires, and unsolicited communications from customers to gain a holistic view of the customer and integrate this with structured data from cancellations, renewals, and switching to understand the *why* of customer behavior. The key results of this study are summarized in Figure 4.8.

These five cases illustrate the range of market sensing decisions for which digital ethnography can be used. They are summarized in Figure 4.9.

Practical Implication of Real Time Unstructured Data Analytics

Real time Unstructured Data analytics is a game changer in the areas of market sensing, sense making, peripheral vision, as well as real-time marketing actions. Real Time unstructured Analytics are being used today for a wide range of marketing and other corporate uses including:

- Innovation and product development
- Pre-launch and launch tracking and real time adjustments

Guided survey versus Unguided social question bias versus Organic

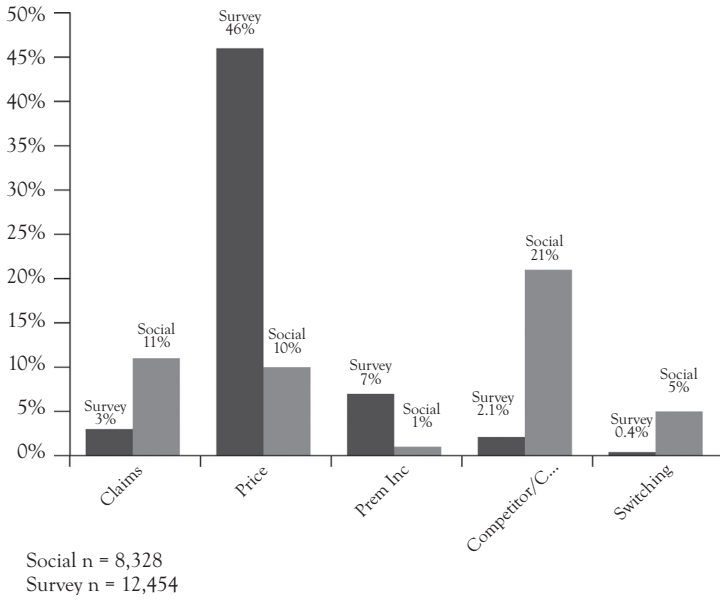


Figure 4.8 The former guided surveys versus organic discovery

Overview of the five cases and the decisions they impacted

Marketing sensing re:	Case				
	1	2	3	4	5
Discover & evaluate new market segments	✓	✓		✓	
Discover unmet market needs	✓		✓		
Discover path to purchase	✓		✓	✓	
Insights to communication strategies	✓		✓	✓	
Insights to product innovation	✓				
Measuring effectiveness of marketing programs			✓		
Customer engagement				✓	
Identify the bias of traditional survey					✓

Figure 4.9 The latter guided surveys versus organic discovery

- Marketing and communications monitoring
- Risk, reputation, and crisis management
- Real time personalization of content

- Real time advertising targeting
- Deep learning of attitudes, intentions, emotions, and behavior
- Real time competitive actions and reactions
- Real time market pivots

The depth and breadth of the information now available combined with the accuracy and speed at which we can understand and use market information enable the vigilant and agile organization to identify new opportunities and avoid threats in real time. While it is difficult for even the most vigilant and agile organization to digest and make sense of the new streams of information in real time, fortunately, a firm only has to make sense of its markets faster than its rivals to gain a sustainable advantage.⁶

These real time capabilities are the true game changer. Changing the traditional market sensing approaches from the analysis of historical data, with or without forecasting, to a real time analysis of unstructured data and its integration with structured data is a fundamental paradigm shift. Today, when we live in an environment with an exponential rate of change, it provides the tools needed for outside in strategic thinking. When such real time data is integrated in the organization's management dashboard, the market sensing becomes a powerful risk management tool and key to the identification, screening, and evaluation of innovative opportunities. It is a must have for any agile and innovative organization.

Integrating Unstructured Data Analytics in a Market Sensing System

Unstructured Market Sensing is not the *be all to end all* for research and it is not without flaws. But Unstructured Market Sensing, that uses state-of-the-art technology and proven methodologies that address the five challenges outlined in section “Unstructured Data Analytics and Its Challenges” is the largest, deepest, continuous, and real-time source of consumer interests, needs, perceptions, preferences, and intended and actual behavior available to researchers today. It is the most timely and

efficient way to discover and track emerging trends, shifting trends, and market disruption, and the real-time source of competitive intelligence. Unstructured Market Sensing can replace some current methods because it does it faster and less expensively, but it is best when used as a forerunner of and in conjunction with existing methodologies. Unstructured Market Sensing discovers the questions and conversations consumers have but it cannot ask questions or offer choices like a traditional survey. Most importantly Unstructured Market Sensing is most powerful when it looks at external and internal unstructured data and is combined with structured information and other ways of answering the *why*.

The solution to conflicting and imprecise market information lies in the fusion of multiple data types and sources to provide an integrated picture. Actual numbers of sales and users behavior from structured data, and the results of carefully designed experiments, and increasingly, data from the Internet of everything when combined with attributes, interests, emotions, and intentions of the people driving those clicks from unstructured conversations, provide deeper insights into user, and prospect behavior and actual business outcomes and better insights and early warning signals for market sensing.

Conclusion

Sophisticated unstructured big data analytics, batch and real time stream, applied to the vast amount of open social and open Internet content as well as internal unstructured customer data, provide the best tools for market sensing, peripheral vision, and sense making. Listening and discovering without predetermined bias at tremendous scale, it delivers broader and deeper insights, extending our knowledge across more domains than ever before. It often challenges or disproves long held but incorrect beliefs caused by outdated mental models. Unstructured Big Data analytics opens a new world of discovery—when combined with real time structured data, it enables us to see emerging trends and shifting trends earlier than ever before. Finally Unstructured Big Data Analytics enable a new class of predictive analytics not possible with structured data alone. Adding digital ethnography and its real time capabilities

to our set of market sensing tools adds greatly to our ability to deliver the promise of market sensing as envisioned by Anderson, Narus, and Narayandas⁷ to “enable firms to formulate, test, revise, update, and refine their market views, which are simplified representations of the market and how it works.”

Notes

1. Based on the extensive experience of AKUDA labs & Listen Logic
2. Day and Schoemaker (2006).
3. See Preface.
4. See Preface.
5. Gantz and Reinsel (2011); Nair and Narayanan (2012).
6. See Preface.
7. Anderson, Narus, and Narayandas (2008).

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CHAPTER 5

A Strategic Tool for Market Sensing: ZMET

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Introduction

Market sensing is now a table-stakes skill for any firm in today's global economy. Each week the business press has a story of a firm that overlooked an emerging trend, like Nokia ignoring the rise of smartphones until it had fallen far behind Apple.¹ In part, Nokia missed the signs because their great market strength was in Europe, Africa, and Asia, where they were clearly the market leaders, whereas Apple at the time was much more in tune with the North America region.²

The major advertising holding companies ignored the rise of Google for far too long just because Google had a different business model and was selling advertising space a whole new way in a whole new place called the Internet. Today Google is the largest advertising firm by revenue and market cap in the world. Meantime, the big holding companies are scrambling to gain digital advertising skills and business models.

Part of sensing the market today requires an expanded perspective on geography, category boundaries, and what is possible. The soft drink companies are just now waking up to the long-term decline of sugared

soft drinks as the centerpiece of their portfolio as informed consumers concerned about oral care and obesity move toward healthier options.³ The signs from health care experts, consumers, and competitors have been out there for some time, but the mainstream soft drink producers have been slow to respond.

Market sensing enables firms to avoid a myopic view of the market, read or anticipate emerging needs, and more accurately forecast consumer response to their competitive actions.⁴ Kohli and Jaworski⁵ state that firms with a market orientation are marked by “the organization-wide generation of market intelligence, dissemination of its intelligence across departments, and organization-wide responsiveness to it.” Bharadwaj and Dong⁶ build on this by arguing that firms with a strong customer focus boast not only finely tuned market learning activities but also an organizational culture that promotes customer-oriented practices. According to Day⁷ the process of market sensing is characterized by open-minded inquiry, synergistic information distribution, mutually informed interpretations by managers, and mechanisms to implant those learnings in the collective memory of the organization.

It is important to understand why market sensing is now a required business practice for most firms. Since the middle of the 20th century, a *power shift* has occurred, slowly but surely, toward greater and greater consumer empowerment. For many decades *marketplace power* was in the hands of the manufacturers—in particular large consumer packaged goods companies and durable makers with deep pockets and dominant market shares. For example, the *Big Three* American car makers controlled over 85 percent of the U.S. automotive market for much of the 20th century. But in the late 1980s and early 1990s the power of retailers emerged as new national chains like Walmart, Home Depot, and Target, along with strong regional players equipped with supply chain management skills like Walgreens and Ralph’s, began to shift the power away from the makers. Closely aligned with the shifting power to retailers was a shifting power toward the media companies who were getting bigger and gaining increasing power to call the shots. A most vivid example of this power shift was the rising costs of an National Football League (NFL) Super Bowl commercial.⁸

A new power shift is now happening with the increase in educated consumers, engaged consumers, and the expansion of the Internet to every home and every possible device to help consumers gain market power. They can time shift content. They can manipulate content. They can gain information about companies and brands anytime and anywhere. They can buy products electronically. The marketer or the retailer or the media no longer has full control of communication, distribution, marketing, or pricing. So at the heart of market sensing today must be the consumer and a firm's knowledge about them.

Of course firms must monitor competitors and technology trends, be up-to-date on emerging markets as well as developed markets, and be aware of political and regulatory shifts. But all of these contextual or environmental elements need to be sensed through the empowered consumer's eyes, ears, brains, and Internet devices. Marketers are beginning to realize this and are investing more and more in consumer knowledge. However, much of that investment is in gaining information on behavior. . . .the *what*. What are they buying? What are they watching or reading? What are they doing now? What are they planning or intending to do?

In a *Marketing Science Institute* article, Fournier⁹ wrote that analysts have a tendency to "reduce the data to empirical relationships with correlations like People in zip code X tend to buy peanut butter sandwiches." Although analyses like that are a little bit helpful, she goes on to add, "This information is without meaning. We are overly enamored of numerical information when we should be focused on meaning." Fournier urges researchers and marketers to care about the *why*. Why do they like peanut butter sandwiches? Why are they watching reruns of *Dr. Who*? Why are we struggling with obesity? Why do so many people love Apple so much?

Successful brands today clearly have been thinking about and digging into the why of behavior or nonbehavior. Almost every firm today has *what* or *how many* information, so this arena of *what* or *how much* or *how many* is not where competitive advantage comes from or where startups get their ideas. The best way to learn about the *why* is to focus on people (customers, prospects, and brand ambassadors), and dig deeply into the

meanings they associate with a brand, product, or service and the motivations for their behavior.

This chapter provides an example of how the funeral industry demonstrated its market sensing capability by using a qualitative research approach known as Zaltman Metaphor Elicitation Technique (ZMET), which is based on understanding how consumers make meaning and how the subconscious mind impacts emotions and choices. The research enabled the industry to understand the thoughts and feelings of the consumers it is losing and in turn provided firms with fodder for new communication and innovations that may win back the kind of consumers who are increasingly turning away from funeral homes and instead opting for cremation and no end-of-life service.

Background on Market Sensing Research for the Funeral Industry

The death care industry has experienced steady change over the last three decades. Increasing numbers of consumers have opted for cremation rather than more traditional services, which has translated into lost revenue for funeral homes. Meanwhile, funeral directors have struggled to adjust because they generally have not fully understood the reasons behind these shifting consumer preferences. This chapter details how the Funeral Service Foundation, an industry organization that serves funeral professionals, used a qualitative market research approach known as ZMET to understand the minds of those consumers who are leading the trend away from traditional end-of-life services. This is an example of the information acquisition step in Day's¹⁰ model of processes for learning about markets.

The research examines how this specific segment of consumers feels about not only traditional services but also the kind of ceremonies they would like for themselves. The insights that emerged can influence the kinds of questions funeral directors ask during the planning process, how they frame themselves in their marketing communications, and how they arrange the physical layout and floor plan of their funeral homes.

The death care industries are divided by practitioners into three segments:

- Funeral homes who primarily care for the body of the deceased, perform and orchestrate services, and help families comply with regulatory requirements
- Cemeteries who provide and maintain permanent places for disposition of bodies and memorials
- Cremationists who specialize in the removal and disposal of bodies through cremation. Typically, this segment limits its offerings to few or no services. Providers focus, instead, on a low price strategy that encourages the consumer's natural *death avoidance* behavior.

The research highlighted in this paper focused primarily on the funeral home segment.

Growth in cremation rates has been a significant trend for more than 30 years. Up until 2008, cremation had been encroaching on market share by a steady 1 percent per year. In 2008 that growth rate doubled and has continued at this new pace through the present.¹¹ This is problematic for the funeral home and cemetery segments because a cremation most often translates into significantly lower and even no revenue. In most areas of the country, cremation margins are less than half of burial margins.¹²

While cremation, as a form of disposition, dates back to the early part of the 20th century; until 1980 it represented less than 5 percent of all deaths in North America. The advent of *direct* disposition really began in the late 1970s. Starting with the bellwether states of Florida and California, this *disposition only* service grew rapidly in those states and then spread nationally. Currently, almost half of the deaths in the United States—and a higher percentage in Canada—involve cremation. The majority of cremations involve no service other than disposing of the body and local regulatory compliance.¹³

Funeral service, meanwhile, was completely unprepared for this change. This is perhaps unsurprising. The funeral industry had changed

little for many decades, and many funeral homes had been performing essentially the same tasks in essentially the same way for generations. However, organizations and industries that have *mastered* a way of serving customers are prone to inertia and rigidity, and thus often react slowly to shifts in the market.¹⁴

Until the Federal Trade Commission put a stop to it in 1984, it was the prevailing practice to sell merchandise in the form of caskets and vaults and give away the accompanying service. Cremation eliminates the need for the most lucrative merchandise offered by the trade. Although it may seem obvious, funeral home owners did not realize that this change signaled merely a change in consumer preference. Instead, they interpreted it as an outright rejection of the value of funerals and, in turn, funeral directors. So when a customer chose cremation, most funeral directors simply assumed they wanted no service. Over time, consumers adapted to this attitude and made the connection between cremation and low cost at the market level.

Locked in, as they were, to the sale of merchandise, funeral directors were unable to find a way to replace the loss in revenue. Further exacerbating this phenomenon was their almost complete reliance on the merchandise vendor for direction. For more than two decades this alliance caused the profession to continually raise prices on burials while actually lowering prices on cremation. The resulting chasm between the cost of cremation and the cost of burial is believed by many to be one of the catalysts resulting in the recent doubling of the growth in cremations.

As this trend has grown, the resulting erosion of revenue with its accompanying shrinking margins has created significant financial stress and spawned questions about the future viability of many funeral homes. Numerous research projects have been undertaken in an attempt to discover the drivers and motivators behind this *new* consumer. However, this research has been focused more on monitoring the changes in the marketplace and posing survey-style questions about behavior. As Day¹⁵ points out, those questions are unlikely to yield crucial insights into latent consumer needs. For instance, The Wirthlin Report has been repeated every five years as a joint project of the major trade associations. It studies the preferences and buying patterns of consumers across the United States. Unfortunately, these studies have limited themselves

to reputation questions and *top-of-mind* awareness. Traditional research such as this has simply documented the advance of cremation. No attempt had been undertaken to answer the question, *What do these people really want?*

The Research

The Funeral Service Foundation (FSF), a not-for-profit organization dedicated to the advancement of funeral service, turned to unconventional market research (something other than surveys or focus groups) to answer this question. The FSF sought to help its members (funeral directors and other industry professionals throughout the United States) understand the thinking of Baby Boomers who represent the leading edge of this change. This was an important initiative because the foundation's membership consists of a number of smaller firms, many of whom likely lack the resources necessary to engage in systematic and effective market sensing on their own.¹⁶ The FSF commissioned a qualitative research study using the ZMET to uncover the unconscious emotional reasons behind the shifting consumer preferences.

