INTEGRATING DECISION MAKING AND MARKETING INTELLIGENCE

The roadmap to the boardroom

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The marketing research industry is facing several challenges stemming from the changing business climate and the emergence of new actors. Unless a paradigmatic shift occurs, marketing research information is only one of numerous information sources which today's decision-makers face every day. Hints of such a paradigmatic shift are visible. Tomorrow's company will be customer centric and armed with knowledge management tools. The industry has to be ready to respond to the increasing demands of customers not only by revising but also reversing its business processes and exploiting technological opportunities. This paper proposes a methodology to be ready for the next phase.

CHALLENGES TO CONVENTIONAL MARKETING RESEARCH

Marketing research industry is experiencing hard times nowadays. Despite the positive growth rates of the last decade – overall industry's turnover increased by 4% in 2000 and 2.8% in 2001 (ESOMAR, 2002) – these rates are very close to growth of world output which became 4.7% in 2000 and 2.6% in 2001 (World Bank, 2001). However when compared to growth of CRM expenditures, which experienced a 100% increase in 2000, these rates should not be exaggerated and do not promise an economic boom for the industry. In addition to these quantitative bottlenecks, the industry is facing serious criticisms from both professionals and customers. In his seminal article, Gibson (2000) states:

> *"So comic strips show marketing research as laughable, business authors find it irrelevant, academia separates itself, and even we researchers know something is wrong. Isn't it time we stop kidding ourselves with superficial talk about communications?"* (p.3)

According to Gibson, marketing research fails to satisfy its potential users, since it limited itself by describing the past, and did not try to estimate the future. Even further, the American Marketing Association declared divorce from marketing research and scientific methods by defining this service with these words:

> *"(Marketing research is) systematic gathering, recording, and analyzing of data about problems relating to the marketing of goods and services"* (p.4).

This clear limitation of the industry with *"data are already in existence, waiting to be collected"* avoids the scientific emphasis that was envisioned by practitioners, and general acceptance of this definition created significant consequences. First it impeded recruitment of new talent (p.5); marketing research education became limited with data gathering and analyzing rather than developing new models or theories (Ibid.); and new graduates emphasized implementation of sophisticated statistical models rather than questioning their findings (p.6). All of these consequences resulted in one most significant development: Marketing research's findings failed to predict the market and the credibility of the industry continuously declined overtime.

Gibson argues that the redefinition of the industry by AMA in 1991 by including emphasis on "scientific methods" might be a fresh start for practitioners. However, according to Gibson, this redefinition has not been echoed in managerial rhetoric and the industry is still identified with "gathering, recording, and analyzing of data" (p.7). Finally, Gibson says that in order to change the course of the industry we have to change the definition, then education and training of new talents (Ibid).

Marketing research professionals and intelligentsia are also aware of this industry crisis and remedies to be taken are being discussed. In a recent *Marketing Power* (2002) article, several professionals from both marketing research companies and customers discussed the main hurdles they faced. According to them hurdles may be grouped under three main headings: societal, business processes and organizational hurdles. Societal hurdles are listed as social and demographic changes and as a result, fragmented markets squeeze marketing researchers:

> *"As researchers we are trying, but nobody has big enough budgets, no one has the background or mentality. We know this is a big business, but as a group, marketing researchers just don't have the tools and know-how to adequately address this"* (p.5)

The second item of societal hurdles is argued as "non-linearity of the environment". As a result of rapid technological change, customer profiles change rapidly and existing tools are not sufficient to understand and explain these new profiles. Moreover, according to discussants, most marketing research professionals are far from being able to be adapt to changing paradigm (Ibid.).

Business process hurdles are clearly visible in the demands of customers. First the marketing research industry does not satisfy demands of customers to reach "every time to everything"; secondly, compressed time expectations of customers are not corresponded by marketing research companies; thirdly, changing dynamic environment required dynamic decision making models which are not included in the knowledge base of the industry (p.8).

Organizational hurdles are the results of those above. The function of marketing research became limited as one of numerous information suppliers and not included into decision making processes (p.10). Secondly, the marketing research industry fails to recruit new talents, as Gibson argued above; human resources of the industry remained limited against rising competition from consultancy and IT firms (p. 11). Thirdly, with an increased number of data sources, marketing research firms failed to ensure a certain level of data quality.

In their seminal article, Monster and Pettit (2002) discuss threats and opportunities for our industry. According to them globalization of the business and rapid technological innovations created significant pressures upon the industry, stemming from rising expectations of customers. Increased penetration of the Internet made global products available worldwide through online businesses. Consequently, globalization of the client sector created a demand for global marketing research data. Meanwhile, as a result of increasing and diversifying demands of customers of the marketing research

industry, several competitors – including CRM providers and consulting integrators, business intelligence and OLAP tools, etc. – emerged. According to Monster and Pettit, in order to struggle with these challenges, technological innovation is a necessity:

> *"As consolidation and globalization continue for both client and supplier, it will be imperative to have software capable of performing across the enterprise"* (p.21)

Dean (2002) also discusses the existing situation of the industry and presents reasons behind this crisis. According to him, problems of the marketing research industry are firstly dependent on under-funding of the research activity (p.2); secondly, exclusion of market researchers from planning and decision making processes (p.3); dissatisfaction of customers' demand of quick acquisition of results (Ibid.); and declining quality of research projects as a result of the human resources problem of the industry (p.4) and alienation of employees from the scientific aspect.

All of above mentioned authors and marketing research professionals are almost aware of the crisis, independent of the diversity of reasons attributed. Similarly, solutions offered to the crisis are innumerable. Some authors propose to redefine marketing research activity while others argue to use technology and redefine our processes. Moreover, another common denominator for the intelligentsia of the market research industry is discussing problems of the industry as symptomatic, rather than systematic. What is the difference?

Merriam-Webster defines symptomatic *"as being a symptom of a disease"* and symptom as *"something that indicates the presence of bodily disorder"*. It means that the above discussed problems are related to a "disorder" of the functioning of the industry and when this disorder is recovered from, these symptoms will disappear. How to recover is a problem for business medicine and when these measures are taken, there is no another obstacle to recovery. Epistemological problems of this "symptomatic" approach are broadly discussed by French philosopher Foucault and followers.

On the other hand, systemic means *"relating to or consisting of a system"* and a system is described as *"a regularly interacting or interdependent group of items forming a unified whole"*. The main difference between "systematic" and "symptomatic" approaches is that while "symptomatic" approach envisions an existing-existed equilibrium point to which the body will be reached after recovery, the "systematic" approach explains the situation as a result of "regular" interactions of members of the universe. It also considers an equilibrium point, however a system may be in equilibrium in more than one

point and subsequent two equilibrium points may differ in many characteristics.

From a systemic point of view, the current industry crisis is not to be remedied by trying to recover to our previous position. Our attempts to recover to our previous situation will affect the environment and other actors of the game will behave not similarly to their previous actions, since they have experienced a "crisis" with the industry. As Heraclites says, *"you can't swim in the same water twice"*. As market research professionals we have to discuss what the system is, how it functions and what changed to push us to think about our sector. After such a systematic analysis, we can talk about the course of the industry and measures to be taken in order to strengthen for the coming new equilibrium.