ZMET is based on several fundamental principles about the human mind and how people make decisions. First, most thoughts occur unconsciously.¹⁷ Therefore, direct questions to consumers about why they make the choices they make are likely to lead to surface-level rationalizations, at best—and unintentionally misleading responses, at worst. A related idea is that emotions play a critical role in consumer behavior.¹⁸ Therefore, organizations that hope to influence consumer choice must explore people's unconscious minds to understand their basis for their beliefs and behavior.¹⁹

Incorporating insights from clinical psychology, art therapy, cognitive neuroscience, and other disciplines, ZMET uses the power of metaphor to unlock consumers' most deeply-seated emotions and feelings.²⁰ Metaphor—defined by Lakoff²¹ as the conceptualization of one mental domain in terms of another—is not just a rhetorical device; it is critical to humans' conceptual system. Essentially, metaphor is what makes learning possible and is a key lens through which we interpret the world.²²

The ZMET process begins by asking respondents to collect images that represent their thoughts and feelings about the topic of interest. Typically, respondents clip these images from magazines or newspapers or find them online, but occasionally people are motivated to create their own images. The pictures serve as a starting point for a deep discussion of the topic, as trained interviewers use laddering—questioning intended to elaborate the psychosocial and emotional consequences of a particular choice or preference—and probes specifically intended to explore the meaning of various spoken and visual metaphors.²³ ZMET interviews are one-on-one discussions between a trained interviewer and a respondent that last between 90 minutes and two hours. Interviews typically take place in a market research facility. Analysts then read transcripts of the interviews with an eye toward the patterns of metaphor across the sample that explain consumers' mental model for the topic.

Day²⁴ describes several common market sensing activities designed to identify latent needs in the marketplace. As he explains, surveys with scaled response categories do not get far below surface-level thinking and are poorly suited for understanding consumer psychology. Another frequently used tool, the focus group, is hindered by issues of groupthink and social dominance, and does not allow enough time for a moderator to deeply explore the thoughts and feelings of any one individual.²⁵ Ethnographic approaches, in which researchers watch and analyze how consumers interact with a product or service in real time, can have value; however, these techniques typically don't allow for an investigation of why consumers are behaving as they are. Day identifies several effective techniques that can generate insights that help organizations anticipate market needs. ZMET falls into a category of what he calls *story-telling*, which consists of extensive open-ended questioning about how customers behave and feel, with the goal of understanding the unconscious beliefs and motivations that underlie their behavior.

The goal of the ZMET research was not to ask respondents to *play funeral director* and generate specific ideas about how to change the industry; consumers are not a reliable source of such breakthrough solutions.²⁶ Rather, the objective was to understand consumers' latent emotional needs and to use that to inform and guide the creative thinking of people inside the industry.²⁷

Project Design

In June 2012, Olson Zaltman Associates conducted 16 ZMET interviews with consumers who *probably* or *definitely* want a nontraditional end-of-life service or ceremony for themselves. (*Nontraditional* was defined as a service without the body of the deceased present, one led by someone who is not a member of the clergy, one that is not a religious service, one that is conducted significantly after the death occurred, or one that is not held in a place of worship or funeral home.)

All respondents were between ages 50 and 70 years and had thought about or begun the process of planning their own end-of-life ceremony. The sample was split evenly between men and women and included a mix of race, ethnicity, and religious affiliation.

Respondents were asked to collect two sets of images in advance of their interviews:

- Three or four pictures that represent *your thoughts and feelings about traditional visitations and funerals*; and
- Three or four pictures that represent *your thoughts and feelings about your end-of-life service or ceremony and what it means to you*.

These images were visual metaphors that represented respondents' thoughts and feelings, and they served as a springboard into a deep discussion of the unconscious ideas that people had in their minds about funerals.

Interviews lasted 90 minutes and were conducted in Overland Park, Kansas, and Atlanta, Georgia.

The Insights

In response to the portion of the assignment focused on traditional visitations and funerals, respondents assembled an assortment of gloomy, haunting pictures. They included an image of a shark hunting for prey, a black-and-white rendering of a barren tree in front of a small and apparently abandoned church, a man walking alone down an imposing set of

stairs with his head bowed, and a Dali-esque portrait of an eye peering through clouds and weeping tears into a body of water.

The imagery combined with the language respondents used to explain their meaning suggested that these consumers frame traditional funerals as akin to a *lonely, lifeless tomb*. It is important to note that tomb, in this case, is a metaphor for the emotional experience people have at these kinds of services.

Traditional funerals feel like lonely, lifeless tombs in three ways: The setting of the service, the mood, and ultimately how those in attendance feel.

The setting of the traditional service gives these respondents a sense of claustrophobia, both literally and symbolically. They describe the interior and furnishings of funeral homes and churches to be somewhat oppressive, compelling them to suppress their thoughts and feelings. One man brought in a photograph of the interior of an old country church and noted:

This reminded me of the stuffiness of the environment. My mother's funeral was in a church like that. I had a lot of memories of being suffocated in that church. [That is] how I felt in that environment. It was just uptight. It kept everything intact and locked down rather than encouraging people to be who they want. My mother's church had very low-key, staid protocols. And the funerals were that way, too. The tone of the funerals was very death and down. ...[Churches and funeral homes] separate you from the outside like a coffin. You feel enclosed.

In addition, the mood of traditional funerals was portrayed as dark and gloomy. As the respondent above alluded to, typical services seem to be solely about sadness and loss. When that is the case, it becomes difficult to see through the metaphorical darkness to truly understand more about the life of the deceased. Too often, the specific things that make each life unique are overshadowed by dry, impersonal platitudes about death. One participant clipped an image of Whitney Houston, who had died a few months before the interviews took place. The picture listed her year of birth and year of death, separated by a dash. For that respondent, the most important part of the image was the dash.

Those are the years you actually lived. So many things that you did and all you get is a dash. In the dash there *is* good times, bad times, great times. So many memories. There is so much that has happened in a person's life that you don't really get to know and express during traditional services. There's so many things that in a traditional funeral get overlooked. You don't get a chance to see the total person.

As a result, people told us that when attending funerals like this they feel alone and uneasy—something they don't want their own friends and loved ones to experience. The feeling of loneliness seemed to be particularly acute for men, who felt isolated from other mourners and who didn't see the funeral environment as one that allowed them to connect with others and express their emotions and memories in a way that felt comfortable.

Other respondents confessed to feeling uneasy with death and the open display of intense emotion, which contributed to their negative impression of traditional funerals. Often these uneasy feelings dated back to early childhood experiences. The respondent who brought in the aforementioned image of the shark on the hunt used that as a metaphor for this idea:

If you're under water with a shark, obviously you'd rather be on the surface. Nobody wants to go to a funeral. Funerals early in my life were kind of fearful. I think just being in the room with lots of people crying, that was very uneasy for me, even as a little child. The close relatives look a mess and are just destroyed. It's an emotionally charged time. You don't want to be there.

Respondents also felt as if they were being controlled. This is another experience they do not want their own friends and family to endure, and one that creates a general cynicism about traditional services. One respondent demonstrated this with a story about her grandmother's funeral.

Traditional services are almost a lecture, of sorts. When my grandmother died, there were readings from the Bible but they were

readings about sorrow. It was almost like we were being forced to feel sorrow instead of celebrate. I almost think of traditional funerals as puppetry with someone in control manipulating the people in attendance to act the way they feel is appropriate.

This tomblike experience in which people feel stifled, isolated, and controlled is problematic because it doesn't facilitate any kind of meaningful change or transformation. Mourners walk in just as sad and emotionally bereft (if not more so) as they were when they walked in. The overall message of these services seems to be almost completely about loss and finality.

The insights into how these consumers think and feel about traditional funerals are summarized in a consensus map—illustrated in Figure 5.1—which is a model of the key concepts discussed and the linkages among those ideas in consumers' minds.²⁸ The map shows the key emotions that consumers want to avoid—deep sadness and the frustration of being controlled—and the aspects of the experience that can trigger those feelings.

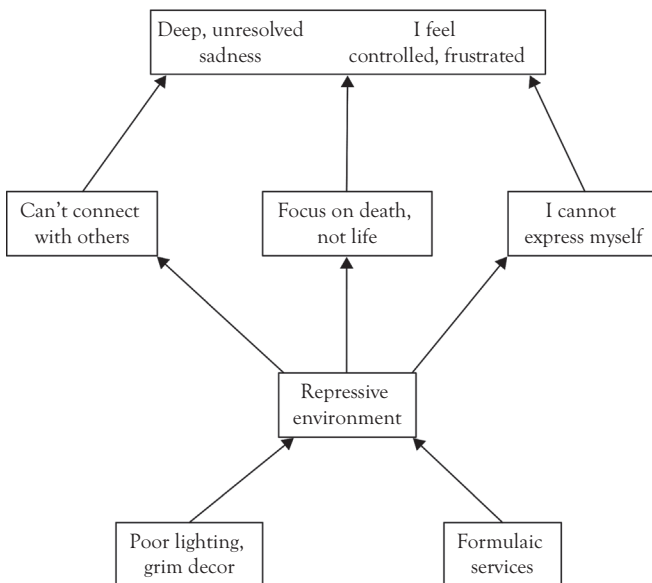


Figure 5.1 Consensus map for how the segment of consumers thinks and feels about traditional funerals

In contrast to the lonely, lifeless tomb metaphor, the kind of service these Baby Boomers want for themselves is more akin to a *crowning performance*. This performance, like all performances, has three key roles that need to be fulfilled—writer, director, and star. The respondents in this study want to play all three roles.

The Writer

Respondents frequently used book metaphors to describe their lives, as if they see their lives as an autobiography to which they are adding each day.

A funeral is closing the Book of Life. That book is the life you lived. Every day is a different page.

It's the end of that chapter. [The chapter is] common experiences, shared beliefs, words that were memorable, occasions that stood out. [When someone dies] that chapter comes to an end.

It's closing the book. We all have books, we all have chapters. We have our history and experiences.

The Director

These respondents expressed the desire to bring their story to the *stage* in whatever way they deem appropriate. They seek control over (or at least a voice in) five different aspects of that performance. Not all five of the following elements were important to all people; however, some subset of these elements was relevant to everyone in the study.

To describe the *mood* that they wanted at their service, respondents brought in colorful images of people dancing, fireworks, balloons, and grown adults acting in childlike ways. The theme was one of celebration—in contrast to desolate images used to express how traditional services feel. Although the funeral industry commonly uses the term *celebration of life*, it is clear that these consumers believe traditional services fall short of what they deem to be a true celebration, in which a person's life, values, and achievements take center stage and the focus is on the life that was lived rather than the sadness of death.

For some respondents, the *setting* of the service was of particular importance. One man from Atlanta symbolized this idea with an image of the woods near his childhood home in rural Virginia.

[This] is where I grew up fishing. It is a place that has meaning for me. That would be a good place to plant me, if it was available. I would be happy there any day of my life or any day not in my life. I have had good memories fishing in that spot. I have good memories of my grandfather in that spot. Lots of good things there. I always want to get back to that spot so it must have a powerful draw.

What we called the *soundtrack* of the performance—the music that is played—carried considerable symbolic meaning. Some people expressed a desire for hymns at their service. Other preferred popular music—like the participant who wanted Beatles music because their songs were big hits when she was growing up. Yet, regardless of the specific musical genre someone preferred, the common thread is that people wanted music that said something about them and represented their life or their values.

Props—the various personalized items on display around the room—are an especially important part of the service many Boomers envision. A respondent recalled a small, informal get-together at the home of a friend who had died and the central role that the man's personal belongings played in that quiet valedictory.

When Jim died, his wife asked us to come and celebrate his life by sitting in a room [with] the possessions that had a lot of meaning for him. His fly rod, his tobacco pouch, his pipe, flies that he tied, and his fishing vest were all on the table and we talked about him in a circle. His kids were there, his dog was there. I read a poem that I had dedicated to him. So we celebrated his life rather than marked his death.

Finally, what we called *costumes* (to fit in with the performance metaphor) were important to some. This could mean the clothes worn by the

deceased, either in the case of an open-casket funeral or in photographs displayed in the room. It could also refer to the mourners' attire. One respondent took inspiration from a memorial service for a friend in which the wearing of black was forbidden. The family of the deceased sat in the front row, resplendent in a rainbow of blues, greens, golds, and reds. The clothing established the tone as one of celebration and gratitude rather than one immersed in grief.

The Star

On the day of the service, respondents want their life and values to take center stage. They want their family and friends to gain a better understanding of how they lived their life, their personality, and the things that mattered most to them. One respondent claimed that his desire for this kind of service stemmed from a deeply dissatisfying experience at his father's funeral.

My dad was a real pacifist and this preacher got up there and started talking about how he was a war hero in the Battle of the Bulge. The truth is, he was with the mop-up forces and didn't see any action at all. She's glorifying him, and it's a bunch of B.S. It didn't have a lot of meaning, did it, if it wasn't accurate? It makes me want to steer away from the traditional type [of funerals]. If several people were to get up and talk about their own experiences it's more reality, not fabricated to sound good. Very candid—good or bad. I think everybody [would] walk away with a little better interpretation of the person's life.

These true, honest stories would drive home the main point that these respondents hope to communicate in their service—that their life mattered and that the world was at least a slightly better place for their having been in it.

I think everybody want to be remembered to a certain extent. Some people do great things and they are remembered that way. Other people are remembered by their family and friends. When

you have a celebration at the end of your life, it gives your life that last little bit of credence. You've touched people. There should be something that everybody should look back on and feel good about. [It is a reminder that] you made a difference.

These kinds of customized, uplifting celebrations have the potential to transform mourners in a way that these Boomers believe traditional services cannot—moving people from a state of mourning and sadness to a feeling of appreciation for the time they spent together.

When we left [my friend's funeral] everybody was laughing and talking about the person because we saw all the happy moments on DVD, the person moving around live. When we went to the party afterward, everybody was in a festive mood. We didn't grieve her life, we celebrated her life. I didn't leave heartbroken. [My heart] was sliced but it wasn't broken. When I walked away from there, I thought [she was] sort of still with me. I was basking in her achievements and her friendship and what she meant.

These consumers' thoughts and feelings about what they want in their end-of-life service or ceremony are summarized in a consensus map. This map can serve as a creative playing field upon which funeral directors can think about various ways to make the deceased appear like a star on the day of their ceremony. In a sense, services like these help the deceased achieve a form of immortality, assuring that they live on in the best possible way in the memories of the living.

Managerial Implications

The ZMET research suggests that although this segment of consumers tends to respect, they nonetheless view these practitioners as rigid and inflexible guardians of tradition. Not surprisingly, the physical aspects of facilities, messaging, and even staff demeanor often reinforce this stereotype. These insights into the thoughts and feelings of those on the leading edge of consumer behavior led to a number of ideas for how funeral homes can adapt in order to remain relevant.

Messaging

The commonalities among consumers ran far deeper than surface-level demographic differences such as race, religious affiliation, and geographic location. In this research the notion that a funeral should celebrate the life of the deceased and should tell the story of how their life mattered was a universal idea.

However, consumers do not see funeral directors as the kind of creative resource they need to help create these customized services. In fact, it isn't clear that funeral directors see themselves in that way. A small sample of interviews conducted with funeral directors suggested that they describe their primary mission as one of healing, not creative thinking.

Therefore, it is critical for funeral directors to rebrand themselves as caring creators whose mission is to help design services that celebrate each individual's unique contribution to the world.

Creating a nontraditional service

Funeral directors could begin to think about the process of creating a service as a multiphase process, and one that requires them to play a slightly different role at each phase.

Step 1: Starting the conversation. Upon the first meeting with a consumer who is preplanning her service—or even during the first meeting with family members who have just lost a loved one—the funeral director should act like a *researcher* and try to understand who this person is (or was) and why the person's life has significance. What events helped to shape them? What accomplishments are they most proud of? What are their hobbies, interests, and activities?

Step 2: Working out the details. Those who are preplanning probably already have a general idea of the kind of service they want; however, they likely need some inspiration to help them bring their *story* to the *stage*. The funeral director's role at this phase is to be like a *muse* who can spark that kind imaginative thinking and help people understand what is possible. The director could work with

consumers to customize important aspects of the service including (but not limited to) the mood, setting, music, props, and attire.

Step 3: Managing the service. On the day of the service, the director takes on the role of *stage manager*, ensuring that the plans are carried out and everything flows smoothly. Consumers already see funeral directors as efficient stage managers; however, with non-traditional services, the funeral director must be flexible because the location and other details of each service can vary significantly and some services will be rather free-slowng and improvisational and thus cannot be managed in a fixed, rigid sequence.

It would be important for funeral directors not only to adopt these roles but also to communicate about it, so that consumers begin to see the funeral director as a valuable creative resource, not just an efficient planner.

Funeral home design

Funeral homes should seek to mitigate the feelings of confinement and control and instead create an atmosphere that encourages openness.

In some ways, most funeral homes are built inside-out, with chapels located in the interior and offices along the perimeter, with windows facing the outdoors. Instead, architects and designers should consider moving the chapels to the perimeter, thus allowing more light and elements of nature into the service.

Other ideas include installing more furniture with rounded edges, which can make a space feel less intimidating.²⁹ A chapel with a living-room floor plan could replace the rows of institutional straight-backed chairs. Outdoor mourning spaces with campfires, grills, and portable bars—or even a *man cave* area with pool tables, TVs, and a bar—could encourage mourners to share their stories and emotions in a more informal setting. Rooms or displays with writeable walls could let mourners express why the deceased made an impact and why their life mattered.

Although not yet pervasive, a number of practitioners and vendors are successfully experimenting with the insights gained from the research. Indeed, some forward-thinking funeral homes were taking these first

steps even prior to the ZMET research. Visuals in some messaging have begun to shift from the somber, compassionate funeral director to uplifting visuals of the deceased during their lifetime. Some have updated their physical settings with a shift away from dark or earth-tone décor to lighter and more uplifting colors. Still others have adopted dramatic changes in venue; instead of single purpose facilities with *fixed pew* chapels, they offer multipurpose facilities that quickly can be transformed from a formal to informal style. Some funeral staffs exchange formal business attire for a business casual look, and instead of meeting with families in offices, they are experimenting with making arrangements in more casual settings within the facility, like coffee lounges. Some are even abandoning the casket selection room (an off-putting area for many consumers) in favor of electronic video demonstration screens. Of particular note is the increased willingness to hold services and receptions without the body present.

Conclusion

A new narrative has been introduced to replace the *order taking* style of funeral arranging. This narrative is expressed in a teaching style that invites the family to explore the emotional experiences they want an end-of-life service to provide and then how a variety of options can help them meet their individual needs. This narrative has been especially successful in opening up possibilities for those who might have otherwise opted for no service at all. Overall, the profession is slowly moving toward a more customer focused and individualized event structure to emphasize the final message of the deceased and their impact on the lives of others.

The ZMET research has helped the funeral profession face the fact that its conventionality and traditionalism was threatening its very existence and has enabled the industry to begin to grasp what modern consumers are looking for. As initial experiments with new approaches succeed, they likely will trickle down to the rest of the profession. Although it will be too late for some practitioners, for others it will be a new lease on life. For not only are these changes more attractive to consumers, but they have the potential to give new meaning and substance to the careers of those who serve those consumers.

The funeral industry had enjoyed decades of financial success with an unchanging model—a recipe for complacency and denial when eventually confronted with external changes.³⁰ By commissioning the ZMET research and publicizing the results at state and national conventions, the FSF has taken the first steps toward helping its members learn about the market—acquiring, distributing, and interpreting information that presumably will become a part of industry’s collective memory.³¹ The next steps in that process are currently unfolding, as the industry further develops its market sensing capability. Those actions include market experimentations with the insights—what Day³² calls *information utilization*—evaluating the outcomes of those experiments, and then learning from the success or failures. The ZMET study provided some examples of what the industry could do in terms of communication, the customized creation of services, and funeral home design but those examples were by no means exhaustive.

In short, the research was the first step toward a more comprehensive approach to market sensing and anticipating consumers’ latent needs in what had been, until fairly recently, a relatively staid and tradition-bound industry. In the future, the firms in the industry that will thrive will be those who adapt a more customer-focused orientation and remain vigilant to changes in consumer thinking and in the competitive landscape.

Notes

1. Troianovsky and Grundberg (2012).
2. Cheng (2012).
3. Zmuda (2014).
4. Jaworski, Kohli, and Sahay (2000).
5. Kohli and Jaworski (1990).
6. Bharadwaj and Dong (2014).
7. Day (1994).
8. Chemi (2014).
9. Fournier (2014).
10. Day (1994).
11. Cremation Association of North America (2014).
12. National Funeral Directors Association (2010; 2013).
13. Cremation Association of North America (2014).
14. Day (2011).

15. Day (2002).
16. Lankinen, Rokman, and Tuominen (2008).
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CHAPTER 6

Market Sensing in Practice with Google Analytics

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Introduction

When market sensing was introduced by George Day¹ in 1994, the Internet was at its infancy and methods to sense markets included qualitative research methods like interviews and focus groups followed by surveys and other quantitative methods. As noted in Figure 6.1 (adapted from Day, Figure 6.4),² the horizontal arrow was the process of market sensing with discrete steps like information acquisition, information distribution, information interpretation, and information utilization.

On the quantitative side, methods included surveys and databases that were dated in that they covered historical sales data. Old data is no

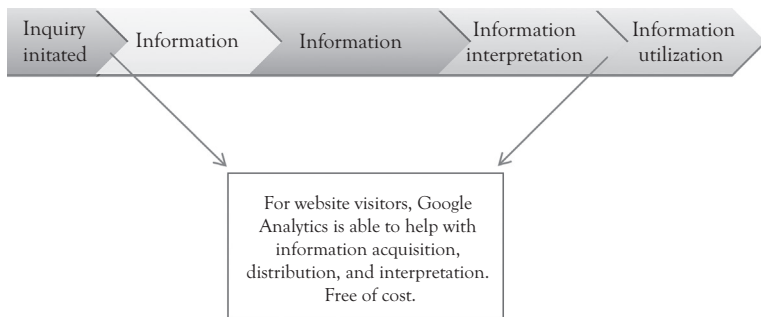


Figure 6.1 Market sensing and Google Analytics

longer relevant if businesses have to change at least as fast as the outer environment as Day³ points out.

Luckily, every organization with a website has a free tool in Google Analytics that provides a market sensing opportunity that involves fresh website visitor data. Installing Google Analytics on a website is simple and needs a snippet of code that is pasted on the website and detailed directions are available online.⁴ With Google Analytics, an organization is able to access website visitor information and completely cover the difficult tasks of information acquisition, information distribution, and information interpretation as follows:

1. *Information acquisition:* Google Analytics (GA) allows access to a website's visitor behavior. From a market sensing viewpoint, information is available about how visitors came to the website (for example, due to web search, web advertising, social media referral). GA also offers detailed behavior logs of how visitors navigated the website and where they left the website including abandoning of a shopping cart after putting a product in it. If demographic data is switched on, GA provides profiles of customers by age, gender and *in market* information of whether the person is in the market and has been searching for say, clothing. While the data is anonymous, it is available within 24 to 48 hours of the web behavior.
2. *Information distribution:* Information distribution from Google Analytics is relatively simple. All personnel who would benefit from looking at the raw data can be given different levels of viewer access to the data. Thus a profit center manager can be given access to only the web pages of the particular profit center. By providing access to multiple individuals across the organization, information distribution is enhanced including observing data on visitors on your website in real time. The possibilities of the market sensing activity for the web presence of the business are enormous as is illustrated, later in the chapter.
3. *Information interpretation:* Information interpretation in the pre-Internet notion of market sensing⁵ depended on the shared meaning of managers as they delve into organizational memory. The reporting

and dashboard features in Google Analytics allows the manager to create custom reports and dashboards that can compare the firm's website performance with itself over time and also benchmark its performance to others in the industry. It is also possible to share these custom dashboards, both through the GA platform, or as PDF reports that can be emailed to interested colleagues. Thus, if you see that in your industry, your visitor bounce rate, that is, visitors who leave your website after seeing only one page is higher than your industry, it is possible to investigate reasons and mitigate them in the content or navigation of that particular page. Above all, a detailed understanding of visitor behavior allows you to re-examine the offline behavior of customers that is already known to experienced managers in the organization.

There are numerous success stories⁶ of prominent brands using Google Analytics to improve market sensing and sales outcomes. For example, Puma using Google Analytics could test different headers on the website that resonated with web visitors. By choosing the most effective header based on Google Analytics data, sales increased by 7 percent.

The purpose of this chapter is to highlight some illustrations of market sensing, in practice that is possible via Google Analytics. The illustrations appear in the *StratoServe* Blog, written by the author, under the *Google Analytics* category and have proved to be among the most popular Google Analytics Posts on the *StratoServe* Blog. The original blog posts are edited for this chapter to be more relevant to the reader interested in the market sensing possibilities of Google Analytics.

The sections of using Google Analytics for market sensing start with assuming that potential customers have Googled your product and then covers a discussion that every business owner feels after starting a website. I next discuss the impact of search analytics on market research. Following the discussion on market research I touch on some key marketing topics on big data, sales funnel, using Google Analytics data to inform web content, and web advertising. Lastly, I discuss the need to have a mobile friendly website to be able to enable market sensing of a frequent mobile customer.

Assume That Customers Googled Your Product

Question: When was the last time you watched a movie on TV without checking its reviews? Keep in mind that when a movie is shown on TV it is not that Friday release but something older. Also a TV movie means that you have no marginal cost as you are anyway going to pay the cable bill. *Your only additional cost is the time you commit to watching a movie.*

Answer: Most folks are unwilling to invest the average 120 minutes on a Hollywood movie on a TV run without Googling the movie and checking reviews on Internet Movie Database (IMDb), Rotten Tomatoes, and so on.

Somewhat unkind is the restaurant customer who walks out of a restaurant, just as the waiter appears, because by this time the Yelp reviews can be seen on the customers' mobile phone (see Figure 6.2). In other words, almost no customer is likely to buy your product or service without Googling it first because people are doing research before spending *only time* in front of a TV and before deciding to have lunch sandwich costing \$8. All this is happening because of the fundamental disappearance of information asymmetry. Information asymmetry refers to the pre-Internet era in marketing⁷ when search needed significant effort like



Figure 6.2 Assume that customers googled your product

Source: www.StratoServe.com According to research by Google, 97 percent of people search online before deciding to buy from a local business. Ask yourself this one question and you will realize the extent of this problem (or opportunity) depending on how you frame it.

visiting different stores or looking for mail and newspaper offers that one could potentially miss. There was a time that it really mattered to have the movie or food critic writes a piece in the newspaper. The movie or restaurant would then take a blurb from the critic's writing and feature it in the promo for the movie or at the door of the restaurant.

Restaurants still do this, but frequently the customer decides not to try the restaurant based on reviews online and does not get the opportunity to see that wonderful review by the food critic of the newspaper. In other words, the *no go* decision is being made from the cell phone browser.

So where does it leave the business?

By assuming that people are Googling your product or service you can be empowered. Empowered to describe, explain, and justify why your product or service is great on a continuous basis. You get out of the mindset that the customer knows less than you about your industry, your competitors, or about how other customers feel about different offerings in the industry.

Assuming information symmetry can do wonders for a restaurant. Let us say that a New England snow beleaguered lunch place is getting bad or average reviews for its clam chowder soup but people like the piping hot turkey sandwich and the sweet potato fries. By trying to fix the clam chowder (relaunched as *new* clam chowder) and talking more about its popular products on the website and social media, the restaurant can turn things around.

Simply ignoring the customer voice or pretending that new or even existing customers will not check it is going back to the old times where information was power. Now that anyone with an Internet connection can instantly research your product or services gives equal and more power to the average consumer. In B2B markets, when a buying engineer Googles something they see, read, and understand things at quite a different and enhanced level than the sales engineer who is trying to make a sale from a canned sales script. Assuming that your customer has Googled your product and company, you can go a long way in improving the value of whatever you offer in the market.

Our Organization Has a Website: What Next?

We heard from several folks that our organization *already has a website*, but we are not sure what to do next. So here are five easy steps to take (see Figure 6.3):

1. *Your stakeholders are on a journey—help them:* Whether you are a business or a nonprofit you have stakeholders. And these stakeholders are on a journey to engage with you. For businesses your stakeholders include (a) customers and prospective customers, (b) suppliers and prospective suppliers, (c) employees and prospective employees, and (d) shareholders and prospective shareholders, and alumni in each category. If you are a nonprofit organization, you need to think of donors, volunteers, and beneficiaries. Your website should *help them through useful web content*.
2. *The web content secret—clear, concise, and fun:* Web content secret is not really a secret but seems rather unclear to most organizations. The secret is really to explain what you do, how you do it, and what each stakeholder can expect, when engaging with your organization. Being simple and clear is the goal here. Follow Mark Twain who said, “I never write Metropolis for seven cents because I can get the same price for city. I never write policeman because I can get the same money for cop.” Use hyperlinks to keep the text brief like referring to the link instead of writing it out entirely.

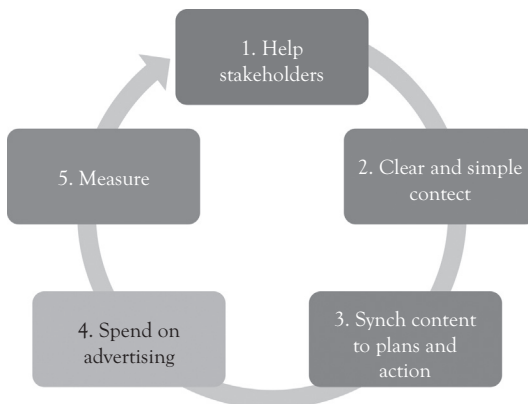


Figure 6.3 *Our organization has a website: What next?*

Source: www.StratoServe.com

3. *Synchronize web content directly from your organizations' actions and plans:* There is a crisis when it comes to updating website content. Synchronize or tie content updates to the daily stuff your organization is trying to achieve. Have an initiative? Have a great achievement or success? Stopping an activity for a good reason? Putting out an annual report—don't just PDF it—spell it out. Your stakeholders would love to know. Once again do not delete old content unless it is completely dated, for example if you sold a company division two years ago. Remember the holy grail of digital marketing is Search Engine Optimization (SEO) and it depends entirely on your web content.
4. *Spend on advertising* but only in addition to the earlier points. Spending on Google AdWords or other digital advertising and social media will magnify in impact if you have the above pieces in place; that is, your website is trying to help its stakeholders, content is clear, simple, helpful, and updated.
5. *Measure, measure, analyze, and reflect:* The impact of your website and digital marketing efforts are easy to track. Even though Google Analytics is free, most websites either don't have it installed or they don't analyze data on a routine basis. Your content drives traffic that is free and is the organic traffic. A simple analysis of visitor behavior gives you clues as to what to do next. For example, people spend a lot of time browsing some products; can you support those products with some digital advertising?