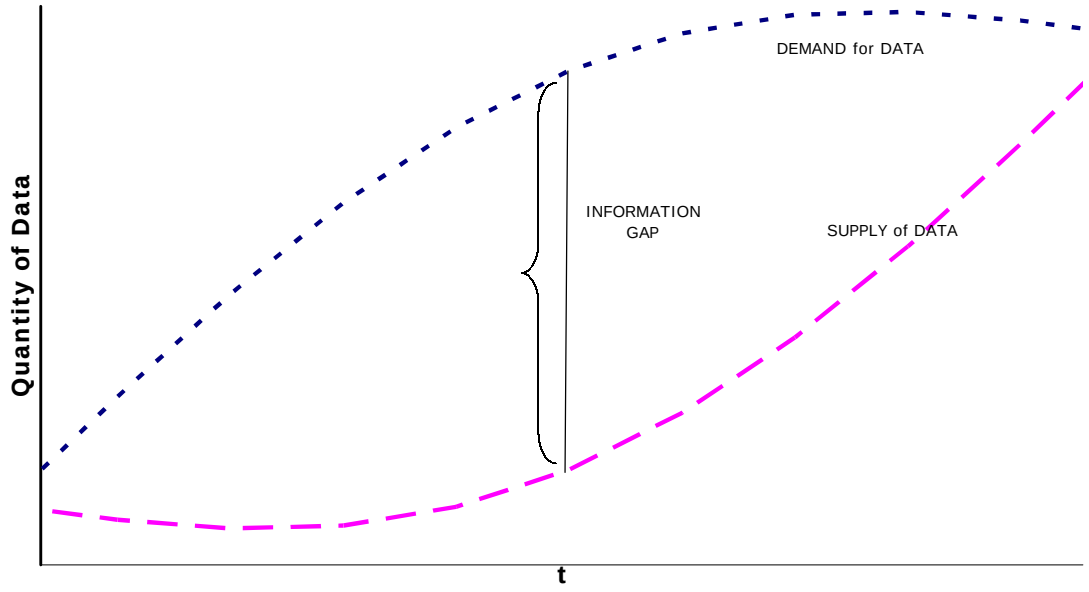
A short discussion of the systematic evolution of the knowledge space in which we as well as our customers operate will take place in the following part of this paper.

THE KNOWLEDGE SPIRAL

As market research professionals, we are living in the knowledge space. First of all, what we are producing – information about the customer, employee, market, etc. – are critical inputs to the decision making function of our customers. Even using the minimalist definition of our industry, "acquiring marketing data and transforming it", marketing research is an important component of the knowledge base of the company (Frishammar, 2002: p. 146). Then, if we understand how the knowledge space operates, we can discuss our position in this space.

Figure 1 presents theoretical evolution of the knowledge space in a limited time period. The Y-axis of the graph presents the amount of data. It may be measured on terrabytes of data, numbers of pages or volumes of documents. The X-axis shows us time. The purple line is the demand function of decision makers, in other words quantity of data needed by decision makers – or knowledge workers – to make decisions and to rule their companies. The blue line shows us the supply of data, by different agents. These agents may be market researchers like us, internal suppliers of financial or operational data or other tangible or intangible data. (See figure 1.)

Figure 1
THE KNOWLEDGE SPACE



As figure 1 presents, we expect that the demand curve of decision makers is in a logarithmic shape – meaning that as time goes on, the decision makers' marginal need for data decreases and in the long run it becomes equal to zero. At the beginning, the decision-maker needs a huge amount of data in order to understand, control and manipulate the course of the company. While the engineer-manager of Taylor needed a lot of data from production including compilation times of parts, time spent to package parts, and wages of workers, all of this data now are among common practice in almost every kind of managerial information system. If a radical shift in the knowledge production function of managers – knowledge workers – does not occur, the marginal contribution of additional available data will be insignificant.

On the contrary, the supply function will be exponential, meaning that as time goes on, the amount of data available for decision-makers will increase exponentially. This is the result of a very similar assumption: supply follows demand as a result of the invisible hand to satisfy excess demand. The shape of the function is not linear, because when a supplier responds with excess demand, others will follow it. Since the good is information, mainstreaming will be quicker; other players would follow the leader much easier as a result of lacking or lower entry barriers. Consequently, as time goes on, both the number of suppliers and the quantity of data supplied will increase and reach to the equilibrium point, when supply equates demand. Figure 1 identifies the information gap, which describes times of crises when there is an excess supply or demand of data.

When the above framework is applied to the historical evolution of decision-making processes, the graph will be as follows:

Figure 2
THE KNOWLEDGE SPIRAL

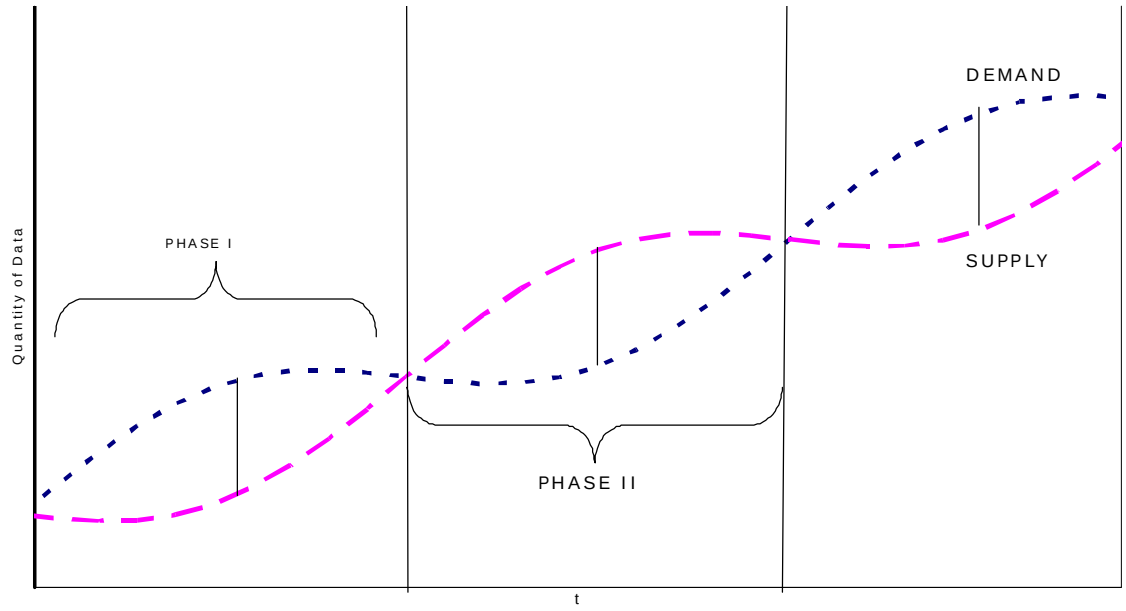


Figure 2 presents a dialectical relationship between the demand for and supply of data overtime. In the initial phase, the demand curve is logarithmic and in the succeeding phases it takes a sinusoid form with a positive slope. Similarly initially the exponential supply curve also becomes a sinusoid shape over time. This transformation of shapes is dependent of the evolution of management knowledge and information processing functions overtime.

Phase I of figure 2 is characterized with the development of modern/scientific management of Taylor. F.W. Taylor, as an engineer and manager, published his experience in management under the title of *Principle of Scientific Management* (1909). He described the main objectives of his approach as development of a scientific approach to production processes and allocation of sources, division of labor between workers and managers and motivation of workers through material benefits. The newly born professional manager had to collect a significant amount of data in order to control and manipulate its company. Individual performances of workers on the production line was the simplest among them. Development of the managerial clerk created a demand for modern system of accounting. In the initial phase, demand for data was limited with simple tangible ones, such as accounting and production. Evolution of the Fordist mass production and corresponding mass

consumption led to the emergence of modern marketing. Increased production capacity, improved transportation facilities, intensified competition as a result of increased supply of similar goods from different producers pushed companies to develop marketing skills. The development of mass media in particular – including radio and television – created a significant opportunity space for advertising and marketing campaigns (Witzel, 2000: p.7)

The first phase of knowledge spiral continued until the late 1960s. The peak point of the information gap between demand and supply occurred in the 1930s when a majority of reputable advertising agencies and marketing research companies were established and the legendary IT company, IBM, was founded in 1914 to produce "business machines" to overcome calculation complexities of new data. These were the first signals of the exponential growth of data supply. Enduring economic prosperity created a significant opportunity space for suppliers: the annual average growth of personal income was 3% between 1950 - 1975, labor productivity and foreign trade doubled during this period (Lipietz et al, 1986).

Such a suitable environment resulted in huge increases in the supply of data. First of all, the number of data sources increased: financial, accounting, and operational data were no longer single source. Marketing and product managers have to consider sales data, marketing research information and sectoral trends; human resources department must be concerned with employee performances and employee satisfaction; high level managers have some idea about the overall course of their industries, macroeconomic developments and competitors' positions. Moreover, thanks to technological developments and especially to the Moorian growth of processors, the information production capacity of data suppliers increased day by day (Wiig, 1997: p.5).

However, this rapid increase in the supply of data did not correspond with increased demand. Following the adoption of Max Weber's bureaucratic theory and development of the basic human resources approach, this period has been characterized with the settlement of the existing management paradigm. According to Clarke and Clege (2000), until the 1970s there has been no signal of a paradigm shift in management (p.17). Today we are experiencing the second information crisis of the century in which data supply significantly surpassed demand. The main characteristics of this crisis will be discussed below.

CRISIS OF TODAY AND THE MARKETING RESEARCH INDUSTRY

It is so far been argued that today's crisis is the crisis of over-supply. We experienced the equilibrium point in which the demand for data equates supply and the honeymoon period when large information technology conglomerates had substantial profits during the late 1970s and 1980s. Now decision-makers are facing a significant information overflow.

In 2000 it was estimated that corporate data was growing between 75% and 150% per year, a pace that has not likely diminished since. The Gartner Group projects that by 2004 businesses will be managing 30 times more data than in 1999. In an almost startling finding, the School of Information Management and Systems at the University of California, Berkeley has determined that more information will be generated over the next three years than was created in the previous 300,000 years. Another Gartner Group study, released last year, found that the average company utilizes just 7% of the information stored in data warehouses (Microstrategy, 2002).

Of course this over-supply of data leads the decision-maker to react much more conservatively. Today's management theory literature is full of "how to use the data collected" or "how to invest wisely in IT" articles (Balasubramanian et. al., 1999).

The most significant development which will affect the demand for data and increase the productivity of information collected is the evolution of knowledge management, which is defined as *"systematic management of knowledge"*, or as *"organizational capability that allows to create capture, share, and leverage their collective knowledge to improve performance"* (Ibid.). The main objective of this discipline is stated as to maximize the enterprise's knowledge-related effectiveness and returns from its knowledge assets and to renew constantly (Wiig, 1997: p.2).

The major problem for theoreticians of the discipline is integrating the huge amount of accumulating data into the company's knowledge base and developing new techniques to improve the efficiency of data collection and information production processes. Following Romer's contribution to the economic theory of growth, arguing that the emerging economy is based on ideas more than objects and that there is 'enormous scope for discovering new ideas' (Read, 1999: p.5), investment in making people knowledgeable to bring innovation became crucial for enterprises (Wiig, 1997: p.5). Transformation of tacit knowledge to explicit knowledge and o accumulate it as a part of the knowledge capital of the firm is discussed and described following earlier works of Nonaka (1997: p.2).

The current marketing research industry crisis is highly dependent on the current information gap situation. Nevertheless, as presented in the illustrative figure, this gap will not be everlasting. Dynamic factors will push decision makers to effectively use and control data flow. The first of these dynamic factors is the above discussed knowledge management concept. With the exploration of new ways of transforming information to knowledge, demand for data will be increased within a short time period.

Secondly, it seems that a paradigm shift in management science is occurring. According to Clarke and Clegg, new areas of intellectual inquiries became visible following the 1980s. These inquiries focused on organizational learning, flexible organizations, open communication, network organization, social responsibility, stakeholders' approach, etc. (2000: pp.50 - 56). Despite a multiplicity of reasons for this change, the consensual point of the management intelligentsia is that tomorrow's company will be very different than today's. It is a clear indicator of an incoming paradigm shift.

Thirdly, rapid development of technological opportunities in terms of CPUs, storage capacities, networking, and the rise of the Internet will also help managers to develop much more efficient information production methods. Firms are aware of these opportunities and the computer market grows continuously. Clarke and Clegg stated that average annual investments of U.S. firms in computers increased by 30% - 40% during the last two decades (Ibid.: p.161).

When all of these factors are taken into consideration – intellectual investment in knowledge management, the changing managerial paradigm and use of enhanced technological capacities – it must be expected that the exponential growth of demand for data will take place within less than two decades. Of course, the winners of tomorrow will be investors of today.

The specific situation of the marketing research industry is closely related with how it is attributed by decision-makers. Frishammar states that marketing research is only one of several information sources of decision makers and its scope is limited with *"a mean by which the firm generates, transmits, and interprets information from the environment about or relating to the success of the firms marketing plans"* (Frishammar, 2002: p.148). One of the classical marketing research textbooks defines the marketing research process beginning with agreeing on the research process, comprising a shared understanding between the manager and the researcher of problems or opportunities to be studied, decision alternatives to be evaluated and users of the research results (Ibid). Such a definition limits the researcher as being a subcontractor and assumes that customers have perfect information and skills to delegate the research. It means a clear exclusion of professional researchers from the boardroom.

In order to satisfy the potential demand for data, the marketing research industry must not only revise its definition, but also its processes and its objectives, especially since the new management paradigm creates a significant opportunity space for market researchers. This opportunity space will be discussed in detail in the following part of the paper.