These are easy steps that need to be done on a routine. Reviewing your website marketing for just *two hours a month* will have much greater impact than making that one more sales call and, you already know that each sales call takes more than two hours.

How Google Analytics Improves Search and Changes Market Research Industry

The market research field before the arrival of the Internet, used to be just about figuring out what customers preferred, bought, or the media they watched. The traditional technique of gathering information was based on statistical sampling (you had to ask a sample of people from

your target market) and then tried to predict what the rest of your market would do. All this has changed with web analytics.

Once you start using Google Analytics and other web visitor analytics programs, you start appreciating the huge customer insight possibilities from these programs. In the *brick* world, let's say you have a retail clothing store in a mall with shelves of clothing. People seem to be always walking into the store and many folks are just there to check out your stuff. Even when you ask them (the classic *how can I help you*), they seem to respond the classic—*I am just looking ...* you are forced to look away and give them space.

Contrast this *brick store* situation to the website of the same store. Now analytics tells you a great deal about the behavior of each visitor to your store. These include how the customer:

- Found your store (Internet search keywords, advertising, direct to website)
- What products did the customer look at and how and where the customer left the store or exited—whether or not they bought something

Just the two pieces of the aforementioned information can help you make changes and see if they work. Let's say, several visitors look at a product and then leave it. Maybe just adding better pictures and clearer descriptions would help—try it!

Now to do the preceding research for a brick store is a huge deal. And no matter how well you sample and design your surveys and focus groups, you are really asking your respondents to recall what they did or are likely to do, not capturing what they *actually do*. Customer paid panel studies capture actual behavior but only what they buy not what products they pick from the shelf and put back! You would, however, get pretty good results from well-designed surveys, focus groups, and customer panels but there is this huge cost when you compare it to web analytics which is free for the most part.

Also, as businesses change their web storefront and content to more closely match what their visitors are looking for—they help improve the ability of the search engines to find them by better matching search queries

to the offer. The better search engine is the one that gets you what you are looking for and the store or content provider who delivers what the searcher is looking for tends to be higher on search engines and offers a whole new opportunity for the market research industry and web marketers.

Why Marketing Is Overwhelmed by IT and Big Data

Compared to other functional areas like supply chain, finance, or HR, marketing seems most overwhelmed by IT and big data. Edelman⁸ suggests how marketing and IT might co-ordinate and the blog had exhorted Ad agencies, marketing, and IT to start embracing this huge data opportunity in an earlier post on the digital marketing logjam. However, the question remains as to *why marketing seems to be getting most overwhelmed with big data* compared to other organizational functions. So here are some thoughts:

- *The sales funnel:* A whole bunch of solutions keep getting thrown at the IT folks in organizations that should help with the front of the sales funnel. These include lead generation systems from mailing lists to the website and social media.



Figure 6.4 Why marketing is overwhelmed by IT and big data

Source: www.StratoServe.com

IT folks dutifully inform the marketing colleagues about the barrage of solutions. Meanwhile, marketing has to cope with trying to prioritize various campaigns and also motivate sales colleagues to try out some of their suggestions. The sales folks are an entirely different group: where depending on compensation and rewards schemes, they might not even enter data at all—for the very real fear of losing out on commissions. Now IT might be suggesting a sales force integrated solution that looks neat and actually integrates well with the rest of the enterprise resource planning (ERP). However, it might have no relationship with the number of people in the marketing department who are fighting fires and the sales folks who are chasing targets with no mental bandwidth to really get to understand the capabilities of the latest software they are landed with. Forget about sophisticated data analytics, marketers don't seem to be checking out the possibilities of *free* Google Analytics data on the sales funnel as web analytics guru Avinash Kaushik⁹ suggests.

- *The customer relationship management (CRM) load is on marketing. Everyone is responsible for customers*, the CEO will tell her organization—but the workload of getting the data and doing something with it—falls squarely on marketing. Before social media and the Internet, CRM only meant keeping track of the kind of pizza your customer had ordered last time—if you were a pizza chain. Now you have to keep track of general social media like Facebook, Twitter, and also anything that might specially pertain to your industry like Yelp and Groupon or Living Social.

Now consider other functional areas like the supply chain which is central to this blog, and you can say the same thing about finance and HR. Here is how:

- *Supply chain*: No one expects the supply chain manager to be checking out what suppliers are writing on their Facebook pages about the organization.

- *HR and finance*: HR might be interested in your social media presence before hiring you, but no one really expects HR to check out employee Facebook pages either. And finance folks are similarly not held accountable for *feelings* of bankers and need to deal with more concrete type of metrics like credit ratings and interest rates.

In other words, marketing is the function that is most deluged with data and needs to urgently seek more organizational resources to be able to capture opportunity from this huge amount of prospect and customer data.

Content In-Page Analytics in Google Analytics Helps Understand Your Sales Funnel

Google Analytics has a tab under *Content* called *In-Page Analytics* which is a quick and ready way to look at how your sales funnel is doing. Let's understand with an example of a company that has four types of products categorized as A, B, C, and D.

You know that the final sales contributions are:

- 40 percent of the sales come from A.
- 30 percent of the sales come from B.
- 15 percent of the sales come from C.
- 15 percent of the sales come from D.

In other words closed sales are in the ratio of 4:3:1.5:1.5 between A:B:C:D. If your funnel is progressing at uniform rates, then *new visitors* on your website should be in the above ratios? Makes sense—if you think about it. Thus you should have, for every 100 new web visitors, a split on the product pages as 4:3:1.5:1.5 comparing A:B:C:D.

But, guess what—the preceding information assumes that the flow rate of leads that arrive on the website uniformly transfers to actual sales. OK, I mean there is the usual: percentages that drop off in the sales funnel from lead, qualified lead, prospect, and so on and that this is working equally well for all the four products A, B, C, and D.

A simple look (by just logging into your Google Analytics Account—the percentages show directly on every page) at your *In-Page Analytics* report may show something different. The percentages of *new visitors* on your website might be say, 20 percent on A, 1 percent on B, 10 percent on C, and 20 percent on D with the rest of the new visitors (50 percent) spending time or bouncing off from other pages of your website.

So when you compare closed sales ratios between A:B:C:D, it is 4:3:1.5:1.5 but your new visitor ratios are 2:1:1:2. And this tells you that the funnel could work better for A compared to B because getting twice the new visitors (2:1), it converts only 4:3 or can improve its performance by 50 percent.

One might argue that the previous logic is extrapolating web data to actual sales that might involve personal selling and multiple contacts via e-mail, phone, and so on, but the general point is that if you see a major situation out of sync between your top of the funnel web visitors and your bottom of the funnel conversions, it's time to ask some questions. Some suggested ones between the aforementioned A and B are:

1. How are leads managed for A compared to B?
2. What are A's competitors doing? Do visitors move to competitors?
3. Can you define specific actions to improve the sales conversion process for A?

And the best part of the preceding analysis is to just look at your sales data for each product and look at the Content In-Page Analytics page in Google Analytics. Both these data sources are available and free!

Using SEO Data in Google Analytics to Develop Useful Web Content

Google works by indexing your web pages and then retrieving them when someone queries Google (see Figure 6.5). Coming up on the first page of Google is SEO that is very important in digital marketing. Thus, if you are a flower seller with a website and a lot of description of each flower bouquet, Google would index your content around these offerings. In addition, if you had a blog that, for example, talks about different



Figure 6.5 Using SEO data in Google Analytics to develop useful web content

Source: www.StratoServe.com

offerings for the upcoming Valentine’s Day (February 14) and later Mother’s Day (May 10)—your content would be indexed against queries like *new flower ideas for Valentine Day*.

In other words, depending on the content and words in your existing website content, Google produces the best results it can. Sometimes the results can be funny. Google Analytics’ data of a website revealed that the search query *(name of executive) wife* was returning results that combined (name of executive) + wife merely because the word *wife* appeared in an unrelated page of the website. The content had nothing to do with the combination *name of executive wife*. However, results are always getting better with Google.

So how do you check what SEO is working for your existing web content? Login to Google Analytics, and on the left hand tabs, go to:

Acquisition--> SEO-->Queries

Within Queries you will find columns named:

{Query} | {Impressions} | {Clicks} | {Average position} | {CTR}

All of these columns can be sorted in ascending or descending order and a great first step is to sort the average position column with minimum

on top. If you have 1 as average position, then for that particular query on Google, if you have 2 then for that particular query your pages come in at number 2 and so on. You can have fractions like 2.6 in average position, given that this is an average reporting column.

Upon sorting the *average position* column, you need to look at the impressions column. The impressions column tells you the number of times your page was shown by Google for that particular query. Why was Google trying to show your page? Well, because your related content in the past was helpful to prior web visitors.

The final step is to look for queries where average position is up (i.e., 2, 1, that is, the lower the number, the better), impressions are high but clicks are low. It means that based on your current content, Google thinks that you might have good answers to the queries. If people are still not clicking, your content development has some great opportunity.

Upon reviewing these queries, you should get a few pointers as to where your content needs to be strengthened from an SEO viewpoint. The additional content you develop should be more useful to your web visitors.

How Your Natural Google Analytics Data Can Turbo-Charge Your Paid AdWords Campaigns

Marketers everywhere are becoming more aware of the value of the free data available in Google Analytics for their websites (see Figure 6.6). It's like having a camera on your retail clothing store with the ability to see what products prospective customers tried out (and did not buy—*why?*), and which products have the highest number of pick and feel (*could a better picture or video help?*). But the subject of this post is how your free and natural analytics data can turbo-charge your AdWords campaign.

When you login to your Google Analytics account on the left bar go to Acquisition ---> SEO---> Queries. The queries are what people are typing on the Google Search Bar that causes them to land on your website. This is your *natural* traffic because you have a website and have worked hard to create useful content. Read Google's SEO Reports for more information on this.



Figure 6.6 How your natural Google Analytics can turbo charge your paid AdWords campaigns

Source: www.StratoServe.com

But how can this help your paid Google AdWords advertising campaign? Here are three ways:

1. *Leverage top SEO landing pages and queries:* Go with the flow with your advertising dollars for products that are already attracting traffic, naturally. Create campaigns around some of these pages and keywords. You should have a high-quality score for these keywords and a lower cost for advertising.
2. *Allocate your spend strategically:* Let's suppose that you want to promote a product page that has poor SEO rankings. Put the majority of your budget on these pages (remember you are paying less for the good SEO pages in 1) and move to the third step.
3. *Strengthen content on market priority pages:* You allocate advertising budget to your market priority pages. Just as you strengthen content on those pages. You'll see that your advertising costs per click are going down and conversions are improving as the combination of paid and better content SEO traffic starts working.

To summarize, your SEO reports in Google Analytics are free and give you a quick sense of what is naturally happening with your organic traffic that helps you leverage your spend on Google AdWords.

How Important Is a Mobile Website to Your Business?—Check Your Web Visitor Data

You watch a bunch of kids sitting together and not talking, but they are on their smart phones, and you know that Internet and even social behavior is changing. According to Google Insight Research¹⁰ conducted by Nielsen in November:

1. *15 hours/week on mobile:* Consumers spend over two hours a day researching online on smartphones. Before making a purchase, they visit the website six times!
2. *74 percent start with search on mobile:* 74 percent people start with search on a search engine and then move to particular websites or apps.
3. *69 percent expect the store to be within five miles:* And 10 percent searchers expect that the store is within one mile.
4. *55 percent want to purchase in the next hour and 83 percent within the day:* Of those who researched your business on the mobile, the majority want to buy through the phone.
5. *54 percent of restaurant searchers made a purchase,* that is, of the 70 percent who searched for a restaurant on their mobile phones, a majority actually went to have a meal at the restaurant. The numbers are lower presently for apparel and electronics but stunningly 93 percent of those who searched on the mobile went on to buy either from the store or online.

That was how consumers are changing their behavior on mobile phones but how exactly are they doing on your website? Well, it's rather easy to find out. Logon to your Google Analytics account for your website and on the left panel there is a tab called *Mobile* that gives you data of mobile visitors. You can also see the new visitors who came in the previous month via the mobile. By changing the date range you can examine the trend in mobile visitors on your website. Just below the mobile tab, you can see the devices people use, like Apple iPhone, iPad, Samsung, and so on. In other words, you know exactly what is happening with mobile visitors on your website.

Invariably, people would be spending more time on your website if they came to your website via the desktop. This is understandable, because on a mobile your attention span is shorter due to the smaller screen even if your website is mobile optimized. Given that your visitors are likely to visit your website via the mobile, it is highly desirable to have a mobile optimized website, that is, a website that is fairly easy to read on mobile screens. The important thing to remember is that your consumer journey may take up to nine touch points. These touch points could be online from different devices like mobile, desktop, or tablets through search. Touch points also include visits to your website via the social media.

In this mix of approaches that folks are using today, it is important to mobile optimize your website and also focus your online advertising efforts to the mobile visitor segment of your visitors. For example, Google AdWords gives you an option to show how the ad will look on the mobile. In addition, the settings allow you to frame separate campaigns for the mobile.

Conclusion

Thus, Google Analytics allows a remarkable ability to conduct certain aspects of market sensing on the web presence of any entity. These market sensing activities include information acquisition, information distribution, and information interpretation of web traffic as illustrated in the preceding sections.

The previous sections started with the notion that today customers tend to Google your product and merely having a website is not enough. Google Analytics allows free market sensing of customer behavior at the population level, that is, for every customer the marketer can observe how she reached the website, what time she spent on each page, and whether or not the person placed an order, filled a contact form, or spent at least say three minutes on the website. Depending on the internal knowledge of the organization, Google Analytics allows market sensing at the big data level that can make a substantial difference to the web presence of any business.

Notes

1. Day (1994).
2. Day (1994, 43).
3. Day (2011).
4. See set up the web tracking code at <https://support.google.com/analytics/answer/1008080>
5. Day (1994).
6. Google Analytics Success Stories, see <http://www.google.com/analytics/customers/>
7. Ellison and Ellison (2005).
8. Edelman (2013)
9. Kaushik (2013).
10. Google (2013).

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CHAPTER 7

Market Sensing, Mind Genomics, and Health Promotion

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Introduction

Market sensing can be defined as a process of generating knowledge about the markets that individuals in the firm use to inform and guide their decision making. Market sensing is a process of learning about present and prospective customers and competitors. Market sensing enables firms to formulate, test, revise, update, and refine their market views, which are simplified representations of the market and how it works.¹

Market sensing greatly contributes to the market knowledge by providing a way to test assumptions about customers, competitors, and the firm's own resources and capabilities that are often largely implicit. Substantive facets in market sensing include (1) defining the market, (2) monitoring competition, (3) assessing customer value, and (4) gaining customer feedback. To attain a distinctive capability in market sensing, the firm should strive to be superior to its competitors in each of these facets.²

To keep in tune with market demand, companies seek to *sense incipient preferences* among their customers. However, little is known about how the results of such *sensing processes* are translated into concepts of products and services.³ Development of products and services requires continuous contact with the market and development of knowledge that connects between internal components in the organization (services) and external components of the market (customer needs). Mason⁴ identified four distinct bundles of market sensing practices: sensing, sense making, framing, and reflecting. Dialogue was found to be central to the entanglement and disentanglement of market sensing practices. Mason claimed that situated dialogic market sensing is an effective way of exploring competing market frames and as a mentoring, reflective, and reflexive part of market sensing practice.