CUSTOMER CENTRIC ORGANIZATION AND A NEW ROLE FOR THE INDUSTRY

The new paradigm of management is characterized with its customer centric approach. After a half century long period of prosperity characterized with rapid growth of the industrial and services sector and decline of agriculture, enduring economic stability with a average annual growth rate of 4%, and growth of real wages and productivity, the world economy experienced a series of crises (Lipietz et al, 1987: p. 9).

An important characteristic of the period was cited by Lipietz et al: *"a fundamentally new development of the post-war period was that the massive growth in production was counterbalanced by an equal growth of consumption…"* (p. 10). The capitalist mode of production was enforced with Fordism and Taylorism, and corresponding mode of regulation. The economic climate was very suitable for further growth as a result of an abundance of capital for investment and growing markets stemming from the increased purchasing power of workers (Lipietz, 1995). Lower levels of inflation and increased world trade enforced enduring economic prosperity (Lipietz et al, 1987, p. 16).

Following the first and second oil crises, the world economy faced a serious crisis. During the 1970s, productivity decreased, profits declined, and inflation rates of advanced countries almost doubled. Mergers of international countries took place and competition intensified. Coupled with declining real wages, increased unemployment rates directly affected demand (Ibid., p. 42, 46, 50, 58). It was the end of the Golden Age.

The above-discussed signals of a paradigm shift are very dependent on this crisis of Fordism. From a managerial perspective, the major implication of the crisis was the scarcity of customers. As a result of declining relative real wages, the average purchasing power of consumers declined overtime. In the previous era, production increases as a result of increased productivity corresponded to equivalent demand increases. Today such an abundance of demand is not available. Intensified competition and supply of similar goods from different companies and the selective attitude of customers created significant pressure on companies that want to survive. The first of the facts pushing these firms to be concerned with customers is simply stated as the

"costs of attracting a new consumer is seven times higher than keeping old one". Retention and loyalty became two important concepts and a new approach has been developed under the name of relationship management. Relationship management focuses on increasing customer retention, establishing continuous customer contact, high emphasis on customer service and high commitment on meeting customer expectations (Baker and Cooper, 2002, p. 15).

Such a paradigmatic shift created significant emphasis on "customer relationship management" (CRM). Boxwell (2000) underlines a common definition of CRM as follows:

> *"CRM will be taken to mean those processes involved in the identification of profitable customers and/or customer groups and the cultivation of relationship with these customers. The aim of such processes is to build customer loyalty, raise retention rates and therefore increase profitability"* (p. 6)

Although CRM is a vision of management, it often used as a kind of technological investment. Schultz categorizes approaches to CRM under two different headings. First is the North American version, which emphasized the technology area, especially data management (Schultz, 2002, p. 1). The second is labelled as the Nordic Approach and which focuses much more on aligning the organization's resources in such a way that ongoing relationships are formed and maintained. Thus, the primary focus is on building customer loyalty and retention (Ibid).

However, despite institutional attempts to underline the visionary role of the CRM approach, technology continued to dominate the discipline. According to the Aberdeen Group, the total CRM market is expected to increase to US$ 24 billion in 2003 from US$ 5.5 billion in 1998. Gartner Group states that 28% of total costs are allocated to software investments, 23% to hardware purchases, 11% to telecom expenses. Only 38% of total investments is allocated to "services", which includes all kind of services.

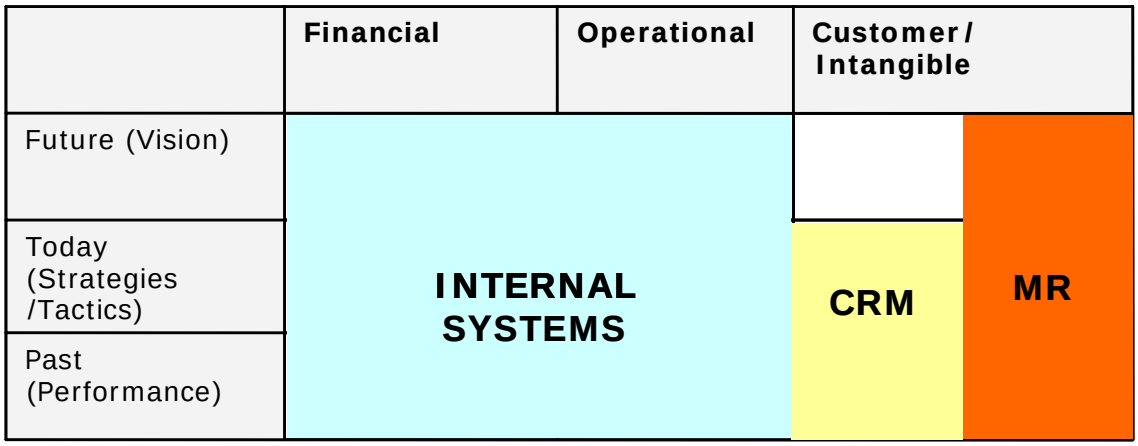
On the other hand, such investments do not create a significant added value for investor companies. As Brooke and Suntook (2002) state, 55% - 75% of CRM projects fall well short of their objectives, and unsuccessful CRM projects will increase to 80% by mid-2003 (p. 60). Reasons for this failure are numerous and are commonly discussed.

The main point here is that dynamics which allowed the CRM market to experience such a growth also created significant opportunity space for the research industry. First of all, more than 100 years of experience of the research industry gave it an intangible knowledge about the customers. Though companies of today are trying to shift their orientation from

transactional to customer centric, the majority of marketing research questions are already focused on the customer. Consequently, the research industry may shift its focus on customer research, which has many more external linkages than marketing research.

In order to understand what the opportunity space provided to the industry, we must provide a short description of the decision-making processes of a company.

Figure 3
BUSINESS DECISION MATRIX



Management of a company may make decisions related to the past, today and tomorrow. Decisions related to the past are limited to some performance indicators. Today's decisions are more focused on strategies and tactics, while tomorrow's decisions are about the vision of the company.

On the other hand, data sources of a company may be threefold: first is financial/accounting data flowing from sales and costs figures; second is operational data which includes delivery times, etc.; lastly, customer and intangible data is collected by customers through internal methods or marketing research.

When we place existing knowledge solutions to this matrix we observe that financial and operational data are collected and analyzed by using internal systems such as SAP. Information about customers is collected through CRM systems, but it is only limited with past and perhaps today's customer transactions. It does not collect any information about potential customers nor give any idea about future behaviors of customers. A significant advantage of CRM systems is that they are easy to integrate with legacy systems. Operational and financial data are almost already integrated through legacy

systems. Advances in reporting software, such as BusinessObjects, ProClarity and Crystal Reports, allows integrated reporting of information collected by these different channels.

The role of conventional marketing research is limited to the collection of information about customers and other intangible sources. Compared with CRM, marketing research has numerous advantages. First of all, while information gathered about customers through CRM systems is limited to transactions, marketing research brings significant information about values, attitudes and behaviors of both existing and potential customers. CRM systems also fail to give information about potential customers and competition. Secondly, estimation about future behaviors of customers by using only transaction data is not easy to implement, and even increasingly sophisticated statistical techniques fail to develop comprehensive models. Thirdly, transactions on which CRM systems are based are highly dependent to the occurrence frequency of transactions, which may be affected by other factors.

These failures of CRM systems and the competitive advantage of marketing research industry is well known and has been discussed in detail. The most important point here is that opportunities created for the industry by the customer centric revolution is not limited to playing a bridging role between the market and CRM systems. Emergence of the customer centric organization, which not only focusses on but also exists to satisfy customers' needs, creates a new type of consultancy for marketing research experts experienced with the eye of the customer.

Challenges against such a shift of role for market researchers are numerous. First of all, as is argued above, market research data is not easily integrated with other information sources, both internal and external. Secondly, the changing economic environment pushes decision-makers to secure the interpretation of information and transform it to action plans rapidly. The conventional business processes of the industry limits opportunities to correspond with these demands. Thirdly, as is argued above, information collected by the research industry is generally used to support marketing decisions. Consequently, the industry had to revise and even change its business processes to overcome these challenges.

REVERSING RESEARCH PROCESSES

The majority of problems which the industry is facing stem from existing business processes. Conventional marketing research processes for a marketing research firm are described in figure 4.

Figure 4
CONVENTIONAL MARKETING RESEARCH PROCESSES

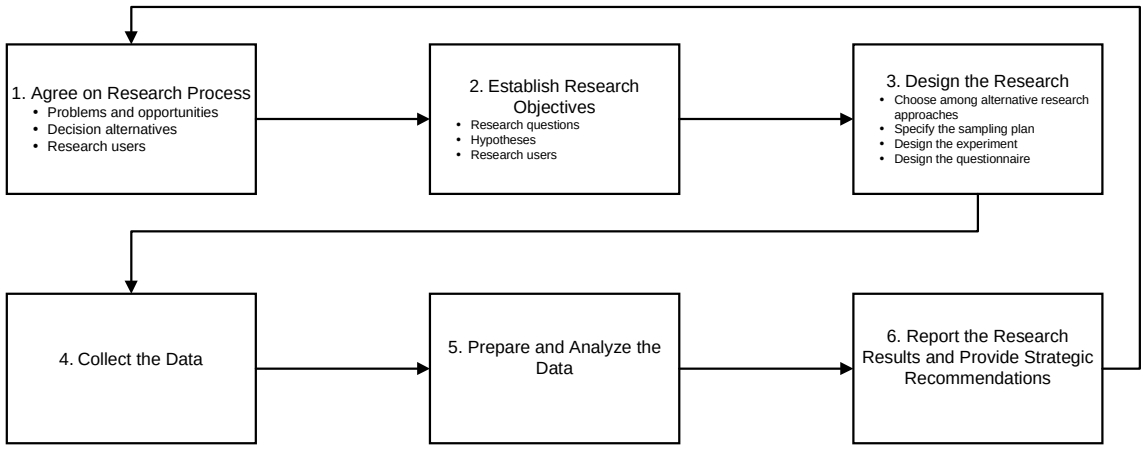


Figure 4 shows that the process starts with agreement on a research process, then establishing research objectives. The research project is then designed, data is collected and analyzed and reported to the customer with strategic recommendations. According to the diagram, the role attributed to the marketing research company ends after reporting. The company does not attribute any interest to how results are used by the customer, which kind of data (operational/financial etc.) is used with marketing research data, and which internal reports are produced by the customer using this data. In short, the marketing research company has a limited idea about how data/information provided to customer is transformed to knowledge. Furthermore, since the process starts with "agreement on the research process" just after the customer decided to launch a research project, the marketing research agency has no idea about how this information will be used in the decision-making process. It means a clear exclusion of marketing research firms from decision making.

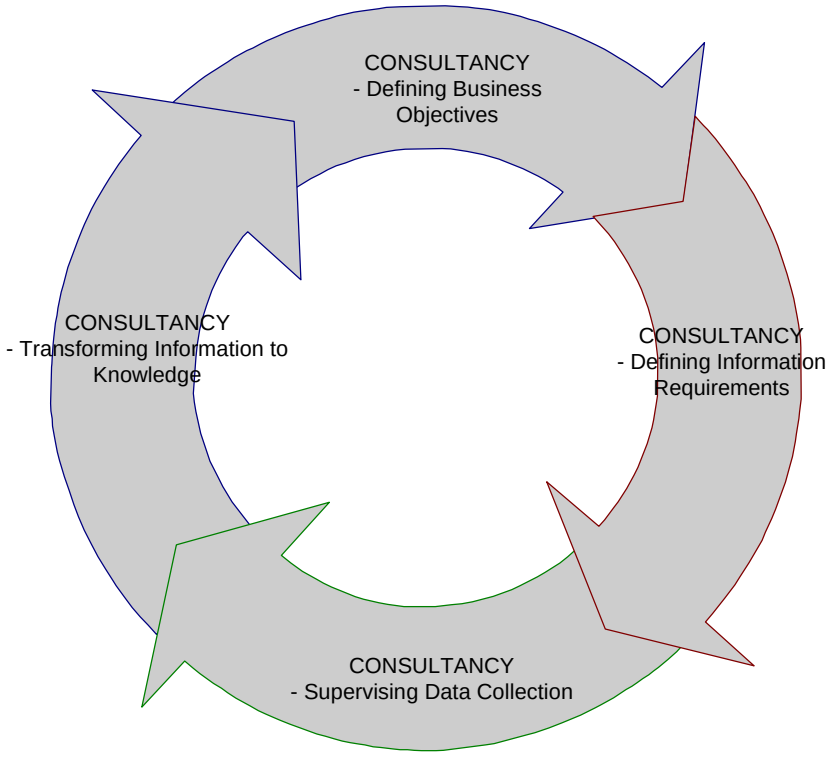
This exclusion is a result of the Fordist type production of marketing research information. In the previous phase, our information sources were limited. Production capacity (for example the computing capacity of our computers) was also restricted. Finally, our distribution channels were limited with only hardcopy reports. Moreover, our data collection and reporting processes are classic Fordist-type stock and queue processes, which results in considerable delays. Today, in the second phase of the knowledge spiral, our resources, production capacity and channels are no longer limited. Thanks to advanced segmentation techniques it is not difficult to conduct surveys targeting the slightest segments. Technological revolution and commercialization of huge computers allowed us to make sophisticated analyses. And, as a result of

enlarged WWW technology, online reporting tools spreading out and presenting our results to our customers online, is no longer a dream.

Nevertheless, these technological avenues do not propose a new and different role to professional marketing researchers. As long as the above stated processes are maintained, technological innovations only secure our job but do not satisfy customer expectations. When current challenges to the industry and possible enlargement of demand for data are considered, keeping existing business processes and trying to improve them only satisfies today's expectations and falls short for tomorrow.