Market Sensing and Health

At this time of austerity and global growth of the aging population, market sensing practices are pivotal in health promotion. In the spirit of knowledge, health care organizations value measurement. There is a sense that putting numbers onto market components, we will better understand how to promote public health. Data from surveys has grown into big data. Masses of information are presumed to yield knowledge that helps to better sense people and shape their health behaviors. Market sensing in health enables health care providers to avoid a myopic view of the market; to read and anticipate emerging needs; to more accurately forecast patient responses to services; and promote public health.⁵

Sensing the market for health shifts the focus and moves health care systems from focusing on symptoms from which people are suffering to focusing on the health care of individuals. This approach paradoxically views patients' subjective attitudes, perceptions, and drives as a direction to better promote their health. This approach enhances a strong patient-centered focus which is pivotal for the public utilization of health care services.

The 2013 research of behavioral risk factors surveillance by the Center for Disease Control and Prevention⁶ shows that more people will utilize health services when their health care providers use an organized

approach to sense the market. This approach entails identifying people who need specific health services, contacting them, advising them of health services and procedures, and carefully monitoring procedure completion and adherence to health maintenance behaviors.⁷ While market sensing through dialogue as suggested by Mason⁸ may be innovative and effective, and allow the identification and exploration of tensions and conflicts in existing markets, it is impractical, expensive, time consuming, and encourages a reduction approach rather than a broad perspective systems approach.

We present a systematic, organized approach to market sensing, one which differs from the current approaches. Rather than measuring a phenomenon which we observe (i.e., adherence rates to screening) or a phenomenon that we manipulate and measure after intervention (i.e., screening after a campaign), we present a way to measure minds of people. We measure minds on one topic, (i.e., screening test, weight, and anxiety) and potentially move to measure minds on many topics (i.e., health maintenance behaviors). We start with a few people and then potentially move forward to measuring minds to market sense millions of people. Thus, market sensing can move further inwards, into sensing the minds and even sensing feelings of people.

Market Sensing in Health and Mind Genomics

We pattern our approach metaphorically on the worldview known as genomics, where each person comprises a unique set of genes defining the nature of that person, how the person will react to services and phenomena, how the person will react to the external environment, and so forth. We call this market sensing effort *Mind Genomics*. Mind Genomics is a new, data-driven approach to understand the world of the everyday. The organizing principle is that knowledge is developed in a pointillist style, from the intimate, profound, and comprehensive understanding of specific topics, be these situations (e.g., eating breakfast), topics (e.g., ethics and practice of digital piracy), products (e.g., a yogurt), and so forth.

Mind Genomics is best understood as a way to understand what aspects of the topic at issue are important to people, how people differ in the way they respond to these aspects of the topic, and how one

goes about identifying these different viewpoints for specific topics. The origins of Mind Genomics trace back to experimental designs applied to ideas and are based on Anderson,⁹ Bockenholt,¹⁰ Green, Krieger and Wind,¹¹ Green and Srinivasan,¹² Moskowitz and Gofman,¹³ and Luce and Tukey.¹⁴ The first use of Mind Genomics in health was presented by Gabay and Moskowitz.¹⁵

Furthermore, Mind Genomics senses the market by going beyond sensing a set of people to sensing sets of interacting viewpoints of people about different facets of their daily life. It integrates the world of observation with experimentation. It looks at individuals as comprising a set of viewpoints, one viewpoint for each *topic*, or issue. Mind Genomics does not create these viewpoints, but rather uncovers them through short experiments using systematically varied stimuli and experiments that are run on the computer. Mind Genomics senses the market by identifying the nature of these viewpoints in the population, and their distribution in any target population. Thus, Mind Genomics *senses* the market by uncovering the deeper patterns.

To sense the market using Mind Genomics, we identify what messages appeal to people in specific topics and use experiments to discover these appealing messages. Mind Genomics builds a science of the ordinary, of the every-day behavior discovering what messages *work*, for the total population, and further identifies different mindset of segments and different points of view held by various individuals. The key discovery is not the understanding of behaviors but rather the understanding of mindsets. Mind Genomics senses the market by clearly differentiating among groups of people in any topic area by mindsets.

The science of Mind Genomics emerges out of our systematic, orderly progress, when we identify, explore, and catalog the different mindsets for topic after topic in the life of people, and then look for general patterns in those mindsets. It is the structured accumulation of such information which constitutes the science. With the knowledge of the mind of people in the market, and a way to identify people in the different mindsets for any topic, we move from theory and data to application.

In this chapter, we demonstrate the sensing of people to colon cancer screening tests, to balanced weight, and to decreased anxiety toward visits of teenagers in hospitals. We show how we drive the utilization of health

services related to these health problems by identifying and communicating the right messages to the right person. We expose the experiential mind of people regarding screening, weight, and anxiety. In the following text, we exhibit Mind Genomics on three case studies and show how to expose the experiential mind of a patient in order to enhance the utilization of health care services and promote health. The three case studies focus on colon cancer screening, balanced weight among female adolescents, and visits of teenagers in hospitals.

Putting the Mind Genomics into Action to Identify Mindsets of People Regarding Screening— How It Is Done

Mind Genomics has been used extensively in different areas, ranging from the commercial world of selling products and services, to education, to social issues, and finally medical consumer applications. Our case study combines the social and medical worlds. To introduce the Mind Genomics approach to sensing the health environment, we illustrate the effort with a study on understanding the minds of poor people regarding colon screening for cancer.

We collaborated with Dr. Michael Kochman and his group at the University of Pennsylvania Hospital. The goal of the medical group was to identify patients when colonic neoplasia, (i.e., Polyps) is in an early phase so that the likelihood of the patient being saved is greater and the medical costs, which skyrocket as the disease advances, are lower. The question facing the group was: How to understand the minds of people who live in Philadelphia in the catchment area of the University of Pennsylvania Health System. Better understanding that population allows the medical group to encourage people to undergo screening for colon cancer and to achieve higher rates of screening.

Mind Genomics Steps

1. Develop the raw materials, the silos (groups of related elements) and elements (specific messages). For this specific exercise we selected six silos, each with six elements. Table 7.1 shows the silos and one

Table 7.1 *The six silos and the six elements for the study*

	Silo A: Risk
A1	You have a high risk of colon cancer if you are African American
	Silo B: Benefits of screening
B1	Early diagnosis of Colon Cancer can often lead to a complete cure
	Silo C: Fears and options about screening
C1	Colon cancer screening is painless ... you sleep through the test
	Silo D: Medical benefits of screening
D1	The primary goal of colon cancer screening is to prevent death from colorectal cancer
	Silo E: Emotional benefits of screening
E1	There is a test just for you
	Silo F: Miscellaneous
F1	What you don't know about colon cancer can kill you

element per silo. In order for the Mind Genomics statistics to work properly, we needed to select a specific structure, with a certain number of silos, and an equal number of elements within each silo.

2. Create systematically varied combinations of test concepts using the principles of experimental design. The design ensures that each element appears an equal number of times as every other element, and that each element is statistically independent of every other element. The particular design used for this study comprises 6 silos with 6 elements, generating 48 test concepts. Of the 48 test concepts, 12 comprise 3 elements, whereas the remaining 36 test concepts comprise 4 elements. Each element appears 5 times across the set of 48 test concepts. Finally, the experimental design is permuted, that is, modified from respondent to respondent, so each respondent tests the same elements but in different combinations. The basic structure of the experimental design remains the same. Figure 7.1 shows an example of a 4–element test concept.
3. Create an orientation page which defines the purpose of the study (decision to get a screening test for colon cancer), along with what the respondent will see (combinations of three or four statements why you should get this screening) and the rating question. Figure 7.2 shows the orientation page.



Figure 7.1 Example of a 4-element test concept

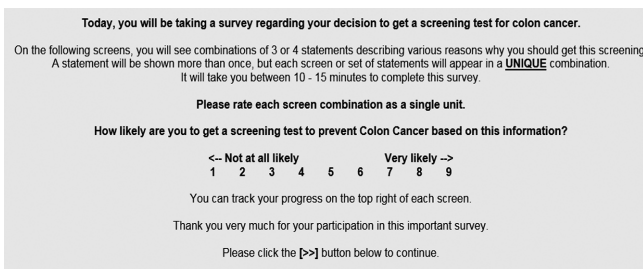


Figure 7.2 The orientation page, explaining what the respondent will see and do

4. Create a self-profiling classification, allowing the respondent to provide background about themselves, in terms of geo-demographics, relevant medical history, and attitudes to colonoscopy.
5. Run the study on the Internet. For this particular study, we contracted with a local panel provider, who invited participants in the Philadelphia market to participate. We ran a general population of 305 respondents.
6. Analyze the results—step 1—transform the ratings. The respondents rated their feelings about the test concept on a 9-point scale. We will use that scale later on for segmentation, clustering the respondents into like-minded groups. We transform the respondent ratings to a binary response of *yes* and *no* which clarifies the response base line. Rating of 1 to 6, representing *no*, *low* or *modest* interest in getting a

screening test, were transformed to 0. Ratings 7 to 9, representing *high* or *very high* interest in getting a screening test, were transformed to 100.

7. Analyze the results—step 2—create individual-level equations. Each equation, one per respondent, relates the presence or absence of the 36 elements to the binary rating (0/100) for likelihood to get screening test (0 = not likely, 100 = likely). The experimental design permits us to relate the 36 independent variables to the binary dependent variable. To make it easy to understand the results, we use ordinary least-squares regression. The independent variables are coded 0 (absent from the test concept) or 1 (present in the test concept). The dependent variable is coded 0 or 100, depending upon the original rating. The equation is expressed as Likelihood (Binary) = $k_0 + k_1$ (Element A1) + k_2 (Element A2) ... k_{36} (Element F6).

How to Interpret the Model

The Regression Constant

The regression model generates a *constant*, which represents the unexplained variation in the equation.

Regression analysis is used to quantify the incremental appeal of each message relative to a baseline level of response (called the constant).

The constant is neither *good* nor *bad* and reflects the following three components:

1. Respondents' predisposition to or the amount of involvement in the silo
 2. Initial reaction based on the overall idea presented in the positioning statement, including the effect of brand if identified upfront
 3. Positive overall reaction to the concepts not directly attributable to a single message
- The constant is often thought of as a *baseline* indicator of the *call to action*. However, it is important to look at the constant in association with the utility or coefficient scores. As the constant represents the amount of call to action which exists

but cannot be attributed to a particular message, it is often the case that a low constant is accompanied by very strong message scores.

The constant is added to the sum of the selected message scores to estimate appeal:

Constant Score + Message Score 1 + Message Score 2 = Total Impact
 Constants are specific to a study

The Coefficients (Also Called Impacts, Utilities)

Since the silos were free floating (not all silos appeared in each concept) the coefficient score of each message can be compared within a silo and across silos. *The utility* shows the incremental appeal of any given message relative to any other message.

The coefficient score assigned to a given message indicates the ability of that message to influence the product or service's call to action independent of the influence of any other message. Each study has its own range of scores.

As a *general rule of thumb* (which will vary across studies):

Over +7: This message is strongly motivating and will positively influence the call to action.

Between +5 and +7: This message is helpful in driving the call to action.

Between +5 and -5: This message is broadly neutral with little or no impact on the call to action.

Below -7: Avoid this element because it has a strong negative impact on the call to action.

Studies with a wide range of scores indicate that it makes a difference to the respondents in what you say, how you say it, and to whom you say it.

The preceding box explains how to interpret the parameters of the model.

- Analyze the results—step 3—segment or cluster the respondents based upon the pattern of coefficients. However, this time, we use a

slightly different model, namely the equation relating the presence or absence of the elements to the original 9–point rating. We look for the smallest number of clusters or segments (parsimony), which tells a story, that is, which *makes sense* (interpretability).

Case History #1—Sensing the Market: Mindsets for Colon Screening

Our data suggest four clusters. Looking at the two-segment and three-segment solutions which are more parsimony, we see that the clusters lack definition and fail to tell a clear story. The four cluster solution tells clear stories. The clusters are defined by their strongest performing elements as follows:

1. When we look at these segments, we see many elements scoring +10 or higher. A +10 is a very powerful element. We interpret the number to mean that when the element is added to the test concept an additional 10 percent of the respondents switch from a rating of 1 to 6 (not particularly interested in screening), to a rating of 7 to 9 (interested in screening).
2. Three of the four segments show strong performing elements. Only Segment 1 (I am convinced of a better lifestyle) fails to show strong performing elements. The messaging makes little if any difference for Segment 2.
3. Segment 1 shows weak performing elements but high additive constant. This means that there is a high willingness to do the screening test to begin with. Two of the three remaining segments show strong performing elements but lower additive constants. This means that for people in segments 2 and 3, it is the elements which enhance the willingness to do the screening test. In contrast, for Segment 4, the basic interest in the screening is already high, and elements are high. This means that people in that segment have positive attitudes toward the screening test to begin with and are encouraged by some messages to be more proactive and by some messaging to be less proactive.
4. Table 7.2 shows the strong-performing elements for each mindset, that is, each segment. What appeals to one segment may be

Table 7.2 Performance of the strongest elements for colon screening based on mindset segmentation

	1) How likely are you to get a screening test to prevent colon cancer based on this information?	Total sample	S1 I am convinced - family and comfort oriented	S2 prevent death from a silent killer	S3 respect my body and family	S4 I am convinced - follow my doctor's orders
	Base size	305	174	46	42	43
	Propensity to have a CRC screening test before seeing any messages	81	85	64	76	86
D1	The primary goal of colon cancer screening is to prevent death from colorectal cancer	2	-1	18	-1	-3
E6	Your body is a temple of God ... prevent colon cancer by getting a screening	2	0	2	16	-4
B1	Early diagnosis of colon cancer can often lead to a complete cure	1	-2	-4	17	4
D4	Screening for colorectal cancer may save your life	1	-1	9	1	-4
E1	There is a test just for you	1	-1	0	11	-3
E2	Live to see your children and grandchildren raise their families	1	3	-8	0	-1
F3	Colon cancer often happens without any warning	1	1	10	1	-7
B5	Delaying a colon cancer screening will do more harm than good	0	-2	-4	9	4
D6	Colon cancer screening is covered by your insurance company	0	-2	8	3	1
E3	Live a healthy life to see your grandchild get married	0	2	-8	6	-7
F2	Colon cancer symptoms often appear too late to cure it	0	-1	10	3	-13

(Continued)

Table 7.2 Performance of the strongest elements for colon screening based on mindset segmentation (Continued)

	1) How likely are you to get a screening test to prevent colon cancer based on this information?	Total sample	S1 I am convinced - family and comfort oriented	S2 prevent death from a silent killer	S3 respect my body and family	S4 I am convinced - follow my doctor's orders
A5	When someone in your family has had colon cancer, you are at higher risk and need to have a colon cancer screening test <i>now</i>	-1	1	0	-3	-9
D5	Eliminate worrying about colon cancer ... get a colon cancer screen test now and get peace of mind	-1	-2	6	-12	2
F4	You have concerns about getting a colon cancer screening ... speak to someone that you trust to eliminate your concerns	-1	-1	10	-1	-14
F5	Don't let your loved ones see you die from colon cancer...get a screening test early	-1	0	3	9	-19
A3	You have a high risk of colon cancer if you have a family history of colon cancer	-2	0	-8	2	-10
C2	Getting a colon cancer screening is nothing to be embarrassed about	-2	-1	1	-11	-3
A2	You have a high risk of colon cancer if you have a personal history of breast cancer	-4	0	-13	-2	-8

irrelevant or even a turn-off for the other segments. When communicating with the segments, it is important to assign a person correctly to the segment, and to avoid using elements which are polarizing, attracting some respondents strongly while repelling others just as strongly, or even more strongly.