As the marketing research industry we need to reverse our processes in order to be competitive in tomorrow's information market.

Figure 5
NEW PROCESSES



When reversing our processes we should keep in mind that these new processes must satisfy certain requirements: first, to make marketing research data easily integrate with other information sources in order to create a seamless flow from data collection to reporting and thus eliminate stock and queue delays. Moreover, our new processes must satisfy possible demand expansion that will create an extra load. Outputs of these processes have to be

integrated with knowledge accumulation and create a basis for knowledge capital of the firm. Lastly, these processes have to create another role for marketing research professionals, especially in the decision making process.

Our proposed research process starts with analyzing and understanding business objectives. These objectives may be generalized, such as increasing the market share of the company, becoming the market leader, etc. at the board level. What is important is to explore the business objectives of other managerial levels, from strategic business units to operational ones.

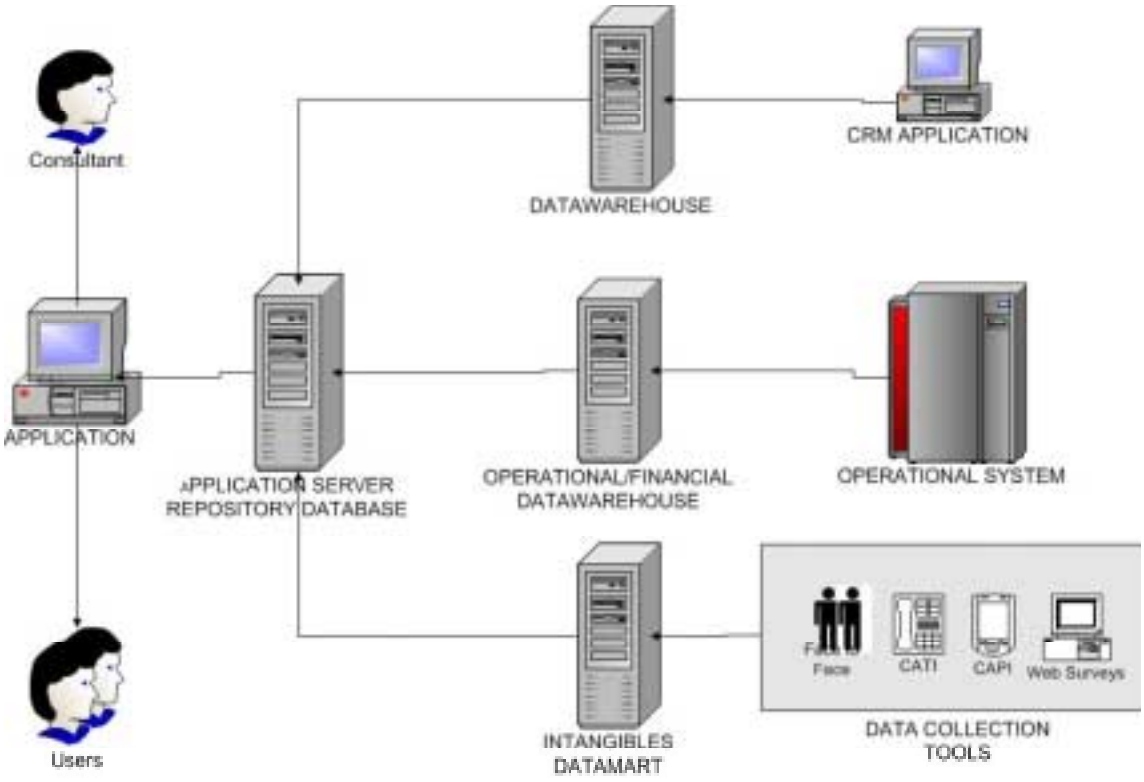
When describing the business objectives of companies, the most suitable methodology is questioning decision-makers about how they will decide and which information they need when they decide. A graphical exposition of information requirements also allows exploring integration of information from different sources. For example, a middle manager may want to see a line graphic of monthly sales and quarterly measured customer satisfaction. Or a financial manager may use a scatter plot of profitability of products and portfolio shares of these products. When all the study of exploration of business objectives is completed, a document of information requirements will be created.

The information requirements document needs to include some information about source (individuals, companies, internal or external data), timing (monthly, annually), and expiration date of data to be collected. Moreover, the information requirements document will determine data gathering methods. For example, in order to reach various segments or sources, different methods of data gathering may be employed. Thanks to technological innovations during the last decade, using the Internet, PDAs, tablet PCs and other tools is not a dream for market researchers.

Data collection methods may not be limited to the resources of marketing research firms. In addition to operational and financial data flowing from legacy systems, a pipeline to CRM systems may be established to facilitate integration of data. Moreover, the data gathering process may be operated through the existing call center of the company or may be outsourced to one of the data gathering companies. The information requirements document also helps to make an analysis of the knowledge base of the company. Which departments are using what metrics, at which managerial level? What is the importance attributed to metrics by the different managerial levels or departments? Which metrics, internal or external, are used altogether? All these questions may be answered by accumulating information through the "nervous system" of the company and included in the knowledge capital. On the other hand, the information requirements document will be a roadmap for the IT team of the company which often faces difficulties in understanding business needs.

After setting up the analyses which will be used by decision-makers and defining the information requirement documents, the following step is arranging the data gathering process. Since the cost of all information is known – such as the per unit price of surveys, required technological investment, etc. – it is necessary to calculate a ROI (return on investment) for the overall information requirement of the company. The board of the company may then easily decide which information is worth collecting, and which may be postponed or cancelled. Another advantage of working with an information requirement document is that it can include alternative sources, timings and expiration dates, and thus it becomes possible to estimate alternative budgets and ROIs.

Figure 6
PROVISIONED DATA FLOW



Converting single-shot data gathering attempts to such a continuous and seamless process significantly decreases the cost of data gathering and reporting. By establishing a pool of users, companies may set up their respondent basis and reach to customers periodically by using panel or rolling sample methods. Alternatively, the process may start by drawing a sample from the CRM databases of the company – by using segments as clusters – and this sample may be used in data collection. Thus, reaching to needed

information with a probabilistic basis becomes possible, which is much cheaper compared to trying to collect information from the entire database.

The following step of the process is to prepare analyses which decision-makers need in their jobs. The above stated information requirements document also includes information about which analyses will be used by decision-makers. When the project started up, these analyses must be ready following the first flow of data from internal or external sources. The role given to the consultant here is guiding interpretation of incoming data, exploring how decision-makers use this data and assisting in developing and setting up new analyses which are not forecasted in the first phase of the process. Furthermore, when collected information results in the birth of new business objectives, the consultant must be in contact with decision-makers in order to revise information requirements and re-start the cycle.

As may be easily seen, the overall process is highly technology dependent. Composition of the information requirements document has to be in an interactive way in which decision makers easily express and visualize what they want to see. Moreover, this process has to be recorded and accumulated to contribute to the knowledge base of the company, and consequently the life cycle of information requirements will be observed and analyzed by knowledge managers.