Case History #2—The Teenager Faces the Hospital

This study was developed as part of a plan to understand the perceptions of the physicians among teenagers who are anxious toward their visit in the hospital. Again, different segments emerged. What appeals to one mindset does not appeal to the others. When we average the responses of the different segments we wash out the differences, it appears that little or nothing really works. The truth is the exact opposite. The mindset segments differ and pull in different directions (Table 7.3)

Table 7.3 Performance of the strongest elements for teenagers facing the hospital, based on mindset segmentation

Question—How comfortable do you feel with this doctor	Total sample	Seg1—Doctor who cares	Seg2—Doctor as professional	Seg 3—Doctor as mentor
Base size	157	43	55	59
Propensity to ...	58	42	56	71
Medical staff always have a smile on their face	1	18	-8	-3
Medical staff constantly checks up on teenage patients and insure their comfort	6	18	8	-4
Medical staff genuinely tries to help patients which makes teenage patients feel special	2	16	-1	-7
Medical personal are assigned to one or two teenage patients at a time	-1	15	-15	0
Medical staff genuinely tries to gain the teenage patient's trust	6	14	3	2
Medical staff do not look down upon the teenage patients	1	12	-9	1
Medical staff puts themselves into the teenager's shoes to understand them	1	10	-8	3
Medical staff always speaks the truth to the teenage patient no matter how traumatizing as it will help in the long run	5	5	15	-5
Wittiness helps medical staff seem more human	4	2	15	-4

(Continued)

Table 7.3 Performance of the strongest elements for teenagers facing the hospital, based on mindset segmentation (Continued)

Question—How comfortable do you feel with this doctor	Total sample	Seg1—Doctor who cares	Seg2—Doctor as professional	Seg 3—Doctor as mentor
Medical staff communicates and gives advice to teenage patients for their present and future lives	4	3	15	-4
Medical staff breaks the ice with teenage patients with wittiness	6	9	14	-4
Medical staff shows patience to teenage patients which creates mutual respect	3	-1	13	-4
Medical staff communicates with patients through technology	0	3	12	-15
Medical staff continuously tries to understand teenage patient's needs through communication	4	7	10	-4
Medical staff makes teenage patient forget he is in hospital through wittiness	2	1	10	-6
Medical staff never quits in connecting to even the most unfriendly teenage patients	4	4	10	-2
Medical staff develop a teacher-student bond and help teenage patients who want to be medical staff themselves	7	3	-8	25
Medical staff develops bond with teenage patient to make it easy for them to vent	7	7	0	14
Medical staff develop a permanent friendship with teenage patient that carries on even after their release	2	-3	-7	14

Case History #3—Weight Issues Among Adolescent Females

How do adolescent females think about their own weight issues? Overweight, or at least one's perception of being overweight, is an endemic issue, heavily affecting self-image. Overweight has increased as our lives become sedentary. Physicians recommend lowering caloric intake and exercising more. These recommendations treat the problem of *overweight* objectively, focusing in on the issue of weight, rather than focusing on the person.

Our Mind Genomics study of adolescent females' perception of their own weight issue (Table 7.4) suggests three different mindsets with respect

Table 7.4 Performance of the strongest elements for adolescent (high school females) for self-description of weight and weight issues, based on mind-set segmentation

How well does this describe you	Total	S1 control seekers	S2 aware don't care	S3 low self-esteem
Base	102	32	46	24
Propensity to ...	16	24	22	-3
You don't get along with your family because you think they are too controlling	-3	11	-9	-11
You are a perfectionist, and do not tolerate failure	0	10	-7	0
Going on the scale depresses you	0	9	-9	3
You get extremely frustrated when things don't go your way	1	9	-3	0
You think that society places a great importance on being thin	1	-11	10	-1
You eat till you are full and don't pay attention to portion sizes	9	7	8	12
You feel self-conscious about your appearance	4	-6	0	25
You feel ugly in comparison to your friends	1	1	-9	22
Your mother or caregiver would cook, or does cook healthy, balanced meals for your family	3	-10	3	20
When you go shopping you buy clothes a size smaller than you really are, hoping you will soon lose weight, and they will fit you	-7	-14	-15	19
You were born with big bones or a big frame	1	-13	2	17
Your family has a history of health-related problems as a result of unhealthy eating lifestyles	3	-6	3	17
You weight yourself every morning and get upset at yourself if you gain weight	-4	-7	-11	15
As a child your parent(s) or caregiver(s) encouraged you to be physically active	2	-11	4	15
Many of your immediate and extended family members are overweight	-1	-7	-4	14

to one's perception of one's weight. The issue is not simply weight, not simply a biological issue of energy management but rather one of different perspectives. Instructions to one mindset segment may be perceived to be irrelevant information by the other segments, or even information that is simply incorrect.

Scanning the Environment #1—How to Identify a Person's Mind-Set from a Personal Interaction

How do we determine the segment to which a patient belongs? Our first approach will involve creating a *personal viewpoint identifier*, based on a very short questionnaire that uses the pattern of response from a person to assign that person to one of the four mindset segments. Later on we will use the same thinking to create a digital viewpoint identifier, based upon a database, rather than upon the response of a live person completing the short questionnaire.

The steps to create the personal viewpoint identifier are fairly straightforward, and are possible because the original experimental design allowed us to create models and equations, at the level of the individual respondent. One of the benefits of the experiment is that we can estimate how the respondent would have rated each vignette on a 3-point scale, instead of a 9-point scale. And the combination of rescaling response to a 3-point scale and estimating the model at the individual respondent level makes all the difference. The steps to identify a person's mindset from a personal interaction are delineated in Appendix 1.

When we apply the foregoing approach to our data from the general population, we end up with a 9-question personal viewpoint identifier (Figure 7.3). The respondent looks at the screen, which presents the nine questions in a grid format. The questions are rotated in their order across respondents to minimize order effects. The patterns of responses go to a scoring algorithm, which selects the most likely mindset segment for the respondent, and then comes up with the messages to say to the respondents, and the messages to avoid saying (Figure 7.4). These messages, as well as the assignment algorithm, emerge from the Mind Genomics exercise, and the postexercise analysis.

Please rate each of the statements below. When finished click "Submit".

How likely are you to get a colon cancer screening test based on each statement?

	Not At All Likely	Unsure	Very Likely
Don't let your loved ones see you die from colon cancer... get a screening test early	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do what is best for your family... get a colon cancer screening	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Colon Cancer starts from a small growth called a polyp... these are painlessly removed during the colonoscopy and eliminates the cancer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
What you don't know about colon cancer can kill you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When you are over 50 you are at risk for Colon Cancer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Colon cancer screening is painless... you sleep through the test	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
You would like to follow your doctor's advice and this includes you having a colon cancer screening test	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Early diagnosis of Colon Cancer can often lead to a complete cure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Colorectal cancer can be prevented with a screening colonoscopy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Submit

Figure 7.3 The personal viewpoint identifier, completed by an individual either in person or on the web. The pattern of responses is scored by an underlying algorithm to assign the person to one of the mindset segments for the particular topic being studied. The personal viewpoint identifier uses elements appropriate to the specific Mind Genomics study

ViewPoint 3: Respect My Body & Family

Likes

- Early diagnosis of Colon Cancer can often lead to a complete cure
- Your body is a temple of God... prevent Colon Cancer by getting a screening
- There is a test just for you
- Delaying a colon cancer screening will do more harm than good

Dislikes

- There is a preparation for Colon Cancer screening that is just right for you
- Getting a colon cancer screening is nothing to be embarrassed about
- Eliminate worrying about colon cancer... get a Colon Cancer screen test now and get peace of mind

START OVER

Figure 7.4 The output of the personal viewpoint identifier, for a person in Segment 3

Scanning the Environment #2—How to Identify a Person’s Mind-Set from a Database

It is not always possible to personally interview someone. How does one use the results from this study to assign a person to a mindset segment, but with a limited amount of information, and ideally from information

that is public, and not considered an invasion of privacy? In the most general terms, the issue is whether one can create a scoring system using geodemographic data, and other data available from commercial databases, databases which do not *track* behavior, and which would not be sensed as invaders of one's privacy.

We are talking here of perceptions of privacy, as well as legally defined privacy. We saw earlier that when looking at the data from the self-defined classification, for any single geo-demographic variable, we have no clear pattern linking that variable to segment membership. Perhaps, however, if we were to look for a weighting pattern with several variables, we might increase the chances of properly assigning a person to a segment.

With the foregoing in mind, we performed two different analyses, both with the segment membership of each of the 305 respondents, and then in turn their individual self-profiled classification data, specifically the geo-demographic data. That geo-demographic data is a surrogate for the data that one can acquire from commercial databases.

Conclusion

At the start of this chapter, we asserted that the environment is sensed by means of many different topics. Sensing the market, within this framework, means that first topics are to be identified. For each topic, a relatively small experiment was executed, which identified the segments and created a pair of viewpoints. We identified viewpoints that represent mindsets of people regarding screening, balanced weight, and anxiety from hospital visits. Identifying the mindsets, health care organizations may shape effective messaging (personal, digital) and approach people with interventions that will promote health.

We identified that the most prevalent viewpoint regarding screening tests for colon cancer is not comfort but the fear of a quiet killer and the need to avoid a preventable tragedy. Effective messaging will stress these mindsets and feelings in order to increase utilization of colon screening tests. We identified that there is a second order structure regarding weight. In order to help adolescent females to balance their weight while avoiding the use of messaging and interventions that will strongly attract some female adolescents and strongly repel other female adolescents,

self-esteem is to be stressed. Health care providers are to enhance one's belief in one's ability to change behaviors before investing in awareness for healthy eating and control.

Last, we identified that in order to decrease the anxiety of teenagers from hospital visits, medical staff is to allow most teenagers to ventilate as to what makes them anxious and to show them that they care. Caring from the viewpoint of most teenagers is not by mentorship but rather by speaking the truth to the teenage patient no matter how traumatizing the truth is, by smiling, by ensuring their comfort, by making them feel special, by developing a teacher-student bond, and continuously trying to understand the teenage patient's needs through communication.

We exhibited Mind Genomics on health promotion. However, using Mind Genomics approach, there is no simple fixed number of topics because topics are the aspects of daily thinking and daily experience. There are thousands of such topics, and perhaps as society changes, many topics rise in importance, while others recede, becoming completely irrelevant with changing technologies.

Appendix 1: The Personal Viewpoint Identifier

Scanning the Environment #1—How Do We Identify a Person's Mindset from a Personal Interaction?

We follow these steps to create the personal VPI (viewpoint identifier):

1. Converted the original 9–point rating scale to a 3–point rating scale. This will allow us to create a personal VPI with three answers. The original scale is simply divided into three equally sized thirds.
2. Run the individual-level model, relating the presence or absence of the elements to the 3–point scale. Do not use the additive constant
3. Estimate what a single concept or vignette would score on the 3–point scale if that vignette comprised only one element, and the element appeared 3.75 times in the vignette. The reason for the value 3.75 is that the average vignette comprises 3.75 elements.
4. Do step 3 for all 36 elements, and for all 305 respondents.
5. Adjoin to the matrix the segment membership of each respondent for this particular study only. It is important to realize that only this particular study can create these mindset segments.
6. Use machine learning or DFA (discriminant function analysis) to identify a small set of elements that can be used to predict membership in a mindset segment. DFA will come out with the selection of elements (typically 4 to 6) and the scoring system for those elements
7. Steps 1 to 6 create for us a simple questionnaire, comprising 4 to 10 questions, answered on a 3–point scale. The pattern of answers is used in conjunction with a scoring tool to assign the respondent to one of the three segments.

Notes

1. Anderson and Narus (2009).
2. Anderson and Narus (2009).
3. Heusinkveld, Benders, and van den Berg (2009).
4. Mason (2012).
5. Jaworski, Kohli, and Sahay (2000).

6. Center of Disease Care and Prevention (2013).
7. Schneider, Feufel, and Berkel (2011).
8. Mason (2012).
9. Anderson (1970).
10. Bockenholz (2006).
11. Green, Krieger, and Wind (2001).
12. Green and Srinivasan (1978).
13. Moskowitz and Gofman (2007).
14. Luce and Tukey (1964).
15. Gabay and Moskowitz (2012).

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CHAPTER 8

Old Good Ideas Can Re-emerge with the New Technology and Imagination: Lessons from the History of Market Sensing

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Introduction

In the 1960s, as a marketing student in both college and graduate school, I was taught that if I could find out what people wanted based on their past behavior and expectations, I would have a good indication of what they might want in the future. While that may have been a reliable assumption decades ago, it has become increasingly clear during the last 50 years that past behavior is no longer the best indicator of future actions. This observation begs two questions: Has consumer behavior changed? Or have those who measure it become more insightful?

I believe that both statements are true. As changes occur more and more rapidly on a global scale, we must simultaneously develop new methods and learn from the past as we attempt to understand which products and services are both needed and wanted by consumers. This requires keen market sensing, a topic that has been of great interest to me throughout my career. Interestingly, it took me many years to appreciate how much more valuable my efforts could be if I engaged users of

information through the ideation, implementation, and analysis of my efforts. Over the past several decades, I have adapted my collection procedures to meet the needs of those who were destined to use what was gathered, so that they could best meet the needs of those who would use our products. At the same time, I have also learned that much of what we consider revolutionary today was being practiced decades ago. We just didn't know about it.

The purpose of this chapter is to provide practical insights on market sensing from *trenches*. Valuable lessons are discussed focusing on real world business situations and can assist those that are involved in market sensing actions and programs to succeed in understanding and implement the market sensing concept effectively. Furthermore, this chapter can contribute in the market sensing literature which is very limited and also to spark more research by academics and generate more discussion from practitioners.

A Case in Point

Henry “Buck” Weaver, who was General Motors (GM)AKUDA first director of consumer research, offers a case in point. Back in the 1930s, Weaver was an early pioneer in market research and market-based decision making. Although he published several thoughtful articles and appeared on the cover of *Time* magazine, Weaver's contributions to marketing have not been well recognized.

As he was often quoted as saying, “For years businessmen have used the expression: The customer is always right, but it never occurred to anyone to try to find out what it was the customer was right about.”¹ Between 1932 and 1937, Weaver's Customer Research Staff identified 170 improvements and changes to GM vehicles, including air conditioning, automatic transmissions, longer bumpers, rubber pads on pedals, and a greater emphasis on safety, all in the name of serving the customer in ways in which the customer wanted to be served.

Even GM was not originally convinced that such study was either necessary or valuable. Weaver began conducting customer research through his own initiative, not because a specific position existed within the corporation. As the company became more confident about its products, it

set aside what Weaver had learned about market sensing, leading to our rediscovery of his work many years later. I'll get back to that at the end of this chapter, because the similarities between his approach and GM's later techniques are fascinating. In the next several pages, I invite you to take a tour through the decades with me, from a Senate campaign in 1972 through the Internet age of the early 21st century, reflecting on key lessons I have learned along the way. I also hope to help ensure that what we understand today about market sensing does not get lost in the archives.

Lessons from Market Sensing History

Lesson 1: The Value of Information Is in Its Use, Not Its Collection

Texas Senator John Tower was running for re-election to the U.S. Senate, when I met with him to deliver the results of a recent survey. "I understand that you have some bad news for me," he said, "which I am also told is not correct." I knew the information was both correct and disappointing. As a young market researcher, I had to explain why that did not negate its usefulness.