The technological basis of the process enforces itself after the compilation of the document. Data attributes (expiration, source, etc.) must be reserved in a relational database which allows control, coordination and optimization of data gathering. In addition this database has to be a pool for collected data or to be able to setup pipelines with legacy systems or CRM data warehouses. Data collected from different sources with different schedules have to be integrated and stored in this database. Thus, such a system should have a sufficiently developed communication infrastructure with existing systems, enough storage capacity, and highly developed data processors. Additionally such a system has to communicate with different data collection tools, from paper and pen to PDAs and the Internet.

Technology plays an important role when decision-makers use the collected data and transform it to information and then knowledge. ***Decision-makers will make their analysis visually***, create their reports by using this data in an integrated way with their documentation systems and communicate with their colleagues to share findings. All intellectual efforts then has be channeled and accumulated through the knowledge management system.

At first sight such a technological system may seem to be exaggerated and not easy to implement. However, many companies have the foundations of this system. As a result of extraordinary investments made in managerial

information systems, operational and financial data is already digitalized and standardized. Many companies made considerable investments in CRM systems and data warehouses which enables accumulation of operational and financial data on a customer basis. Several processes of the marketing research industry are automated: one can collect data from different platforms and integrate it through an online reporting tool. It is certain that the next decade will bring many other technological opportunities.

INTEGRATING MARKETING INTELLIGENCE WITH DECISION MAKING

The critical point here is putting forward a methodology of bridging the decision-making processes of corporations with business intelligence provided from different sources from operational system to marketing research. Furthermore, such a methodology will underline the above discussed opportunities for our industry.

In order to deal with the difficulties of establishing such a bridge, we propose to emphasize on the "metric" concept. Metrics are defined as "indicators" or "measurables" by MIS engineers and used to universally compare and present a specific situation. A closer analysis of the historical evolution of managerial information systems shows how metrics are always embedded in these systems.

During the first phase of the knowledge spiral presented above, managers were dealing with simple metrics from accounting and the operational system, such as profit, loss, and delivery time. With the enlargement of the firm's bureaucracy, activity-based costing then produced several metrics. Implementation of ERP systems also contributed to a number of relevant metrics through which managers can measure and compare performances of their companies. The most significant change came to the agenda with the development of CRM systems. The CRM approach resulted in the emergence of customer centric metrics. Before the CRM revolution, for example, market share was a relevant metric for any company. As a result of the above-discussed scarcity of customers, valid portfolio share of a customer as a metric is emphasized by corporate management. Transition to a customer centric organization may be summarized as transformation of old, product-oriented metrics to customer centric metrics. Subsequently when performance of the company is measured through customer centric metrics, it is not surprising that the product orientation will be replaced by customer centric orientation.

Though the marketing research industry's major area of interest is the customer's point of view, it is not possible to argue that our industry had a knowledge accumulation of metrics. Instead of dealing with metrics, we

emphasized more on hypotheses, questions, advanced statistical models and data collection. Consequently, our research questions almost always became firm, sector or country specific. Moreover, the lack of a metric-oriented approach pushed the marketing research industry to talk and think about incomparable measurements. And since such universality is absent, integrating marketing research data with operational, financial and other intangible data became difficult day by day.

However, the metrics approach is not far from being applicable in our industry. It is only a different approach of abstraction. For example, consider a customer satisfaction survey for banking sector. The major question is "how satisfied are you with your X bank credit card?" With this formulation, the question is both sector and brand specific. If we replace the brand with another it loses brand specificity, while replacement of both brand and credit card makes it non-sector specific. From this perspective, we can talk about a metric of satisfaction measured for the credit cards of X bank, and there is a minor difference between this survey and another conducted for Toyota cars. Changing attributes are limited.

The metrics approach plays a significant role in our methodology. ***Although qualitative and insight research has not to be converted such quantitative measurements,*** During formation of the information requirements document, pushing customers to think on a metric basis helped integration of information flowing from different data sources. For example, he/she identified his/her business objects as having the highest share from portfolio of the most profitable segment of users. Here we need two metrics: the first is share from portfolio, the second is profitability of users. When we plotted shares of our customer and his/her competitors in this segment by using a bar chart, information required for this business object is constructed. Another example is that a product manager wishes to compare sales numbers and customer satisfaction of different products in order to satisfy his/her business objectives of creating the most satisfactory product and converting this satisfaction to sales. This may be visualized by using a scatter plot in which different products are plotted by using two different metrics.

Such a metric-oriented approach is critical for our industry. Establishment of a knowledge base composed of universal and comparable metrics which are not culture, industry or brand specific will create a significant competitive edge against other data suppliers. Particularly when globalization is taken into account, transnational companies will prefer such a knowledge base which fastens application and standardization of knowledge management, performance measurement, etc.

This knowledge base gives us rules for analyses, metrics and data collection methodology. For example, analyses made for a bank are usually similar with

analyses of a customer from the car industry. Again, data collection methods can be converged for a customer of a research firm or the firm itself. Such a convergence will help the research firm decrease operational costs by an estimated 30%.

In order to apply this approach we developed a software package with which decision-makers define their analyses without any data connection. When decision-makers define their business objectives, the researcher can easily transfer these objectives to metrics, analyses, rules and bases. Then, this software also produces the information requirements document, especially documenting what metrics are used by which departments, which two metrics are used altogether, etc. This is a starting point for knowledge accumulation of a company. By using this package, customers define and visualize their analyses without concerns about data sources and neglecting whether data is internal or not. They can note the desired period and source of data collection. Consequently, it is not difficult to compile the above-discussed document following the process.

CASE STUDY

As KNEXTEP, we had the opportunity to test this approach with one of our customers. The customer is an affiliate of the largest commercial bank of Turkey. It operates in the securities market with a customer base of 750,000 customers, making it the largest investment institution of the market. It is known as the most innovative institution in the market since it is the first launcher of several products in the securities market.

The customer, willing to develop such a knowledge management system, summarized its main target as “keeping its leader position in the market, by improving its profitability”. Following the kick-off meeting and with the consent of the customer, several workshops were conducted at the leaders, business and operational level. The major aim of these workshops was, as stated above, reversing our processes. Thanks to these workshops we had the opportunity to have the consent of higher management, which was crucial for the rest of the process. Workshops lasted for more than three months and 17 workshops with the participation of more than 50 people from various levels were organized. Four of these workshops were with leaders (CEO, general manager, assistant general managers), seven were with strategic business units, four with operational units and two with IT teams. Moreover, considerable time of the project team was allocated to develop the information requirements document.

During these workshops the moderator pushed participants to first state their business objectives, and secondly to describe what information they needed

and how they wanted to see it. Our software package is used to form the information requirements document. Our moderators tried to deconstruct business objectives of participants from every managerial level. Below figure shows transformation of a business objective to an information requirement item which has to be collected from different sources.