Senator Tower's Democratic opponent, Harold "Barefoot" Sanders was perceived as more conservative, but that did not mean Sanders would necessarily defeat Tower among the state's conservative electorate. I explained that while my information was accurate, it only reflected voter perceptions—voters saw Sanders as more conservative simply because he had defeated a perceived liberal in the Democratic primary.

Senator Tower interrupted my explanation, insisting that the survey results were untrue, and therefore unreliable. It was well known that Sanders was not a conservative. I pointed out once more that we were not measuring reality. We were measuring perception. I smiled. "That's the good news." Senator Tower looked perplexed, so I continued. If the actual record showed that Sanders was indeed more liberal than Tower, the Tower campaign had one crucial task ahead of it—present the facts to better align voter perception with reality.

I suggested that he provide explicit examples of where his positions were more conservative than Sanders' positions. In addition, Senator Tower needed to get as many conservative Democrats as possible to endorse his

candidacy or, at the least, to not publicly endorse Sanders. In November, John Tower defeated Barefoot Sanders 55 percent to 45 percent. The survey results did not directly lead to John Tower's re-election. Tower overcame his opponent because of the way he used those results to address issues identified by the survey. I have learned this lesson again and again: The value of information is in its use; not its collection.

Lesson #2: Make Sure Your Message Can Be Heard and Accepted

Before information can be used effectively, it must be heard and accepted by those who will use it. As a researcher, it is my job to not only present my findings, but also prepare my audience for the information they will receive. In the case of Senator Tower, I was able to convince him on the spot that he could trust the information before him. At Xerox, the task was a bit more complex. And the first time I achieved it, I did not realize until after the fact that I had done so.

Eighteen months into my tenure as Manager of Market Research at Xerox, and six years after my encounter with Senator Tower, I brought challenging research findings to my company's senior executives. Our research indicated that the number of copies that could be expected to be made using Xerox copiers was approximately 35 percent lower than the number used in the company's current long-range plan. This was startling information, and potentially quite disruptive.

When I finished my presentation, several participants commented on changes that would have to be made to the company's long range plan, but no one questioned my numbers. The CEO, Peter McColough, thanked me for providing valuable information, and I was excused from the meeting.

I went to the Westchester Airport and waited in the company hangar for Don Lennox, the senior executive responsible for copier production, to finish the meeting and join me for our flight back to Rochester. On the plane, I told Don that I was surprised to have received so few questions; I was also surprised that no one had questioned my results. Don's response was encouraging: "That was because your group had done a good job in preparing them for some very bad news."

Later, I learned that my recent presentation was not the first time management had been told that its market assumptions were inflated. At an earlier review, a product planner noted the size of the market, and projected just how many of the company's copiers would be needed to meet consumer demand.

One of his colleagues, the manager responsible for selling Xerox paper, noted that if the program planner's assumptions were correct, every piece of 8 1/2 × 11 paper produced in North America would end up being run through a Xerox copier. This, of course, was impossible. However, his observation that the market couldn't possibly be that huge fell on deaf ears. No one questioned the original projections.

What was different about the approach our group used? Why did the senior executives listen? Several factors made it possible for decision makers to listen and use the data I presented:

We began by developing a two-track knowledge use system. Track one involved the creation of a Research Utilization Group, whose task was to answer two questions: (1) What did end users want to know? (2) In what form did they want the information presented? Track two involved the development of an information retrieval system that would give end users easy access to information they needed. Figure 8.1 provides a graphic view of the process we followed.

We considered the potential impact of our findings. Because of the complexity of the study, the fact that it was the first one, and the anticipated impact of the results, we put considerable effort into ensuring that the results would be carefully analyzed, and any challenges to existing market assumptions could be fully explained and accepted by senior management. During the initial review it soon became clear that many assumptions about the size of the market had been overstated—in some segments by a factor of two. Because of the dramatic differences between the study results and the existing planning assumptions, we wanted to avoid a confrontation over which set of data was correct.

We thoroughly prepared our audience. Prior to the executive presentation, members of the Research Utilization Group met with managers from every unit, allowing time for each unit to both review and question our results. Although the results of the study were not changed as a result of these meetings, the manner in which the information was formatted

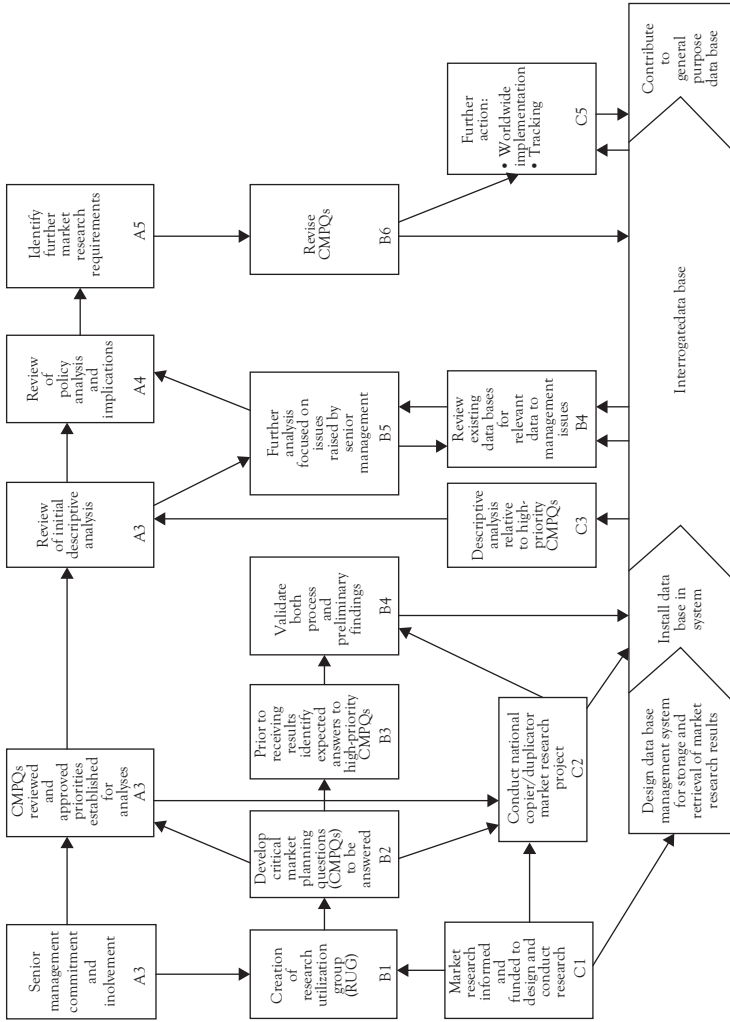


Figure 8.1 Flowchart of Xerox reprographics market study

and presented was modified to ensure that it would not be misunderstood or rejected. By the time I presented our findings to senior management, each of their direct reports had presented background on the study along with its possible implications. By the time of my presentation, senior managers were prepared to both hear the facts and to alter existing plans in light of the new information.

Lesson #3: Make Sure Information Users Accept the Validity of Your Findings

Following my time at Xerox, I joined Kodak, another large institution with a rich history and a highly respected technology team. At the heart of the organization was a group of chemists and other scientists who thoroughly understood the potential and limitations of silver halide chemistry, the key factor in the ability of photographic film to capture light. An early encounter with this group reinforced what I had learned at Xerox about presenting my findings, and also added another twist: How to offer esteemed experts new insights into something they believe they understand better than anyone else.

Kodak's silver halide technology was so crucial to the company's market advantage that access to this group was only available on an as-needed basis, approved by senior management. This intense focus on keeping their knowledge within Kodak led some to refer to their work as occurring *behind the silver curtain*.

During one of our studies, we asked customers to compare and express their preference for different sets of color prints—some using Kodak's technology and others using Fuji's technology. A majority preferred Kodak. However, the percentage that preferred Fuji exceeded its current market share. We took this to mean that Fuji could potentially gain market share, at Kodak's expense.

The silver halide scientists rejected this possibility. They pointed out that Kodak prints came closer to *true color* than Fuji prints, and suggested that we had not presented customers with properly developed samples for comparison. According to their logic, a product that measured true color would by default capture a larger share of the market.

Knowing that we needed their buy-in if we hoped to effectively use our results, we agreed to replicate the study, and asked the experts to produce

the prints, participate in the study's implementation, and take an active role in the analysis of our results. While the approach was different from what we had done in the Xerox example, the purpose was the same—to gain buy-in in order to avoid arguing over the data's relevance and accuracy.

The results of the new study were consistent with our original findings. The difference was that this time, the scientists couldn't simply deny our results because they didn't match their expectations. Most importantly, one of the silver halide experts said he knew how to slightly modify Kodak's existing film so that its level of preference would increase, and thus match Kodak's market share. This slight change could prevent Fuji from capitalizing on the discrepancy between customer preference and market share.

Because the scientists had participated in the study and had seen first-hand what customers wanted, this change occurred without spending unnecessary time and money testing a new film across Kodak's global markets. The modified film, which employed a new emulsion technology, was created through a marriage of scientific creativity and market knowledge. By ensuring that the users behind the *silver curtain* understood and accepted the relevance of our findings, we managed to solve a problem before it developed.

Lesson #4: Customer Behavior and Market Conditions Can (and Will) Change

Unfortunately, some lessons only stick after an organization has lost an important opportunity. In the case of Kodak, that misstep led the company to lose a potential advantage in the field of digital photography. When I first joined Kodak, I visited one of the company's largest photo finishing customers. On the last day of my visit, the owners asked me to find out how long would silver halide technology retain its superiority over digital technologies in capturing images and making prints?

When I returned from the trip, CEO Walt Fallon and President Colby Chandler scheduled a meeting to discuss the issue. I knew enough to realize this was one of those questions for which the right answer at that time starts with, *It depends*. It depends on who is taking the picture. Do they want a high-quality print? Would they be satisfied looking at an image on

a television screen? Do they want a permanent record of the image? How quickly do they want to see the image?

At the meeting, Fallon and Chandler asked how I would suggest going about answering this question. I noted that the quality of the effort depended on the extent to which senior executives participated in the process.² We began by gathering input from people throughout the company with diverse backgrounds in imaging technologies—including members of the research and technical functions who were familiar with the capabilities of digital and silver halide technologies. Teams were formed to take strong positions on whether silver halide or electronics would dominate by 1990.

Each team debated its position with the purpose of uncovering and assessing the most important assumptions that would have to be true for a particular point of view to be accepted. Out of this debate grew a list of critical assumptions upon which Kodak would develop its longer-term strategy. All of this led to a 1981 document, from which the following claim was made:

Technological innovation will enhance the growth of personal picture taking, and today's photographic industry participants [Kodak and its business partners using silver-halide technology] will share in that growth in the foreseeable future ...

(Not specifically mentioned in the circulated company document, the foreseeable future was defined as a period ending in 1990.)

In essence, we alerted the management team in the early 1980s that change was coming, and that they had a decade to prepare for it. As the study predicted, silver-halide-based photography held its own throughout the 1980s; by the 1990s, digital cameras and display technologies became predominant.

Kodak made contributions to the emerging market and could have been a dominant player, but they did not. By 1986, Kodak research labs had developed the first megapixel sensor, which could record 1.4 million pixels—somewhat greater than the 1 million pixels that would produce prints of acceptable quality. But while Kodak positioned itself to compete sometime in the future with other digital camera manufacturers, they did not do enough.

Management did not create a strategy to replace silver halide with digital. Instead they chose to use digital to improve silver halide. So Sony and Cannon took the lead. Once again, we learned that the value of information is in its use and not its collection. Kodak's information lost considerable value because it was not used to the fullest extent.³

Lesson #5: Understand the Limitations of Mathematical Models (Never Say “the Model Says”)

This realization took a full decade to play out at Kodak. In the meantime, I participated in many other interesting endeavors at the company. As our Market Intelligence Group gained respect, I started receiving invitations to product development meetings. There I encountered a fascinating and potentially problematic challenge.

Kodak relied on talented mathematical model builders who helped the company's scientists find new ways to optimize photographic film and paper emulsions that could be produced and used under a range of conditions around the world. Because these models led to so many positive results, they (and the model builders) enjoyed tremendous credibility with senior management. As a result, the company's high-level decision makers became convinced that the same *scientific* models should be applied to more complex and uncertain issues and decisions, beyond the scope of chemistry and other science.

In an effort to gain access to scarce resources, some of the model builders began promising results that I was not certain their models could deliver. In some cases, they did this through errors of commission (overstating the model's capabilities). In others, they were guilty of errors of omission (by not revealing the model's limitations). When confronted with concerns over whether the models could effectively address the most complex and challenging questions, the model builders insisted that not only could the model answer the question, but it could do so *at the push of a button*. I remained skeptical.

During one of these meetings, the proponent of an idea was asked why the company should accept his proposition. He responded with complete certainty: “The model says it will be successful.” Knowing something about the limitations of the model he was referring to, I voiced my

concern: “Never say *the model says*. Tell us what you believe, based on your understanding of the model’s output and limitations.”

In 1987, after I had left the company, Herb Blitzer, who had joined Kodak’s Market Intelligence group, referred to this comment as *Barabba’s Law*. He opened his commentary on a paper discussing a recently published mathematical model as follows: “Before getting into a commentary on the substance of the paper, I feel compelled to comment on one specific aspect. Consider Barabba’s Law: *Never say the model says*. Any hint of such behavior could lead to the complete discrediting of the whole effort. Since no model can accurately capture the complexity of a real situation, anyone with an interest in the outcome of an analysis can always find at least one issue to stall even the best analytical work. Managers have a natural need to understand the logic of proposed actions, and logic is what they should be given This paper frequently states *the model says*.”⁴

Lesson #6: People Who Are Responsible for Innovation and Design Should Be Involved in Determining What Market Information to Collect (and How It Is To Be Collected and Presented)

Over the years, I continued to learn the same lesson: Make sure that information can be used effectively. There is no reason to collect it if those who need it either will not or cannot use it. During my career at GM, I worked closely with an engineer named Harvey Bell, who reinforced this lesson over the course of many different projects. Bell not only improved his own knowledge use skills, but he helped the market research department improve its data collection methods, ensuring that what we found out was more relevant to the people who designed, developed, and manufactured the company’s products.

GM’s decision to use the 3800 V6 as the base engine in the 1996 Chevrolet Camaro and Pontiac Firebird offers a case in point. Bell, the development team’s chief engineer, was not satisfied with the performance of the vehicles’ current engine—a 3.4-liter V6. The choice to use this less-powerful engine was primarily financial, as it allowed the company to make the most of its existing powertrain production capacity.

While that decision had merit, Bell was not satisfied with the existing 3.4-liter engine, and he knew it wasn't the best choice for the vehicles' target market. He believed that if GM really wanted to satisfy customers, the cars needed a higher performance engine. His counterparts in the marketing department were concerned that although customers might prefer such an engine, they would not want to pay for it. Bell sought evidence to support his hypothesis that customers *would* be willing to pay. He put the challenge to the market research community this way: "Don't tell me which engine to use in my car. Just describe the performance customers want and let me know their willingness to pay. I'll take care of the details."

My market research team took up the challenge, using GM's Marketing Dynamics Model (MDM), which was based on conjoint methodology developed by Richard Smallwood to address Bell's request. Customer responses to a series of trade-off questions generated, attribute utility scores and preferences, and provided an indication of how much customers would be willing to pay for these attributes.

The synthesis of customer information and engine performance data led to the hypothesis that customers would pay more if engineers could increase both fuel economy and performance. While many Firebird and Camaro customers could not afford a V8 sports car, they aspired to own and drive a higher performance vehicle. The engineers faced a clear challenge: meet that aspiration at a price the customer was willing to pay.

Bell and his team devised a solution that involved improvements to GM's existing 3800 V6 engine. It wasn't the V8 customers might dream of, but it was superior to the existing V6. Engineers cut two seconds off the engine's 0 to 60 performance time, while also improving fuel economy. Months later, Bell proudly marched into my office. "I told you so!" he exclaimed. Early market research comparing the satisfaction scores of 1996 and 1995 buyers on engine features indicated that the change had been worthwhile. Customers reported a substantial increase in the areas where his team had focused their attention and allocated resources: performance and fuel economy. By providing the development team with the customer insight it requested, researchers helped engineers design a product consumers preferred, at a price they would accept.

Lesson #7: Pay Attention to Emerging Concepts

When the concept of a *digital economy* was first discussed in earnest in the mid-1990s, it was a revolutionary idea. At events like TED conferences and Diamond (now PWC) Exchange events, I, along with other GM executives, encountered emerging ideas that would eventually lead to both new and exciting opportunities and new ways to uncover and explore customer preferences.

In 2000, Mohan Sawhney of the Kellogg Business School at Northwestern University introduced the concept of Metamarkets. He described these *markets in our minds* as clusters of related activities that consumers engage in to satisfy a distinct set of needs, organized around major assets, life events, or business processes. Sawhney pointed out that the Internet, by reducing the need for buyers and sellers to operate in close physical proximity, was creating the opportunity for new Metamarkets like WebMD and Edmunds.com.

In addition to introducing this concept, Sawhney offered a keen observation about why businesses often missed the opportunities in Metamarkets: “Consumers think in terms of activities, while firms think in terms of product.”

Sawhney’s observations were congruent with GM’s thinking about new businesses. However, one component challenged GM’s line of thinking. Sawhney believed that the best way to gain trust and to fully engage the consumer would be to position a third party as an intermediary between GM and the customer. He suggested that a firm like Edmunds or Kelly Blue Book should serve as a *Metamediary*, a trusted agent to make the customer’s life easier (and to recommend GM products when and if those products met the customer’s needs.)

This raised some profound questions, given that GM believed it could be a trusted agent for its customers. Sawhney’s insistence on a Metamediary led us to ask the fundamental question: What would it take for *us* to be a trusted intermediary?

Lesson #8: Learn the Value of Trust-Based Marketing

To move GM into a position where the company could be that trusted intermediary or advisor, we started to think in a new way—not just as a

producer of GM products, but as an advisor that would help customers buy what they wanted. If that was a GM product, great. But even if it was not, we would learn a lot about what customers wanted and why they were not buying from us. We would know more than our competitors did and could fix problems and spot trends sooner than they could.

The website that is now known as MyProductAdvisor.com started out as AutoChoiceAdvisor and was provided by GM at no cost to the consumer. The concept went through all three stages:

Stage 1: Ridiculed: Are you kidding? Who in their right mind would believe GM could be trusted? Why would we be dumb enough to spend our money to let someone know we did not have the vehicle they wanted?

Stage 2: Opposed: You're not going to get money out of my budget to develop this. We will not take a chance on losing even one sale, while we have chance of increasing our market share.

Stage 3: Self-evident: Oh, I get it! We have more differentiated vehicles than any of our competitors. Therefore, we are more likely to meet every customer's needs better than any of our competitors. AutoChoiceAdvisor.com allows customers to find out—without being limited to traditional communication and distribution channels or a strongly held (and incorrect) perception of GM's comparative quality—that we have the vehicle they really want, and we should be considered. Who said the Internet would not help us?!

Our team was able to overcome both ridicule and opposition by demonstrating to management that we had a clear and beneficial destination in mind. We also showed that we needed time and money to prove the approach, which we were convinced would help our site become the trusted destination for automotive customers.

As part of research conducted for GM, an MIT team led by Glen Urban developed an Internet-based system called *Truck Town*, in which a customer could call up a virtual advisor to discuss vehicle preferences. Based on that *conversation*, the advisor would recommend a particular truck. More than 75 percent of Truck Town's visitors said that they trusted these virtual advisors more than traditional communication methods.

This finding was instrumental in GM's realization that the honesty implied by the virtual advisor's unbiased conduct was critical, and must be a component in any Internet trust-building program. In a later article,⁵ Urban pointed to the benefits of *listening in* as customers communicated with the virtual advisor regarding their preferences for certain attributes.

Because consumers were coming to the advisor through the Internet and not on-site computer aided questionnaires, the recommendation technology for the AutoChoiceAdvisor (and then applied to MyProductAdvisor.com) was developed by Dick Smallwood using a new application of Bayesian inference to the modeling of shopper values. Once customers reached the website, they answered a series of questions about their needs. How will they use the vehicle? For commuting? Carpooling? To haul a trailer? What is their price range? What body types and brands do they like? Fuel economy? What vehicle attributes do they prefer? Cargo capacity? The advisor then asked users to rank their priorities. Did they care most about price range, or are other attributes most important? Is body style an important consideration, or would they prefer better fuel economy?

To guarantee an unbiased response to the shopper's answers, the measurable characteristics of each vehicle in the system came from recognized industry sources.

Because trust is so important, the site made it clear that the information consumers provide, remained confidential. No representative would contact them about their responses unless they ask for the contact. Individual information is aggregated so that personal information is anonymous; the site had no persistent cookies and required no registration.

To address the initial and lingering concerns about potential perceived bias and to reach out to a broader consumer base, AutoChoiceAdvisor became MyProductAdvisor.com in 2004, with management transferred to the Market Insight Corporation, a company founded by Dick Smallwood and myself after I retired from GM and now led by Rich Falcone.

Lesson #9: Real Time Consumer Information Is Essential

Another crucial reason to move forward with a GM's *trusted advisor* site came as a result of engineers' need for more up-to-date consumer

information. Referring to activities that occurred in the mid-1990s and beyond, Harvey Bell (the engineer I mentioned in lesson #6) noted that while he was impressed with how collaboration was improving GM's vehicles, given the incredible change in available technology and changing consumer preferences, the shelf life of the information available for decision making was not very long. In his ideal world, he would have the following:

- Continuously up-to-date customer data
- Periodically updated product data
- More complete definitions of customer preferences
- Enterprise-wide availability
- Faster turn-around times
- Better accuracy
- Ease of use

While Bell's request seemed reasonable, the conjoint data collection and analysis process for the MDM cost several million dollars. As a result, we conducted the survey only once every three years. Getting to Harvey's request led us to consider gathering customer preferences in *real-time* through an online advisor at the time they were actually considering making a purchase.

The concept was to have each consumer visiting the advisor to leave behind an anonymous record of their preferences, which could serve as a replacement for the conjoint data used in the MDM systems. This advisor data would have several key advantages over the traditional recruited consumer panel data used for the MDM:

- Respondents were actual shoppers, not selected potential buyers.
- Given their purpose for coming to the site, respondents had an intrinsic incentive to provide accurate data.
- Respondents were entering their data 24/7, thereby creating large samples and a continuous record of customer preferences.

- The data were relatively inexpensive to collect.
- The data were always up-to-date, thereby decreasing turn-around times for analysis of results.

The information gathered by MyProductAdvisor became part of a newly-established, corporate-wide system bringing together many different internal functions, including Portfolio Planning, Global Product and Consumer Research, Long-Term Forecasting, Revenue Management, Advanced Vehicle Development, Strategic Initiatives, and Research and Development. This led to increased coherence among these internal functions regarding customer needs and preferences. Given its extended use and relevance, the system was expanded into the Chinese and German markets.

GM could now also aggregate the consumer preferences into a model of the automotive market. This model can be used to evaluate the relative value of vehicle functionality changes, new features, or additions in the market, and can be viewed over time to identify how the changing environment might affect decisions at GM. MyProductAdvisor allows this model to be updated with real consumer preferences continuously throughout the vehicle development process.

This approach did not replace all current market research methods, but provided a complementary approach that improved understanding of customers more likely to be *in market*, and provides more timely reports. Its value showed up almost immediately, as GM was able to see how changing fuel prices during the build-up to the Iraq war was affecting customer's preferences for different size vehicles.

Most importantly, this market sensing approach replaces traditional market research based on (1) prospectively asking what customers are likely to do before they are in the market or (2) retrospectively asking customers to remember what they did and why. Figure 8.2 illustrates market sensing by means of my MyProductAdvisor.

It also offers GM a better understanding of the vehicle market, and helps the enterprise understand whether customers are not fully aware of the company's products or whether they are fully aware of what the company has to offer, but are not interested. For example, if an analysis of

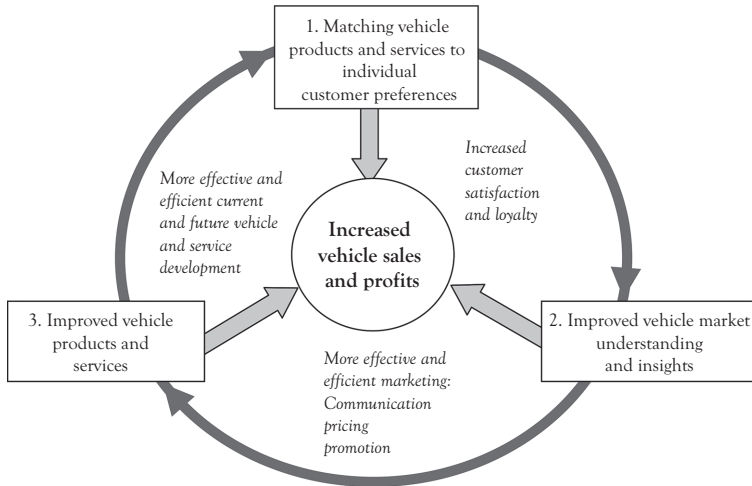


Figure 8.2 *Application of MyProductAdvisor to GM vehicle market*

the existing portfolio demonstrates that a product exists that would meet customer requirements to a greater extent than reflected in current sales, that insight provides a strong signal to those responsible for marketing communication to determine whether or not the existing communication program is achieving its objectives. If the product is seen as acceptable but not priced competitively, the company can adjust the price. If customers are not fully aware of the benefits of new technology or the application of existing features, the enterprise can decide to increase its advertising or public communication programs to ensure the market is fully informed of the benefits.

The process serves as an improved communication channel. When the company chooses to add or modify a vehicle, the minute that vehicle or modification is available in the market, it shows up in the desired characteristics of those customers whose requirements it meets.

Lesson #10: Don't Let Success Lead to Overconfidence

In essence, we have used 21st Century thinking and technology to achieve what Buck Weaver's integrative thinking sought to accomplish, as he described it in a 1935 article in the *Annals of the American Academy of Political and Social Science*:

All other things being equal, a manufacturer who hoped to sell products at a profit required two important factors: first, the manufacturer's knowledge of the consumer's needs, tastes, and desires; and second, the consumer's knowledge of the manufacturer's product and services.⁶

Conclusion

How did Weaver fall into such obscurity? And why—with AutoChoiceAdvisor—was GM rediscovering what it apparently already knew, 70 years earlier? Market factors tell much of the story. For the duration of World War II, GM stopped production of personal vehicles. In the period following the war, the American economy and the movement to the suburbs led to unprecedented demand for new vehicles. GM and other manufacturers were able to sell everything they made. This practice—coupled with belief in their success—led to a dangerous attitude: “We know what the consumer wants, better than the consumer knows—and we have the sales records to prove it!”

However, as the decades progressed, demand far exceeded supply. As new competitors from overseas entered the American automotive market, customers suddenly had more options, and GM suffered. The company had to get back to basics—as Weaver put it, “finding out what people like, doing more of it, and finding out what people don't like, doing less of it.”⁷

When it first introduced AutoChoiceAdvisor, GM believed it was a first for an original equipment manufacturer. Subsequent research, however, surfaced an earlier example, a brochure called “Your Car as You Would Build It,” produced by Weaver and GM's Customer Research Staff in 1932. Weaver offered a survey that was “easier than a crossword puzzle” and could be completed in 10 minutes. He also promised confidentiality, and that the information would be used to improve automotive products. And he did it all with no advertising.⁸

Thousands of individuals completed the survey, and their responses were key-punched into Hollerith machine cards and tabulated on electronic accounting machines. The results were studied by GM engineers, then published in an 80-page, fully indexed book called “The Automobile

Buyer's Guide," available to the original respondents and anyone else who wanted one. This buyer's guide reflected the views of the 211,000 motorists who responded to GM's surveys. Over the years, 2.5 million copies were printed. The book, which covered everything from acceleration to foot rests, fenders to crankcase ventilation, also included survey questions throughout the text, thus allowing readers to compare their own opinions to the full survey results.

I wish we could say that through diligent research, GM employees scoured the GM archives looking for inspiration from decades past, and discovered "Your Car as You Would Build It." In truth, a search for GM-related materials on e-bay turned up a 1934 edition of the brochure that seemed, at best, to provide further insight into GM's historical accomplishments. What a surprise to discover that the brochures advanced many of the same concepts that the AutoChoiceAdvisor team was proposing, namely:

Transparency: Maintaining transparency between enterprise and customer, which forms the basis of trust.

Outreach and communication: Reaching out and communicating on a more personal basis.

Engaging information users: Providing consumer-based guidance to GM's scientists, engineers, and designers—those who could actually use it.

Today, market sensing involves tremendous outreach efforts, increased transparency, and a commitment to information users as well. Today, MyProductAdvisor receives 30,000 unique visitors per month across three countries with shoppers spending more than 20 minutes per session and on average experiencing 60 page views. I'm sure if Buck Weaver was still around he would commend the current leadership of MyProductAdvisor for keeping up with the changing market conditions and providing a consumer-sensing device that reaches across the global market. I hope that over the next 50 years, insightful researchers maintain a connection with the past as we develop newer, contemporary approaches to meet the needs of consumers in an uncertain future.

Notes

1. In *Time*, page 68 (quoted in Barabba 2003).
2. I gratefully acknowledge permission received from Eastman Kodak Company to discuss the results of the approach used to reveal underlying assumptions found in this section.
3. For a more detailed discussion of Kodak's actions, see Carroll and Mui (2008).
4. Blitzer (1987). The topic is also discussed in Barabba (1994).
5. Urban and Hauser (2004).
6. Weaver (1935, 93).
7. *Time*, p. 66 (quoted in Barabba 2003).
8. Weaver (1932).

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Market Sensing Today

Melvin Prince • Constantinos-Vasilios Priporas

The concept and framework of market sensing was introduced by George Day more than 20 years ago into the strategic marketing literature—especially the philosophy of the market-driven organization. Market sensing can be considered an expression of a company's capabilities to scan the external environment. It does this by using real time data and intelligence to understand business or uncertain changes, to meet the current and future needs of the market, increase customer value, and outperform competitors. Market sensing enables managers to resist complacency, as well as to exploit opportunities and to design appropriate competitive strategies in order to remain successful in today's uncertain, rapidly changing, and hypercompetitive market.

Market Sensing Today is essential reading in the marketing discipline, given the rapidly escalating innovative developments in market sensing techniques. This book of essays by acknowledged experts in the field fills an important knowledge gap and provides a realistic basis for strategy. It is replete with real-life examples of market sensing that illustrate actionable ideas for immediate impact that will improve organizational learning and accelerate growth.

Melvin Prince is a professor of marketing at the Business School, Southern Connecticut State University and holds a PhD from Columbia University. Prince serves as reviewer for several leading journals, including *Journal of Business Research* and *Journal of Advertising Research*. He has edited the book, *Cosmopolitan Consumers in the Age of Globalization*, coedited *Leading Edge Marketing Research*, and has written three other books, as well as authored more than 70 articles in peer reviewed journals.

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