Figure 7
INFORMATION REQUIREMENTS ITEM EXAMPLE

Business objective: Increasing the effectiveness of alternative distribution channels for mutual funds operations			
Metrics	***Source***		***Period***
Usage of ADCs in mutual funds operations	Internal	Operational	Monthly
Satisfaction from ADCs in mutual funds operations	External	Marketing Research Firm	Biannually
Cost of ADCs in mutual funds operations	Internal	Financial/ERP	Variable

After three months of intense discussion, a final document of information requirement has been compiled with the consensus of the project team composed of customers and consultants. The information requirements document includes 43 metrics and 120 analyses made by using these metrics. When segmentation and cross-comparison are taken into account, it is possible to estimate that this number will be augmented as customers use it.

When the document is closely analyzed, it is possible to observe that the majority of these analyses are needed by the strategic business units: more then 70% of the analyses are requested by strategic business units while this ratio is 51% for leaders and only 15% for the operational units. The percentage of metrics to be obtained from internal company sources is 60, while this ratio is 26 for external sources such as interviews and 16% for third party data such as overall trade volume of the bond market. Forty percent of the metrics will be collected daily, while the schedule of the remaining 60% varies between monthly and biannually. Among all metrics, only 40% are expected to be collected on a customer basis. An interesting finding is that all of the information requests from the operational units are customer based. It is a clear indicator of how operational units are much more customer oriented than are other managerial levels. Another significant finding is that our customer

currently reaches only 10% of this information, despite its million-dollar investment in information technologies.

After finalization of the information requirements document it was shared with the IT team of the bank. They are now putting together a schedule of implementation by using their prior investments and it is estimated that initial results will be available within less than three months. An important point here is that the current project does not include formation of online data collection as a result of the customer having preferred use of the existing investment.

Evaluating an unfinished project may result in several fallacies. However, our project showed us that customers (end users) are not satisfied with existing IT systems and how they fail to receive required information. Secondly, this project showed that millions spent on IT investments failed to produce customer centric reports. Thirdly, during workshops we often observed that our customer is product oriented. Breakdown of metrics shows that leaders and business unit managers are still product oriented.

The current stage of the project is focused on converting collected metrics and analyses to customer centric metrics and analyses. The smaller percentage of customer centric metrics shows there is a significant gap between high level management orientation and the strategic business units. Our active role in this conversion is another indicator of how marketing research professionals may guide and lead customers during this process.

CONCLUSION

It is so far argued that the marketing research industry is experiencing a crisis and the intelligentsia of the industry is discussing the reasons for this crisis and remedies to be taken. However a common characteristic of these discussions is accepting the crisis as a symptomatic one and missing its systemic nature. We propose that the current industry crisis is dependent on the existing information gap as a result of the dialectical relationship between demand for and supply of data. Though decision makers of today are facing an information overflow, within less than two decades an explosion of demand must be expected as a result of the above-discussed paradigmatic shift. However, in order to exploit opportunities provided by an explosion of incoming demand, the marketing research industry has to revise its processes, although since this revision will be limited to responding to such an explosion the best solution will be reversing our business processes.

We proposed above a methodology to revise our business processes. This methodology, which starts with the definition of information requirements depending on business objectives and ends with reconciliation of business objectives according to gathered information, is characterized with the intense

use of technology and implies a metric approach to bridge information flowing from different sources. Our methodology gives the market research professionals a consultant role that will guide the transition to a customer centric organization. Hence, the exclusion of marketing research from the decision-making processes will end and the industry will have another mission with more value added.

We have had the opportunity to use this methodology with our customers and one of them, an affiliate of the largest commercial bank of Turkey, helped us verify our expectations and draw some lessons.

Lesson 1: The board of the company must be customer centric oriented. The nature of today's company enforces that lower management levels are much more product oriented and such an identification creates the most significant obstacles upon transition to a customer centric company.

Lesson 2: Even though the board is customer centric, the lack of knowledge management vision of the company makes the process ***difficult to imply***. Without such a vision, gains from such a transition will be relatively weak.

Lesson 3: Integration with the existing IT systems and support of the IT team is crucial during the process. Implication of the process without participation of the IT team results in emergence of an additional knowledge island.

Lesson 4: Integration of internal data is very important. Without support of these data, usage of marketing research information remains limited in terms of expressing its added value to decision-makers.

Lesson 5: The project has to be initiated with a decision of top level management of the company and has to be a part of an initiated reform project. Hence, resistance against the project will be short-lived.

Finally, if the marketing research industry is willing to produce information which will be discussed in the boardroom, it has to be ready to forget what it accumulated until today and revise its classical motto: "Marketing *intelligence* is something more than the marriage of the science of sampling and the art of asking questions".

REFERENCES

Baker, S. and P. Cooper. (2002). Market Research: Mediating Between CRM and the Brand. *Proceedings of the ESOMAR Conference on CRM*, Prague.

Balasubramanian, P.R. et al (1999). Managing Process Knowledge for Decision Support. *Decision Support Systems*, 27(1-2), 145-162.

Boxwell, L. (2000). Customer Relationship Management, manuscript.

Brooke, C. and F. Suntook. (2002). From Customer Research to CRM: How Understanding Customer is the Cornerstone of Effective CRM. *Proceedings of the ESOMAR Conference on CRM*, Prague.

Clarke, T. and Clegg, S. (1998). *Changing Paradigms: the Transformation of Management Knowledge for the 21st Century*. HarperCollinsBusiness Pub.

ESOMAR. (2002). *Industry Report*

Frishammar, J. (2002). Characteristics in information processing approaches. *International Journal of Information Management*, 22, 143-156

Gibson, L.D. (2000). Quo Vadis, Marketing Research? *Marketing Research*, Spring.

Lipietz, A. et al (1986). The Rise and Fall of the Golden Age: An Historical Analysis of Post-War Capitalism in the Developed Market Economies. Intervention to Seminar: Money, Finance and Trade Reform, of Wider/Unu, Helsinki, August.

Lipietz, A. (1995). Le Monde de l'après-Fordisme. Presented at CNRS-INSERMIRESCO day of Precarisation and Globalization

Microstrategy. (2002). Business Intelligence Software Engendering a Quiet Revolution in the Business Place. White Paper

Monster, R.W., and R.C. Pettit. (2002). Global Market Research in the Internet Age: A report on the trends, current practices, and future of Net-centric research. *Proceedings of the ESOMAR Net Effects 5 Conference*, Berlin

Nonaka, I. (1997). Organizational Knowledge Creation. Presented at the Knowledge Advantage Conference, November 11-12.

Read, W.H. (1999). Knowledge as a Strategic Resource. An Incidental Paper of the Program on the Information Policy.

Schultz, D. (2002). Two Faces of CRM. *Marketing Power*

Shea, C. et al. (2002). Jumping the hurdles of Marketing research. *Marketing Power*

Wiig, K.M. (1997). Knowledge Management: Where Did It Come From and Where Will It Go? *Expert Systems With Applications*, Vol.13, No.1, pp.1-14.

Witzel, M. (2000). Introduction. *Marketing* (Bristol: Thoemmes Press,), pp. vii-xxxvii. Available at http://www.thoemmes.com/economics/marketing_intro.htm

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